Appendix A Initial Study/Notice of Preparation

Appendices

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Los Angeles County
Department of Regional Planning

Planning for the Challenges Ahead

Richard J. Bruckner
Director

NOTICE OF PREPARATION
OF A DRAFT ENVIRONMENTAL IMPACT REPORT
AND PUBLIC SCOPING MEETING

DATE: January 5, 2017

TO: State Clearinghouse, Responsible Agencies, Trustee Agencies, Organizations and Interested Parties

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report in Compliance with Title 14, section 15082(a) of the California Code of Regulations and Notice of Public Scoping Meeting

The County of Los Angeles ("County") is the lead agency pursuant to the California Environmental Quality Act ("CEQA") and intends to prepare an Environmental Impact Report ("EIR") for the proposed project identified below. The County has prepared this Notice of Preparation ("NOP") to provide Responsible Agencies and other interested parties with information describing the project and to identify its potential environmental effects pursuant to State requirements.

AGENCIES: The County requests your agency's views on the scope and content of the environmental information relevant to your agency's statutory responsibilities in connection with the proposed project, in accordance with Title 14, section 15082(b) of the California Code of Regulations. Your agency will need to use the EIR prepared by the County when considering any permits that your agency must issue, or other approval for the project.

ORGANIZATIONS AND INTERESTED PARTIES: The County requests your comments and concerns regarding the environmental issues associated with construction and operation of the proposed project.

PROJECT TITLE: West Carson Transit Oriented District Specific Plan**,** Plan Number: RPPL2015000153

PROJECT LOCATION AND ENVIRONMENTAL SETTING: The Specific Plan area is located in the unincorporated community of West Carson within Los Angeles County. The project area encompasses approximately 319.3 acres, bounded generally by Normandie Avenue on the west, the 208th Street Drain and West Torrance Boulevard on the north, the Interstate 110 freeway on the east, and 223rd Street on the south. Regional access to the project site is from Interstate 110 (I-110, or the Harbor Freeway) via ramps at Torrance Boulevard and Carson Street.

Existing land uses onsite include the Harbor UCLA Medical Center (Medical Center) in the central part of the site; commercial uses along Carson Street just north of the Medical Center and along Vermont Avenue in the west part of the site; some light industrial uses in the southern part of the site. The balance of the site is developed with residential uses – mostly single-family – and two public elementary schools. The site is almost entirely built out; there are only three vacant lots onsite comprising less than one percent of the site area combined. A station for the Metro Silver Line, an express bus line extending from San Pedro to El Monte via downtown Los Angeles, is on the I-110 below the Carson Street overpass.

West Carson encompasses about 2.3 square miles between the cities of Torrance to the north, Harbor City (a neighborhood in the City of Los Angeles) to the south, Carson to the east, and the cities of Los Angeles and Torrance to the west. Land uses in the part of West Carson north of the project site consist of single-family and multifamily residential uses; and commercial and industrial uses including the Alpine Village shopping center. Land uses in West Carson south of the project site are mostly residential with some commercial uses along arterial roadways, and scattered industrial uses along Vermont Avenue. Land uses in the Community of Harbor Gateway in the City of Los Angeles west of the site are mostly residential with commercial uses along Carson Street and Halldale Elementary School on Normandie Avenue just north of Carson Street. Land uses in the City of Carson east of the site opposite the I-110 consist of commercial and industrial uses, single-family and multi-family residential uses, and White Middle School east of the southeast corner of the project site.

PROJECT DESCRIPTION: The proposed project is a transit oriented district specific plan that would permit development potential of up to 3,575 residential units and about 4.6 million square feet of nonresidential land uses in the unincorporated community of West Carson. The specific plan proposes relocation of the Carson Station of the Metro Silver Line express bus line to a new location on the I-110 in an effort to increase usage of the Carson Station; usage is currently constrained by factors including limited visibility from the station and fast-moving freeway traffic next to the station. The station would be relocated north of the Carson Street overpass. Bicycle and pedestrian improvements, including striped (Class II) bicycle lanes and wider sidewalks, are planned for Torrance Boulevard, Vermont Avenue, Normandie Avenue, Carson Street, and 223rd Street.

The Specific Plan would designate the following eleven zoning districts for the project site: West Carson Residential 1 Zone, West Carson Residential 3 Zone, West Carson Residential 4 Zone, Residential Planned Development, Neighborhood Commercial, Unlimited Commercial, Industrial Flex, Harbor-UCLA Medical Zone, Mixed Use 1 Zone, Mixed Use 2 Zone, and Public Zone.

The Specific Plan includes 200,000 square feet of new research space for biomedical research at the Harbor-UCLA campus. The Specific Plan would support a new Biotech Park at the western edge of Harbor-UCLA Medical Center through a public/private partnership to develop an additional 250,000 square feet of biotech park space.

Industrial Flex zoning districts preserve existing employment uses while simultaneously allowing for nonindustrial uses, where appropriate. The Specific Plan includes one Industrial Flex District along Vermont Avenue just south of West Carson Street. Employment generators here are widely varied and include music production and metal fabrication facilities, silk-screening and embroidered apparel, medical supply outlets, and freight-forwarding brokerages.The Specific Plan includes recommendations for several water and sewer main upgrades to accommodate project buildout.

The draft of the Specific Plan is available for viewing at: http://planning.lacounty.gov/westcarson.

POTENTIAL ENVIRONMENTAL EFFECTS OF THE PROJECT

Based on a preliminary review of the proposed project consistent with section 15060 of the CEQA Guidelines, the County has determined that an EIR should be prepared for this proposed project. In addition, consistent with section 15082 of the CEQA Guidelines, the County has identified the following probable environmental effects of the project, which will be addressed in the EIR for this project:

- Aesthetics
- Air Quality
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology/Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Services Systems

The County has determined that there is not a likelihood of potentially significant effects related to the following environmental topics:

- Agricultural Resources
- Biological Resources
- Energy

The County proposes that the EIR indicate the reasons why these effects were determined not to be significant and are therefore not addressed in detail in the EIR.

NOTICE OF SCOPING MEETING: The County will conduct a public scoping meeting for the purpose of soliciting oral and written comments from interested parties as to the appropriate scope and content of the EIR.

All interested parties are invited to attend the scoping meeting to assist in identifying issues to be addressed in the EIR. The scoping meetings will include a brief presentation of the project to be addressed in the EIR and will provide attendees with an opportunity to provide input to the scope of the EIR. The Scoping Meeting will be held on **Wednesday February 1, 2017 from 5:30 p.m. to 7:30 p.m.** at the following location:

Harbor-UCLA Medical Center
A.F. Parlow Library Auditorium
1000 W. Carson Street
Torrance, CA 90502

Translation in other languages can be made available at the meeting upon request. Please submit translation requests at least seven business days in advance of each scheduled meeting to msaraf@planning.lacounty.gov.

PUBLIC REVIEW PERIOD: An NOP and Initial Study for the EIR, which describes the project and outlines potential environmental impacts has been prepared. The County has determined to make this NOP available for public review and comment pursuant to Title 14, section 15082(b) of the California Code of Regulations. The comment period for the NOP **begins on January 17, 2017 and ends on February 17, 2017**.

Any comments provided should identify specific topics of environmental concern and your reason for suggesting the study of these topics in the EIR.

Please direct all written comments to the following address:

Maya Saraf
County of Los Angeles
Department of Regional Planning
Community Studies West Section
320 West Temple Street, Room 1356
Los Angeles, CA 90012
Tel: 213-974-0307
Fax: (213) 626-0434
msaraf@planning.lacounty.gov

All written responses will be included as Appendices in the Draft EIR and their contents considered in accordance with State and County environmental guidelines.

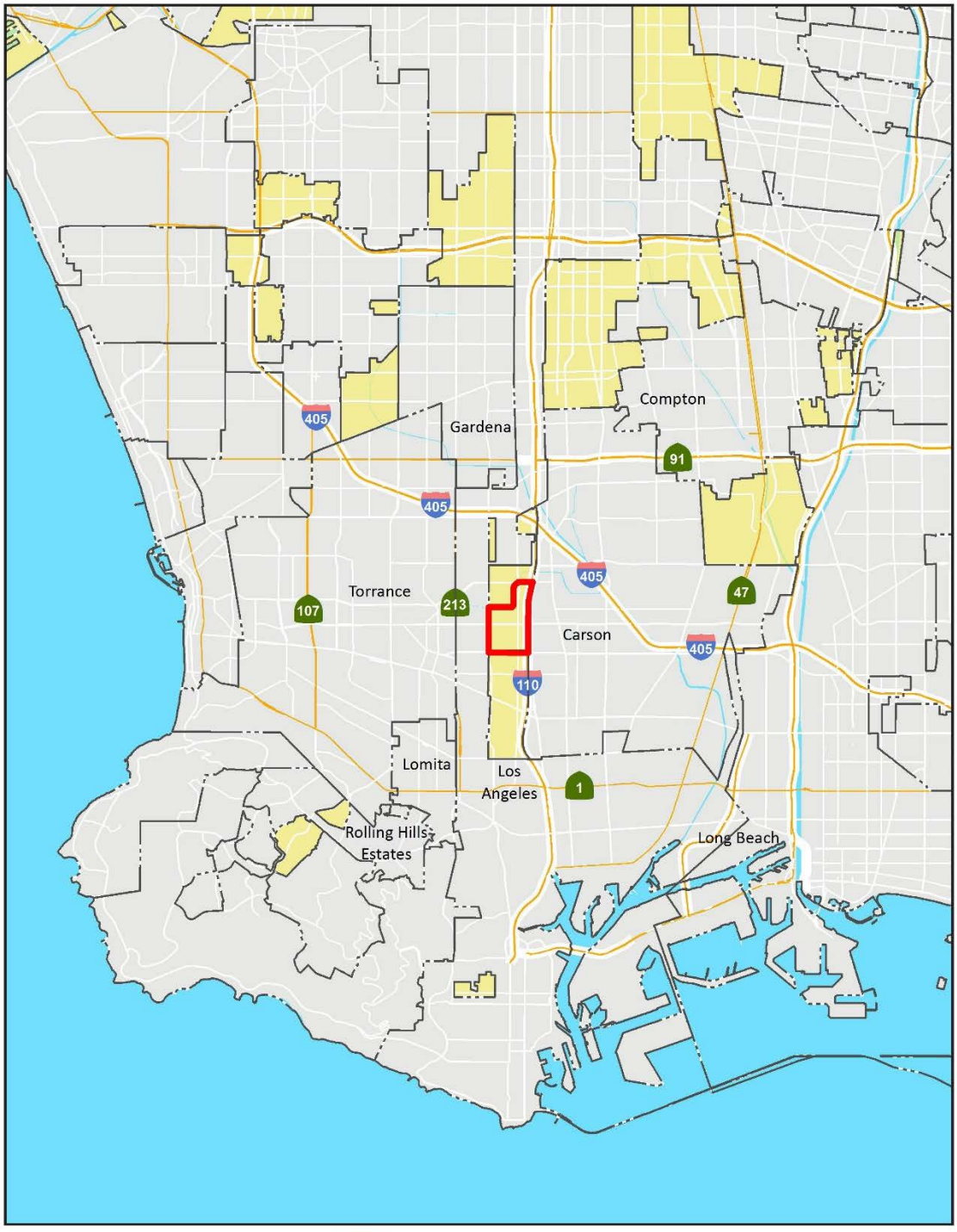
DOCUMENT AVAILABILITY: The NOP and Initial Study are available for public review during regular business hours at the Los Angeles County Department of Regional

Planning address listed above, on the Department of Regional Planning website at http://planning.lacounty.gov/westcarson, and at the following library:

Carson Library
151 E. Carson Street
Carson, CA 90745

Thank you for your participation in the environmental review of this project.

Figure 1 - Regional Location



Environmental Checklist Form (Initial Study)

County of Los Angeles, Department of Regional Planning

DRAFT

Project title: "West Carson Transit Oriented District Specific Plan" / Plan No. RPPL2015000153

Lead agency name and address: County of Los Angeles, 320 West Temple Street, Los Angeles, CA 90012

Contact Person and phone number: Maya Saraf, Regional Planning Assistant II; 213-974-0307

Project sponsor's name and address: Los Angeles County Department of Regional Planning, 320 West Temple Street, Los Angeles, CA 90012

Project location: 319.3-acre site in the Community of West Carson bounded generally by Normandie Avenue on the west, the 208th Street Drain and West Torrance Boulevard on the north, the Interstate 110 freeway on the east, and 223rd Street on the south (see Figures 1, *Regional Location*, and 2, *Local Vicinity*). Regional access to the project site is from Interstate 110 (I-110, or the Harbor Freeway) via ramps at Torrance Boulevard and Carson Street.

APN: numerous
USGS Quad: Torrance

Gross Acreage: 319.3

Los Angeles County General Plan designations:

- Residential 9 (H9; single-family residential);
- Residential 18 (H18; single-family and two-family residences)
- Residential 30 (H30; single-family and multifamily residences)
- Residential 50 (H50; single-family and multifamily residences)
- General Commercial (CG)
- Mixed Use (MU; commercial and commercial/residential mixed)
- Light Industrial (IL)
- Public and Semi-Public (P)
- Water (W) (see Figure 3, *Existing Community Plan Designations*)

Zoning:

- Single-family residence (R-1)
- Limited Multiple Residence (R-3)
- Unlimited Residence (R-4)
- Residential Planned Development (RPD)
- Light Agriculture (A-1)
- Neighborhood Commercial (C-2)
- Unlimited Commercial (C-3)
- Commercial Manufacturing (C-M)

- Light Manufacturing (M-1)
- Mixed Use Development (MXD) (see Figure 4, *Existing Zoning Districts*)

Description of project: The project is a specific plan that would permit development potential of up to 3,575 residential units and about 4.6 million square feet of nonresidential land uses in the community of West Carson.

Proposed Zoning Districts: The Specific Plan would designate the following eleven zoning districts for the project site: West Carson Residential 1 Zone, West Carson Residential 3 Zone, West Carson Residential 4 Zone, Residential Planned Development, Neighborhood Commercial, Unlimited Commercial, Industrial Flex, Harbor-UCLA Medical Zone, Mixed Use 1 Zone, Mixed Use 2 Zone, and Public Zone (see Figure 5, *Proposed Zoning Districts*).

Permitted land uses under each proposed zoning district are summarized as follows:

West Carson Residential 1: single-family residences up to nine units per acre

West Carson Residential 3: medium density developments containing multiple units, such as townhomes and stacked flats up to 30 dwelling units per acre

West Carson Residential 4: high density multiple units, as either apartments or condominiums, up to 50 dwelling units per acre

Residential Planned Development:

Neighborhood Commercial: two- to five-acre neighborhood-serving shopping centers, often anchored by a grocery store

Unlimited Commercial: commercial uses and multi-family residential uses up to 30 dwelling units per acre

Industrial Flex: non-industrial uses, including commercial, office, and multifamily residential uses, where appropriate, within the light industrial areas south of West 220th Street.

Harbor-UCLA Medical: to accommodate the Harbor-UCLA Medical Center Master Plan, which seeks to maintain, improve, and expand the hospital facilities; clinic facilities; medical office; research and development; community-serving uses and facilities; and associated supportive uses such as transitional housing, incidental retail, parking, and public open space.

Mixed Use 1: a mix of commercial, office, and residential uses, with an emphasis on neighborhood and medical campus serving retail, restaurant and services uses.

Mixed Use 2: a higher-intensity mix of retail, office, and restaurant uses; and residential development at up to 70 dwelling units per acre.

Public: provides for established public uses including schools, parks, the 208th Street Drain channel, the Carson Street Transit Station park-and-ride

Economic Development: The Specific Plan includes 200,000 square feet of new research space for biomedical research at the Harbor-UCLA campus. The Specific Plan would support a new Biotech Park at

the western edge of Harbor-UCLA Medical Center through a public/private partnership to develop an additional 250,000 square feet of biotech park space.

Industrial Flex zoning districts preserve existing employment uses while simultaneously allowing for nonindustrial uses, where appropriate. The Specific Plan includes one Industrial Flex District along Vermont Avenue just south of West Carson Street. Employment generators here are widely varied and include music production and metal fabrication facilities, silk-screening and embroidered apparel, medical supply outlets, and freight-forwarding brokerages.

Buildout Statistics:

Land use statistics at Specific Plan Buildout are shown below in Table 1.

Table 1 Land Use Statistics, Specific Plan Buildout

Proposed Zoning District [Acres]	Residential Units			Population	Nonresidential Land Uses, Square Feet			
	Single-Family	Multifamily	Total		Retail	Service	Light Industrial	Total
Harbor UCLA Medical Zone [71.4]	0	100	100	150	0	0	1,941,339	1,941,339
Industrial Flex [21.7]	0	486	510	1,417	113,378	453,511	566,889	1,133,779
Mixed Use Development 1 [19.8]	0	143	168	416	145,038	338,422	0	483,460
Mixed Use Development 2 [31.2]		1,223	1266	3,568	489,337	489,337	0	978,675
Neighborhood Commercial [1.2]	0	0	2	0	1,479	13,308	0	14,787
Public [27.0]	0	0	10	0	0	0	0	0
Residential planned development [5.5]	88	0	88	228	0	0	0	0
Unlimited commercial [4.2]	0	30	30	87	5,062	40,496	5,062	50,620
West Carson Residential 1 [118.1]	851	0	905	2,215	0	0	0	0
West Carson Residential 3 [7.1]	0	171	174	498	0	0	0	0
West Carson Residential 4 [12.1]	0	484	491	1,411	0	0	0	0
Total [319.3]	939	2,636	3,575	9,990	754,294	1,335,075	2,513,291	4,602,660

Proposed Infrastructure Improvements: The Specific Plan proposes relocation of the Carson Station of the Metro Silver Line express bus line to a new location on the I-110 in an effort to increase usage of the Carson Station; usage is currently constrained by factors including limited visibility from the station and fast-moving freeway traffic next to the station. The location of the existing Silver Line Station is shown on Figure 6, *Aerial Photograph*. The station would be relocated north of the Carson Street overpass.

Bicycle and pedestrian improvements, including striped (Class II) bicycle lanes and wider sidewalks, are planned for Torrance Boulevard, Vermont Avenue, Normandie Avenue, Carson Street, and 223rd Street.

The Specific Plan includes recommendations for several water and sewer main upgrades to accommodate project buildout.

Existing Conditions Onsite: Existing land uses onsite include the Harbor UCLA Medical Center (Medical Center) in the central part of the site; commercial uses along Carson Street just north of the Medical Center and along Vermont Avenue in the west part of the site; some light industrial uses in the southern part of the site. The balance of the site is developed with residential uses – mostly single-family – and two public elementary schools (see Figure 6, *Aerial Photograph*). The site is almost entirely built out; there are only three vacant lots onsite comprising less than one percent of the site area combined. A station for the Metro Silver Line, an express bus line extending from San Pedro to El Monte via downtown Los Angeles, is on the I-110 below the Carson Street overpass. Existing Land Use Statistics are shown below in Table 2, *Existing Land Use Statistics*. Net changes in land use statistics are shown in Table 3, *Net Changes in Land Use Statistics*.

Surrounding land uses and setting: West Carson encompasses about 2.3 square miles between the cities of Torrance to the north, Harbor City (a neighborhood in the City of Los Angeles) to the south, Carson to the east, and the cities of Los Angeles and Torrance to the west. Land uses in the part of West Carson north of the project site consist of single-family and multifamily residential uses; and commercial and industrial uses including the Alpine Village shopping center. Land uses in West Carson south of the project site are mostly residential with some commercial uses along arterial roadways, and scattered industrial uses along Vermont Avenue. Land uses in the Community of Harbor Gateway in the City of Los Angeles west of the site are mostly residential with commercial uses along Carson Street and Halldale Elementary School on Normandie Avenue just north of Carson Street. Land uses in the City of Carson east of the site opposite the I-110 consist of commercial and industrial uses, single-family and multi-family residential uses, and White Middle School east of the southeast corner of the project site (see Figure 6, *Aerial Photograph*).

Table 2 Existing Land Use Statistics

Proposed Zoning District [Acres]	Residential Units			Population	Nonresidential Land Uses, Square Feet			
	Single-Family	Multifamily	Total		Retail	Service	Light Industrial	Total
Harbor UCLA Medical Zone [71.4]	0	0	0	0	0	0	746,669	746,669
Industrial Flex [21.7]	9	6	15	42	16,746	27,174	304,142	348,062
Mixed Use Development 1 [19.8]	17	12	30	84	159,731	50,381	23,816	233,928
Mixed Use Development 2 [31.2]	41	21	63	180	55,562	45,090	157,607	258,258
Neighborhood Commercial [1.2]	0	0	0	0	7,393	7,393	0	14,787
Public [27.0]	0	0	0	0	0	0	0	0
Residential planned development [5.5]	37	0	37	113	0	0	0	0
Unlimited commercial [4.2]	0	0	0	0	16,471	16,471	25,886	58,828
West Carson Residential 1 [118.1]	924	31	955	2,895	0	0	0	0
West Carson Residential 3 [7.1]	44	43	87	242	0	0	0	0
West Carson Residential 4 [12.1]	58	58	116	322	0	0	42,473	42,473
Total [319.3]	1,131	172	1,304	3,879	255,902	146,510	1,300,592	1,703,004

Table 3 Net Changes in Land Use Statistics

Proposed Zoning District [Acres]	Residential Units			Population	Nonresidential Land Uses, Square Feet			
	Single-Family	Multifamily	Total		Retail	Service	Light Industrial	Total
Harbor UCLA Medical Zone [71.4]	0	100	100	150	0	0	1,194,670	1,194,670
Industrial Flex [21.7]	-9	480	471	1,375	96,632	426,337	262,748	785,717
Mixed Use Development 1 [19.8]	-17	130	113	332	-14,693	288,041	-23,816	249,532
Mixed Use Development 2 [31.2]	2	1,202	1,204	3,388	433,776	444,248	-157,607	720,417
Neighborhood Commercial [1.2]	0	0	0	0			0	0
Public [27.0]	0	0	0	0	0	0	0	0
Residential planned development [5.5]	51	0	0	115	0	0	0	0
Unlimited commercial [4.2]	0	30	30	87	-11,409	24,025	-20,824	-8,208
West Carson Residential 1 [118.1]	-73	-31	-105	-680	0	0	0	0
West Carson Residential 3 [7.1]	-44	127	83	256	0	0	0	0
West Carson Residential 4 [12.1]	-58	425	367	1,089	0	0	-42,473	-42,473
Total [319.3]	-193	2,464	2,271	6,112	504,307	1,188,651	1,212,698	2,899,656

Other public agencies whose approval may be required (e.g., permits, financing approval, or participation agreement):

Public Agency	*Approval Required*
_____	_____
_____	_____

Major projects in the area:

Project/Case No.	*Description and Status*

Reviewing Agencies:

Responsible Agencies

- ☐ None
- Regional Water Quality Control Board:
  - ☒ Los Angeles Region
  - ☐ Lahontan Region
- ☐ Coastal Commission
- ☐ Army Corps of Engineers

Special Reviewing Agencies

- ☒ None
- ☐ Santa Monica Mountains Conservancy
- ☐ National Parks
- ☐ National Forest
- ☐ Edwards Air Force Base
- ☐ Resource Conservation District of Santa Monica Mountains Area
- ☐

Regional Significance

- ☐ None
- ☒ SCAG Criteria
- ☒ Air Quality
- ☐ Water Resources
- ☐ Santa Monica Mtns. Area
- ☒ City of Torrance
- ☒ City of Carson
- ☒ Los Angeles Unified School District

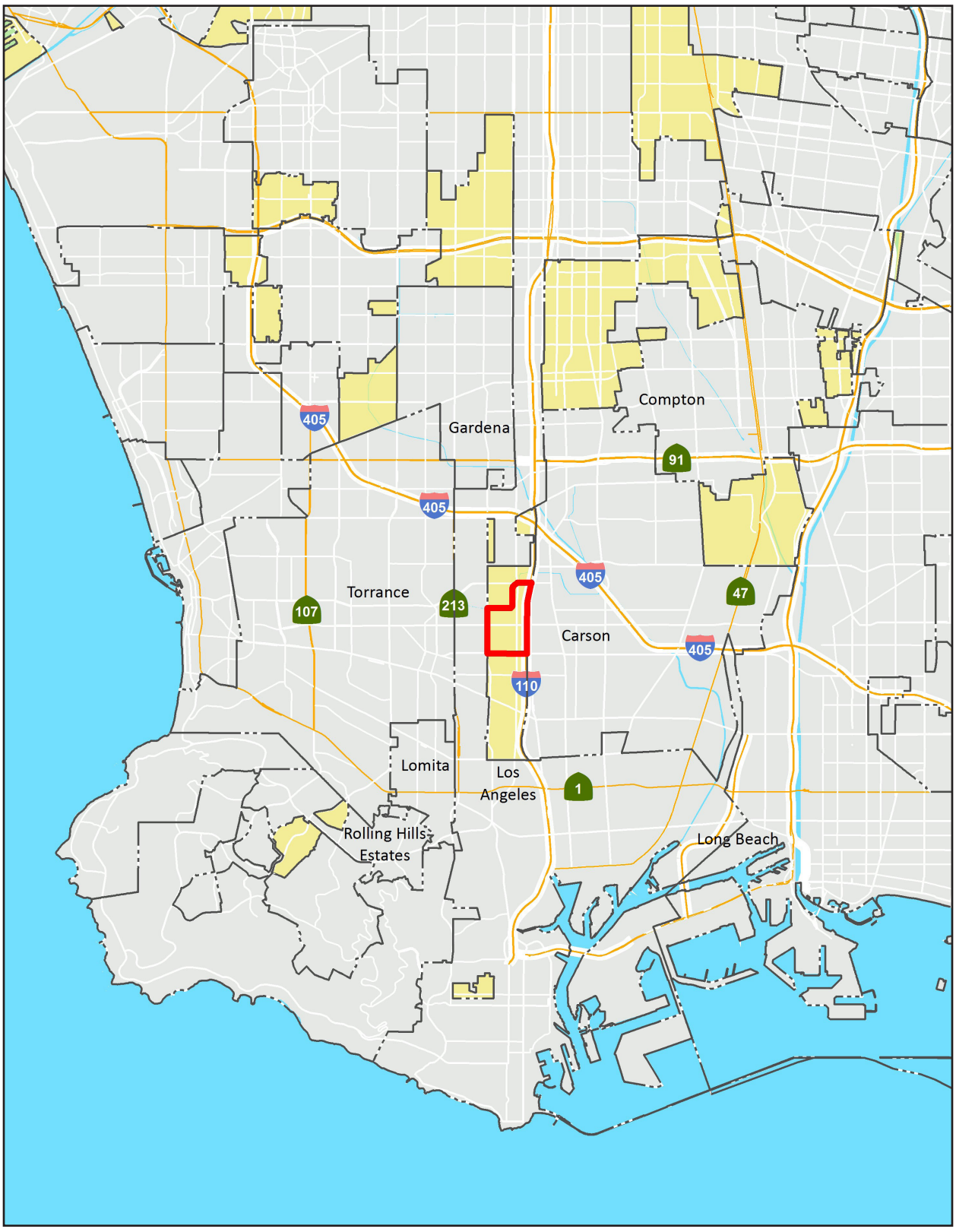
Trustee Agencies

- ☐ None
- ☒ State Dept. of Fish and Wildlife
- ☐ State Dept. of Parks and Recreation
- ☐ State Lands Commission
- ☐ University of California (Natural Land and Water Reserves System)

County Reviewing Agencies

- ☒ DPW:
  - Land Development Division (Grading & Drainage)
  - Geotechnical & Materials Engineering Division
  - Watershed Management Division (NPDES)
  - Traffic and Lighting Division
  - Environmental Programs Division
  - Waterworks Division
  - Sewer Maintenance Division
- ☒ Fire Department
  - Planning Division
  - Land Development Unit
  - Health Hazmat
- ☒ Sanitation District
- ☒ Public Health/Environmental Health Division: Land Use Program (OWTS), Toxics Epidemiology Program (Noise)
- ☒ Sheriff Department
- ☒ Parks and Recreation
- ☒ Staff Biologist

Figure 1 - Regional Location



Base Map Source: ESRI, 2016

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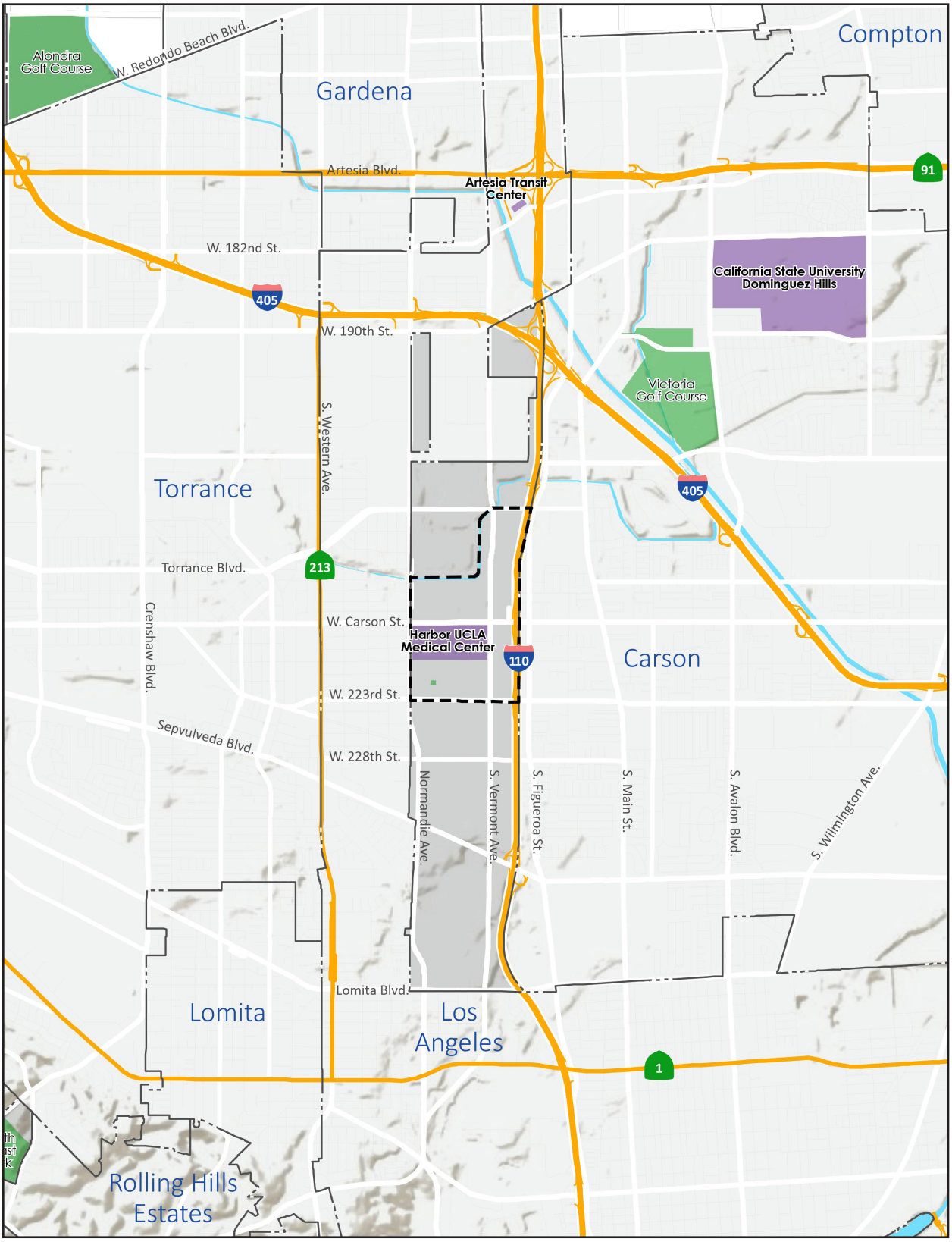
Figure 2 - Local Vicinity



Specific Plan Boundary Unincorporated West Carson

Note: Unincorporated Los Angeles County is shown in white.

Base Map Source: ESRI, 2016

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Scale (Miles)

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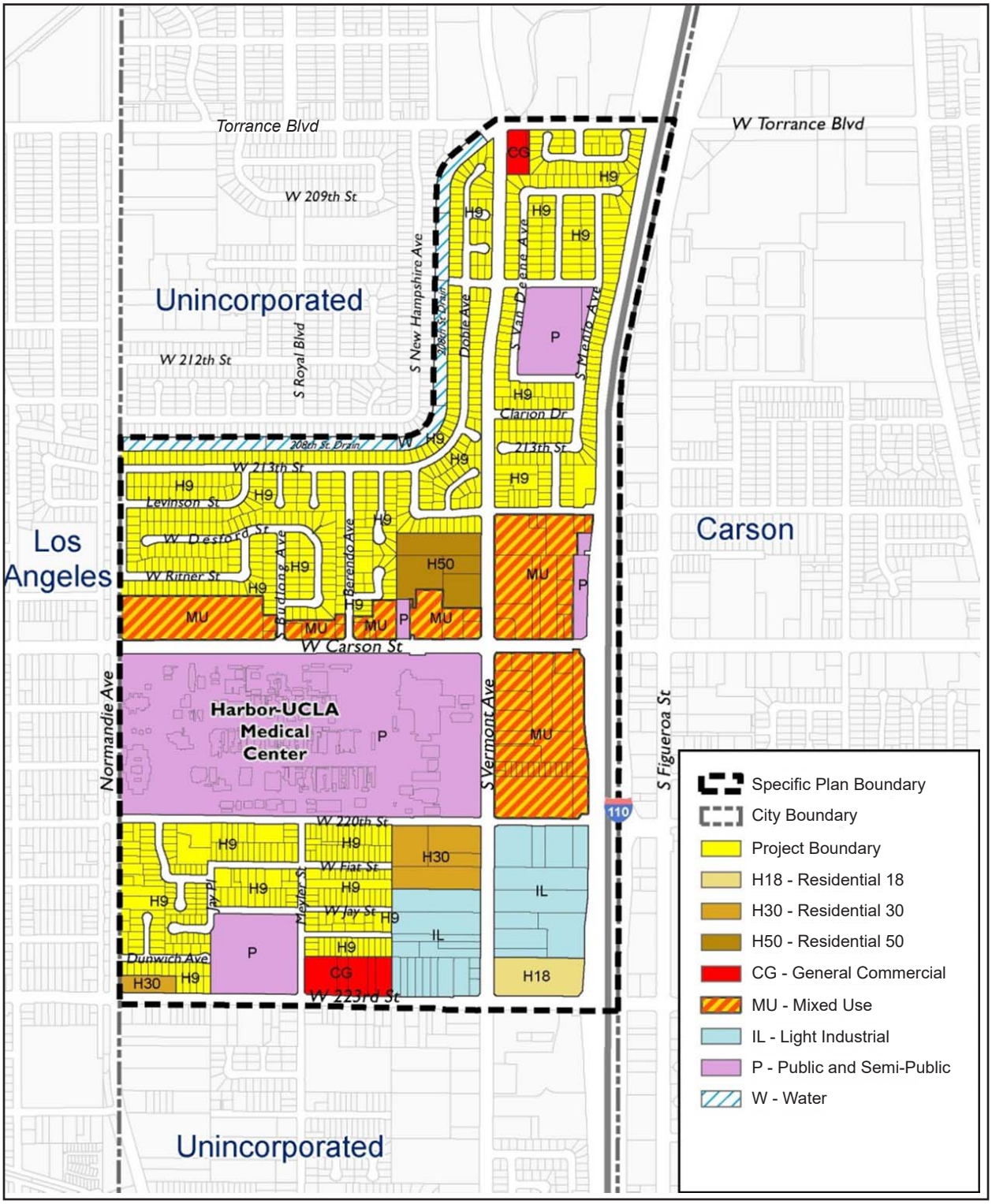
Figure 3 - Existing Community Plan Designations



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Base Map Source: ESRI, USGS, NOAA, 2016

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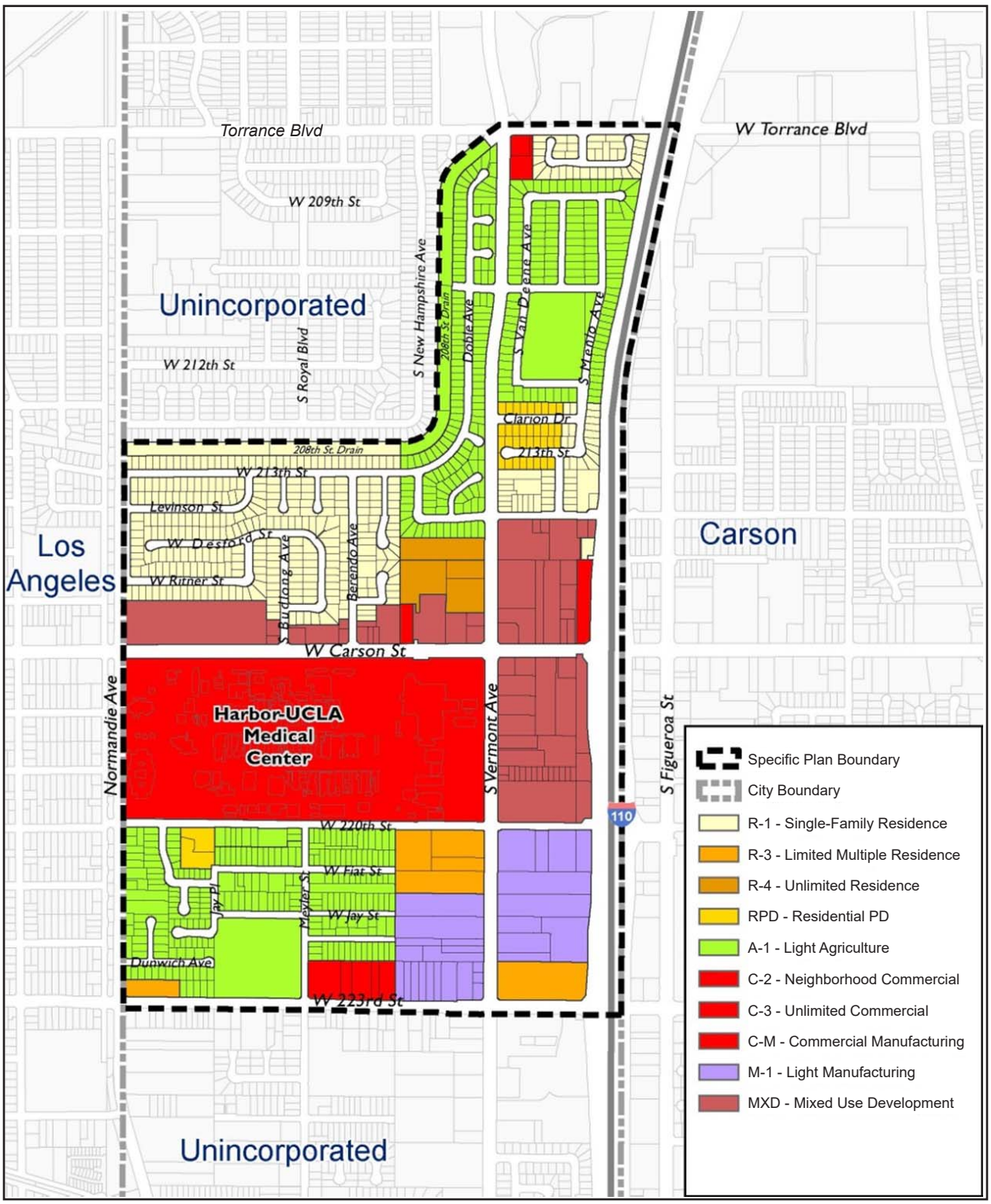
Figure 4 - Existing Zoning Districts



Base Map Source: ESRI, 2016

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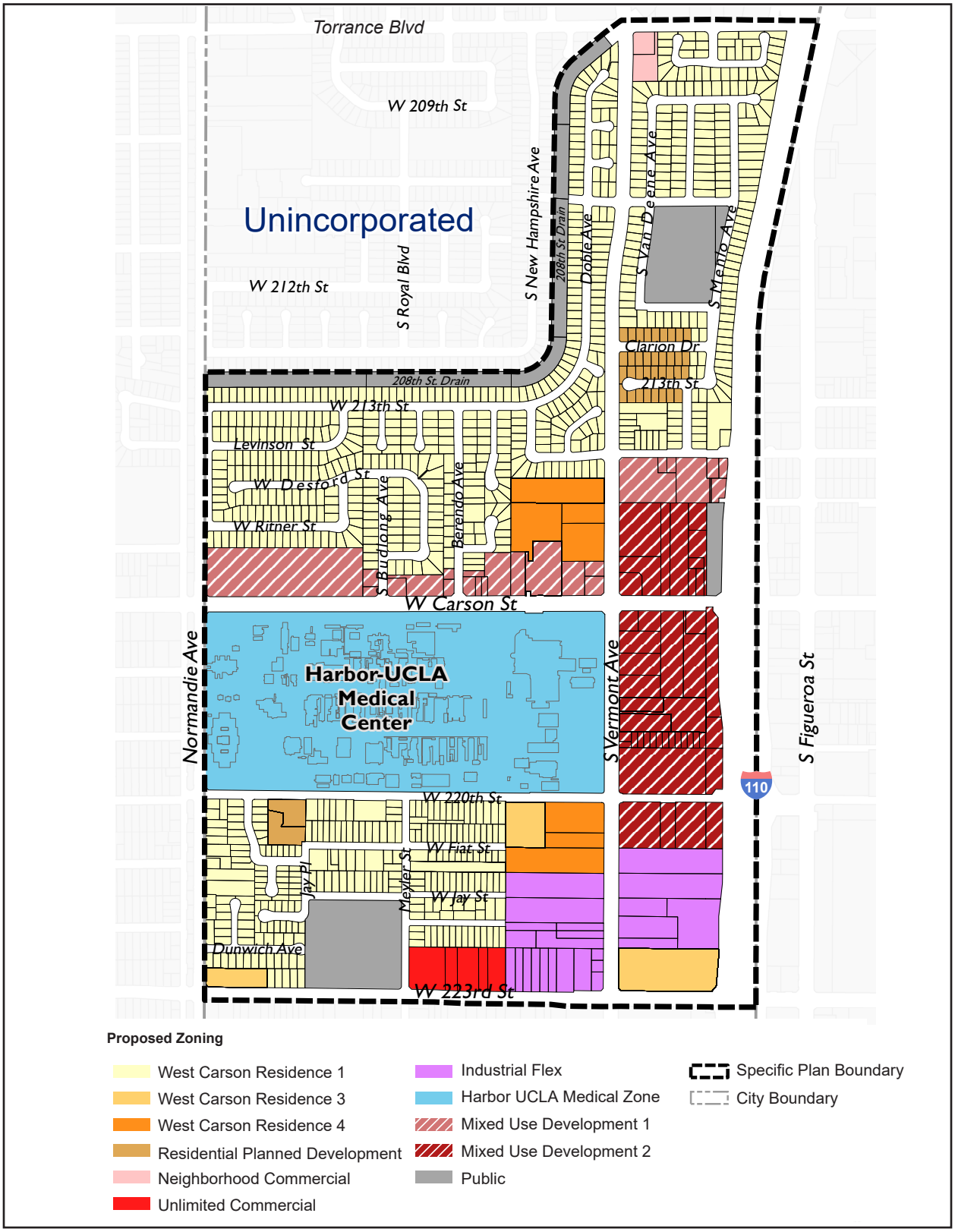
Figure 5 - Proposed Zoning Districts



Base Map Source: ESRI, 2016

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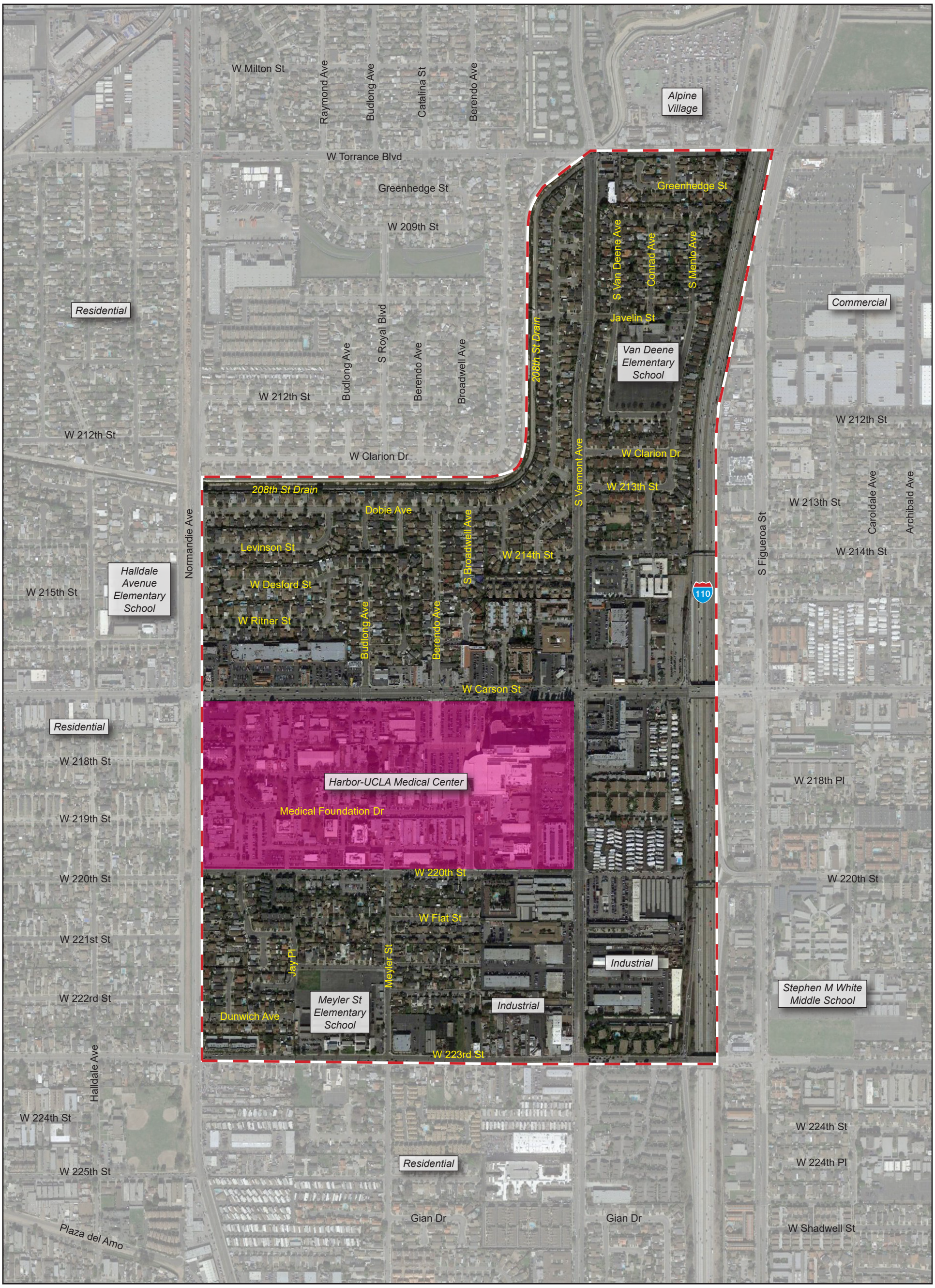
Figure 6 - Aerial Photograph



Specific Plan Boundary

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Scale (Feet)

Base Map Source: Google Earth Pro, 2016

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project.

☒ Aesthetics	☒ Greenhouse Gas Emissions	☒ Population/Housing
☐ Agriculture/Forest	☒ Hazards/Hazardous Materials	☒ Public Services
☒ Air Quality	☒ Hydrology/Water Quality	☒ Recreation
☐ Biological Resources	☒ Land Use/Planning	☒ Transportation/Traffic
☒ Cultural Resources	☒ Mineral Resources	☒ Utilities/Services
☐ Energy	☒ Noise	☒ Mandatory Findings of Significance
☒ Geology/Soils		

DETERMINATION: (To be completed by the Lead Department.)
On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____ _____

Signature (Prepared by) Date

_____ _____

Signature (Approved by) Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources the Lead Department cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the Lead Department has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level. (Mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced.)

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA processes, an effect has been adequately analyzed in an earlier EIR or negative declaration. (State CEQA Guidelines § 15063(c)(3)(D).) In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of, and adequately analyzed in, an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

7) The explanation of each issue should identify: the significance threshold, if any, used to evaluate each question, and; mitigation measures identified, if any, to reduce the impact to less than significance. Sources of thresholds include the County General Plan, other County planning documents, and County ordinances. Some thresholds are unique to geographical locations.

8) Climate Change Impacts: When determining whether a project's impacts are significant, the analysis should consider, when relevant, the effects of future climate change on : 1) worsening hazardous conditions that pose risks to the project's inhabitants and structures (e.g., floods and wildfires), and 2) worsening the project's impacts on the environment (e.g., impacts on special status species and public health).

In the impact analysis for each of the 18 factors topics within that factor are stated in headings, and the thresholds corresponding to each topic are indicated by letter(s) following the heading (a, b, etc.).

1. AESTHETICS

Would the project:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Be visible from or obstruct views from a regional riding or hiking trail?	☐	☐	☐	☒
c) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
d) Substantially degrade the existing visual character or quality of the site and its surroundings because of height, bulk, pattern, scale, character, or other features?	☒	☐	☐	☐
e) Create a new source of substantial shadows, light, or glare which would adversely affect day or nighttime views in the area?	☒	☐	☐	☐

Scenic Vistas (a)

Less Than Significant Impact. The project area is not sited near any designated scenic highways, significant ridgeline, or other identified scenic resources. As such, the project would have a less than significant impact on scenic vistas.

The Palos Verdes Hills south of the site are visible from much of the site. The San Gabriel Mountains to the north are visible from parts of the site. Specific Plan buildout would intensify development on parts of the site, permitting development of net increases of up to 2,271 residential units and 2.9 million square feet of nonresidential land uses.

Specific Plan buildout could block scenic vistas from existing properties and public places, including roadways, if the heights of buildings constructed in accordance with the Specific Plan, and especially heights in combination with massing, were greater than existing buildings onsite. Most of the site outside of Harbor-UCLA Medical Center is developed with one- and two-story buildings; one apartment complex on Vermont Avenue north of Carson Street is three stories over ground-floor parking. The highest building on the Medical Center campus is eight stories. Maximum building heights permitted by the Specific Plan are listed below by land use designation:

- West Carson Residential 1: 35 feet
- West Carson Residential 3: 40 feet
- West Carson Residential 4: 50 feet
- Neighborhood Commercial: 45 feet
- Unlimited Commercial: 40 feet

- Industrial Flex: 50 feet
- Harbor-UCLA Medical: as permitted by the Harbor-UCLA Medical Center Master Plan
- Mixed Use 1: 40 feet
- Mixed Use 2: 60 feet
- Public: 30 feet

The parts of the site where buildings developed in accordance with the Specific Plan could be substantially higher than existing buildings would be the West Carson Residential 4, Industrial Flex, and Mixed Use 2 land use designations, where permitted building heights would be 50 feet, 50 feet, and 60 feet, respectively.

West Carson Residential 4: Two areas onsite would be designated West Carson Residential 4: one at the southwest corner of Vermont Avenue and 220th Street; and the second on the west side of Vermont Avenue north of Carson Avenue (see Figure 5, *Proposed Zoning Districts*). The former area is developed with two-story multifamily residences and a two-story healthcare facility; and is surrounded by one-story commercial uses to the south, one- and two-story commercial uses to the east opposite Vermont Avenue, one-story residences to the west, and a three-level parking structure and one-story buildings on the Harbor-UCLA Medical Center to the south (based on a search of Google Maps Street View photographs December 9, 2016). The Specific Plan would permit buildings up to 50 feet high in that area. Views of the Palos Verdes Hills to the south and the San Gabriel Mountains to the north from areas next to the north and south edges of that portion of the site, respectively, are already blocked by existing two-story buildings. No impact would occur.

The second area that would be designated West Carson Residential 4 is currently developed with a four-story apartment complex and a one-story health care facility; and is surrounded by four-story multifamily residences and one-story commercial uses to the south; one-story residences to the north; one-story commercial and healthcare uses to the east opposite Vermont Avenue; and one-story residential uses to the west (Google Street Views, December 9 2016). Views of the Palos Verdes Hills and San Gabriel Mountains from surrounding areas are already blocked by four-story apartment buildings on this part of the site, and no impact would occur.

Industrial Flex: The area that would be designated Industrial Flex is developed with one- and two-story commercial and industrial uses, a two-story church, and one-story residences; and is surrounded by one- and two-story buildings to the north; the I-110 to the east; one-story residences and a two-story church to the west; and one-story commercial uses and one- and two-story residences opposite 223rd Street to the south (Google Street View 2016). Views of the Palos Verdes Hills to the south are already blocked by buildings south of the area, and views of the San Gabriel Mountains to the north are already blocked from parts of the area by buildings to the north. Specific Plan buildout would not block vistas of the San Gabriel Mountains from a substantial area.

Mixed Use 2: The part of the site that would be designated Mixed Use 2 is developed with three-story multifamily residences; one-story residences; and one- and two-story commercial buildings; and is surrounded by the Harbor-UCLA Medical Center and two-story and four-story multifamily residences opposite Vermont Avenue to the west; the I-110 to the east; two-story commercial buildings to the south; and one-story residences and a one-story health care facility to the north. Views of the Palos Verdes Hills and San Gabriel Mountains to the south and north, respectively, are already blocked by buildings on the specified area of the site, and no substantial impact would occur. This impact will not be analyzed in the EIR.

Regional Trails (b)

No Impact. Based on a review of the Los Angeles County Department of Parks and Recreation *Trails* website, the Los Angeles County Department of Regional Planning's GIS-NET3 Trail layer, and the Regional

Trail System Map (Figure 10.1) of the Los Angeles County General Plan, no regional trails pass through or next to the site, and the nearest regional trail to the site is the Los Angeles River trail about 4.7 miles to the east. No impact would occur and this impact will not be analyzed in the EIR.

Scenic Resources in the vicinity of a State Scenic Highways (c)

No Impact. No designated state scenic highways pass through or next to the site; the nearest such highway to the site mapped on the California Department of Transportation *California Scenic Highway System* website is State Route 2, the Angeles Crest Highway, about 28 miles to the north. No impact would occur. There are no undisturbed areas or nationally- or state-designated historic resources in the project area. No development of on-site greenfield conditions is proposed. The project area is not located in a Hillside Management Area. No impact would occur.

Existing Visual Character (d)

Potentially Significant Impact. The project site is developed with a mix of health care, residential, commercial, industrial, and school uses. The Specific Plan would involve some changes in permitted land uses on parts of the project site; thus, Specific Plan buildout would entail some changes to the visual character of the site. This impact would be potentially significant. The EIR will compare photographs of the existing visual character of the site to renderings of potential building types and street frontages that would be permitted by the Specific Plan.

Light and Glare (e)

Potentially Significant Impact. The project site is almost entirely built out with urban uses. Lighting of several types is present onsite, including street lights, commercial signage, vehicle lights, parking lot lights, and exterior and interior building lights. Specific Plan buildout would increase permitted land use intensity onsite and thus could involve installation of additional nighttime lighting and sources of daytime and nighttime glare. This impact would be potentially significant. The EIR will describe the types and intensities of outdoor lighting that would be permitted by the Specific Plan compared to Los Angeles County ordinances governing outdoor lighting.

References

California Department of Transportation (Caltrans). 2011, September 7. California Scenic Highway Mapping System. http://www.dot.ca.gov/hq/LandArch/scenic_highways/.

Google Maps. 2016, December 9. Street View Photographs.

2. AGRICULTURE / FOREST

Would the project:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, with a designated Agricultural Opportunity Area, or with a Williamson Act contract?	☐	☐	☒	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code § 12220 (g)), timberland (as defined in Public Resources Code § 4526), or timberland zoned Timberland Production (as defined in Government Code § 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Mapped Important Farmland (a, e)

No Impact. Based on a review of the *California Important Farmland Finder* maintained by the Division of Land Resource Protection, the project site is in a part of Los Angeles County where farmland is not mapped, and there is no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance on or next to the project site. Specific Plan implementation would not impact mapped important farmland and this impact will not be addressed in the EIR.

Williamson Act Contracts (b)

Less than Significant Impact. Williamson Act contracts restrict the use of privately-owned land to agriculture and compatible open-space uses under contract with local governments; in exchange, the land is taxed based on actual use rather than potential market value. No Williamson Act contract on the project site is mapped on the *Los Angeles County Williamson Act FY 2015/2016 Map* issued by the Division of Land Resource Protection. No impact would occur, and this topic will not be analyzed in the EIR. There are also no Agricultural Resource Areas in the project area, so the project would not conflict with this.

The proposed project includes a request for a zoning classification change from A-1 (Light Agricultural) to West Carson Residential 1 and Public zones. The A-1 Zone permits the raising of crops and small animals including poultry and other birds; along with other uses including single-family residences. The West Carson Residential 1 zone would provide for single-family residences up to 9 dwelling units per acre. The Public zone would provide for established public uses including schools, parks, the 208th Street Drain channel, and the Carson Street Transit Station park-and-ride. Upon approval of the West Carson Specific Plan with its proposed zoning designations, the Specific Plan would not conflict with the existing A-1 zone, and less than significant impact would occur.

Zoning for Agricultural and Forest Uses and (c)

No Impact. Virtually the entire project site is built out with urban land uses, and the project will not cause re-zoning of land zoned for forest or timberland uses. No impact would occur. This impact will not be analyzed on the EIR.

Forest Resources (d)

No Impact. Virtually the entire project site is built out with urban land uses, and no forest resources are cultivated onsite. No impact would occur. This impact will not be analyzed in the EIR.

References

Division of Land Resource Protection (DLRP). 2016, November 22. California Important Farmland Finder. http://maps.conservation.ca.gov/ciff/ciff.html.

Division of Land Resource Protection (DLRP). 2016. Los Angeles County Williamson Act FY 2015/2016 Map. ftp://ftp.consrv.ca.gov/pub/dlrp/wa/LA_15_16_WA.pdf.

3. AIR QUALITY

Would the project:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Conflict with or obstruct implementation of applicable air quality plans of either the South Coast AQMD (SCAQMD) or the Antelope Valley AQMD (AVAQMD)?	☒	☐	☐	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☒	☐	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☒	☐	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☒	☐	☐	☐

Conformance with Air Quality Management Plan (a)

Potentially Significant Impact. The proposed Specific Plan area is in the South Coast Air Basin (SoCAB) and is subject to the air quality management plan (AQMP) prepared by the South Coast Air Quality Management District (SCAQMD). Implementation of the proposed Specific Plan would allow development of a mix of residential and non-residential land uses, resulting in an increase in development intensity and associated increase in criteria air pollutants from area, stationary, and mobile sources. The EIR will evaluate the Specific Plan's consistency with regional growth forecasts and any impacts the planning program may have on attainment of regional air quality objectives contained in the AQMP. Mitigation measures will be identified as necessary.

Air Quality Standards (b)

Potentially Significant Impact. Short- and long-term emissions could be generated from implementation of the proposed Specific Plan. Construction-related emissions would be generated from construction of development projects accommodated under the proposed project. Additionally, operation of these developments would have the potential to introduce new mobile-, area- and stationary source emissions. Due to the magnitude of development the proposed Specific Plan encompasses, short- and long-term associated with the proposed project could potentially exceed the SCAQMD regional significance thresholds. The EIR

will evaluate the potential for buildout of future development projects under the proposed Specific Plan to generate significant air quality impacts. Mitigation measures will be identified as necessary.

Cumulative Net Increase in Criteria Pollutants (c)

Potentially Significant Impact. The proposed Specific Plan area is in the SoCAB, which is designated nonattainment for ozone (O_3), fine inhalable particulate matter ($PM_{2.5}$), coarse inhalable particulate matter (P_{M10}), and lead (Los Angeles County only) under the California and National ambient air quality standards (AAQS). Implementation of the proposed project may increase existing levels of criteria air pollutants and contribute to the nonattainment status for these criteria air pollutants in the SoCAB. Air pollutant emissions associated with development that would be accommodated by the proposed Specific Plan could occur over the short term for construction activities. In addition, emissions could result during long-term operation of completed development projects. An air quality analysis will be prepared to determine if the implementation of the proposed Specific Plan would result in a cumulatively considerable net increase in any criteria air pollutant. This topic will be evaluated in the EIR, and mitigation measures will be identified as necessary.

Exposure of Sensitive Receptors to Substantial Pollutant Concentrations (d)

Potentially Significant Impact. Sensitive receptors are locations and people that are more sensitive to the unhealthful effects of emissions (such as children and the elderly). Future development pursuant to implementation of the proposed Specific Plan may expose existing and/or new sensitive receptors within and surrounding the proposed planning area to increased pollutant concentrations. The EIR will evaluate the potential for construction and operation phases of future development, revitalization, and/or redevelopment activities that would be accommodated by the proposed Specific Plan to exceed SCAQMD's localized significance thresholds, in accordance with SCAQMD's guidance methodology. Mitigation measures will be identified as necessary.

Objectionable Odors (e)

Potentially Significant Impact. The proposed Specific Plan could accommodate industrial-type land uses that may result in exposing a substantial number of people to objectionable odors. Therefore, this topic will be evaluated in the EIR and mitigation measures will be identified as necessary.

4. BIOLOGICAL RESOURCES

Would the project:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS)?	☐	☐	☐	☒
b) Have a substantial adverse effect on any sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally or state protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, and drainages) or waters of the United States, as defined by § 404 of the federal Clean Water Act or California Fish & Game code § 1600, et seq. through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Convert oak woodlands (as defined by the state, oak woodlands are oak stands with greater than 10% canopy cover with oaks at least 5 inch in diameter measured at 4.5 feet above mean natural grade) or otherwise contain oak or other unique native trees (junipers, Joshuas, southern California black walnut, etc.)?	☐	☐	☐	☒
f) Conflict with any local policies or ordinances protecting biological resources, including Wildflower Reserve Areas (L.A. County Code, Title 12, Ch. 12.36), the Los Angeles County Oak Tree Ordinance (L.A. County Code, Title 22, Ch. 22.56, Part 16), the	☐	☐	☐	☒

Significant Ecological Areas (SEAs) (L.A. County Code, Title 22, § 22.56.215), and Sensitive Environmental Resource Areas (SERAs) (L.A. County Code, Title 22, Ch. 22.44, Part 6)?

g) Conflict with the provisions of an adopted state, regional, or local habitat conservation plan? ☐ ☐ ☐ ☒

Sensitive Species, Sensitive Habitats, and Riparian Habitats (a, b)

No Impact. There is no native habitat or suitable breeding or nesting habitat for sensitive species onsite. The site is entirely built out except for three vacant lots totaling about 0.75 acre, that is, approximately 0.25 percent of the site. Any occurrence of sensitive species onsite is expected to be incidental occurrence such as foraging. Riparian habitats are those occurring along the banks of rivers and streams. There are no sensitive natural communities onsite and no riparian habitat onsite; the 208th Street Drain forming most of the north site boundary is an engineered channel with concrete bed and banks, and does not support riparian habitat. No impact would occur and this impact will not be studied in the EIR.

Wetlands (c)

No Impact. There are no wetlands onsite, as the site is almost entirely built out with urban uses. The nearest wetlands to the project site mapped on the National Wetlands Mapper maintained by the US Fish and Wildlife Service are the 208th Street Drain Channel along much of the north site boundary; the Bixby Slough about 1.3 miles south of the project site; the Bixby Wetlands about 1.2 miles south of the site; and the Wilmington Drain Channel also about 1.2 miles south of the project site (USFWS 2016a). The 208th Street Drain Channel along the north site boundary is an engineered channel with concrete bed and banks, and thus does not meet the definition of wetlands protected under the federal Clean Water Act.

Three parcels onsite totaling about 0.75 acre, that is, approximately 0.25 percent of the site, are vacant. Two of the vacant parcels are bare land used as dirt parking lots. The third parcel is sparsely vegetated with grasses and was previously developed with a single-family home, as shown on historic aerial photographs dated 1952 through 2004 [Nationwide Environmental Title Research, LLC]). No impact would occur and this topic will not be analyzed in the EIR.

Wildlife Movement and Migration (d)

Less Than Significant Impact.

Overland Wildlife Movement

The site is not available for overland wildlife movement, as over 99 percent of the site as well as the site surroundings are built out with urban uses. No impact would occur and this topic will not be addressed in the EIR.

Nesting Migratory Birds

Trees and other vegetation onsite could be used for nesting by migratory birds protected under state and federal law.

The Migratory Bird Treaty Act of 1918 (MBTA) is the domestic law implementing the United States' commitment to four international conventions with Canada, Japan, Mexico, and Russia for the protection of migratory birds. The MBTA governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. It prohibits the take, possession, import, export, transport, sale,

purchase, barter, or offering of these activities, except under a valid permit or as permitted in the implementing regulations. USFWS administers permits to take migratory birds in accordance with the regulations pursuant to the MBTA.

Options for compliance with the MBTA include:

a. avoiding grading activities during the nesting season, February 15 to August 15; or

b. if grading activities are to be undertaken during the nesting season, a site survey for nesting birds by a qualified biologist before commencement of grading activities. If nesting birds are found, the applicant would consult with the USFWS regarding means to avoid or minimize impacts to nesting birds.

Nesting birds are also protected under California Fish and Game Code Sections 3503 et seq. Section 3503 prohibits the take, possession, or needless destruction of the nest or eggs of any bird, with specified exceptions.

Projects developed in accordance with the Specific Plan would comply with the MBTA and the aforementioned California Fish and Game Code sections. Impacts would be less than significant, and this impact will not be studied in the EIR.

Oak Woodlands (e)

No Impact. Oak woodlands referenced in threshold (e) is taken to mean native oak woodland habitat. There is no native oak woodland habitat onsite. Over 99 percent of the site is built out with urban land uses. There are three vacant lots onsite totaling about 0.75 acre area:

- 22003 Meyler Street – the southwest corner of Meyler Street and 220th Street – which is fenced; sparsely vegetated with grasses; and with two mature trees along southwest parcel boundary.
- 21314 Vermont Street: bare land used as dirt parking lot.
- 22221 Vermont Street: bare land used as dirt parking lot

The two trees at 22003 Meyler Street are ornamental trees (the parcel was previously developed with a single-family house, as shown on historic aerial photographs dated 1952 through 2004 [Nationwide Environmental Title Research, LLC]). The trees at 22003 Meyler Street do not comprise native oak woodland. No impact would occur and this impact will not be studied in the EIR.

Local Ordinances Protecting Biological Resources (f)

No Impact.

Wildflower Reserve Areas

The project site is not in a Wildflower Reserve Area designated in Los Angeles County Code of Ordinances Chapter 12.36. No impact would occur and no further study is needed.

Los Angeles County Oak Tree Ordinance

The Los Angeles County Oak Tree Ordinance, County Code of Ordinances Sections 22.56.2050 et seq., prohibits people from damaging or removing oak trees without a permit from the Los Angeles County Department of Regional Planning. The specified Ordinance applies to all unincorporated areas of the County. Essentially all of the vegetation onsite is ornamental landscape vegetation; such vegetation could include oak trees.

The Oak Tree Ordinance requires permit applicants to submit the following documents to the Los Angeles County Department of Regional Planning:

1. A site plan drawn to scale and showing:
    a. The locations and dimensions of existing land uses and certain categories of proposed features on the site – including buildings, parking lots, other paved areas, landscaped areas, walls and fences, etc.
    b. The location of all oak trees subject to this [ordinance] proposed to be removed and/or relocated, or within 200 feet of proposed construction, grading, landfill or other activity.

2. An oak tree report prepared by an individual with expertise acceptable to the director and county forester and fire warden, of each tree shown on the site plan describing the size, structure, and health of each tree; and identifying trees that may be classified as heritage trees – which are either any oak tree measuring 36 inches or more in diameter, measured four and one-half feet above the natural grade; or any other oak tree having significant historical or cultural importance to the community.

Development projects under the Specific Plan would comply with the County Oak Tree Ordinance, and impacts would be less than significant. This topic will not be addressed in the EIR.

Significant Ecological Areas

The County of Los Angeles designates Significant Ecological Areas (SEAs) on land containing irreplaceable biological resources including undisturbed or lightly disturbed habitats supporting valuable and threatened species and linkages and corridors to promote species movement. Much of the land within SEAs is privately held and is used for public recreation or abuts developed areas. The SEA Program is intended to ensure that privately held lands within the SEAs retain the right of reasonable use, while avoiding activities and developments that are incompatible with the long-term survival of the SEAs. The County regulates development within the SEAs with SEA Conditional Use Permits. No SEAs are mapped on or next to the site on the *Significant Ecological Areas and Coastal Resource Areas Policy Map* of the County Department of Regional Planning. No impact to SEAs would occur and this topic will not be studied in the EIR.

Sensitive Environmental Resource Areas

Sensitive Environmental Resource Areas are not mentioned in Los Angeles County Code of Ordinances Chapter 22.44 and the project site is not in any such designated Area. No impact would occur and no further study is required.

Habitat Conservation Plans (g)

No Impact. Based on a review of the Habitat Conservation Database maintained by the US Fish and Wildlife Service, the project site is not in or next to the plan area of a habitat conservation plan (USFWS 2016b). No natural community conservation plans are mapped on or next to the site on the California Department of Fish and Wildlife *California Regional Conservation Plans Map* (CDFW 2015). No impact would occur and no additional analysis is needed.

References

California Department of Fish and Wildlife (CDFW). 2015, August. California Regional Conservation Plans. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline.

Los Angeles County Department of Regional Planning. 2015, February. Significant Ecological Areas and Coastal Resource Areas Policy Map. http://planning.lacounty.gov/assets/upl/project/gp_2035_2014-FIG_9-3_significant_ecological_areas.pdf.

Nationwide Environmental Title Research, LLC (NETR). 2016, December 9. Historic aerial photographs. Historicaerials.com.

US Fish and Wildlife Service (USFWS). 2016a, November 22. National Wetlands Mapper. http://www.fws.gov/wetlands/data/mapper.HTML.

US Fish and Wildlife Service (USFWS). 2016b, November 23. Habitat Conservation Plans. Region 8: Regional Report. http://ecos.fws.gov/ecp0/conservationPlan/region/summary?region=8&type=HCP.

5. CULTURAL RESOURCES

Would the project:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines § 15064.5?	☒	☐	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines § 15064.5?	☒	☐	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, or contain rock formations indicating potential paleontological resources?	☒	☐	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐
e) Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in CEQA Public Resources Code § 21074?	☒	☐	☐	☐

Historical Resources (a)

Potentially Significant Impact. Historical resources include objects, buildings, structures, sites, areas, places, records, or manuscripts which are historically or archaeologically significant. Buildings and structures 45 years old or older are typically evaluated for historical significance by cultural resources investigations. The great majority of the site was built out by 1972 as shown on aerial photographs from Nationwide Environmental Title Research, LLC. Historical resources could be present onsite. This impact is potentially significant. A Cultural Resources Technical Report will be prepared for the project site; the findings and conclusions of the Report will be described in the EIR.

Archaeological Resources (b)

Potentially Significant Impact. Archaeological resources are prehistoric or historic evidence of past human activities, including structural ruins and buried resources. While the project site is almost entirely built out, developments under the Specific Plan in some parts of the project site could involve excavations to greater depths than did existing and past developments in those areas. Thus, construction of such developments could damage archaeological resources that could be buried in site soils. The Cultural Resources Technical Report to be prepared for the site will assess the potential for buried archaeological resources to be present onsite; the findings and conclusions of the Report will be described in the EIR.

Paleontological Resources and Geological Features (c)

Potentially Significant Impact. The site is nearly flat and is very nearly built out; there are no unique geological features onsite. Development projects pursuant to the Specific Plan in some parts of the project site could involve excavations to greater depths than did existing and past developments in those areas. Thus, construction of such projects could damage paleontological resources that could be buried in site soils. The Cultural Resources Technical Report to be prepared for the site will assess the potential for buried paleontological resources to be present onsite; the findings and conclusions of the Report will be described in the EIR.

Human Remains (d)

Less than Significant. Developments pursuant to the Specific Plan in some parts of the project site could involve excavations to greater depths than did existing and past developments in those areas. Thus, there is some potential that construction of such developments could disturb human remains. California Health and Safety Code Section 7050.5 requires that in the event that human remains are discovered within the project site, disturbance of the site shall halt and remain halted until the coroner has conducted an investigation into the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes or has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. Development projects under the Specific Plan would comply with the aforementioned law. Impacts would be less than significant.

Tribal Cultural Resources (e)

Potentially Significant Impact. Tribal cultural resources include sites, features, places, cultural landscapes that are geographically defined in terms of the size and scope of the landscape, sacred places, or objects with cultural value to a California Native American tribe. Impacts of Specific Plan buildout would be potentially significant, similar to the conclusion for archaeological resources above. Preparation of the Cultural Resources Technical Report will include an evaluation of the project site for sensitivity respecting buried archaeological resources; and inquiries of Native American tribal representatives regarding tribal cultural resources on or near the project site. Any responses will be summarized in the EIR.

References

Nationwide Environmental Title Research, LLC (NETR). 2016, December 9. Historic aerial photographs. Historicaerials.com.

6. ENERGY

Would the project:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Conflict with Los Angeles County Green Building Standards Code (L.A. County Code Title 31)?	☐	☐	☐	☒
b) Involve the inefficient use of energy resources (see Appendix F of the CEQA Guidelines)?	☐	☐	☒	☐

Compliance with Los Angeles County Green Building Ordinance (a)

No Impact. Title 31 of the Los Angeles County Code of Ordinances, the Green Building Standards Code, adopts by reference the California Green Building Standards Code (CALGreen). CALGreen is issued by the California Building Standards Commission on a three-year cycle. The current CALGreen is the 2013 Code; the 2016 CALGreen is scheduled to take effect on January 1, 2017.

The purpose of the Los Angeles County Green Building Ordinance is to:

> improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of *building* concepts having a reduced negative impact, or positive environmental impact, and encouraging sustainable construction practices in the following categories:
>
> 1. Planning and design. Planning and design standards include those governing storm water drainage and installation of electric circuitry supporting future electric vehicle charging stations.
>
> 2. Energy efficiency. Energy efficiency standards pertain to lighting, insulation, and mechanical systems (space heating and cooling and water heating).[1]
>
> 3. Water efficiency and conservation. Water efficiency standards include requirements for water-efficient fixtures, and water-efficient landscaping.
>
> 4. Material conservation and resource efficiency: standards include recycling and/or reusing at least 50 percent of nonhazardous construction and demolition waste.
>
> 5. Environmental air quality: standards include those governing adhesives and architectural coatings, to minimize air pollution, and interior moisture control standards (Section 31.101.2).

The Los Angeles County Green Building Standards Code contains four groups of standards, each containing standards applying to each of the five aforementioned categories:

- Residential Mandatory Standards

[1] The energy efficiency requirements described here in the 2013 CALGreen are residential voluntary standards. Residential mandatory standards are under development by the California Energy Commission (2013 CALGreen, Section 4.201).

- Nonresidential Mandatory Standards
- Residential Voluntary Standards
- Nonresidential Voluntary Standards

Projects developed under the Specific Plan would comply with the Los Angeles County Green Building Ordinance, and no adverse impact would occur. This topic will not be analyzed in the EIR.

Energy Efficiency (b)

Projects developed pursuant to the Specific Plan would comply with several laws and regulations, summarized below, requiring energy efficiency in addition to provisions of CALGreen mentioned above.

Federal

Energy Independence and Security Act of 2007

Less Than Significant Impact. The Energy Independence and Security Act of 2007 (Public Law 110-140) seeks to provide the nation with greater energy independence and security by increasing the production of clean renewable fuels; improving vehicle fuel economy; and increasing the efficiency of products, buildings, and vehicles. It also seeks to improve the energy performance of the federal government. The act sets increased Corporate Average Fuel Economy Standards; the Renewable Fuel Standard; appliance energy efficiency standards; building energy efficiency standards; and accelerated research and development tasks on renewable energy sources (e.g., solar energy, geothermal energy, and marine and hydrokinetic renewable energy technologies), carbon capture, and sequestration.

State

Renewables Portfolio Standard

The California Renewables Portfolio Standard (RPS) was established in 2002 under Senate Bill 1078 and was amended in 2006 and 2011. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase the use of eligible renewable energy resources to 33 percent of total procurement by 2020. The California Public Utilities Commission is required to provide quarterly progress reports on progress toward RPS goals. This has accelerated the development of renewable energy projects throughout the state. Based on the 3rd quarter 2014 report, the three largest retail energy utilities provided an average of 20.9 percent of its supplies from renewable energy sources. Since 2003, 8,248 megawatts of renewable energy projects have started operations (CPUC 2014). Senate Bill 350 (de Leon) was signed into law September 2015 and establishes tiered increases to the RPS—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

Appliance Efficiency Regulations

California's Appliance Efficiency Regulations (California Code of Regulations [CCR], Title 20, Parts 1600–1608) contain energy performance, energy design, water performance, and water design standards for appliances (including refrigerators, ice makers, vending machines, freezers, water heaters, fans, boilers, washing machines, dryers, air conditioners, pool equipment, and plumbing fittings) that are sold or offered for sale in California. These standards are updated regularly to allow consideration of new energy efficiency technologies and methods.

Title 24, California Code of Regulations, Part 6: Energy Efficiency Standards for Buildings

The Energy Efficiency Standards for Residential and Nonresidential Buildings (24 CCR Part 6) were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The CEC adopted the 2008 changes to the Building Energy Efficiency Standards in order to (1) "Provide California with an adequate, reasonably-priced, and environmentally-sound supply of energy" and (2) "Respond to Assembly Bill 32, the Global Warming Solutions Act of 2006, which mandates that California must reduce its greenhouse gas emissions to 1990 levels by 2020." Title 24 Part 6 of the 2013 California Building Standards Code, the 2013 California Energy Code, went into effect on July 1, 2014, and includes energy efficiency updates (CBSC 2015). Buildings that are constructed in accordance with the 2013 Building and Energy Efficiency Standards are 25 percent (residential) to 30 percent (nonresidential) more energy efficient than the 2008 standards as a result of better windows, insulation, lighting, ventilation systems, and other features.

Most recently, the CEC adopted the 2016 Building and Energy Efficiency Standards. The 2016 standards will continue to improve upon the current 2013 standards for new construction of and additions and alterations to residential and nonresidential buildings. These standards will go into effect on January 1, 2017. Under the 2016 standards, residential buildings are 28 percent more energy efficient than the 2013 standards, and nonresidential buildings are 5 percent more energy efficient than the 2013 standards (CEC 2015a).

The 2016 standards will not achieve zero net energy. However, they do get very close to the state's goal and make important steps toward changing residential building practices in California. The 2019 standards will take the final step to achieve zero net energy for newly constructed residential buildings throughout California (CEC 2015b).

Conclusion

Projects developed under the Specific Plan would comply with the above-described energy efficiency requirements in addition to CALGreen. Such projects would not use energy inefficiently, and impacts would be less than significant.

7. GEOLOGY AND SOILS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☒	☐	☐	☐
iii) Seismic-related ground failure, including liquefaction and lateral spreading?	☒	☐	☐	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☒	☐	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☒	☐	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☒	☐	☐	☐
e) Have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Conflict with the Hillside Management Area Ordinance (L.A. County Code, Title 22, § 22.56.215) or hillside design standards in the County General Plan Conservation and Open Space Element?	☐	☐	☐	☒

Seismic Hazards (a)

Surface Rupture of a Known Active Fault (a.i)

No Impact. No active faults or Alquist-Priolo Earthquake Fault Zones are mapped in or next to the site on the *Torrance Quadrangle Special Studies Zones [Fault Zones] Map* issued by the California Geological Survey (CGS) in 1986 or the CGS *Fault Activity Map of California*. The nearest active fault is approximately 2.9 miles northeast of the project site. Specific Plan buildout would not result in hazards from surface rupture of a known active fault, and no impact would occur.

Strong Ground Shaking (a.ii)

Potentially Significant Impact. Numerous active faults in the region are mapped on the Fault Activity Map of California, and strong ground shaking would likely occur onsite within the design lifetimes of structures built pursuant to the Specific Plan. This impact would be potentially significant. The EIR will describe known active faults in the region; will provide an estimate of the strength of ground shaking that could occur onsite; and will describe California Building Code seismic safety requirements.

Liquefaction (a.iii)

Potentially Significant Impact. Liquefaction refers to loose, saturated sand or silt deposits that behave as a liquid and lose their load-supporting capability when strongly shaken. Loose granular soils and silts that are saturated by relatively shallow groundwater are susceptible to liquefaction. The northern edge of the project site is within a zone of required investigation for liquefaction mapped on the California Geological Survey Torrance Quadrangle Seismic Hazard Zones Map issued in 1999. Impacts related to liquefaction would be potentially significant. The EIR will describe state laws and regulations requiring geotechnical investigations for development projects. Geotechnical investigations for development projects within the aforementioned Zone of Required Investigation must assess liquefaction potential on the affected project sites and provide any needed recommendations for minimizing liquefaction hazard.

Earthquake-Induced Landslides (a.iv)

No Impact. The project site is not located in a landslide zone mapped on the aforementioned Seismic Hazard Zones Map, and Specific Plan buildout would not exacerbate existing landslide hazards. No impact would occur.

Soil Erosion (b)

Potentially Significant Impact. The project site is nearly flat and is almost entirely built out with urban uses. Construction projects pursuant to the Specific Plan could cause substantial soil erosion by disturbing and exposing large amounts of soil; this impact would be potentially significant. The EIR will describe stormwater quality requirements of the Statewide General Construction Permit (State Water Resources Control Board Order No. 2012-0006-DWQ).

Unstable Soils Hazards (c, d)

Potentially Significant Impact. Unstable soils – such as collapsible soils and/or expansive soils – could be present onsite; this impact would be potentially significant. The EIR will describe each type of soil instability and the factors contributing to susceptibility to such instability; and categories of recommendations set forth in geotechnical investigation reports to minimize each type of instability.

Onsite Wastewater Treatment Systems (e)

No Impact. Specific Plan buildout would involve connections to sanitary sewers, and would not use onsite wastewater treatment systems. No impact would occur and this impact will not be studied in the EIR.

Hillside Land Use Regulation (f)

No Impact. The project site is nearly flat and is not subject to the Hillside Management Area Ordinance or hillside design standards. No impact would occur and no analysis in the EIR is needed.

References

California Geological Survey (CGS). 1986. Torrance Quadrangle Special Studies Zones Map. http://gmw.consrv.ca.gov/shmp/download/quad/TORRANCE/maps/TORRANCE.PDF.

California Geological Survey (CGS). 2016, January 12. Fault Activity Map of California. http://maps.conservation.ca.gov/cgs/fam/.

California Geological Survey (CGS). 1999, March 25. Torrance Quadrangle Seismic Hazard Zones Map. http://gmw.consrv.ca.gov/shmp/download/quad/TORRANCE/maps/ozn_tor.pdf.

8. GREENHOUSE GAS EMISSIONS

Would the project:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Generate greenhouse gas (GHGs) emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐

Greenhouse Gas Emissions (a)

Potentially Significant Impact. Global climate change is not confined to a particular project area and is generally accepted as the consequence of global industrialization over the last 200 years. A typical project, even a very large one, does not generate enough greenhouse gas (GHG) emissions on its own to influence global climate change significantly; hence, the issue of global climate change is, by definition, a cumulative environmental impact. The State of California, through its governor and legislature, has established a comprehensive framework for the substantial reduction of GHG emissions over the next 40-plus years. This will occur primarily through the implementation of Assembly Bill 32 (AB 32), Senate Bill 375 (SB 375), and AB 197, which will address GHG emissions on a statewide, cumulative basis. The construction activities, operation, and increase in vehicle traffic associated with the development, revitalization, and/or redevelopment activities that would be accommodated by the proposed Specific Plan have the potential to generate GHG emissions that could significantly impact the environment. The EIR will evaluate the potential for the project to generate a substantial increase in GHG emissions. Mitigation measures will be identified as necessary.

Conflict with Applicable Policies (b)

Potentially Significant Impact. The California Air Resources Board's (CARB) Scoping Plan is California's GHG reduction strategy to achieve the state's GHG emissions reduction target, established by AB 32, of 1990 emission levels by year 2020. In addition, Senate Bill 375, the Sustainable Communities and Climate Protection Act of 2008 (SB 375) was adopted by the legislature to reduce per capita vehicle miles traveled and associated GHG emissions from passenger vehicles. The Southern California Association of Government's (SCAG) 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy identifies the per capita GHG reduction goals for the SCAG region. Furthermore, the Unincorporated Los Angeles County Community Climate Action Plan 2020 has also been prepared and is applicable to the unincorporated areas within the County. The proposed project would generate a net increase of GHG emissions from construction and operational activities within the County of Los Angeles. Because GHG emissions generated by the proposed project may be substantial, the proposed project may conflict with GHG strategies and targets of the aforementioned applicable plans and impacts are potentially significant. The EIR will evaluate consistency with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions. Mitigation measures will be identified as necessary.

9. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials?	☒	☐	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment?	☒	☐	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses?	☒	☐	☐	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☒	☐	☐	☐
e) For a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☒	☐	☐	☐
h) Expose people or structures to a significant risk of loss, injury or death involving fires, because the project is located:				
i) within a Very High Fire Hazard Severity Zones (Zone 4)?	☐	☐	☐	☒
ii) within a high fire hazard area with inadequate access?	☐	☐	☐	☒

iii) within an area with inadequate water and pressure to meet fire flow standards?	☒	☐	☐	☐
iv) within proximity to land uses that have the potential for dangerous fire hazard?	☐	☐	☐	☒
v) Does the proposed use constitute a potentially dangerous fire hazard?	☐	☐	☐	☒

Hazardous Materials

Hazardous Materials to be Used by Developments Under the Specific Plan (a, b)

Potentially Significant Impact. Construction and operation of developments under the Specific Plan would use hazardous materials including fuels, lubricants, and greases; pesticides and fertilizers; paints and other coatings; hazardous materials used in health care; and hazardous materials used in various commercial and industrial land uses. This impact would be potentially significant. The EIR will describe existing federal, state, and local regulations governing the use, storage, transport, and disposal of hazardous materials.

Hazardous Materials Usage within 0.25 mile of Sensitive Land Uses (c)

Potentially Significant Impact. Operations at Harbor-UCLA Medical Center involve use of hazardous materials, including radioactive materials, and generate hazardous wastes. The Specific Plan would increase permitted development intensity in the proposed Harbor-UCLA Medical Zone by nearly 1.2 million square feet; thus, Specific Plan buildout is expected to involve increased use of hazardous materials and generation of hazardous wastes at Harbor-UCLA Medical Center. This impact would be potentially significant. The EIR will describe existing state and federal regulations governing hazardous materials and hazardous wastes used and generated in health care.

Two elementary schools are onsite, and three additional schools are within 0.25 mile of the project site. Specific Plan implementation could involve increased hazardous materials use within 0.25 mile of existing schools. This impact would be potentially significant.

Existing Hazardous Materials Onsite (d)

Potentially Significant Impact. The site is almost entirely built out with urban land uses. Hazardous materials sites are mapped within the project site on the State Water Resources Control Board *GeoTracker* database and the California Department of Toxic Substances Control *EnviroStor* database. Impacts arising from existing hazardous materials would be potentially significant. An environmental database search will be conducted; the search findings will be discussed in the EIR.

Airport-Related Hazards (e, f)

No Impact. The project site is not in an airport influence area, or near a public-use or private airport, identified in the *Los Angeles County Airport Land Use Plan* revised by the Los Angeles County Airport Land Use Commission in 2004. No airport-related impacts would occur.

Emergency Response Planning (g)

Potentially Significant Impact. The Los Angeles County Office of Emergency Management (OEM) maintains the Los Angeles County Operational Area Emergency Response Plan and the County of Los Angeles All-Hazard Mitigation Plan. OEM leads and coordinates disaster plans and disaster preparedness exercises for all cities and special districts in Los Angeles County. Specific Plan buildout would involve construction activities and construction traffic that could impede emergency access to the project site and surrounding neighborhoods. This impact would be potentially significant. The EIR will discuss measures for minimizing impacts to emergency response; for instance, many construction projects are required to submit construction traffic management plans to the Los Angeles County Public Works Traffic and Lighting Division for review and approval. Harbor-UCLA Medical Center is one of five Level 1 Trauma Centers in Los Angeles County. A Level I Trauma Center is capable of providing total care for every aspect of injury – from prevention through rehabilitation (ATS 2016).

Fire Hazards Including Wildfire (h)

No Impact. The project site is not in a Very High Fire Hazard Severity Zone shown on the *Very High Fire Hazard Severity Zones in LRA [Local Responsibility Areas] Map of Los Angeles County* issued by the California Department of Forestry and Fire Protection in 2012. The Los Angeles County Fire Department provides fire protection to the project site and would determine fire flow requirements for new construction. The Specific Plan does not propose development of land uses that would constitute a potentially dangerous fire hazard. The proposed Industrial Flex zone would permit light-industrial uses in addition to commercial, office, and multifamily uses; the site of the proposed Industrial Flex zone is already partly developed with light-industrial uses. The project site is surrounded by residential and commercial uses within a 500-foot radius. Specific Plan buildout is not expected to cause a substantial increase in fire hazards onsite.

Required Fire Flow (h.iii)

Potentially Significant Impact. An infrastructure study under preparation for the project will estimate fire flow available onsite in existing conditions and after water main upgrades recommended as part of the Specific Plan; and will assess the adequacy of fire flow at Specific Plan buildout. This impact will be discussed in the EIR in the utilities and service systems section.

References

American Trauma Society (ATS). 2016, December 16. Trauma Center Levels Explained. http://www.amtrauma.org/?page=traumalevels.

California Department of Forestry and Fire Prevention (CAL FIRE). 2012, May. Very High Fire Hazard Severity Zones in LRA: Los Angeles County. http://www.fire.ca.gov/fire_prevention/fhsz_maps_losangeles.php.

Department of Toxic Substances Control (DTSC). 2016, November 22. EnviroStor. http://www.envirostor.dtsc.ca.gov/public/.

Los Angeles County Airport Land Use Commission (LACALUC). 2004, December 1. Los Angeles County Airport Land Use Plan. http://planning.lacounty.gov/assets/upl/data/pd_alup.pdf.

State Water Resources Control Board (SWRCB). 2016, November 22. GeoTracker. http://geotracker.waterboards.ca.gov/.

10. HYDROLOGY AND WATER QUALITY

Would the project:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Violate any water quality standards or waste discharge requirements?	☒	☐	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☒	☐	☐	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☒	☐	☐	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☒	☐	☐	☐
e) Add water features or create conditions in which standing water can accumulate that could increase habitat for mosquitoes and other vectors that transmit diseases such as the West Nile virus and result in increased pesticide use?	☐	☐	☒	☐
f) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☒	☐	☐	☐
g) Generate construction or post-construction runoff that would violate applicable stormwater NPDES permits or otherwise significantly affect surface water or groundwater quality?	☒	☐	☐	☐
h) Conflict with the Los Angeles County Low Impact Development Ordinance (L.A. County Code, Title 12, Ch. 12.84 and Title 22, Ch. 22.52)?	☒	☐	☐	☐

i) Result in point or nonpoint source pollutant discharges into State Water Resources Control Board-designated Areas of Special Biological Significance?	☐	☐	☐	☒
j) Use onsite wastewater treatment systems in areas with known geological limitations (e.g. high groundwater) or in close proximity to surface water (including, but not limited to, streams, lakes, and drainage course)?	☐	☐	☐	☒
k) Otherwise substantially degrade water quality?	☒	☐	☐	☐
l) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, or within a floodway or floodplain?	☐	☐	☐	☒
m) Place structures, which would impede or redirect flood flows, within a 100-year flood hazard area, floodway, or floodplain?	☐	☐	☐	☒
n) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
o) Place structures in areas subject to inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Water Quality (a, f, g, h, k)

Potentially Significant Impact. Based on a review of the Final 2012 Clean Water Act Section 303(d) List Report issued by the State Water Resources Control Board, the receiving waters for the north and central parts of the site are the 208th Street Drain, the Dominguez Channel, and the Los Angeles/Long Beach Inner Harbor; and the receiving waters for the southern part of the project site are the Wilmington Drain Channel, and Machado Lake in Harbor Regional Park. The identified receiving waters are listed for impairments with multiple pollutants on the aforementioned Section 303(d) List.

Construction and operation of projects developed pursuant to the Specific Plan could each generate substantial increases in water pollutants. Construction projects of one acre or more would obtain coverage under the Statewide General Construction Permit issued by the State Water Resources Control Board by preparing and implementing Stormwater Pollution Prevention Plans (SWPPPs) specifying Best Management Practices for minimizing stormwater pollution. Design and operation of projects of certain types and sizes would be required to comply with the Los Angeles County Low Impact Development Standards Manual issued by the Los Angeles County Department of Public Works. These impacts would be potentially significant. The EIR will describe water quality requirements under SWPPPs and the LID Standards Manual.

Groundwater (b)

Potentially Significant Impact. Based on a review of the *Groundwater Information Center Interactive Map Application* maintained by the California Department of Water Resources, the project site is over the West Coast Subbasin of the Coastal Plain of Los Angeles Groundwater Basin. The project site is not used for intentional groundwater recharge. The California Water Service Company Dominguez District (CWSC) provides water to the project site. Based on a review of the CSWC 2015 Urban Water Management Plan, CWSC water supplies are about 68 percent imported water; 17 percent groundwater from the West Coast and Central subbasins of the Coastal Plain of Los Angeles Groundwater Basin; and 15 percent recycled water. Project buildout would involve development of net increases of up to 2,271 residential units and 2.9 million square feet of nonresidential land uses onsite; and would thus increase water demands onsite. Impacts on groundwater supplies would be potentially significant. The EIR will describe requirements for retention of runoff and infiltration or bioretention of runoff or rainfall harvest and use.

Surface Water and Drainage (c, d, f)

Potentially Significant Impact. The project site is in the Dominguez Watershed, as mapped in the Dominguez Watershed Management Master Plan adopted by the Los Angeles County Public Works Department in 2004. Two storm drain networks serving the project site are shown on the Los Angeles County Public Works Department *Los Angeles County Storm Drain System* website – one in the central and northern parts of the site discharging into the 208th Street Drain, and one in the southern part of the site extending south offsite and discharging to the Wilmington Drain Channel which in turn extends south to Machado Lake. Developments conforming to the proposed Specific Plan would change the amounts of impervious areas on their project sites and thus could change the amounts of runoff from their sites. This impact would be potentially significant.

Design and operation of projects of certain types and sizes would be required to comply with the Los Angeles County Low Impact Development Standards Manual issued by the Los Angeles County Department of Public Works.

Low-impact development (LID) is a decentralized approach to stormwater management that works to mimic the natural hydrology of the site by retaining precipitation on-site to the maximum extent practicable. Stormwater quality control measures that incorporate LID principles are placed throughout the site in small, discrete units and distributed near the source of impacts. LID strategies are designed to protect surface and groundwater quality, maintain the integrity of ecosystems, and preserve the physical integrity of receiving waters by managing stormwater runoff at or close to the source (DPW 2014). The EIR will describe requirements of the LID Standards Manual that certain categories of projects developed under the Specific Plan would be required to meet.

***Vector Habitat* (e)**

Less Than Significant Impact. Vectors are living organisms that can transmit infectious diseases between humans or from animals to humans; many vectors are bloodsucking insects such as mosquitos, ticks, and fleas. Projects redeveloped pursuant to the Specific Plan would comply with vector control requirements in California Health and Safety Code Sections 2000 et seq. Impacts of such projects on vector habitat would be less than significant.

***Areas of Special Biological Significance* (i)**

No Impact. Receiving waters for the project site drain into the Los Angeles/Long Beach Inner Harbor, which is not mapped in an Area of Special Biological Significance on the State Water Resources Control Board's *Areas of Special Biological Significance* webpage. No impact would occur.

Wastewater Treatment Systems (j)

No Impact. The project site is served by existing sewers, and projects developed pursuant to the Specific Plan would not involve onsite wastewater treatment systems.

Flood Hazards (l, m, n, o)

No Impact. No 100-year flood zones onsite are mapped on the National Flood Hazard Layer issued by the Federal Emergency Management Agency. The project site is not shown in a dam inundation area on dam inundation maps from the California Office of Emergency Services.

A seiche is a surface wave created when an inland water body is shaken, usually by an earthquake. There are no inland water bodies close enough to the project site to pose a flood hazard to the site due to a seiche.

A tsunami is a sea wave caused by a sudden displacement of the ocean floor, most often due to earthquakes. The project site is not mapped in a tsunami flood zone on Tsunami Inundation Maps issued by the California Geological Survey.

A mudflow is a landslide composed of saturated rock debris and soil with a consistency of wet cement. There are no slopes on or near the site that could generate a mudflow or debris flow. No impacts would occur.

References

California Geological Survey (CGS). 2016, November 28. Tsunami Inundation Zones. http://www.arcgis.com/home/webmap/viewer.html?useExisting=1&layers=4d56b41ba6c64d538ec3a91d40078dff.

Department of Water Resources (DWR). 2016, November 23. Groundwater Information Center Map Interactive Map Application. https://gis.water.ca.gov/app/gicima/.

Federal Emergency Management Agency (FEMA). 2016, November 28. Flood Map Service Center. https://msc.fema.gov/portal.

Los Angeles County Department of Public Works (LACDPW). 2016, November 23. Los Angeles County Storm Drain System. http://dpw.lacounty.gov/fcd/stormdrain/index.cfm.

Los Angeles County Department of Public Works (LACDPW). 2014, February. Low-Impact Development Standards Manual. https://dpw.lacounty.gov/ldd/lib/fp/Hydrology/Low%20Impact%20Development%20Standards%20Manual.pdf.

State Water Resources Control Board (SWRCB). 2016, May 5. Impaired Water Bodies. http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2012.shtml.

State Water Resources Control Board (SWRCB).2016, November 28. California's Areas of Special Biological Significance: Map. http://www.swrcb.ca.gov/water_issues/programs/ocean/asbs_map.shtml#mapTab.

11. LAND USE AND PLANNING

Would the project:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Physically divide an established community?	☐	☐	☐	☒
b) Be inconsistent with the applicable County plans for the subject property including, but not limited to, the General Plan, specific plans, local coastal plans, area plans, and community/neighborhood plans?	☒	☐	☐	☐
c) Be inconsistent with the County zoning ordinance as applicable to the subject property?	☐	☐	☒	☐
d) Conflict with Hillside Management Area Ordinance, Significant Ecological Areas Ordinance, or other applicable land use criteria?	☐	☐	☐	☒

Division of an Established Community (a)

No Impact. The project site and surrounding areas are very nearly entirely built out with urban land uses, and Specific Plan implementation would not physically divide an established community. No impact would occur.

Land Use Regulations (b)

Potentially Significant Impact. The Specific Plan would replace the existing zoning and General Plan land use designations for the project site with a new set of zoning districts. Specific Plan consistency with existing County and regional plans will be assessed in the EIR.

Zoning **(c)**

Less Than Significant Impact. Upon approval of the Specific Plan by Los Angeles County, land uses that would be developed or redeveloped pursuant to the Specific Plan would be consistent with the proposed zoning designations. Less than significant impact would occur.

Hillside Management Areas and Significant Ecological Areas **(d)**

No impact. Hillside Management Areas (HMAs) have natural slopes with grades of 25 percent or greater. The project site is nearly flat, and there are no HMAs onsite; no impact would occur.

There are no Significant Ecological Areas on or near the project site, and no impact would occur.

12. MINERAL RESOURCES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☒	☐

Less Than Significant Impact. Based on a review of the *Generalized Mineral Land Classification Map of Los Angeles County – South Half* issued by the California Geological Survey, the project site is in Mineral Resource Zone 1, meaning that adequate information indicates that no significant mineral deposits are present, or that there is little likelihood for their presence. No mining sites on or near the project site are identified in the Los Angeles County General Plan. No mines are mapped in or near West Carson on the Office of Mine Reclamation *Mines On Line* map. In addition, the project site is almost entirely built out with land uses incompatible with mining. No significant impacts would occur.

References

California Geological Survey (CGS). 1994a. Generalized Mineral Land Classification Map of Los Angeles County: South Half. Open File Report 94-14, Plate 1B. ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/OFR_94-14/OFR_94-14_Plate1B.pdf.

Office of Mine Reclamation (OMR). 2016, November 29. Mines Online. http://maps.conservation.ca.gov/mol/mol-app.html.

13. NOISE

Would the project result in:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Exposure of persons to, or generation of, noise levels in excess of standards established in the County General Plan or noise ordinance (Los Angeles County Code, Title 12, Chapter 12.08), or applicable standards of other agencies?	☒	☐	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☒	☐	☐	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project, including noise from parking areas?	☒	☐	☐	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project, including noise from amplified sound systems?	☒	☐	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

a) Exposure of persons to or generation of noise levels in excess of standards established in the County General Plan or noise ordinance (Los Angeles County Code, Title 12, Chapter 12.08), or applicable standards of other agencies?

Potentially Significant Impact. Implementation of the project would have the potential to increase noise levels in the vicinity of the project site due to vehicle trips that would be generated by the additional development; onsite operational activities; and stationary sources, including mechanical systems. The EIR will evaluate the existing noise environment and the potential for project-generated noise to substantially increase existing noise levels at surrounding land uses. The EIR will assess project-related noise with respect to applicable noise standards, and mitigation measures will be recommended if necessary.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Potentially Significant Impact. Groundborne vibration or noise would primarily be associated with construction and demolition activities associated with future development projects that would be accommodated by the Specific Plan. Temporary increased levels of vibration resulting from construction and demolition activities could impact vibration-sensitive land uses surrounding the project site. This topic will be addressed in the EIR, and mitigation measures will be identified as necessary.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Potentially Significant Impact. Future development that would be accommodated by the Specific Plan would result in new sources of noise in the project area, primarily from project-related traffic. The EIR will evaluate the potential for noise generated by the Specific Plan's land uses to substantially increase existing noise levels in the project vicinity. Mitigation measures will be identified as necessary.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Potentially Significant Impact. Project-related demolition and construction activities could substantially increase noise levels, affecting off-site sensitive receptors near the project site. Impacts associated with these temporary noise increases during construction activities will be analyzed further in the EIR. Mitigation measures will be recommended as needed.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less than Significant Impact. The project site is not within an airport land use plan or within two miles of a public-use airport. The nearest public use airport to the project site is Zamperini Field Airport, approximately 3.2 miles to the southwest. Other nearby airports include the Compton / Woodley Airport (5.2 miles to the northwest), Hawthorne Municipal Airport (7.0 miles to the northwest), Long Beach Airport (8.1 miles to the east), and Los Angeles International Airport (10.4 miles to the northwest), according to Airnav.com. The proposed project would not expose people to excessive noise levels from aircraft noise, and impacts would be less than significant.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Less than Significant Impact. The nearest heliports to the project site are the Carson Sheriff Station Heliport, approximately 1.9 miles to the east, and the Toyota Helistop 2.2 miles to the northwest. Additionally, the Goodyear Blimp Base lies 2.1 miles to the northeast (Airnav.com 2016). Helicopter takeoffs and landings at these heliports are sporadic and infrequent. There are no private airports within the vicinity of the project site. Therefore, development that would be accommodated by the Specific Plan would not expose people working or living onsite to excessive noise levels from aircraft noise at private heliports or airports, and impacts would be less than significant.

References

Airnav.com. 2016, December 2. Airport Information. http://www.airnav.com/airports/.

14. POPULATION AND HOUSING

Would the project:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☒	☐	☐	☐
b) Displace substantial numbers of existing housing, especially affordable housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐
d) Cumulatively exceed official regional or local population projections?	☒	☐	☐	☐

Population Growth (a, d)

Potentially Significant Impact. There are 1,283 residential units and about 1.7 million square feet of nonresidential land uses onsite. Specific Plan buildout would involve development of net increases of up to 2,271 residential units and 2.9 million square feet of nonresidential land uses. Direct population growth impacts would be potentially significant. Project impacts on population, housing, and employment will be compared to corresponding regional projections in the EIR.

Displacement of Housing or Residents (b, c)

Less Than Significant Impact. Specific Plan implementation would change zoning and General Plan land use designations onsite and would change the number of residential units permitted in each proposed zoning designation. The numbers of single-family residential units permitted in three proposed zoning districts would decline by a total of 111 units compared to existing numbers of units: 19 units in the West Carson Residential 1 District; 41 in the West Carson Residential 3 District; and 51 in the West Carson Residential 4 District. In addition, the number of multifamily units permitted in the West Carson Residential 1 District would decline by 31 units compared to the current number of units (see Table 3). Thus, up to 142 units could be removed by Specific Plan buildout. However, the Specific Plan overall would permit development of a net increase of up to 2,271 residential units – that is, about 17 times the number of units that might be removed. Thus, displacement of housing and residents is expected to be a less than significant impact.

15. PUBLIC SERVICES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Would the project create capacity or service level problems, or result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☒	☐	☐	☐
Sheriff protection?	☒	☐	☐	☐
Schools?	☒	☐	☐	☐
Parks?	☒	☐	☐	☐
Libraries?	☒	☐	☐	☐
Other public facilities?	☐	☐	☐	☒

The following public service providers serve the project site:

- Fire Protection: Los Angeles County Fire Department
- Sheriff Protection: Los Angeles County Sheriff's Department
- Schools: Los Angeles Unified School District
- Parks (Maintenance and Recreation Services: County of Los Angeles Department of Parks and Recreation)
- Libraries: County of Los Angeles Public Library
- Los Angeles County Health Services: Harbor-UCLA Medical Center

Specific Plan buildout would involve development of net increases of up to 2,271 residential units and 2.9 million square feet of nonresidential land uses.

Fire and Police Protection

Potentially Significant Impact. Demands for fire protection and police protection are dependent on population and total development intensity within the pertinent agencies' service areas. Specific Plan implementation would increase demands for fire protection and police protection; these impacts would be potentially significant. These topics will be addressed in the EIR. The Los Angeles County Fire Department and Los Angeles County Sheriff's Department will be consulted regarding existing firefighting and law enforcement resources available onsite, and demands for such services that would be generated by Specific Plan buildout.

Schools, Parks, and Libraries

Potentially Significant Impact. Demands for schools, parks and libraries are dependent on population within the relevant agencies' service areas. The Specific Plan designates sites for several potential pocket parks. Specific Plan buildout would increase demands for all three of these services, and these impacts would be potentially significant. These impacts will be addressed in the EIR. The Los Angeles Unified School District, Los Angeles County Department of Parks and Recreation, and Los Angeles County Public Library will be consulted with respect to resources available to serve the project site, and demands for these services that would be generated by Specific Plan buildout.

Health Care Facilities

No Impact. Harbor-UCLA Medical Center is one of five Level 1 Trauma Centers in Los Angeles County. The Specific Plan would permit development of a net increase of nearly 1.2 million square feet in the proposed Harbor-UCLA Medical Zone. Specific Plan buildout would have a favorable impact on health care facilities, and no adverse impact would occur.

16. RECREATION

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☒	☐	☐	☐
b) Does the project include neighborhood and regional parks or other recreational facilities or require the construction or expansion of such facilities which might have an adverse physical effect on the environment?	☒	☐	☐	☐
c) Would the project interfere with regional open space connectivity?	☐	☐	☐	☒

There are no existing parks onsite.

Demands for Parkland (a, b)

Potentially Significant Impact. The proposed Specific Plan includes sites for several potential pocket parks. Project development would involve construction of up to 2,148 additional residential units onsite and thus would increase demand for parks on and near the site and could increase physical deterioration of parks in surrounding communities. This impact would be potentially significant. The EIR will inventory of existing park facilities near the project site; estimate project-generated demands for parkland acreage; and describe County requirements for dedication of parkland and/or payment of fees in lieu of parkland dedication.

Regional Open Space Connectivity (c)

No Impact. Project implementation would not affect regional open space connectivity; the nearest regional park to the project site is Ken Malloy Harbor Regional Park about 2.3 miles to the south operated by the City of Los Angeles Department of Recreation and Parks. This impact would be less than significant and no additional study is required.

17. TRANSPORTATION/TRAFFIC

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☒	☐	☐	☐
b) Conflict with an applicable congestion management program (CMP), including, but not limited to, level of service standards and travel demand measures, or other standards established by the CMP for designated roads or highways?	☒	☐	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☒	☐	☐	☐
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐

Circulation System Performance (a)

Potentially Significant Impact. Existing arterial roadways in and next to the project site are Normandie Avenue and Vermont Avenue (north-south) and Torrance Boulevard, Carson Street, and 223rd Street (east-west). The Interstate 110 freeway and the Harbor Transitway Carson Station are next to the east site boundary. Vermont Avenue and Carson Street are classified as Major Highways, and Torrance Boulevard, Normandie Avenue, and 223rd Street as Secondary Highways, on the Los Angeles County Highway Plan.

The proposed project is a Transit Oriented District Specific Plan. The project proposes improvements to the street network including striped (Class II) bicycle lanes and wider sidewalks on the above-mentioned arterial roadways.

Specific Plan buildout would generate increased trips through development of net increases of up to 2,271 residential units and 2.9 million square feet of nonresidential land uses.

Project impacts on the performance of roadways in and near the project site would be potentially significant. A traffic impact analysis for the proposed Specific Plan will be prepared and will be incorporated in the EIR.

Congestion Management Program (b)

Potentially Significant Impact. The I-110 freeway is an element of the Highway and Roadway System of the Congestion Management Program (CMP) for Los Angeles County issued by the Metropolitan Transportation Authority of Los Angeles County in 2010. The next nearest element of such System to the project site is Western Avenue, State Route 213, about 0.5 mile to the west. Project traffic impacts on CMP roadways would be potentially significant. The traffic impact analysis to be conducted for the proposed project will address impacts on CMP roadways.

Air Traffic Patterns (c)

Potentially Significant Impact. There is a heliport onsite on the Harbor UCLA Medical Center campus. Project buildout could involve development of higher buildings near the heliport that might obstruct air navigation to and from the heliport. This impact would be potentially significant. The EIR will identify permitted building heights under the Specific Plan and will assess whether such buildings could interfere with air navigation to and from the heliport.

Design Hazards (d)

Less Than Significant Impact. Roadway improvements, and intersections of driveways with public roadways, constructed as part of the Specific Plan would comply with applicable Standard Plans issued by the County of Los Angeles Department of Public Works. This impact would be less than significant, and no additional analysis is required.

Emergency Access (e)

Less Than Significant Impact. Design and construction of projects pursuant to the Specific Plan would comply with requirements of the Los Angeles County Public Works Department and the Los Angeles County Fire Department respecting maintaining roadway access to developed properties. Impacts would be less than significant, and this impact will not be addressed in the EIR.

Transit, Bicycle, and Pedestrian Facilities (f)

Less Than Significant Impact. The proposed project is a Transit Oriented District Specific Plan. The project proposes improvements to the street network including striped (Class II) bicycle lanes and wider sidewalks on several arterial roadways onsite. The project also proposes relocation of the Harbor Transitway Carson Station to north of the Carson Street overpass; the new location is intended to afford greater perceived safety for transit users. Impacts would be less than significant and this topic will not be addressed in the EIR.

19. UTILITIES AND SERVICE SYSTEMS

Would the project:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Exceed wastewater treatment requirements of either the Los Angeles or Lahontan Regional Water Quality Control Boards?	☒	☐	☐	☐
b) Create water or wastewater system capacity problems, or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☒	☐	☐	☐
c) Create drainage system capacity problems, or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☒	☐	☐	☐
d) Have sufficient reliable water supplies available to serve the project demands from existing entitlements and resources, considering existing and projected water demands from other land uses?	☒	☐	☐	☐
e) Create energy utility (electricity, natural gas, propane) system capacity problems, or result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☒	☐	☐	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☒	☐	☐	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☒	☐	☐	☐

Wastewater (a, b, e)

Potentially Significant Impact. The above-mentioned LID Standards Manual was issued pursuant to the Municipal Wastewater ("MS4") Permit for Discharges Within the Coastal Watersheds of Los Angeles County issued by the Los Angeles Regional Water Quality Control Board in 2012. Compliance of projects developed under the Specific Plan with the LID Standards Manual will be discussed in the *Hydrology and Water Quality* section of the EIR.

The Los Angeles County Sanitation Districts provides wastewater treatment for the project site. Specific Plan buildout would increase wastewater generation from the site through net increases of up to 2,271 residential units and 2.9 million square feet of nonresidential land uses. This impact would be potentially significant. The EIR will estimate the net increase in wastewater generation due to Specific Plan buildout and will assess whether existing wastewater treatment capacity serving West Carson could accommodate such net increase.

An infrastructure study to be prepared for the Specific Plan will describe existing sewer facilities and capacities serving the project site; estimate sewer demands that would be generated by Specific Plan buildout; and identify any needed sewer upgrades to accommodate wastewater generation at buildout.

Water (b, d)

Potentially Significant Impact. The California Water Service Company Dominguez District (CWSC) provides water to the project site. Project buildout would involve development of net increases of up to 2,271 residential units and 2.9 million square feet of nonresidential land uses onsite; and would thus increase water demands onsite. This impact would be potentially significant. The EIR will describe existing and forecast CWSC water supplies; estimate project water demands at Specific Plan buildout; and determine whether existing and forecast water supplies could meet project water demands.

An infrastructure study to be prepared for the Specific Plan will describe existing water mains serving the project site; estimate water demands that would be generated by Specific Plan buildout; and identify any needed water main upgrades to accommodate wastewater generation at buildout.

Drainage Facilities (c)

Potentially Significant Impact. Developments conforming to the proposed Specific Plan would change the amounts of impervious areas on their project sites and thus could change the amounts of runoff from their sites. This impact would be potentially significant. The EIR will describe existing drainage facilities serving the project site and low-impact development requirements that some projects developed under the Specific Plan would

Solid Waste Disposal and Recycling (f, g)

Potentially Significant Impact. Cal Met provides solid waste collection in West Carson. Solid waste from West Carson is taken to Paramount Resource Recycling in the City of Paramount; the Carson Transfer Station and Material Recovery Facility in the City of Carson; and the Southeast Resource Recovery Facility (SERRF) on Terminal Island in the City of Long Beach (Acosta 2016). At the SERRF recyclable materials are removed from the waste stream and then the remainder of the waste stream is burned; ash is used for landfill road base material. (LACSD 2016).

At Paramount Resource Recycling and the Carson Transfer Station recyclable material is removed from the waste stream; the balance of the waste stream is transported either to a landfill or to a transformation facility such as the SERRF. Solid waste from Paramount Resource Recycling and the Carson Transfer Station is taken to the Olinda-Alpha Sanitary Landfill near the City of Brea in Orange County and to the El Sobrante Landfill near the City of Corona in Riverside County (Acosta 2016).

Project buildout would generate increased solid waste through development of net increases of up to 2,271 residential units and 2.9 million square feet of nonresidential land uses. This impact would be potentially significant. The EIR will assess whether landfills accepting solid waste from West Carson have sufficient existing capacity to accommodate the estimated net increase in solid waste generation due to Specific Plan buildout.

References

Acosta, Mario (Route Supervisor). 2016, December 6. Phone conversation. CalMet Services.

California Water Service Company, Dominguez District (CWSC). 2016, June. 2015 Urban Water Management Plan. https://wuedata.water.ca.gov/public/uwmp_attachments/2878492057/01%5FDOM%5F2015%5FUWMP%5FFINAL%2Epdf.

Los Angeles County Sanitation Districts (LACSD). 2016, December 12. Southeast Resource Recovery Facility (SERRF) Brochure. http://www.lacsd.org/solidwaste/swfacilities/rtefac/serrf/brochure.asp.

20. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐
b) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	☒	☐	☐	☐
c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☒	☐	☐	☐
d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

Environmental Impacts

Potentially Significant Impact. Potentially significant impacts are identified in this Initial Study to aesthetics, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, public services, recreation, transportation and traffic, and utilities and service systems.

Specific Plan implementation could eliminate important examples of the major periods of California history or prehistory. Impacts to historical, archaeological, and paleontological resources will be addressed in the EIR.

Adverse Impacts to Long-Term Environmental Goals

Potentially Significant Impact. The upcoming EIR will address both short-term and long-term environmental goals.

Cumulative Impacts

Potentially Significant Impact. Cumulative impacts to each of the above-mentioned resources are considered potentially significant and will be assessed in the EIR.

Adverse Effects on Human Beings

Potentially Significant Impact. Significant impacts to any of the resources mentioned above would be substantial adverse effects on human beings. Impacts to each of the above-listed resources will be addressed in the EIR.

Appendix B NOP Comments

Appendices

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STATE OF CALIFORNIA EDMUND G. BROWN JR., *Governor*

PUBLIC UTILITIES COMMISSION
320 WEST 4TH STREET, SUITE 500
LOS ANGELES, CA 90013

January 9, 2017

Maya Saraf
Los Angeles County
320 West Temple Street, Room 1356
Los Angeles, CA 90012

Dear Maya:

Re: SCH 2017011010 LAC West Carson Transit Oriented District Specific Plan - NOP

The California Public Utilities Commission (Commission) has jurisdiction over the safety of highway-rail crossings (crossings) in California. The California Public Utilities Code requires Commission approval for the construction or alteration of crossings and grants the Commission exclusive power on the design, alteration, and closure of crossings in California. The Commission's Rail Crossings and Engineering Branch (RCEB) has received the *Notice of Preparation (NOP)* from the State Clearinghouse for the proposed Los Angeles County (County) West Carson Transit Oriented District Specific Plan.

According to the NOP, the project area includes active railroad tracks. RCEB recommends that the County add language to the Specific Plan so that any future development adjacent to or near the rail right-of-way (ROW) is planned with the safety of the rail corridor in mind. New developments may increase traffic volumes not only on streets and at intersections, but also at at-grade crossings. This includes considering pedestrian circulation patterns or destinations with respect to railroad ROW and compliance with the Americans with Disabilities Act. Mitigation measures to consider include the planning for grade separations for major thoroughfares, improvements to existing at-grade crossings due to increase in traffic volumes, and continuous vandal resistant fencing or other appropriate barriers to prevent trespassers onto the railroad ROW.

If you have any questions in this matter, please contact me at (213) 576-7076, ykc@cpuc.ca.gov.

Sincerely,

Ken Chiang, P.E.
Utilities Engineer
Rail Crossings and Engineering Branch
Safety and Enforcement Division

C: State Clearinghouse

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710
Fax (916) 373-5471
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC



January 10, 2016

Maya Saraf
Los Angeles County
320 West Temple Street, Room 1356
Los Angeles, CA 90012

sent via e-mail:
msaraf@planning.lacounty.gov

RE: SCH# 2017011010; West Carson Transit Oriented District Specific Plan Project, Notice of Preparation for Draft Environmental Impact Report, Los Angeles County, California

Dear Ms. Saraf:

The Native American Heritage Commission has received the Notice of Preparation (NOP) for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et seq.), specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines Section 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared. (Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd.(a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a **separate category of cultural resources**, "tribal cultural resources" (Pub. Resources Code § 21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment (Pub. Resources Code § 21084.2). Please reference California Natural Resources Agency (2016) "Final Text for tribal cultural resources update to Appendix G: Environmental Checklist Form," http://resources.ca.gov/ceqa/docs/ab52/Clean-final-AB-52-App-G-text-Submitted.pdf. Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code § 21084.3 (a)). **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. § 800 et seq.) may also apply.

The NAHC recommends **lead agencies consult with all California Native American tribes** that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments. **Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws**.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a **lead agency** shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
    - **a.** A brief description of the project.
    - **b.** The lead agency contact information.
    - **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code § 21080.3.1 (d)).

d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code § 21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A **lead agency** shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code § 21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or environmental impact report. (Pub. Resources Code § 21080.3.1(b)).
   a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18). (Pub. Resources Code § 21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
   a. Alternatives to the project.
   b. Recommended mitigation measures.
   c. Significant effects. (Pub. Resources Code § 21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
   a. Type of environmental review necessary.
   b. Significance of the tribal cultural resources.
   c. Significance of the project's impacts on tribal cultural resources.
   d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code § 21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code § 21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
   a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
   b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code § 21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
   a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
   b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code § 21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code § 21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code section 21084.3 (b). (Pub. Resources Code § 21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:
    I. Planning and construction to avoid the resources and protect the cultural and natural context.
    II. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
    i. Protecting the cultural character and integrity of the resource.
    ii. Protecting the traditional use of the resource.
    iii. Protecting the confidentiality of the resource.
c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
d. Protecting the resource. (Pub. Resource Code § 21084.3 (b)).
e. Please note that a federally recognized California Native American tribe or a nonfederally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code § 815.3 (c)).
f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code § 5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An environmental impact report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
    a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
    b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
    c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code § 21082.3 (d)).

    This process should be documented in the Cultural Resources section of your environmental document.

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires **local governments** to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code § 65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code § 65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code section 65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction. (Gov. Code § 65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason,

we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
   - **a.** If part or all of the APE has been previously surveyed for cultural resources.
   - **b.** If any known cultural resources have been already been recorded on or adjacent to the APE.
   - **c.** If the probability is low, moderate, or high that cultural resources are located in the APE.
   - **d.** If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
   - **a.** The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
   - **b.** The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   - **a.** A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   - **b.** A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   - **a.** Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   - **b.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   - **c.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

Please contact me if you need any additional information at gayle.totton@nahc.ca.gov.

Sincerely,



Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

cc: State Clearinghouse

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

January 20, 2017

msaraf@planning.lacounty.gov
Maya Saraf, Project Planner
County of Los Angeles, Department of Regional Planning
Community Studies West Section
320 West Temple Street, Room 1356
Los Angeles, CA 90012

Notice of Preparation of a CEQA Document for the
West Carson Transit Oriented District Specific Plan Project (Plan No. RPPL2015000153)

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The SCAQMD staff's comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the Draft EIR. Please send the SCAQMD a copy of the Draft EIR upon its completion. Note that copies of the Draft EIR that are submitted to the State Clearinghouse are not forwarded to the SCAQMD. Please forward a copy of the Draft EIR directly to SCAQMD at the address in our letterhead. **In addition, please send with the Draft EIR all appendices or technical documents related to the air quality and greenhouse gas analyses and electronic versions of all air quality modeling and health risk assessment files. These include original emission calculation spreadsheets and modeling files (not Adobe PDF files). Without all files and supporting air quality documentation, the SCAQMD will be unable to complete its review of the air quality analysis in a timely manner. Any delays in providing all supporting air quality documentation will require additional time for review beyond the end of the comment period.**

Air Quality Analysis

The SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The SCAQMD recommends that the lead agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the SCAQMD's Subscription Services Department by calling (909) 396-3720. More recent guidance developed since this Handbook was published is also available on SCAQMD's website here: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993). SCAQMD staff also recommends that the Lead agency use the CalEEMod land use emissions software. This software has recently been updated to incorporate up-to-date state and locally approved emission factors and methodologies for estimating pollutant emissions from typical land use development. CalEEMod is the only software model maintained by the California Air Pollution Control Officers Association (CAPCOA) and replaces the now outdated URBEMIS. This model is available free of charge at: www.caleemod.com.

The lead agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the analysis.

The SCAQMD has also developed both regional and localized significance thresholds. The SCAQMD staff requests that the lead agency quantify criteria pollutant emissions and compare the results to the recommended regional significance thresholds found here: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf. In addition to analyzing regional air quality impacts, the SCAQMD staff recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LSTs can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a Draft EIR document. Therefore, when preparing the air quality analysis for the proposed project, it is recommended that the lead agency perform a localized analysis by either using the LSTs developed by the SCAQMD or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds.

In the event that the proposed project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the lead agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("*Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*") can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis. An analysis of all toxic air contaminant impacts due to the use of equipment potentially generating such air pollutants should also be included.

In addition, guidance on siting incompatible land uses (such as placing homes near freeways) can be found in the California Air Resources Board's *Air Quality and Land Use Handbook: A Community Perspective*, which can be found at the following internet address: http://www.arb.ca.gov/ch/handbook.pdf. CARB's Land Use Handbook is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process.

Finally, should the proposed project include equipment that generates or controls air contaminants, a permit may be required and the SCAQMD should be listed as a responsible agency and consulted. The assumptions in the submitted Draft EIR would also be the basis for permit conditions and limits. Permit questions can be directed to the SCAQMD Permit Services staff at (909) 396-3385, who can provide further assistance.

Project Specific Comments - Proximity to SCAQMD Permitted Sources or Warehouse Sites

If the proposed project will expose future sensitive receptors to potential adverse health impacts from carcinogenic emissions generated by stationary or mobile sources, SCAQMD staff recommends that a health risk assessment be conducted to include SCAQMD permitted sources (e.g., gasoline storage and dispensing equipment, dry cleaning operations, auto-body shops with spray booth activity, etc.) emitting toxic air contaminants (TACs) within one quarter mile of the project site or all warehouse sites within 1,000 feet that includes truck activity that exceeds 100 trucks per day, or where more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU units exceed 300 hours per week. Risk assessment guidance resources for stationary permit and mobile sources are located at the following links on the SCAQMD website. Stationary permit sources guidance: http://www.aqmd.gov/home/permits/risk-assessment. Mobile source guidance that include diesel trucks, locomotive engines, etc., can be located at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis . To determine SCAQMD permitted facility equipment near the proposed project site, refer to the SCAQMD website link for the Facility INformation Detail (FIND) data base under Business Tools located at: http://www.aqmd.gov/home/tools/business .

Project Specific Comments – Sensitive Receptors Near Freeways

While the health science behind recommendations against placing sensitive receptors close to high volume urban roads and freeways is clear, SCAQMD staff recognizes the many factors lead agencies must consider when siting uses such as new housing. The lead agency should consider the limitations of enhanced filtration (HVAC systems with enhanced Maximum Efficiency Reporting Value – MERV filters) for the project, especially from traffic on high volume urban roadways or a freeway. For example, these filters have no ability to filter out any toxic gasses from vehicle exhaust; have higher long-term costs related to the required regular maintenance of the filters; and it is assumed that the HVAC units and the filters operate 100 percent of the time while residents are indoors. It is critical that any proposed mitigation must be carefully evaluated prior to determining if the health risks would be brought below CEQA significance thresholds. The presumed effectiveness and feasibility of proposed mitigation should therefore be evaluated and the Draft EIR document should also quantitatively demonstrate with substantial evidence the effectiveness of any proposed mitigation on any potentially significant impact.

Mitigation Measures

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate these impacts. Pursuant to CEQA Guidelines §15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed. Mitigation Measure resources are available on the SCAQMD CEQA Air Quality Handbook website: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook

Data Sources

SCAQMD rules and relevant air quality reports and data are available by calling the SCAQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available via the SCAQMD's webpage (http://www.aqmd.gov).

The SCAQMD staff is available to work with the lead agency to ensure that project emissions are accurately evaluated and mitigated where feasible. If you have any questions regarding this letter, please contact Gordon Mize, Air Quality Specialist by e-mail at gmize@aqmd.gov or by phone at (909) 396-3302.

Sincerely,

Jillian Wong

Jillian Wong, Ph.D.
Planning and Rules Manager
Planning, Rule Development & Area Sources

JW:GM

LAC170112-13
Control Number

COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294

DARYL L. OSBY
FIRE CHIEF
FORESTER & FIRE WARDEN

February 1, 2017

Maya Saraf, Regional Planning Assistant
Department of Regional Planning
Community Studies West Section
320 West Temple Street
Los Angeles, CA 90012

Dear Ms. Saraf:

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT AND PUBLIC SCOPING MEETING, "WEST CARSON TRANSIT ORIENTED DISTRICT SPECIFIC PLAN," WOULD PERMIT DEVELOPMENT POTENTIAL OF UP TO 3,575 RESIDENTIAL UNITS AND THE RELOCATION OF THE CARSON STATION OF THE METRO SILVER LINE EXPRESS BUS LINE TO A NEW LOCATION ON THE I-110 IN EFFORT TO INCREASE USAGE OF THE CARSON STATION, IT ALSO INCLUDES 200,000 SQUARE FEET OF NEW RESEARCH SPACE FOR BIOMEDICAL RESEARCH AT THE HARBOR-UCLA CAMPUS. LOCATED IN THE UNINCORPORATED COMMUNITY OF WEST CARSON, FFER 201700003

The Notice of Preparation of a Draft Environmental Impact Report has been reviewed by the Planning Division, Land Development Unit, Forestry Division, and Health Hazardous Materials Division of the County of Los Angeles Fire Department.

The following are their comments:

PLANNING DIVISION:

The City of Carson and the neighboring unincorporated area have experienced substantial growth in recent years. Several significant development projects and planned projects in the city coupled with the growth have created a need for an additional fire protection facility on the west side of the city. This project creates a

significant impact; it would increase service demands on existing Fire Department resources already burdened by incremental growth. An additional fire station is needed in the west side of the city in order to mitigate the impact new development will have on fire protection and emergency medical services. We will reserve further comments for the Draft EIR.

LAND DEVELOPMENT UNIT:

1. Development within this area must comply with all applicable code and ordinance requirements for construction, access, water mains, fire flows, and fire hydrants.

2. Development in this area may require fire flows up to 8,000 gallons per minute at 20 per square inch residual pressure for up to a four-hour duration. Final fire flows will be based on the size of buildings, the installation of an automatic fire sprinkler system, and the type(s) of construction used.

3. Fire hydrant spacing shall be 300 feet and shall meet the following requirements:

    a) No portion of lot frontage shall be more than 200 feet via vehicular access from a public fire hydrant.

    b) No portion of a building shall exceed 400 feet via vehicular access from a properly spaced public fire hydrant.

    c) Additional hydrants will be required if hydrant spacing exceeds specified distances.

    d) When cul-de-sac depth exceeds 200 feet on a commercial street, hydrants shall be required at the corner and mid-block.

    e) A cul-de-sac shall not be more than 500 feet in length when serving land zoned for commercial use.

For any questions regarding the report please contact FPEA Wally Collins at (323) 890-4243 or at Wally.Collins@fire.lacounty.gov.

FORESTRY DIVISION – OTHER ENVIRONMENTAL CONCERNS:

The statutory responsibilities of the County of Los Angeles Fire Department's Forestry Division include erosion control, watershed management, rare and endangered species,

vegetation, fuel modification for Very High Fire Hazard Severity Zones or Fire Zone 4, archeological and cultural resources, and the County Oak Tree Ordinance.

HEALTH HAZARDOUS MATERIALS DIVISION:

The Health Hazardous Materials Division of the Los Angeles County Fire Department observed that there were several environmentally impacted sites within the project area that are currently under the jurisdiction the Department of Toxic Substances Control and the Los Angeles Regional Water Quality Control Board. These agencies would be involved with the assessment and cleanup of the contaminated sites during project developments.

If you have any additional questions, please contact this office at (323) 890-4330.

Very truly yours,

Frank Vidales bj mcf

FRANK VIDALES, CHIEF, FORESTRY DIVISION
PREVENTION SERVICES BUREAU

FV:ac

WATER RECLAMATION
SOLID WASTE MANAGEMENT

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
Telephone: (562) 699-7411, FAX: (562) 699-5422
www.lacsd.org

GRACE ROBINSON HYDE
Chief Engineer and General Manager

February 9, 2017

Ref. Doc. No.: 4013008

Ms. Maya Saraf
Community Studies West Section
County of Los Angeles
Department of Regional Planning
320 West Temple Street
Los Angeles, CA 90012

Dear Ms. Saraf:

Response to NOP for
the West Carson Transit Oriented District Specific Plan

The Sanitation Districts of Los Angeles County (Districts) received a Notice of Preparation of a Draft Environmental Impact Report (NOP) for the subject project on January 12, 2017. The proposed project is located within the jurisdictional boundary of District No. 8. We offer the following comments regarding sewerage service:

1. The Districts own, operate, and maintain the large trunk sewers that form the backbone of the regional wastewater conveyance system. Local collector and/or lateral sewer lines are the responsibility of the jurisdiction in which they are located. As such, the Districts cannot comment on any deficiencies in the sewerage system in the West Carson Transit Oriented District Specific Plan area (TOD) except to state that presently no deficiencies exist in Districts' facilities that serve the TOD. For information on deficiencies within the TOD's sewerage system, please contact the Los Angeles County Department of Public Works.

2. The Districts should review individual developments within the TOD in order to determine whether or not sufficient trunk sewer capacity exists to serve each project and if Districts' facilities will be affected by the project.

3. The wastewater generated by the proposed project area will be treated at the Joint Water Pollution Control Plant located in the City of Carson, which has a capacity of 400 million gallons per day (mgd) and currently processes an average flow of 254.1 mgd.

4. The expected increase in average wastewater flow from the proposed project area, described in the document as a potential of up to 3,575 residential units and 4.6 million square feet of non-residential land use, is 2,192,125 gallons per day. For a copy of the Districts' average wastewater generation factors, go to www.lacsd.org, Wastewater & Sewer Systems, click on Will Serve Program, and click on the Table 1, Loadings for Each Class of Land Use link.

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Recycled Paper

5. Availability of sewer capacity depends upon project size and timing of connection to the sewerage system. Because there are other proposed developments in the area, the availability of trunk sewer capacity should be verified as the project advances. Please submit a copy of the project's build-out schedule to the undersigned to ensure the project is considered when planning future sewerage system relief and replacement projects.

6. The Districts are empowered by the California Health and Safety Code to charge a fee for the privilege of connecting (directly or indirectly) to the Districts' Sewerage System for increasing the strength or quantity of wastewater attributable to a particular parcel or operation already connected. This connection fee is a capital facilities fee that is imposed in an amount sufficient to construct an incremental expansion of the Sewerage System to accommodate proposed projects. Payment of a connection fee will be required before a permit to connect to the sewer is issued. For more information and a copy of the Connection Fee Information Sheet, go to www.lacsd.org, Wastewater & Sewer Systems, click on Will Serve Program, and search for the appropriate link. In determining the impact to the Sewerage System and applicable connection fees, the Districts' Chief Engineer will determine the user category (e.g. Condominium, Single Family home, etc.) that best represents the actual or anticipated use of the parcel or facilities on the parcel. For more specific information regarding the connection fee application procedure and fees, please contact the Connection Fee Counter at (562) 908-4288, extension 2727.

7. In order for the Districts to conform to the requirements of the Federal Clean Air Act (CAA), the capacities of the Districts' wastewater treatment facilities are based on the regional growth forecast adopted by the Southern California Association of Governments (SCAG). Specific policies included in the development of the SCAG regional growth forecast are incorporated into clean air plans, which are prepared by the South Coast and Antelope Valley Air Quality Management Districts in order to improve air quality in the South Coast and Mojave Desert Air Basins as mandated by the CAA. All expansions of Districts' facilities must be sized and service phased in a manner that will be consistent with the SCAG regional growth forecast for the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The available capacity of the Districts' treatment facilities will, therefore, be limited to levels associated with the approved growth identified by SCAG. As such, this letter does not constitute a guarantee of wastewater service, but is to advise you that the Districts intend to provide this service up to the levels that are legally permitted and to inform you of the currently existing capacity and any proposed expansion of the Districts' facilities.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717.

Very truly yours,

Adriana Raza
Customer Service Specialist
Facilities Planning Department

AR:ar

cc: M. Sullivan
M. Tatalovich

DOC: #4040737.D08

State of California • Natural Resources Agency
Edmund G. Brown Jr., *Governor*
Department of Conservation
Division of Oil, Gas, and Geothermal Resources – District 1
5816 Corporate Avenue • Suite 100
Cypress, CA 90630
(714) 816-6847 • FAX (714) 816-6853

February 13, 2017

Ms. Maya Saraf
County of Los Angeles
Department of Regional Planning
Community Studies West Section
320 West Temple Street, Room 1356
Los Angeles, CA 90012
msaraf@planning.lacounty.gov

Dear Ms. Saraf:

NOP – NOTICE OF PREPARATION
WEST CARSON TRANSIT ORIENTED DISTRICT SPECIFIC PLAN
SCH: 2017011010

The Department of Conservation's Division of Oil, Gas, and Geothermal Resources (Division) has reviewed the above referenced project for impacts with Division jurisdictional authority. The Division supervises the drilling, maintenance, and plugging and abandonment of oil, gas, and geothermal wells in California. The Division offers the following comments for your consideration.

The project area is located in Los Angeles County and is not within an administrative oil and gas field boundary. Division records indicate that there are no known oil, gas, or geothermal wells located within the project boundary as identified in the application.

The scope and content of information that is germane to Division's responsibility are contained in Section 3000 et seq. of the Public Resources Code, and administrative regulations under Title 14, Division 2, Chapters 2, 3 and 4 of the California Code of Regulations.

If any wells, including any plugged, abandoned or unrecorded wells, are damaged or uncovered during excavation or grading, remedial plugging operations may be required. If such damage or discovery occurs, the Division's district office must be contacted to obtain information on the requirements and approval to perform remedial operations.

The possibility for future problems from oil and gas wells that have been plugged and abandoned, or reabandoned, to the Division's current specifications are remote. However, the Division recommends that a diligent effort be made to avoid building over any plugged and abandoned well.

To ensure proper review of this project, please contact our Construction Well Site Review Program for a well consultation. The Division has available an informational packet entitled, "Construction-Site Plan Review Program". This document is available on the Division's website at http://www.conservation.ca.gov/dog/for_operators/Pages/construction_site_review.aspx.

If you have any questions, please contact me at (714) 816-6847 or via email at Grace.Brandt@conservation.ca.gov.

Sincerely,

Grace P. Brandt
Associate Oil and Gas Engineer

cc: The State Clearinghouse in the Office of Planning and Research
Tim Shular, DOC OGER
Crina Chan, DOC OGER
Jan Perez, DOGGR CEQA Unit
Chris McCullough, Facilities and Environmental Supervisor
Environmental CEQA File

DEPARTMENT OF TRANSPORTATION
DISTRICT 7-OFFICE OF TRANSPORTATION PLANNING
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 897-9140
FAX (213) 897-1337
www.dot.ca.gov

Serious Drought.
Serious drought.
Help save water!

February 15, 2017

Ms. Maya Saraf
Los Angeles County
320 West Temple Street, Room #1356
Los Angeles, CA 90012

RE: West Carson TOD Specific Plan
Vic. LA-110 PM 7.34 to 6.53
LA-213 PM 8.442 to 7.49
LA-01 PM 12.51 to 12.17
LA-405 PM 13.86 to 13.32
SCH # 2017011010
GTS # LA-2017-00533AL-NOP

Dear Ms. Saraf:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The proposed project is a transit oriented district specific plan that would permit development potential of up to 3,575 residential units and about 4.6 million square feet of nonresidential and uses in the unincorporated community of West Carson. Any net traffic trips from the Specific Plan would contribute traffic impact to the State facilities.

This letter is a follow up to a phone conversation on February 15, 2017 between yourself and Mr. Alan Lin, Caltrans Project Coordinator. Both agencies agree that a Formal Scoping Meeting to discuss the preparation of the traffic analysis, potential traffic impacts, and proposed mitigation on the State facilities is necessary.

Senate Bill 743 (2013) mandated that CEQA review of transportation impacts of proposed development be modified by using Vehicle Miles Traveled (VMT) as the primary metric in identifying transportation impacts for all future development projects. However, the County may use the Level of Service (LOS) methodology until The Governor's Office of Planning and Research (OPR) complete its CEQA Guideline to implement SB743 (https://www.opr.ca.gov/s_sb743.php).

Caltrans is aware of challenges that the region faces in identifying viable solutions to alleviating congestion on State and Local facilities. With limited room to expand vehicular capacity, this development should incorporate multi-modal and complete streets transportation elements that will actively promote alternatives to car use and better manage existing parking assets. Prioritizing and allocating space to efficient modes of travel such as bicycling and public transit can allow streets to transport more people in a fixed amount of right-of-way.

Caltrans supports the implementation of complete streets and pedestrian safety measures such as road diets and other traffic calming measures. Please note the Federal Highway Administration (FHWA) recognizes the road diet treatment as a proven safety countermeasure, and the cost of a road diet can be significantly reduced if implemented in tandem with routine street resurfacing.

Caltrans understands that the current General Plan and new transportation performance measures and CEQA thresholds have not being updated to VMT (Vehicle Miles Traveled) at the time. Caltrans is concerned that when traffic generated by the project, along with cumulative traffic is expected to use an off-ramp that is operating at or near capacity, the additional traffic may potentially exceed the off-ramps capacity and back up onto the mainline freeway.

If the City is still using LOS methodology when conducting the traffic impact analysis, to assist Caltrans in evaluating the impacts of this project on State transportation facilities, the following comments should be considered and the project's traffic consultant should be referred to Caltrans' traffic study guide Website:

http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf

Listed below are some elements of what is generally expected in the traffic study:

1. Presentations of assumptions and methods used to develop trip generation, trip distribution, choice of travel mode, and assignments of trips to SR-01, SR-213, I-405, I-110, and all on/off ramps within the project vicinity including the following locations.

    - SB/NB I-110 on/off-ramps from/to W Torrance Blvd.
    - SB/NB I-110 on/off-ramps from/to W Carson St.
    - SB/NB I-110 on/off-ramps from/to W 223rd St.
    - SB/NB I-110 on/off-ramps from/to W Sepulveda Blvd.
    - WB/EB I-405 on/off-ramps at Normandie Ave.
    - SR-01 and Normandie Ave. and SR-01 and S Vermont Ave.
    - Intersections on SR-213 between I-405 to SR-01.

    The traffic consultant should work with Caltrans to identify and confirm study locations and freeway segments prior to the preparation of the traffic study. The traffic study should also analyze the storage for left-turn pocket at on-ramps when available.

    An off-ramp queuing analysis should be conducted utilizing the Highway Capacity Manual (HCM). The capacity of the off-ramp should be calculated by the actual length of the off-ramp between the terminuses to the gore point (25 feet per car preferred) with some safety factor or referenced to Highway Design Manual at 23' point (Figure 504.2A Single Lane Freeway Entrance) or other methods approved in advance by Caltrans. The existing queue length should be calculated from the traffic counts and the percent of truck assignments with an adequate passenger car equivalent factor. The analyzed result may need to be calibrated with actual signal timing when available. It is also recommended that the Lead Agency determine whether the existing, existing plus project, and project-related plus cumulative traffic are expected to cause long queues on the on and off-ramps. Please include mitigation measures if forecasted vehicle queues are expected to exceed available storage capacity with reasonable safety factor.

2. Project travel modeling should be consistent with other regional and local modeling forecasts and travel data. Caltrans uses the indices to verify the results and any differences or inconsistencies must be thoroughly explained. Please submit modeling assumptions for Caltrans review and comment.

3. Trip generation rates for the project should be based on the nationally recognized recommendations contained in "Trip Generation" manual, 9th edition, published by the Institute of Transportation Engineers (ITE).

4. Analysis of ADT, AM and PM peak-hour volumes for both the existing and future conditions in the affected area with and without project. Utilization of transit lines and vehicles, and of all facilities, should be realistically estimated. Future conditions should include build-out of all projects and any plan-horizon years.

5. The analysis should include existing traffic, traffic generated by the project, cumulative traffic generated from all specific approved developments in the area, and traffic growth other than from the project and developments.

6. A discussion of mitigation measures appropriate to alleviate anticipated traffic impacts should also be included. Any mitigation involving transit or Transportation Demand Management (TDM) should be justified and the results conservatively estimated.

7. A fair share contribution toward pre-established or future improvements on the State Highway System is considered acceptable mitigation. (Please see Appendix "B" of the Guide for more information). Please note that for purposes of determining project share of costs, the number of trips from the project on each traveling segment or element is estimated in the context of forecasted traffic volumes, which include build-out of all approved and not yet approved projects and other sources of growth.

Caltrans encourages the Lead Agency to work with neighboring developing cities such as, the City of Los Angeles, City of Carson, and the City of Torrance to resolve cumulative significant traffic impacts on the State facilities. A plan to work with the neighboring cities should be discussed in the Specific Plan or a new Resolution/Policy should be passed such as but not limit to the following suggested policy languages:

- The Lead Agency will work with neighboring cities to address cumulative significant traffic impact on freeway I-405, I-110, SR-213, and SR-01, and on/off ramps as a result of build out of the Specific Plan.

- The Lead Agency will continue to work with Caltrans to identify potential cumulative traffic impact and mitigation measures.

- The Lead Agency will form a fair share fee program working with neighboring cities to improve the State facilities.

- The Lead Agency's existing traffic impact fees will include any State facility improvement as part of the cumulative traffic impact. Procuring funds toward freeway segments, freeway interchanges, freeway on/off-ramps, as well as for bus and rail transit facilities will be in the goals of the Lead Agency.

Although we expect to receive the DEIR from the State Clearinghouse, if you would like to expedite the review process or receive early feedback, please feel free to send a copy of the DEIR directly to our office.

If you have any questions, please feel free to contact Mr. Alan Lin the project coordinator at (213) 897-8391 and refer to GTS # LA-2017-00533AL-NOP.

Sincerely,

DIANNA WATSON
IGR/CEQA Branch Chief

cc: email to Scott Morgan, State Clearinghouse

Los Angeles County
Metropolitan Transportation Authority

One Gateway Plaza
Los Angeles, CA 90012-2952

213.922.2000 Tel
metro.net

Metro

February 16, 2017

Maya Saraf
County of Los Angeles
Department of Regional Planning
320 West Temple Street, Room 1356
Los Angeles, CA 90012

RE: West Carson Transit Oriented District Specific Plan – Notice of Preparation of a Draft Environmental Impact Report

Dear Ms. Saraf,

Thank you for the opportunity to comment on the West Carson Transit Oriented District Specific Plan (Specific Plan). This letter conveys recommendations from the Los Angeles County Metropolitan Transportation Authority (Metro) concerning issues that are germane to our agency's statutory responsibility in relation to our facilities and services that may be affected by the proposed project.

Metro is committed to working with stakeholders across the County to support the development of transit oriented communities (TOCs). TOCs are built by considering transit within a broader community and creating vibrant, compact, walkable, and bikeable places centered around transit stations and hubs with the goal of encouraging the use of transit and other alternatives to driving. Metro looks forward to collaborating with local municipalities, developers, and other stakeholders in their land use planning and development efforts, and to find partnerships that support TOCs across Los Angeles County.

Project Location

The Specific Plan area is located in the unincorporated community of West Carson within Los Angeles County. The project area encompasses approximately 319.3 acres, bounded generally by Normandie Avenue on the west, the 208th Street Drain and West Torrance Boulevard on the north, the Interstate 110 freeway on the east, and 223rd Street on the south. Regional access to the project site is from Interstate 110 (I-110, or the Harbor Freeway) via ramps at Torrance Boulevard and Carson Street.

Project Description

The Specific Plan would permit development potential of up to 3,575 residential units and about 4.6 million square feet of nonresidential land uses in the unincorporated community of West Carson. The Specific Plan proposes relocation of the Carson Station of the Metro Silver Line express bus line to a new location on the I-110 in an effort to increase usage of the Carson Station; usage is currently constrained by factors including limited visibility from the station and fast-moving freeway traffic next to the station. The station would be relocated north of the Carson Street overpass. Bicycle and

pedestrian improvements, including striped (Class II) bicycle lanes and wider sidewalks, are planned for Torrance Boulevard, Vermont Avenue, Normandie Avenue, Carson Street, and 223rd Street.

The Specific Plan includes 200,000 square feet of new research space for biomedical research at the Harbor-UCLA campus and would support a new Biotech Park at the western edge of Harbor-UCLA Medical Center through a public/private partnership to develop an additional 250,000 square feet of biotech park space. The Specific Plan also includes one Industrial Flex District along Vermont Avenue just south of West Carson Street and recommendations for several water and sewer main upgrades to accommodate project buildout.

Metro Comments

Bus Operations

Metro bus lines 205 and 550 operate within the Specific Plan area. Metro recommends that the Specific Plan include language that informs future development activity within the Plan area of Metro's notification procedures and considerations for projects located in close proximity to a Metro facility that may impact Metro bus operations. Metro's Bus Operations Department should be contacted at least 30 days in advance of initiating any construction activities that may impact a bus stop zone or service. For closures that are likely to last more than six months, Metro's Stops and Zones Department will also need to be notified. Other municipal bus operators may be impacted and should be included in construction outreach efforts.

It is noted that the Specific Plan proposes the relocation of the Metro Silver Line's Carson bus station. Sections of the Silver Line service route relevant to the Specific Plan run along the Harbor Transitway, a shared-use, grade-separated bus corridor and high-occupancy toll roadway along the Interstate 110. Metro welcomes the opportunity to better integrate the Silver Line transit service with the surrounding community to increase accessibility and ridership. However, as this endeavor is extensive, the Specific Plan should include language that clearly denotes efforts to relocate the station will require close coordination with Metro. As the station and right-of-way is not owned by Metro, Caltrans should also be notified and included in future relocation discussions.

Active Transportation and First/Last Mile Connections

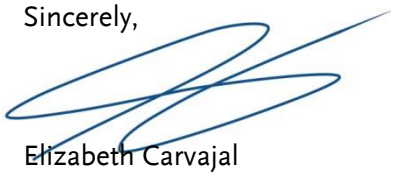
Metro supports policies encouraging transit-supportive public realm improvements, such as wide sidewalks, bicycle facilities with safe connections to/from transit, bus shelters, comfortable seating, pedestrian-scaled lighting, landscaping (i.e., street trees that provide continuous shade along transit access routes); way finding signage (directing pedestrians to transit stops and stations, and from transit facilities to points of interest in the surrounding neighborhood); and enhanced, ADA-compliant street crossing elements adjacent to transit stops and stations (i.e., enhanced crosswalks, crossing signals, and accessible ramps). Metro recommends that the Specific Plan incorporate language addressing the aforementioned and strategies that promote bicycle use through adequate short-term bicycle parking, such as ground level bicycle rack and/or curbside bicycle corrals, as well as secure long-term bicycle parking for residents and employees.

The Specific Plan should also address first-last mile connections by encouraging development that is transit accessible with bicycle and pedestrian-oriented street design connecting stations with housing and employment concentrations. For reference, we would like to direct County staff to view the First Last Mile Strategic Plan, authored by Metro and the Southern California Association of Governments (SCAG), available on line at: http://media.metro.net/docs/sustainability_path_design_guidelines.pdf.

Metro looks forward to continuing to collaborate with the County to effectuate policies and implement activities that promote transit-supportive communities. If you have any questions regarding this response, please contact Elizabeth Carvajal at 213-922-3084 or by email at DevReview@metro.net. Metro looks forward to reviewing the Draft EIR. Please send it to the following address:

Metro Development Review
One Gateway Plaza MS 99-23-4
Los Angeles, CA 90012-2952

Sincerely,



Elizabeth Carvajal
Sr. Manager, Transportation Planning

COUNTY OF LOS ANGELES
Public Health

BARBARA FERRER, Ph.D., M.P.H., M.Ed.
Director

JEFFREY D. GUNZENHAUSER, M.D., M.P.H.
Interim Health Officer

CYNTHIA A. HARDING, M.P.H.
Chief Deputy Director

ANGELO J. BELLOMO, REHS, QEP
Deputy Director for Health Protection

TERRI S. WILLIAMS, REHS
Director of Environmental Health

BRENDA J. LOPEZ, REHS
Assistant Director of Environmental Health

5050 Commerce Drive
Baldwin Park, California 91706
TEL (626) 430-5100 • FAX (626) 813-3000

www.publichealth.lacounty.gov

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February 17, 2017

TO: Maya Saraf
Regional Planning Assistant II
Department of Regional Planning

FROM: Michelle Tsiebos, REHS, DPA, MPA (M.T)
Environmental Health Division
Department of Public Health

SUBJECT: CEQA Consultation/Notice of Preparation (NOP) and Initial Study
RPPL 2015000153
West Carson TOD Specific Plan

The Department of Public Health-Environmental Health Division has reviewed the NOP and Initial Study for the West Carson TOD Specific Plan. We do not have any comments at this time.

Comments will be presented for the DEIR if applicable.

If you should have any questions regarding this report, please contact me at (626) 430-5380 or at mtsiebos@ph.lacounty.gov.

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www.scag.ca.gov

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February 17, 2017

Ms. Maya Saraf
County of Los Angeles
Department of Regional Planning, Community Studies West Section
320 West Temple Street, Room 1356
Los Angeles, California 90012
Phone: (974) 974-0307
E-mail: msaraf@planning.lacounty.gov

RE: SCAG Comments on the Notice of Preparation of a Draft Environmental Impact Report for the West Carson Transit Oriented District Specific Plan [SCAG NO. IGR9131]

Dear Ms. Saraf,

Thank you for submitting the Notice of Preparation of a Draft Environmental Impact Report for the West Carson Transit Oriented District Specific Plan ("proposed project") to the Southern California Association of Governments (SCAG) for review and comment. SCAG is the authorized regional agency for Inter-Governmental Review (IGR) of programs proposed for Federal financial assistance and direct Federal development activities, pursuant to Presidential Executive Order 12372. Additionally, SCAG reviews the Environmental Impact Reports of projects of regional significance for consistency with regional plans pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.

SCAG is also the designated Regional Transportation Planning Agency under state law, and is responsible for preparation of the Regional Transportation Plan (RTP) including the Sustainable Communities Strategy (SCS) pursuant to Senate Bill (SB) 375. As the clearinghouse for regionally significant projects per Executive Order 12372, SCAG reviews the consistency of local plans, projects, and programs with regional plans.[1] Guidance provided by these reviews is intended to assist local agencies such as local jurisdictions and project proponents to take actions that help contribute to the attainment of the regional goals and policies in the RTP/SCS.

SCAG staff has reviewed the Notice of Preparation of a Draft Environmental Impact Report for the West Carson Transit Oriented District Specific Plan in Los Angeles County. The proposed project includes a transit oriented district specific plan that would permit development potential of up to 3,575 residential units and about 4.6 million square feet (sf) of nonresidential land uses in the unincorporated community of West Carson on approximately 319.3 acres.

When available, please send environmental documentation to *SCAG's office in Los Angeles or by email to au@scag.ca.gov* providing, at a minimum, the full public comment period for review. If you have any questions regarding the attached comments, please contact the Inter-Governmental Review (IGR) Program, attn.: Anita Au, Assistant Regional Planner, at (213) 236-1874 or au@scag.ca.gov. Thank you.

Sincerely,

Ping Chang

Ping Chang
Acting Manager, Compliance and Performance Monitoring

[1] Lead agencies such as local jurisdictions have the sole discretion in determining a local project's consistency with the 2016 RTP/SCS for the purpose of determining consistency for CEQA. Any "consistency" finding by SCAG pursuant to the IGR process should not be construed as a determination of consistency with the 2016 RTP/SCS for CEQA.

COMMENTS ON THE NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE WEST CARSON TRANSIT ORIENTED DISTRICT SPECIFIC PLAN [SCAG NO. IGR9131]

CONSISTENCY WITH RTP/SCS

SCAG reviews environmental documents for regionally significant projects for their consistency with the adopted RTP/SCS. For the purpose of determining consistency with CEQA, lead agencies such as local jurisdictions have the sole discretion in determining a local project's consistency with the RTP/SCS.

2016 RTP/SCS GOALS

The SCAG Regional Council adopted the 2016 RTP/SCS in April 2016. The 2016 RTP/SCS seeks to improve mobility, promote sustainability, facilitate economic development and preserve the quality of life for the residents in the region. The long-range visioning plan balances future mobility and housing needs with goals for the environment, the regional economy, social equity and environmental justice, and public health (see http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx). The goals included in the 2016 RTP/SCS may be pertinent to the proposed project. These goals are meant to provide guidance for considering the proposed project within the context of regional goals and policies. Among the relevant goals of the 2016 RTP/SCS are the following:

SCAG 2016 RTP/SCS GOALS	
RTP/SCS G1:	*Align the plan investments and policies with improving regional economic development and competitiveness*
RTP/SCS G2:	*Maximize mobility and accessibility for all people and goods in the region*
RTP/SCS G3:	*Ensure travel safety and reliability for all people and goods in the region*
RTP/SCS G4:	*Preserve and ensure a sustainable regional transportation system*
RTP/SCS G5:	*Maximize the productivity of our transportation system*
RTP/SCS G6:	*Protect the environment and health for our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking)*
RTP/SCS G7:	*Actively encourage and create incentives for energy efficiency, where possible*
RTP/SCS G8:	*Encourage land use and growth patterns that facilitate transit and active transportation*
RTP/SCS G9:	*Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies**
	**SCAG does not yet have an agreed-upon security performance measure.*

For ease of review, we encourage the use of a side-by-side comparison of SCAG goals with discussions of the consistency, non-consistency or non-applicability of the goals and supportive analysis in a table format. Suggested format is as follows:

SCAG 2016 RTP/SCS GOALS		
	Goal	Analysis
RTP/SCS G1:	*Align the plan investments and policies with improving regional economic development and competitiveness*	*Consistent: Statement as to why;* *Not-Consistent: Statement as to why;* *Or* *Not Applicable: Statement as to why;* *DEIR page number reference*
RTP/SCS G2:	*Maximize mobility and accessibility for all people and goods in the region*	*Consistent: Statement as to why;* *Not-Consistent: Statement as to why;* *Or* *Not Applicable: Statement as to why;* *DEIR page number reference*
etc.		etc.

2016 RTP/SCS STRATEGIES

To achieve the goals of the 2016 RTP/SCS, a wide range of land use and transportation strategies are included in the 2016 RTP/SCS. Technical appendances of the 2016 RTP/SCS provide additional supporting information in detail. To view the 2016 RTP/SCS, please visit: http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx. The 2016 RTP/SCS builds upon the progress from the 2012 RTP/SCS and continues to focus on integrated, coordinated, and balanced planning for land use and transportation that the SCAG region strives toward a more sustainable region, while the region meets and exceeds in meeting all of applicable statutory requirements pertinent to the 2016 RTP/SCS. These strategies within the regional context are provided as guidance for lead agencies such as local jurisdictions when the proposed project is under consideration.

DEMOGRAPHICS AND GROWTH FORECASTS

Local input plays an important role in developing a reasonable growth forecast for the 2016 RTP/SCS. SCAG used a bottom-up local review and input process and engaged local jurisdictions in establishing the base geographic and socioeconomic projections including population, household and employment. At the time of this letter, the most recently adopted SCAG jurisdictional-level growth forecasts that were developed in accordance with the bottom-up local review and input process consist of the 2020, 2035, and 2040 population, households and employment forecasts. To view them, please visit http://www.scag.ca.gov/Documents/2016GrowthForecastByJurisdiction.pdf. The growth forecasts for the region and applicable jurisdictions are below.

	Adopted SCAG Region Wide Forecasts			Adopted County of Los Angeles Forecasts		
	Year 2020	Year 2035	Year 2040	Year 2020	Year 2035	Year 2040
Population	19,663,000	22,091,000	22,138,800	10,326,200	11,145,100	11,514,800
Households	6,458,000	7,325,000	7,412,300	3,493,700	3,809,300	3,946,600
Employment	8,414,000	9,441,000	9,871,500	4,662,500	5,062,100	5,225,800

MITIGATION MEASURES

SCAG staff recommends that you review the Final Program Environmental Impact Report (Final PEIR) for the 2016 RTP/SCS for guidance, as appropriate. SCAG's Regional Council certified the Final PEIR and adopted the associated Findings of Fact and a Statement of Overriding Considerations (FOF/SOC) and Mitigation Monitoring and Reporting Program (MMRP) on April 7, 2016 (please see: http://scagrtpscs.net/Pages/FINAL2016PEIR.aspx). The Final PEIR includes a list of project-level performance standards-based mitigation measures that may be considered for adoption and implementation by lead, responsible, or trustee agencies in the region, as applicable and feasible. Project-level mitigation measures are within responsibility, authority, and/or jurisdiction of project-implementing agency or other public agency serving as lead agency under CEQA in subsequent project- and site- specific design, CEQA review, and decision-making processes, to meet the performance standards for each of the CEQA resource categories.

From:	William Halligan
To:	Frances Yau
Subject:	FW: Comment on West Carson Transit Oriented Dist. Specific Plan
Date:	Tuesday, February 21, 2017 9:16:09 AM

WILLIAM HALLIGAN, ESQ.
Principal, Environmental Services

3 MacArthur Place, Suite 1100 | Santa Ana, California 92707
714.966.9220 | whalligan@placeworks.com | placeworks.com

From: Maya Saraf [mailto:MSaraf@planning.lacounty.gov]
Sent: Tuesday, February 21, 2017 7:41 AM
To: Brooke Peterson; William Halligan
Subject: FW: Comment on West Carson Transit Oriented Dist. Specific Plan

Comments from member of the public below.

Thank you,

Maya Saraf
213.974.0307

From: Thomas Winfrey [mailto:tawinfrey@yahoo.com]
Sent: Thursday, February 16, 2017 3:57 PM
To: Maya Saraf <MSaraf@planning.lacounty.gov>
Subject: Comment on West Carson Transit Oriented Dist. Specific Plan

Maya Saraf:

Thanks for the opportunity to comment on this plan for our neighborhood. I attended your Feb. 1 meeting Harbor/UCLA Medical Center.

I live at 20839 Doble Ave. My home is one block west of the Vermont Avenue boundary of the plan.

With the scope of development envisioned by the plan increasing by 3,600 residential units and 4.6 million sq. ft of non-residential land uses, increased vehicular traffic in the area is a certainty. I am not opposed to the development.
I ask that options to ameliorate the impact of a greater traffic load and parking on residential streets be studied and presented to the public.

Already the traffic volume at morning and evening rush hours is bleeding into our residential neighborhoods. Congestion on Carson Street brings long queues east and

west bound. Drivers on Carson Street arriving by and departing from the 110 FWY choose our neighborhood streets as a quicker alternative to move east or west bound to and from their employment in the South Bay.

Each morning and evening motorists enter and leave our tract via Levinson and Javelin/Doble Avenues. The speed is posted at 25 mph, and these harried drivers often exceed that limit.

Parents use these residential streets to access Javelin Elementary School. Retired people are out each morning and evening for exercise on these residential streets.

I request my comment be included in any reports or comments on this project. I am available to discuss this issue further with traffic representatives. I would ask a traffic study be conducted with recommendations to address the neighborhood impact of this project.

Thank you,
Thomas Winfrey
20839 Doble Ave.
Torrance, Ca 90502
310-625-0772 cell

Appendix C West Carson Transit Oriented District Specific Plan

Appendices

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WEST CARSON

TRANSIT ORIENTED DISTRICT SPECIFIC PLAN













FINAL PUBLIC REVIEW DRAFT
February 2018

County of Los Angeles

WEST CARSON TOD SPECIFIC PLAN

FEBRUARY 2018

FINAL PUBLIC REVIEW DRAFT

Prepared by:

PLACEWORKS

IBI GROUP

BAE URBAN ECONOMICS

ACKNOWLEDGMENTS

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Soyeon Choi, Regional Planning Assistant II

DEPARTMENT OF COUNTY COUNSEL

Jill Jones, Senior Deputy County Counsel

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INTRODUCTION

INTRODUCTION

OVERVIEW

The West Carson Transit-Oriented District (TOD) Specific Plan offers an incredible opportunity to create more engaging and vibrant places by leveraging the community's assets, connecting uses and activities, and attracting future investment. The West Carson station's proximity to numerous community facilities, including the Harbor-UCLA Medical Center campus, creates many opportunities for improving the built environment and overall community livability, but there are also many challenges in the project area that must be addressed as part of a successful planning process.

The West Carson TOD Specific Plan will guide future transit-oriented development throughout the project area in order to create a distinct identity; improve connections and access for all users; and improve the safety, economic vitality, and overall quality of life for the West Carson community.

The Specific Plan will be used in conjunction with the County of Los Angeles 2035 General Plan (General Plan) and Los Angeles County Code (County Code) to provide more detailed design and development criteria for individual project proposals and public improvements in the project area. The plan defines the proposed land use plan, development standards, infrastructure improvements, design guidelines, and implementation programs for any proposed project in the Specific Plan area.

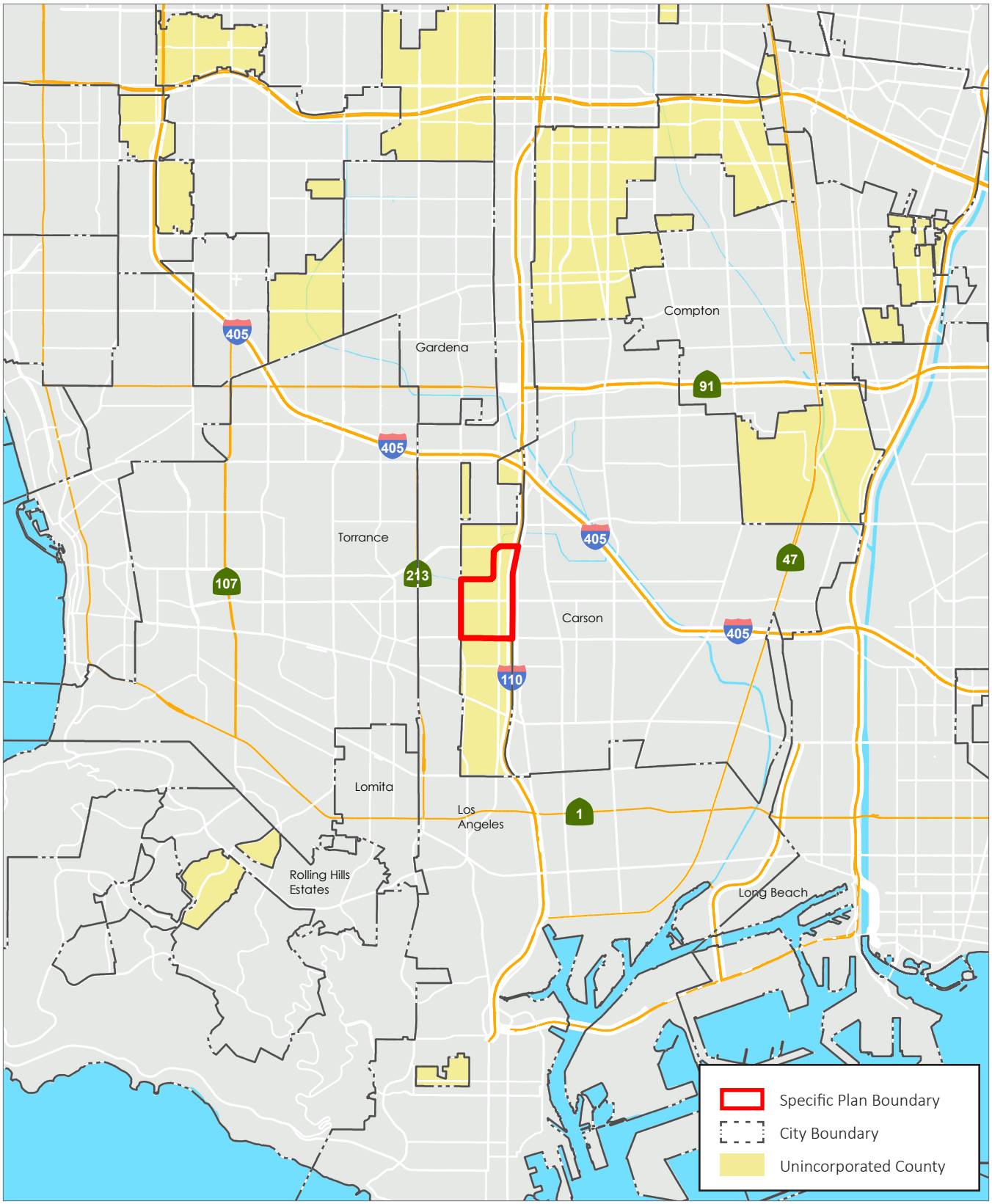
What is a Specific Plan?

The specific plan is one of several policy or regulatory tools used by local governments to guide community development. While the general plan sets forth goals, objectives, policies, and programs for the entire jurisdiction, the specific plan does so for a localized area and in greater detail. The authority for preparing a specific plan is in the California Government Code §§ 65450 through 65457. The law allows, but does not require, the planning agency to prepare and adopt specific plans for the systematic execution of the general plan. According to state law, all specific plans must be consistent with the adopted general plan, and all subdivision and development activity must be consistent with the specific plan.

COUNTY FOCUS ON TRANSIT-ORIENTED DEVELOPMENT

The County of Los Angeles (the County) adopted a strong policy framework in its General Plan for implementing smart growth and providing healthy, livable, and equitable communities. As part of the General Plan update, the County identified several urban and suburban areas with access to major transit and commercial corridors as priority policy areas for infill development. These transit-oriented district (TOD) priority areas are recognized as areas well suited for higher density housing and mixed uses surrounding existing major commercial, employment, and civic activity nodes. In order to spur this type of development, the General Plan establishes the Transit Oriented District Program, which provides guidance for the preparation of TOD specific plans (or similar mechanisms) to address the unique characteristics and needs of each community with regard to access, connectivity, pedestrian improvements, and safety.

Figure 1.1 Regional Location



These plans are ultimately to be used as policy and implementation tools to:

- Increase walking, bicycling, and transit ridership and reduce vehicle miles traveled.
- Facilitate compact, mixed-use development.
- Increase economic activity.
- Facilitate the public investment of infrastructure improvements.
- Streamline the environmental review process for future infill development projects.

While the term "transit-oriented development" is used to refer to individual development projects, buildings, or other improvements in proximity to transit stations (often as public/private partnerships), it does not accurately capture the important relationship between transit stations and their surrounding communities. "Transit oriented district" (sometimes referred to as transit oriented community) is a more appropriate term for referring to areas, neighborhoods, or communities with concentrated residential, commercial, and mixed-use development served by high-quality transit. The provision of a variety of transportation options for these districts or communities will help to reduce greenhouse gas (GHG) emissions, increase transit ridership, promote walking and biking, reduce vehicle miles traveled, and facilitate housing and employment opportunities for all residents in the region. It will also improve the performance of the street, highway, and freeway system. Given the presence of the Harbor-UCLA Medical Center in the West Carson project area (with over 3,000 employees), the Carson station functions as both an origin and destination station that could benefit from the type of development and improvements that transit-oriented communities can provide.

PURPOSE & INTENT

The overall purpose of the West Carson TOD Specific Plan is to provide comprehensive direction for the development of the project area and facilitate implementation of the goals and policies of the General Plan, including the vision for the TOD priority areas. The intent of the Specific Plan is to expand opportunities for compact, infill development that is compatible with and supports the intensification of Harbor-UCLA, yet is sensitive to the existing single-family neighborhoods. The plan facilitates increased housing opportunities and employment-generating uses proximate to the Carson Street (rapid bus transitway) station to take advantage of the significant local and regional transit services already provided in the area. The Specific Plan lays the

foundation to create a more walkable, transit-oriented area with a mix of land uses that is accessible by all modes of transportation, including transit, walking, and bicycling.

The plan will not only establish a vision for the West Carson community, but will provide the regulatory framework—which includes policies, development standards, design standards, and recommended capital improvement projects—that will help to achieve that vision. An implementation and financing strategy is also included in order to support future implementation of the plan.

SPECIFIC PLAN LOCATION

The unincorporated territory of West Carson encompasses about 2.3 square miles of land between the cities of Torrance to the north, Harbor City (City of Los Angeles neighborhood) to the south, Carson to the east, and the cities of Los Angeles and Torrance to the west. The West Carson TOD Specific Plan covers approximately 418 acres in West Carson, encompassing land within a half-mile radius to the west of the Carson Metro Bus Station, a bus rapid transit stop along a designated bus lane adjacent to Interstate 110. The project area is generally bounded by the 208th Street flood control channel to West Torrance Boulevard to the north, 223rd Street to the south, Interstate 110 to the east, and Normandie Avenue to the west, so as seen in Figure 1.2, Project Area.

A notable portion (22 percent) of the project area contains the Harbor-UCLA Medical Center, a major employment center that draws people from across the entire Los Angeles region. The project area is also just south of the Harbor Gateway Transit Center, which is a regional transit hub that connects the South Bay area to Downtown Los Angeles and other locations throughout the County. To the west of the project area is the community planning area known as Harbor Gateway in the City of Los Angeles, and to the east is the City of Carson.

Interstate 110, which runs along the eastern edge of the project area, travels north-south for about 32 miles, connecting Pasadena and Downtown Los Angeles in the north with San Pedro and the Port of Los Angeles in the south. Interstate 110 is a principle route for freight traveling from the port of Los Angeles to rail yards and warehouses further inland, which has resulted in a high number of industrial land uses adjacent to the highway.

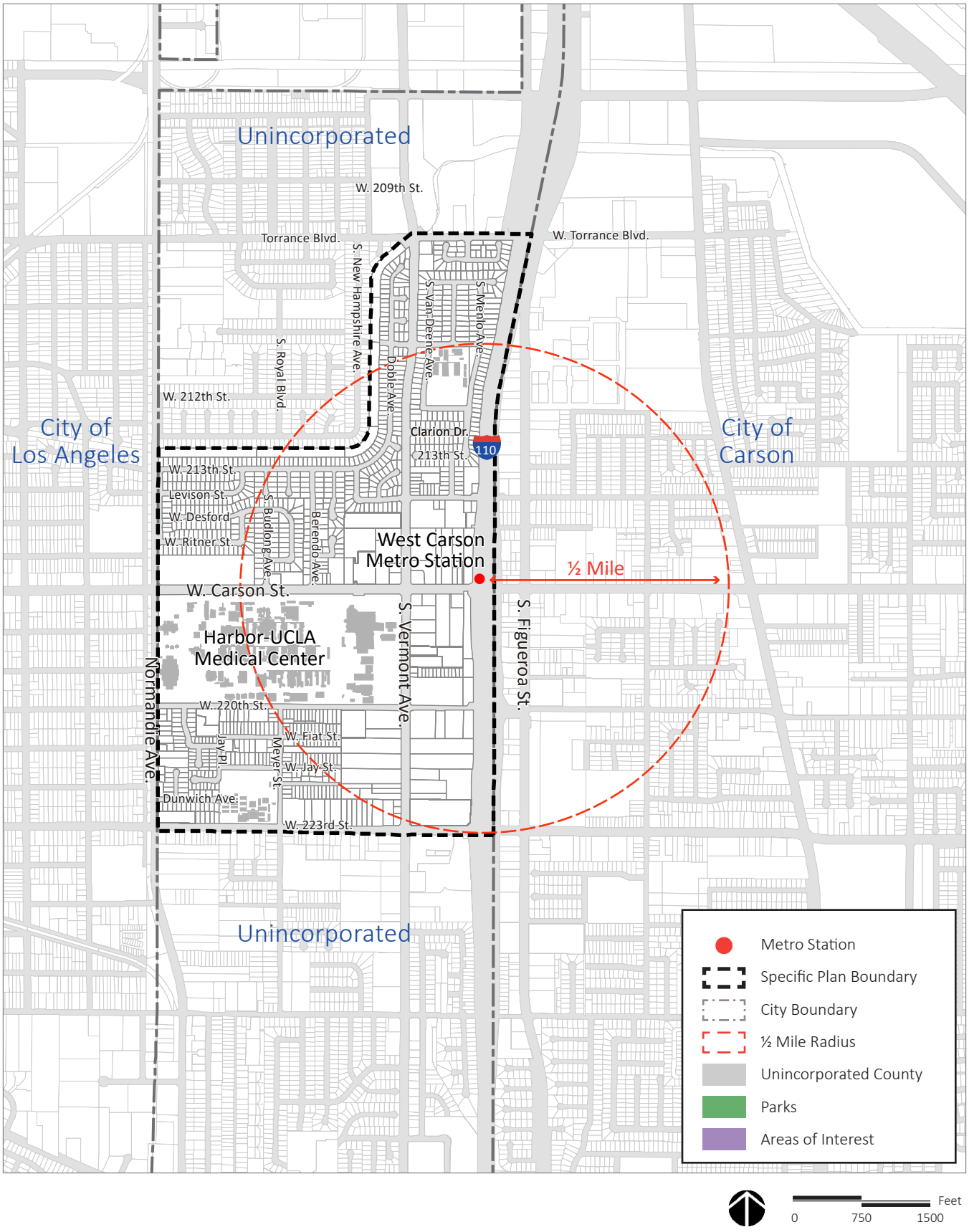
The plan area's relation to its regional vicinity is displayed in Figure 1.3, Local Context.







Figure 1.2 Project Area



PROJECT SETTING AND BACKGROUND

Currently, the Carson Street corridor through the West Carson community is crowded and full of activity—it is a high traffic thoroughfare serving travel needs to Interstate 110, adjacent cities, surrounding neighborhoods, and the Harbor-UCLA Medical Center.

Land Use and Urban Design Character

Central to the West Carson TOD Specific Plan project area is the Harbor-UCLA campus, which is the activity hub of the West Carson community. Surrounding the campus along the north side of Carson Street and east side of Vermont Avenue are mainly low-density strip malls and auto-centric businesses—such as chain fast-food establishments, supermarkets, pharmacies, gas stations, and health-care-related offices. Commercial development in the project area is characterized by large community-serving retailers interspersed with smaller stores and services that vary in scale, style, orientation, lot coverage, and setback from the sidewalk and property lines. On-site parking is generally provided either at the front or side of a building and is typically underutilized. Many of the commercial structures are older, poorly maintained, and lack quality of design.

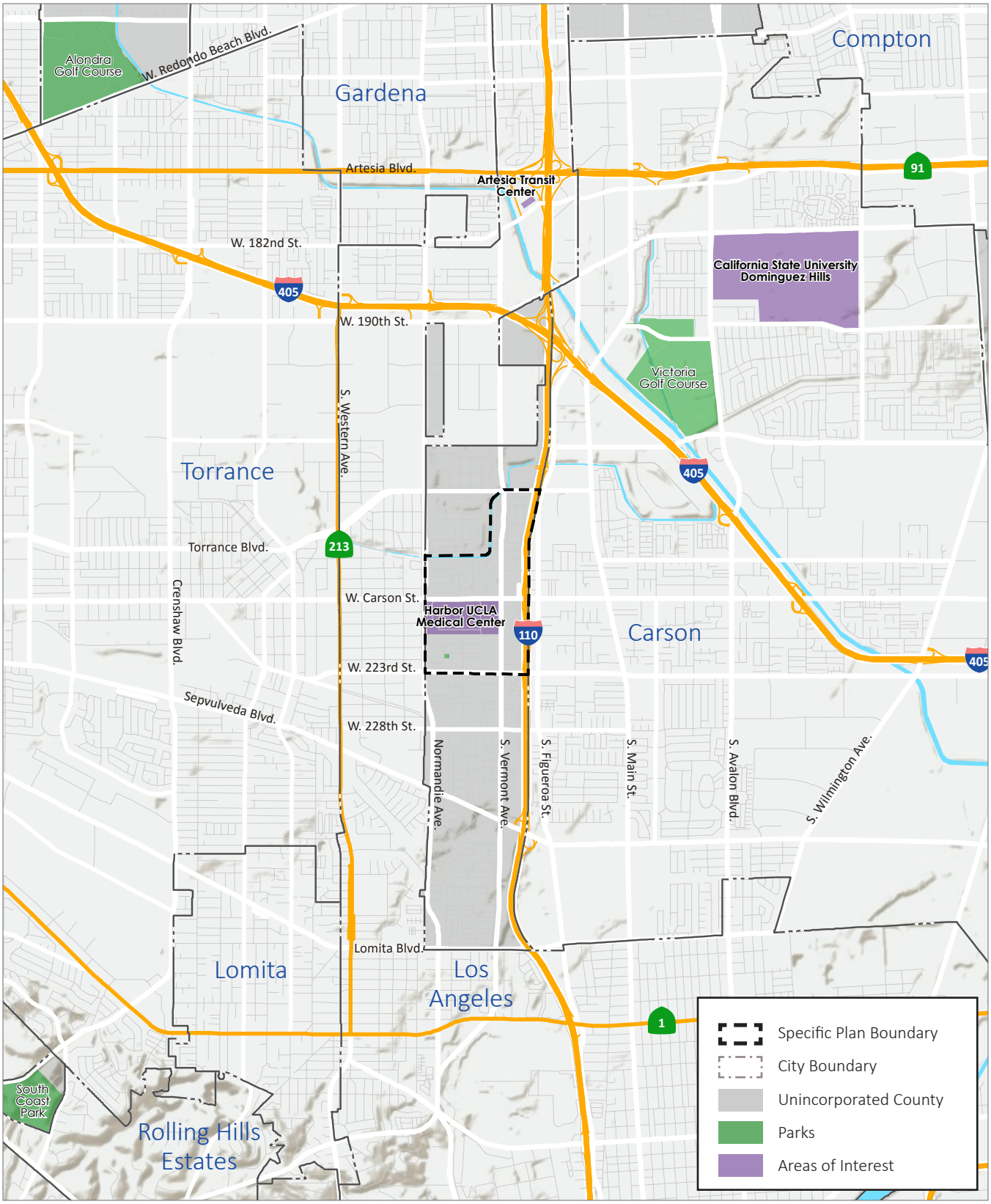
Beyond this commercial core, residential development constitutes the northern and southern portions of the project area, including two public elementary schools. Land uses along Vermont Avenue, the primary north-south arterial running through the community, consists of several multifamily housing projects and small areas of light industrial properties, many of which are used for warehousing, distribution, and storage, and small equipment-manufacturing facilities. Very few parcels are vacant in the project area, and there are no designated public parks.

Mobility and Parking

West Carson is well served by bus transit, regional arterial roadways, and the adjacent Interstate 110 freeway. Roadways function well overall, with congestion occurring primarily along Carson Street and Vermont Avenue in proximity to Carson Street. It has main bus transit corridors with multiple bus routes from various local transit agencies and a bus rapid transit station at Interstate 110 and Carson Street. On-street parking is sufficient overall to serve the area's residential and commercial uses, but constrained along roadways surrounding the Harbor-UCLA Medical Center.

Though there is a completed sidewalk network, the overall pedestrian and bikeway network is limited and somewhat disconnected. The

Figure 1.3 Local Context





Example photo TOD adjacent to Emeryville, CA transit station.

current environment is not friendly or attractive and feels unsafe to users and therefore does not promote bicycle and walking.



Infrastructure

Current water supply, sanitary systems, and drainage systems in West Carson are in good condition, and capacities are sufficient to serve the existing community. Solid-waste-processing facilities serving West Carson and the Los Angeles metropolitan area as a whole lack capacity to handle expected future volumes of waste.

Economic Market Conditions

West Carson differs in several key ways from the County as a whole: It features a proportionally large Health Care sector, slightly faster employment growth, and higher rate of homeownership.

Within West Carson, in 2015, the four largest sectors by number of jobs - Health Care (19.8 percent), Construction (10.9 percent), Wholesale Trade (10.8 percent), and Accommodation and Food Services (9.8 percent) accounted for 51.3 percent of all jobs in the area. The Harbor-UCLA Medical Center is the largest employer in the Study Area, also home to the Los Angeles Biomedical Research Institute (LA BioMed), one of the largest independent, not-for-profit biomedical research institutes in the United States.

Between 2010 and 2015, the total number of jobs in West Carson grew from 14,866 to 17,014, an increase of 14.4 percent, indicating that the local economy has begun to recover from the Great Recession. In addition, this pace of job growth has been significantly faster than the County, where the number of jobs increased 8.8 percent over the same



time period. Passage of the Affordable Care Act is likely responsible for a portion of the increase in healthcare jobs, while the expansion of the medical center and new residential development are primarily responsible for new construction jobs.

Unemployment Rate

West Carson has a lower unemployment rate than the County. In August 2015, the unemployment rate in West Carson was 5.9 percent, lower than the County's rate of 7.0 percent.

Major Employment Generators

The Harbor-UCLA Medical Center campus – is a key economic driver for the West Carson economy and wider South Bay region. Its 70 primary and specialty-care clinics are staffed by more than 4,000 employees, and supported by an annual operating budget of $677 million. Harbor-UCLA Medical Center is also home to the Los Angeles Biomedical Research Institute (LA BioMed), the Medical Center's largest tenant.

The new Campus Master Plan proposes to add nearly 1.1 million square feet[1] of new medical space, augmenting the existing footprint of 1.1 million square feet. This major renovation represents a crucial investment in the Healthcare sector, a significant growth industry within the County.

The Biotechnology industry is also expected to grow as a result of the new Campus Master Plan. LA Biomed already attracts millions of research dollars each year; vaccines and other medical discoveries originating at LA BioMed have already resulted in a number of spin-off companies—including several based in Southern California. Once the Master Plan is complete, LA BioMed's aging research facilities will be consolidated into a thriving, incubator space with 202,000 square feet of new facilities.

In addition to LA BioMed's research facilities, the County approved the creation of a new 250,000 square foot Bioscience Tech Park to be located on the Harbor-UCLA Medical Center campus. This will be a public/private partnership to develop a $110-125 million facility that would create between 800 and 900 jobs.[2] Until now, however, the lack of a larger "hub" of biomedical research facilities has been a detriment to this sector's growth.

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1 County Department of Public Works. Notice of Preparation of an Environmental Impact Report and Notice of Public Scoping Meeting. June 29, 2015.

2 MyLAnews.com. "LA County Lays Groundwork for Biotech Park at Harbor-UCLA Medical Center." April 28, 2015.

RELATIONSHIP TO OTHER RELEVANT PLANS AND PROGRAMS

This section describes how existing County or applicable agency plans and programs have helped set the discussion and regulatory framework for the West Carson TOD Specific Plan area.

County of Los Angeles 2035 General Plan

The General Plan identifies 11 Planning Areas and provides goals and objectives for all of the unincorporated areas in the County. West Carson is identified in the General Plan as an Opportunity Area for TOD redevelopment and infill, with significant portions of the project area designated as Industrial Flex District, Neighborhood Center, or Corridor. This Specific Plan shall be consistent with the General Plan.

Los Angeles County Code

Since the project area is in unincorporated territory, the regulations defined in this Specific Plan are in addition to the provisions of Title 22 (Planning and Zoning) and others as noted by the County Code. The provisions of the Specific Plan shall prevail and supersede the applicable provisions of the County Code.

Los Angeles County TOD Access Study

In February 2013, the Department of Regional Planning (Regional Planning) conducted a TOD Access Study as part of the General Plan in consultation with the Department of Public Works and Los Angeles County Metropolitan Transportation Authority (LA Metro). The purpose of the study was to assess station access capacity and needs within nine proposed TODs throughout the County, including the I-110 West Carson Station. Several recommendations regarding bike facilities were made for the area surrounding the West Carson station, and Regional Planning has been working in conjunction with Public Works to incorporate many of those recommended facilities, including Class IV bike lanes and a cycle track.

Harbor-UCLA Medical Center Master Plan

In 2016 the County proposed the Harbor-UCLA Campus Master Plan to enhance the unique, interactive relationship between the clinical, educational, and research components of the Harbor-UCLA Medical Center campus. The master plan envisions a significantly different campus from what exists today. The new campus design is intended to better engage Carson Street and the surrounding community through a new pedestrian trail along Carson Street and a landscape design that opens the campus more to the street. The master plan

also presents an opportunity to address certain issues that affect the surrounding community, such as crime, safety, and sanitation concerns with the homeless population. To inform the campus planning efforts, the master plan considers the quality of the built environment of the Harbor-UCLA Medical Center and incorporates the following built-environment principles:

- Create a friendlier, more easily accessible place for patients.
- Enhance the integration of the campus with Carson Street activity.
- Enhance the integration of the campus with transit oriented development along Vermont Avenue and Carson Street.
- Improve the physical relationships between Harbor-UCLA and LA BioMed to enhance the operational efficiency of the campus.



Other Relevant Regulatory Plans and Programs

Below is a list of other regulatory agencies or documents that will need to be consulted as the Specific Plan is developed, for any type of development in the plan area.

- **First-Last Mile Strategic Plan** (Metro). This plan contains guidelines and outlines a specific infrastructure improvement strategy, the Metro Pathway, to facilitate easy, safe, and efficient access to Metro transit facilities, including the Carson Street BRT station. It is intended to serve as a resource to agencies in the region working to



Example photo illustrating the integration of bicycles on public transit.

update programs, land-use plans, planning guidelines, business models, entitlement processes, and other tools that take advantage of the County's significant investment in the public transportation network. Relevant strategies from the First-Last Mile plan were applied to mobility recommendations for this Specific Plan.

- **Harbor Gateway Community Plan** (City of Los Angeles). This plan contains the land use, circulation, and service systems goals, policies, and programs for incorporated Harbor Gateway community planning area of the City of Los Angeles adjacent the project area to the west, and guides the land use decisions regarding development.
- **Carson Master Plan of Bikeways** (City of Carson). This plan contains goals, policies, and actions; proposed bicycle infrastructure improvements and programs; funding sources; and design guidelines to comprehensively plan for bicycle transportation throughout the city of Carson, including Carson Street adjacent to the West Carson project area. This plan was used in identifying appropriate bikeway connections from West Carson into Carson.
- **Carson Street Mixed-Use District Master Plan** (City of Carson). This plan contains development standards and design guidelines; public improvement objectives, concepts, and design proposals; and implementation strategies for the proposed mixed-use district on a 1.75-mile section of Carson Street in the city of Carson. The development regulations and streetscape improvements were considered in preparing the standards for this Specific Plan.

COMMUNITY ENGAGEMENT

As part of the planning process for the West Carson TOD Specific Plan, County staff from Regional Planning facilitated community outreach events that helped shape the Specific Plan.

West Carson TOD Specific Plan Task Force

The West Carson TOD Specific Plan Task Force was convened by Regional Planning for the express purpose of guiding the preparation of this plan. The task force consisted of Regional Planning staff; representatives from other County agencies, including the Departments of Public Health, Parks and Recreation, Public Works, the Community Development Commission, the Arts Commission; and other key

stakeholders, including the Cities of Carson and Los Angeles and LA Metro. Task Force members met quarterly throughout the Specific Plan preparation process to review key project products and provide input at major milestones of the project and on draft documents.

Throughout the planning process for the Specific Plan, Regional Planning staff met with and received input from the following community groups and stakeholders:

- Harbor City/Harbor Gateway Chamber of Commerce
- South Bay Cities Council Of Governments
- Harbor City Neighborhood Council
- South Bay Coalition to End Homelessness
- Harbor-UCLA Medical Center
- Van Deene Avenue Elementary School
- Second District Board Office
- Del Amo Action Committee
- Torrance Transit
- Developers: Equassure, Inc., Blackwood Real Estate, Abode Communities
- West Carson residents
- Prevention Institute
- LA BioMed
- California Department of Transportation (Caltrans)



Community Workshops

On November 17, 2015, and February 6, 2016, Regional Planning hosted two public workshops to solicit community input regarding the West Carson TOD Specific Plan project. Attendees included residents, business owners, County staff, and property owners. Key themes from the workshops included:

- A strong desire for pedestrian and bicycle improvements and street beautification.
- Improved access and amenities.
- Limited density mixed-use development along main corridors.
- Beautification of existing commercial development.

- Measures to reduce traffic speeds along Vermont Avenue.
- Better gateway and entryway monuments that define the community.
- Improved pedestrian safety and access in proximity to elementary schools.
- A great need for parks and community space.
- Open parts of the Harbor-UCLA campus to the community.
- Redesign Carson Metro Silver Line Station to improve safety and access.
- Address homeless population surrounding the Harbor-UCLA campus.

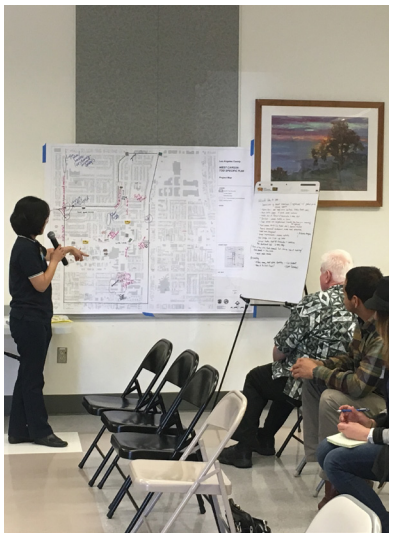


Developer Surveys

The County distributed a survey to developers in the County-South Bay-West Carson area to solicit information regarding the strength of the commercial and residential markets, potential redevelopment opportunity sites, and incentives that would better attract development in West Carson. The surveys were distributed in written format and had a small but valuable number of respondents. Respondent feedback noted the following findings:



- The residential market for high density housing (at up to 200 dwelling units per acre (du/ac) is very strong based on very low amount of multi-family housing stock, but would require parcel assembly.
- The commercial market is likely overserved and contributes to low rental rates and vacancies.
- The mixed-use areas identified in the Specific Plan along Carson Street present good opportunity sites.
- Affordable housing projects are likely to score very competitively for cap-and-trade funding and special needs/ affordable housing subsidies.
- Developers are most interested in a streamlined entitlement process incentive.



Harbor-UCLA Medical Center Surveys

In May 2016, surveys were distributed to employees at the Harbor-UCLA Medical Center to collect information on employee commutes, housing options, and amenity and improvement suggestions for the West Carson TOD Specific Plan area. The survey was distributed both in written and online formats and had over 180 respondents.

The average commute for most employees to the medical center was between two to ten miles, and the majority of those drive alone.

Factors that employees noted would encourage them to use public transit included improved safety at and around the stations, accessibility to the stations, more frequent/later service, and fewer transfers between lines. Employees also noted that a larger supply of more decent, affordable, and primarily single-family housing and improved safety in West Carson would encourage them to live closer to the hospital campus. Suggested improvements for the West Carson project area included: a wider variety of places to eat and drink, improved landscaping and open spaces, a farmers market, improved lighting at night, control of the transient population, a shuttle service, and pedestrian improvements.

ORGANIZATION OF THE SPECIFIC PLAN

The Specific Plan covers the following topics:

1. **Introduction.** Covers the purpose and context for the Specific Plan, an overview of the planning process, and the plan's relationship to other relevant plans and programs.
2. **Vision & Goals.** Outlines the vision for the community and the overarching goals and policies for achieving that vision.
3. **Land Use and Urban Design Framework.** Identifies the land use and urban design framework, including permitted uses and regulations and development standards for each of the Specific Plan zones, including building height, density, parking, site configuration, building design, open space and landscaping requirements, and other design standards.
4. **Mobility.** Provides a summary of the proposed mobility plan, including the vehicular, pedestrian, bicycle, transit, and parking networks.
5. **Infrastructure.** Addresses the critical infrastructure requirements associated with future development in the Specific Plan area, including water, sewer, stormwater, solid waste, and public services.

6. **Economic Development.** Highlights opportunities for economic development in the plan area and associated community benefits.

7. **Capital Improvement Plan.** Details the capital improvement recommendations and phasing for the plan.

8. **Implementation and Administration.** Provides specific implementation and financial strategies for realizing the goals of the Specific Plan as well as describing project review and administrative procedures required for amendments and/or modifications to the plan.

HOW TO USE THE SPECIFIC PLAN/SPECIFIC PLAN AUTHORITY

Under California Law (Government Code §§ 65450 et seq.), cities and counties may adopt specific plans to develop policies, programs, and regulations to implement the jurisdiction's adopted general plan. The specific plan, therefore, serves as a bridge between the general plan and individual development projects.

Specific plans are similar to development zoning ordinances in that they establish implementation through the use of development regulations. However, unlike the County Code, the West Carson TOD Specific Plan is targeted to a specific planning area to allow for greater flexibility and specificity.

The West Carson TOD Specific Plan was adopted **by ordinance and resolution** and is intended to be used by residents, business and property owners, developers, designers, County staff, and elected officials in the review of proposed development projects in the project area. The Specific Plan should be used in conjunction with the goals, policies, and regulations in the General Plan and County Code in order to guide users through the development review process. It is important to note that the West Carson TOD Specific Plan only establishes land use zones, land use regulations, and development standards. Any particular development proposals would occur through private investment following the adoption of the Specific Plan.

02

VISION, GOALS, AND POLICIES

VISION, GOALS AND POLICIES

The West Carson TOD Specific Plan is shaped by the community's vision for the area in the future. A combination of underutilized land; a community's desire for a new identity, streetscape and façade improvements, and enhanced pedestrian and bicycle connections; and the project area's proximity to a freeway, Metro transit stop, and a major employment center make West Carson an ideal candidate for reinvestment and future development opportunities. The West Carson TOD Specific Plan will establish the foundation for a more livable, accessible, and sustainable community by:

- Changing zoning to allow for new housing and mixed-use development opportunities
- Focus on a multimodal approach to transportation
- Create a strong identity for the project area
- Allow for development flexibility to meet market demands

The West Carson TOD Specific Plan develops a land use and development framework that could ultimately support 3,431 new residential units, and 3,659,811 new square feet of commercial and employment space.

This chapter will provide a detailed summary of that vision, and describe specific goals and policies to help guide this Specific Plan in achieving that vision.

VISION STATEMENT

This is a vision for how the West Carson Transit Oriented Development Specific Plan area will look 20 years from now as future development decisions and public improvements are guided by the Specific Plan.

The West Carson TOD area is the heart of the unincorporated area known as West Carson. Harbor UCLA Medical Center and LA BioMed are the employment and health care hubs for the area, with the new campus expansion and improvements being well integrated with the adjacent community. The Specific Plan area is safe, attractive, and economically thriving. The area has a unique blend of commercial uses that serve the well-established neighborhoods of West Carson, as well as the employees of the area. Street improvements have made it easier and safer to access transit stations, employment, shopping areas, and schools. Improved transit service and facilities in the area have increased ridership, and reduced commuting by car. New high quality housing and mixed-use development has replaced aging and obsolete buildings along Carson Street and Vermont, adding new life

and activity along these key corridors. This new housing supports local businesses, provides a range of multifamily housing types, increases property values, and helps to meet the demand for housing in the community. Public open space in the form of pocket parks and a multi-purpose path has been developed within the Specific Plan area, helping to address the need for green spaces and outdoor recreation areas. Long-time residents and high levels of home ownership continue to be a hallmark of this community, having only increased with changes guided by the West Carson TOD Specific Plan.



OVERALL GOALS & POLICIES

The overarching goals and policies for the West Carson Specific Plan are intended to provide structure to the plan, and will be used to evaluate future development proposals.



The following goals and policies were developed based on input from the community members, stakeholders, County Task Force, and County staff:

Goal 1: Create a distinct identity in the West Carson community.

- Policy 1.1. Promote a strong and authentic sense of place through community collaboration, compact and walkable building design, a range of housing choices and employment, and enhancement of open space opportunities.
- Policy 1.2. Activate the public realm through the addition of appropriately scaled mixed-use development and attractive streetscape.
- Policy 1.3. Locate defining gateway features at focal entry points.
- Policy 1.4. Address the community's park needs and deficiencies by constructing pocket parks on underutilized parcels, roadway segments, and other spaces that may be repurposed for recreational use.
- Policy 1.5. Preserve the character of residential neighborhoods.
- Policy 1.6. Require proposed development to contribute to a pedestrian-friendly walking environment and neighborhood character.
- Policy 1.7. Design buildings with entrances and windows oriented to the street to emphasize a community,

pedestrian atmosphere. Where possible, on-site parking should not be located in front of a building.

- Policy 1.8. Activate school campuses through programming, such as farmer's markets, sports classes, etc.
- Policy 1.9. Incorporate new development that increases density along corridors and in proximity to transit while respecting the character of surrounding neighborhoods
- Policy 1.10. The expansion and renovation of the Harbor UCLA Medical campus should integrate into and support the activity of the surrounding community.

Goal 2: Improve connections within the community and increase access to transit.

- Policy 2.1. Implement complete streets design that contributes to a multi-modal transportation system in collaboration with Caltrans, Metro, and the City of Carson.
- Policy 2.2. Implement streetscape features such as street lighting, landscaping, and wayfinding to create safer and attractive bike/pedestrian connections and linkages throughout the community.
- Policy 2.3. Improve and prioritize access to local bus stops and the Metro Silver Line Station in new roadway development and design.
- Policy 2.4. Establish a connected pedestrian and bicycle network that links the Metro Silver Line Station, Harbor



Example photo.



Example photo.

UCLA Medical Center, residential neighborhoods, local schools, and retail corridors.

- Policy 2.5. Collaborate with Harbor-UCLA Medical Center to provide enhanced bike and pedestrian facilities on campus property along Carson Street.
- Policy 2.6. Pursue the feasibility of constructing a multi-purpose trail along the 208th Street flood control drain.

Goal 3: Ensure the health and safety of residents, visitors, and employees.

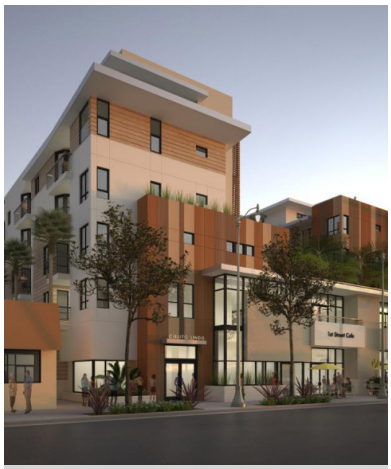
- Policy 3.1. Engage with the surrounding jurisdictions, including Caltrans, to incorporate better lighting and visibility of pedestrian bridges and other public facilities within the project area.
- Policy 3.2. Implement traffic calming features along main corridors to improve safety and flow and discourage vehicular travel through residential neighborhoods.
- Policy 3.3. Create safer routes to schools and parks through increased signage, lighting, landscaping, and pedestrian connections around schools.
- Policy 3.4. Improve visibility and access to the Metro Silver Line Station and local bus stops through increased lighting, signage, and crosswalks.



Example photo.



Example photo.



Example photo.

- » Policy 3.5. Incorporate open space, parks, plazas, and/or recreational facilities as part of new developments to address the community's deficiencies.
- » Policy 3.6. Address long-term over-sized vehicle parking violations through code revisions to improve the safety and aesthetics of the residential neighborhoods and multi-modal transportation.
- » Policy 3.7. Work with service providers to support the transient population affiliated with the Harbor-UCLA Center.

Goal 4: Ensure economic vitality of the project area.

- Continue active engagement and partnership with the Harbor-UCLA Medical Center.
  - » Policy 4.1. Take advantage of the nearby Harbor UCLA Medical Center and provide workforce development and healthcare related employment resources for local residents.
  - » Policy 4.2. Encourage the expansion and retention of high-performing industry clusters within West Carson, including healthcare, biomed, and biotech.
  - » Policy 4.3. Leverage new County Biomed Economic Development initiatives to ensure success of private uses on the Harbor UCLA Med Center campus and help catalyze new investments in the Plan Area.
- Encourage employment-generating uses where possible.
  - » Policy 4.4. Continue to allow employment-generating uses along Vermont Avenue, with the flexibility to incorporate new residential development where feasible.
  - » Policy 4.5. Incorporate adequate buffering and other land use practices to improve the compatibility between industrial and non-industrial uses.
- Leverage existing strong demand for new residential development.
  - » Policy 4.6. Support a broader mix of uses and development along both Carson Street and Vermont Avenue.
  - » Policy 4.7. Preserve existing stock of affordable housing and promote diversification of housing choices for various income groups.

  - » Policy 4.8. Consider development proposals with unique financing that unbundle the cost of parking from the cost of housing.
- Spur a revitalized retail sector along Carson Street.
  - » Policy 4.9. Activate street frontages to encourage retail activity with aesthetic improvements to commercial development.
  - » Policy 4.10. Improve access to shopping centers for pedestrians, vehicles, transit users, and bicyclists.

Goal 5: Encourage a diverse mix of land uses and transit oriented development.

- » Policy 5.1. Provide a variety of housing choices within a half-mile distance to the Carson Metro Silver Line Station.
- » Policy 5.2. Incentivize mixed uses in specific areas to encourage employment-generating uses near the Metro Silver Line Station.
- » Policy 5.3. Reduce parking standards and incorporate parking garages along major corridors to increase the viability of development.

Goal 6: Improve the quality of life for existing residents with improvements to the public realm.

- » Policy 6.1. Make the community a more pleasant place to walk and bike.
- » Policy 6.2. Provide secure bicycle parking adjacent to the Metro Silver Line Station and ensure new development provides bicycle parking.
- » Policy 6.3. Enhance the public realm with street trees, street furniture, bicycle lanes, improved sidewalks, lighting, and pedestrian paths.
- » Policy 6.4. Improve underutilized sites—such as parking lots and vacant property—with community gardens, farmers markets, pocket parks.
- » Policy 6.5. Increase public amenities, such as a community pool, multi-purpose path along the 208th Street drainage channel, recreation center, library, fitness studio, and others.

- Policy 6.6. Encourage outdoor dining and seating areas in mixed-use areas.
- Policy 6.7. Seek out opportunities to enhance the Caltrans park-and-ride lot, to activate the space so that it is an asset to the community.

Goal 7: Maximize the use of sustainable development practices.

- Policy 7.1. Encourage resource-efficient building techniques, materials, and other principles of green building design in new construction, renovation, and landscaping.
- Policy 7.2. Incorporate "green" building practices into the planning, design, construction, and operation of County-owned facilities.
- Policy 7.3. Promote tree planting in the public and private realm for shade, cooling, and aesthetic benefits.



Example photo.

03

LAND USE AND DESIGN GUIDELINES

LAND USE AND URBAN DESIGN FRAMEWORK/REGULATING CODE

3.1 PURPOSE AND SCOPE

This Land Use and Urban Design Framework is intended to achieve a specific pattern of development in accordance with the envisioned future of the West Carson community. The standards in this section regulate the development of buildings, streets, and public spaces with a focus on the physical, built environment and the relationship between the private and public realms. Certain standards may apply only to specific planning areas, and are indicated as such in this section.

Development standards established in this Specific Plan are tailored and summarized to each zoning designation based on its location, adjacent streets, and intended use, as shown in Figure 3.1, Land Use Framework Plan. The Regulating Code below includes development standards for each applicable planning area, as follows:

- Use regulations, which provide permitted and conditionally permitted uses in the Specific Plan area (see Appendix A. Glossary for use definitions). Those uses not specifically listed in this Specific Plan or Title 22 of the County Code, are subject to a determination by the Director of Regional Planning (Director) as either permitted, permitted subject to a conditional use permit, or prohibited consistent with the intent of the planning area and the Specific Plan. Decisions of the Director are appealable to the Regional Planning Commission (RPC).
- Built form standards, which address specific aspects of site development, including building mass and placement adjacent to streets and other buildings.
- Building frontage standards, which identify permitted frontage types per applicable street.
- Open space standards, which address the required amount of private and public open space for residential and nonresidential developments.
- Parking standards, which address the placement and number of required vehicle and bicycle parking spaces for residential and nonresidential developments.
- Landscape standards, which address the placement and type of vegetation, for residential and nonresidential developments.



Example photo.

- Signage standards, which address placement, type, and design for different signs.
- Other design standards, which address other streetscape elements such as lighting, furnishings, public art, outdoor dining, etc.

3.2 LAND USE APPLICABILITY

The provisions of this **Regulating Code** are applicable to all lots in the Specific Plan area and shall supersede the provisions in the County Code. The County shall administer the provisions of this Regulating Code in conjunction with the State of California Government Code and the General Plan and County Code. Where this Regulating Code differs from provisions in the County Code, the provisions herein shall prevail. If the Specific Plan is silent on an issue, the provisions of the County Code shall prevail.

Design standards and guidelines in Section 3.6, Urban Design, of this Specific Plan shall be used in concert with the development standards in the Regulating Code. No construction, modification, addition, placement, or installation of any building or structure shall occur, nor shall any new use commence on any lot, on or after the effective date of this Specific Plan, except in conformity with the provisions of this Specific Plan.

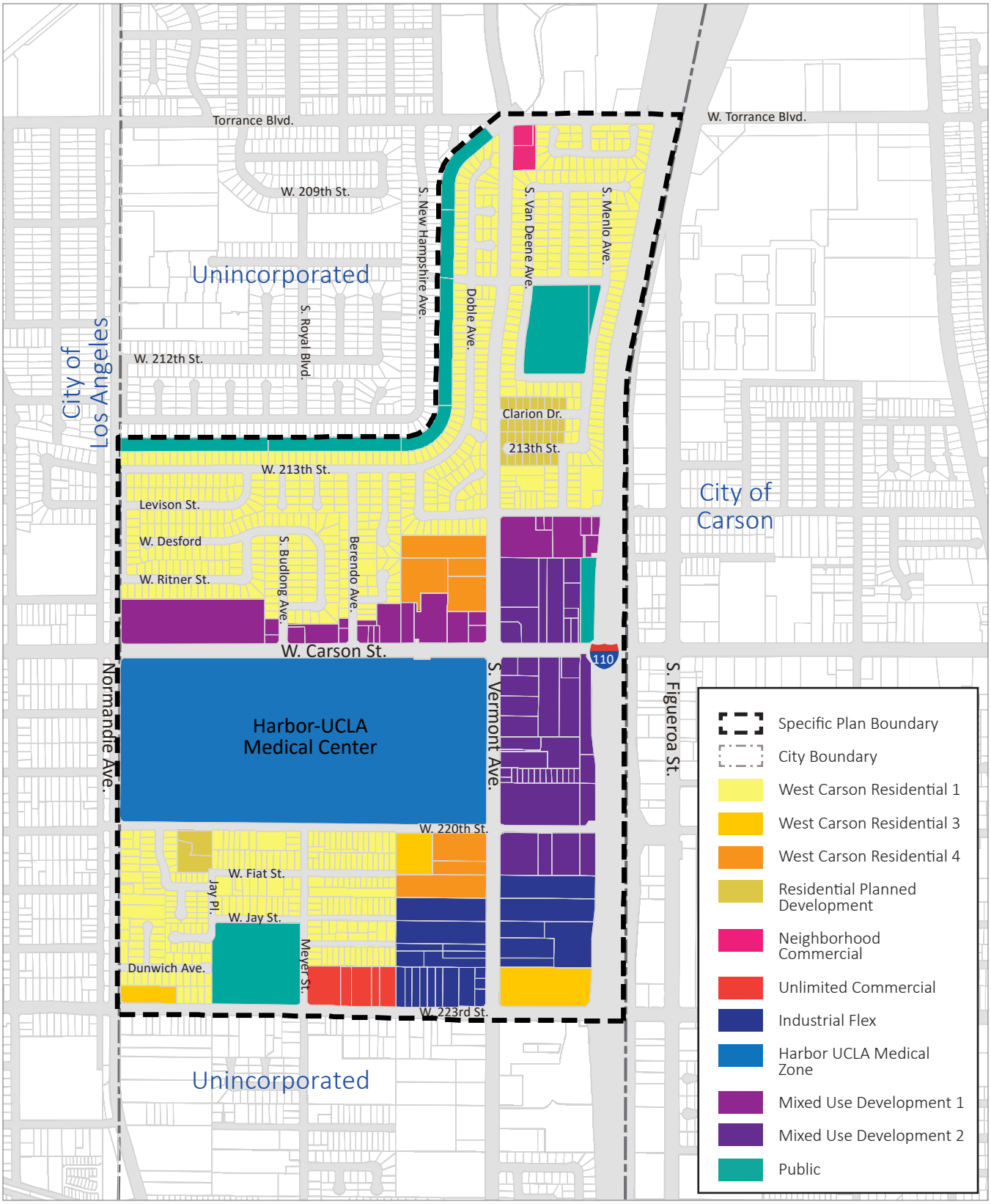
3.3 SPECIAL REQUIREMENTS

The following requirements shall be required for all zoning designations where applicable.

3.3.1 Housing Element Requirements

California law requires that cities and counties zone land to encourage and facilitate their fair share of housing growth—referred to as the regional housing needs assessment (RHNA). The preparation of this Specific Plan provides the County with the opportunity to create new affordable units to accommodate the needs of the residents. Based on the County of Los Angeles 2014 Housing Element, there is remaining development potential that can be accommodated in the West Carson planning area and facilitate lower income residential development. The remaining development potential does not include additional potential density bonus units. Development within the West Carson TOD Plan area may, but is not necessarily anticipated to, occur during the Housing Element planning period.

Figure 3.1 Land Use Framework



3.3.2 Existing Structures

Reuse of existing structures shall comply with applicable codes, including but not limited to Title 26 of the County Code (Building Code), Title 24 of the California Code of Regulations (physical access regulations), and requirements of the Americans with Disabilities Act (ADA).

Demolition of existing structures may be required by the County under the following conditions:

- Where information determines the need for demolition to eliminate public health and safety risk.
- To accommodate the completion of public improvements.
- To properly implement the permanent development intent of the plan and site in which the structure is located.

Prior to issuance of use and occupancy permits, existing buildings, open space areas, and other site improvements shall be aesthetically upgraded through architectural and landscape improvements. Such improvements may include, but are not limited to:

- Upgraded façade treatments, including the use of plaster, brick, stone, and/or other approved materials.
- Upgraded window types and treatments.
- Upgraded entries, including doorways, covered walkways, decorative paving.
- Upgraded roofing materials and roof overhangs.
- Updated color scheme for buildings.
- Decorative treatment of all exposed site walls.
- Enhancement of private patios and balconies.
- Upgraded appearance of entrances, including doorways, walkways, driveways, and decorative paving.
- Extensive planting of trees and shrubs throughout the site, including parking areas and common open space areas.
- Improved landscape design of front yards and common areas.
- Improved landscape design along building perimeters and entries.
- Improvements to common recreational areas including provision of shelters, lighting, and refurbishing of facilities.



Example photo.



Example photo.



Example photo.

- Addition of pedestrian amenities including paths, benches, shade trees, trash receptacles, drinking fountains, lighting, and decorative paving.
- Addition of bicycle facilities including bike racks.
- Creation of project entryways through signage and landscape design, as applicable.
- Creation of signage program for building identification and directional signs.
- Upgraded and consistent signage, including project identification, addressing, and directional signs.
- Enhanced lighting scheme for building entrances, common areas, paths, and parking areas.
- Application of defensible space techniques in landscaping and lighting.



Example photo.

Table 3.1 Land Use Summary

ZONING DESCRIPTION	ACRES	PERCENT	ESTIMATED BUILDOUT	
			RESIDENTIAL	NON-RESIDENTIAL
RESIDENTIAL				
West Carson Residential 1	118	37.0%	851 units	-
West Carson Residential 3	7	2.2%	171 units	-
West Carson Residential 4	12	3.8%	484 units	-
Residential Planned Development	5	1.7%	88 units	-
NON-RESIDENTIAL				
Neighborhood Commercial	1	0.4%	-	14,787 sq. ft.
Unlimited Commercial	4	1.3%	30 units	50,620 sq.ft.
Industrial Flex	22	6.8%	486 units	1,133,779 sq. ft.
Harbor UCLA Medical	71	22.4%	100 units	1,941,339 sq.ft.
Mixed Use Development 1	20	6.2%	143 units	483,460 sq.ft.
Mixed Use Development 2	31	9.8%	1,223 units	978,675 sq.ft
Public	27	8.5%	-	-
TOTAL	**319**	**100%**	**3,574***	**4,602,660 sq. ft.**

* Note: The total may not equal the sum of the components due to rounding.

3.4 REGULATING CODE

3.4.1 West Carson Residential 1 (R-1)

3.4.1.1 Purpose and Intent

The West Carson Residential 1 (R-1) Zone is intended to preserve the scale and form of the area's existing single-family residential neighborhoods. The R-1 Zone provides primarily for single-family detached homes, up to nine dwelling units per acre. This designation also permits living suites under specific conditions and locations within the specific plan area. Within this designation are larger lots that may be suitable for second units as an accessory use, as defined in Chapter 22.52 and modified herein.

Development Potential Summary

- Total Developable Area: 118 acres
- Residential: Max. 842 units (does not include 35 percent density bonus units)

3.4.1.2 Use Regulations (R-1)

The land use regulations define permitted, conditionally permitted, and prohibited uses in R-1 Zone, as shown in Table 3.3, Use Regulations (R1). Use regulations shall remain consistent with Chapter 22.20, R-1 Single Family Residence Zone, unless otherwise specified in this section.

Accessory uses and structures are permitted when customarily associated with, and subordinate to, a permitted use on the same site, and would include:

- Carport
- Garage/garage conversions
- Home occupation subject to provisions of Section 22.44.1490 of Title 22 of the County Code
- Patio cover/trellis
- Swimming pool, spa, jacuzzi

Figure 3.2 Proposed Zoning: West Carson Residential 1 Areas

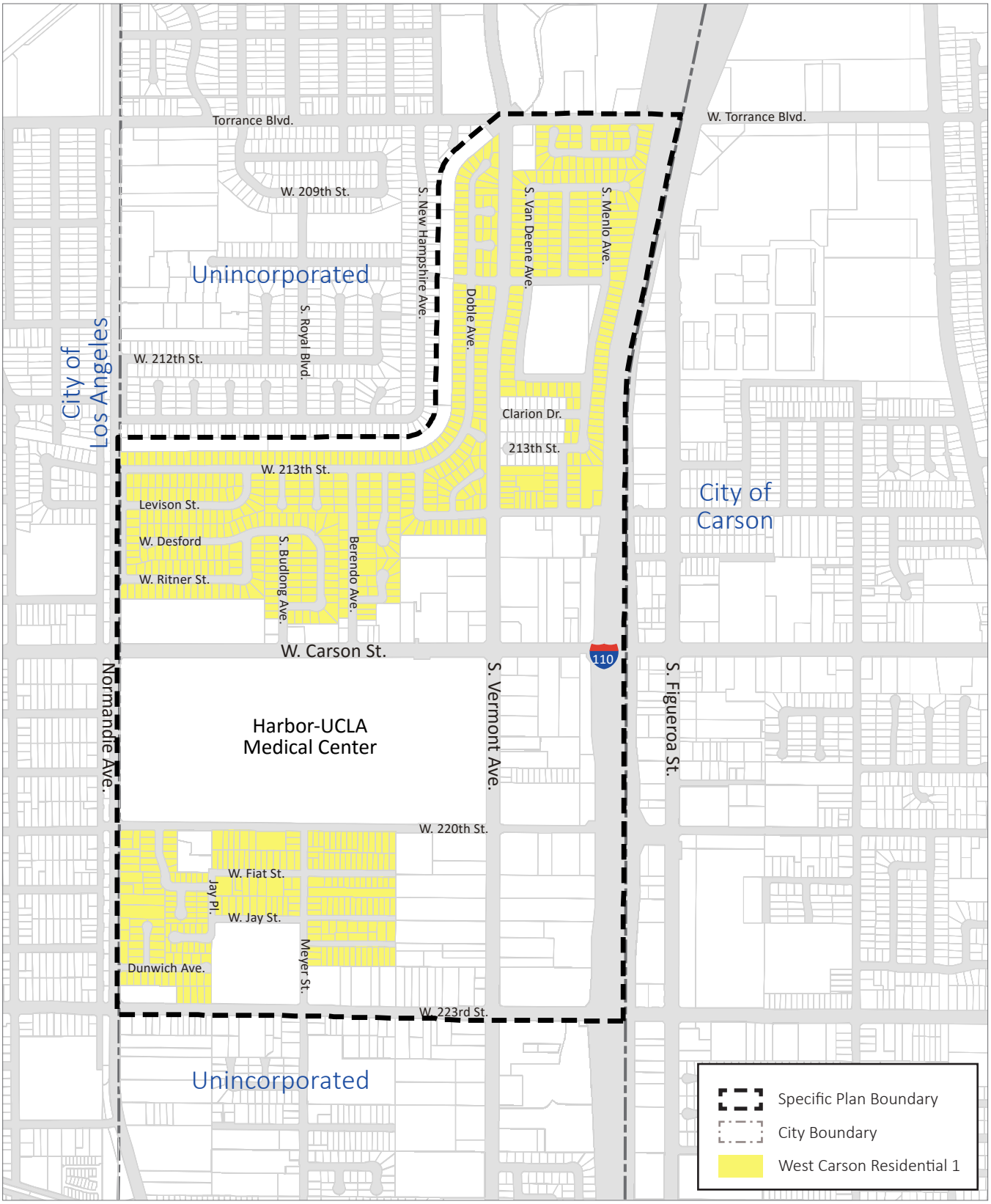


Table 3.2 Use Regulations: R-1 Zone

USE	
RESIDENTIAL	
Mobile home units	Prohibited
Condominium and cooperative	Conditional
Multiple-family dwelling unit (apartment)	Prohibited
PUBLIC/INSTITUTIONAL	
School, public or private community college/ educational campus	Conditional
Parks and playgrounds with appurtenant facilities customarily found in conjunction therewith	Permitted
Residential care facility for six or fewer persons	Permitted
Farmworker dwelling unit	Conditional
COMMERCIAL	
Community care facility for six or fewer persons	Permitted
Transitional/emergency housing (maximum of 12 units)	Conditional
Juvenile halls	Prohibited

Table Notes

1. This table only reflects uses that are different from Section 22.20.070 of Title 22.

3.4.1.3 Development Standards

Standards for the R-1 Zone shall remain consistent with Chapter 22.20 (R-1 Single Family Residential Zone) in Title 22 of the County Code unless otherwise specified in this section and Section 3.6, Urban Design Standards, below. The following development standards regulate new site and building development by establishing standards for intensity, building height, open space, and other elements. They have been developed to accommodate the single-family residential uses anticipated. They are intended to preserve established single-family neighborhoods, improve connectivity, and provide screening and landscape design along roadways.

Table 3.3 Site Configuration Regulations: R-1 Zone

TYPE	MINIMUM	MAXIMUM
DENSITY		
Single-family	1 du/ac	9 du/ac
BUILDING SETBACK[1]		
Front Setback	15 ft.	None
Side Setback	5 ft.[2]	None
Rear Setback	10 ft.	None
BUILDING HEIGHT		
Floors	None	2 stories
Building Height	None	35 ft.[3]

Table Notes

1. Where a lot or parcel of land is less than 50 feet in width, such lot or parcel of land may have interior side yards equal to 10 percent of the average width, but in no event less than three feet in width.

2. Minimum landscaped areas are required within building setback areas per Sections a, Landscaping; 3.6.3.1, Landscaping, below; and 4.0, Mobility and Public Realm Strategy. Building setbacks from streets are measured from back of rights-of-way.

3. Building height shall be determined from the finished grade within 5 feet of the structure to the highest point of the structure, excluding chimneys and rooftop antennas.

a. Landscaping

- Drought-tolerant landscaping requirements shall be consistent with Section 4.106.5 of Title 31 (Green Building Standards) of the County Code.
- Front Yard Landscaping
  - » With the exception of the required paved driveway and walkway, all areas within the street-fronting yard shall be landscaped and maintained.
- Wherever possible, existing trees shall be maintained.

- Fences
  - If perimeter fencing is required for security reasons, a Ministerial Site Plan Review application shall be required. The Director may approve wrought-iron style fences up to five feet high that do not obscure views.
  - Fence design may include a combination solid wall and open fencing as long as over 50 percent of the wall is transparent.
  - Barbed wire and chain-link fencing are prohibited.
- Utility and mechanical equipment
  - All utility and mechanical equipment shall be placed in locations that are not exposed to view from the street or shall be screened from view. Satellite dishes shall be located away from public view.
  - Screening elements shall be an integral part of the building's design.

b. Special Requirements

- Second units shall be consistent with Section 22.52 of Title 22, Second Units, except:
  - The maximum height shall be 24 feet for detached units.
  - The rear yard setback shall be 10 feet minimum.
  - The minimum floor area for second units shall be 400 square feet.
- Living suites. A living suite, as defined in Chapter 22.14 (Definitions) of Title 22, shall be permitted as an accessory use in the R-1 Zone with a Ministerial Site Plan Review application (Chapter 22.146 of Title 22), and explained as follows:
  - A living suite shall not be permitted on a lot or parcel of land where any of the following exists:
    - i. A guest house, as defined in Chapter 22.14 of Title 22; or
    - ii. A second unit, as defined in Chapter 22.14 of Title 22.
- Garage conversions shall be consistent with Chapter 11.20.370 in Title 11 (Health and Safety), Efficiency Living Units, and Chapter 22.52 of Title 22, Second Units.

c. Parking

- Required parking for Living/Second Units can be covered or uncovered.

3.4.2. West Carson Residential 3 Zone (R-3)

3.4.2.1 Purpose and Intent

The West Carson Residential 3 (R-3) Zone is intended to provide opportunities for medium density developments containing multiple units, such as townhomes and stacked flats up to 30 dwelling units per acre. The development standards for this designation promote a variety of attached products types, including courtyard housing, row homes, garden apartments, and podium developments to provide a variety of housing options to serve the needs of the West Carson community.

a. Development Potential Summary

- Total Developable Area: 7 acres
- Residential: Max. 162 units (does not include 35 percent density bonus units)

3.4.2.2 Use Regulations

The land use regulations define permitted uses within the R-3 Zone as shown in Table 3.5, Use Regulations: R-3. Use regulations shall remain consistent with Chapter 22.20, R-3 Limited Density Residence Zone, unless otherwise specified in this section.

Accessory uses and structures are permitted when customarily associated with, and subordinate to, a permitted use on the same site.

Figure 3.3 Proposed Zoning: West Carson Residential 3 Areas

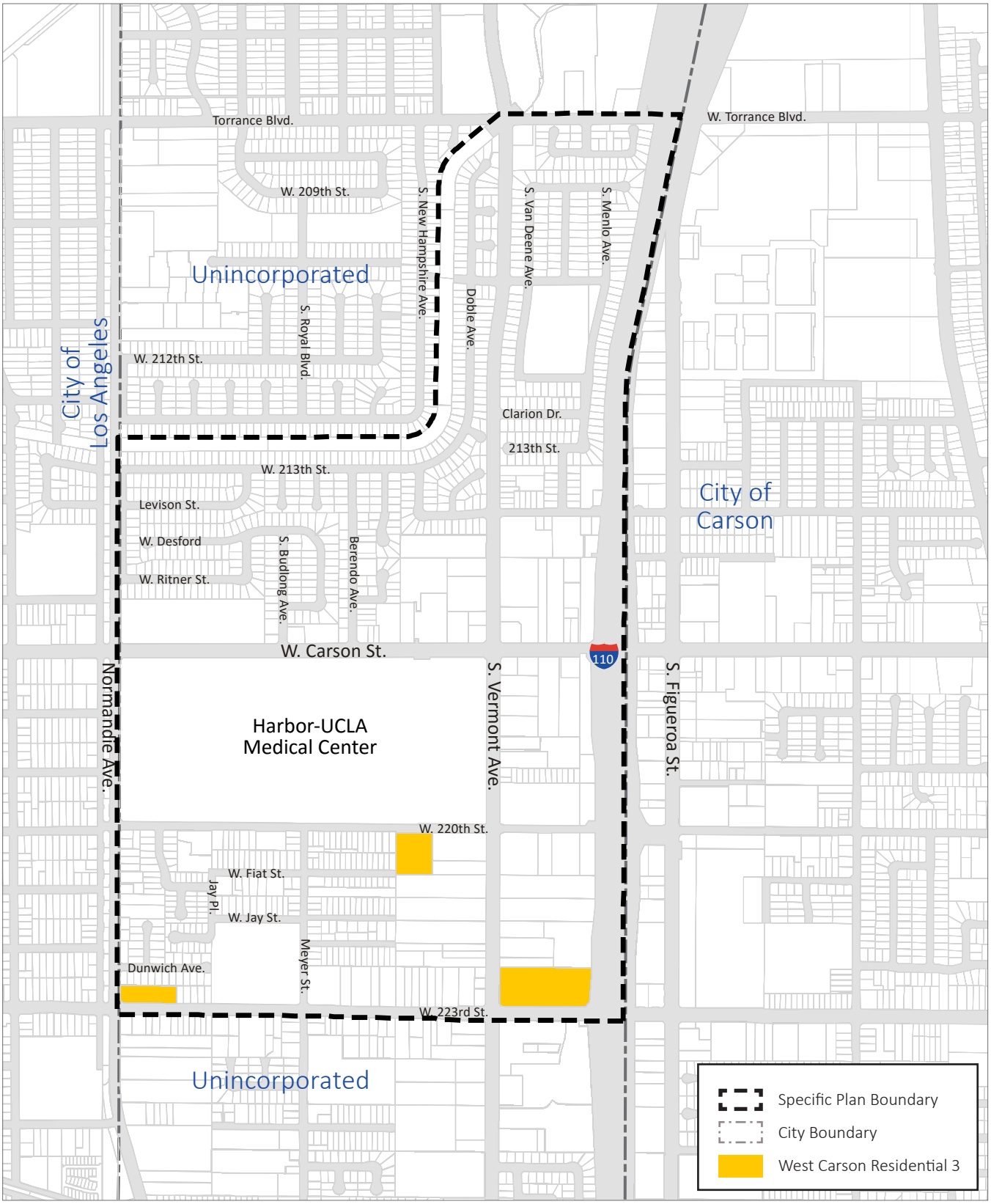


Table 3.4 Use Regulations: R-3 Zone

USE	
RESIDENTIAL	
Single-family detached and attached dwelling units	Permitted
Multi-family dwelling unit	Permitted
Patio home	Conditional
Mobile home units	Prohibited
PUBLIC/INSTITUTIONAL	
School, public or private community college/ educational campus	Conditional
Churches, temples and other places of worship	Conditional
Nursery school or childcare center	Conditional
Parks, playgrounds with appurtenant facilities customarily found in conjunction therewith	Permitted
COMMERCIAL	
Community care facility for six or fewer persons	Permitted
Condominium and cooperative	Permitted
Convalescent hospital	Conditional
Family care home, foster home, or group home for six or fewer persons	Permitted
Golf courses	Prohibited
Juvenile halls	Prohibited
Transitional/emergency housing	Conditional

3.4.2.3 Development Standards

Standards for the R-3 Zone shall remain consistent with Chapter 22.20, R-3 Limited Density Multiple Residence Zone, unless otherwise specified in this section and Section 3.6, Urban Design Standards, below. The following development standards regulate new site and building development by establishing standards for intensity, building height, open space, and other elements. They have been developed to accommodate the single- and multi-family residential uses anticipated. They are intended to buffer established single-family neighborhoods from non-residential uses, improve connectivity, and provide screening and landscape design along roadways.

Table 3.5 Site Configuration Regulations: R-3 Zone

TYPE	MINIMUM	MAXIMUM
DENSITY		
Multi-family	18 du/ac	30 du/ac[1]
BUILDING SETBACK		
Front Setback	10 ft.	None
Side Setback	5 ft.	None
Rear Setback	10 ft.	None
BUILDING HEIGHT		
Floors	None	3 stories
Building Height	None	40 ft[2]

Table Notes

1. Not including up to 35% density bonus allowed per Section 22.52.1830, Density Bonus, and 50% density bonus per Section 22.52.1870, Senior Citizen Housing Option, in Part 17 in Title 22 of the County Code.

2. Building height shall be determined from the finished grade within five feet of the structure to the highest point of the structure, excluding chimneys and rooftop antennas.

a. Landscaping

- Drought-tolerant landscaping requirements shall be consistent with Section 4.106.5 in Title 31 (Green Building Standards) of the County Code.
- Required Open Space: 200 suare feet per dwelling unit for multi-family developments for common recreational-leisure areas, private areas, or a combination of both as follows:
  - » Minimum dimension for private areas is 7 feet.
  - » Minimum dimension for common areas is 20 feet.
  - » Side and rear yards may be included in the calculation of open space, but not required front yard setback area.
  - » Open space areas shall have no parking, driveway, or right-of-way encroachments.
  - » All common areas shall be improved as either active or passive facilities, with landscaping or hardscape elements designed to serve the residents of the project. All common areas shall be developed and professionally maintained in accordance with approved landscape and irrigation plans.
  - » Pedestrian walkways within a project shall be a minimum of four feet in width.
  - » Private useable open space shall be contiguous to the residential units served and screened for privacy.
  - » Courtyard internal to a project, or enclosed on at least three sides, shall have a minimum of width of forty feet.
- Front Yard Landscaping
  - » With the exception of the required paved driveway and walkway, all areas within the street-fronting yard shall be landscaped and maintained.
  - » Where possible, existing trees shall be maintained.
- Fences
  - » If perimeter fencing is required for security reasons, a Ministerial Site Plan Review application shall be required. The Director may approve wrought-iron style fences up to five feet high that do not obscure views.
  - » Fence design may include a combination solid wall and open fencing, as long as over 50 percent of the wall is transparent.
  - » Barbed wire and chain-link fencing are prohibited.

- Utility and Mechanical Equipment
  - » All utility and mechanical equipment shall be placed in locations that are not exposed to view from the street or shall be screened from view. Satellite dishes shall be located away from public view.
  - » Screening elements shall be an integral part of the building's design.

b. Circulation and Parking

- Bicycle and pedestrian circulation facilities shall provide connections to surrounding uses in the plan area and to regional bicycle facilities where applicable.
- Parking shall not occupy more than 30 percent of the total frontage on any linear front or side street.
- Parking shall not be located in the street-fronting yard area.
- Carports shall be architecturally compatible with the design of the main structures in the project.
- Parking structures shall be architecturally integrated with the project design and shall be screened from view at street level by architectural detailing, façade treatment, artwork, landscaping, or similar visual features to enhance the street façade.
- Use of asphalt for paving driveways and walkways is prohibited.

c. Special Requirements

- Living suites. A living suite, as defined in Chapter 22.14 (Definitions) of Title 22, shall be permitted as an accessory use in the R-3 Zone with a Ministerial Site Plan Review application (Chapter 22.146 of Title 22), and explained as follows:
  - » A living suite shall not be permitted on a lot or parcel of land where any of the following exists:
    - ○ i. A guest house, as defined in Chapter 22.14 of Title 22; or
    - ○ ii. A second unit, as defined in Chapter 22.14 of Title 22.

c. Parking

- Required parking for Living/Second Units can be covered or uncovered.

3.4.3 West Carson Residential 4 (R-4)

3.4.3.1 Purpose and Intent

The West Carson Residential 4 (R-4) Zone is established to provide opportunities for development of high density multiple units, as either apartments or condominiums, up to 50 dwelling units per acre. The intent is to promote desirable high density projects close to transit and other services. The development standards for this designation promote a variety of product types given the range of lot sizes and configurations. This designation is also intended to encourage the development of affordable and workforce housing to serve the needs of the West Carson community, and especially associated with Harbor-UCLA Medical Center.

a. Development Potential Summary

- Total Developable Area: 12 acres
- Residential: Max. 458 units (does not include 35 percent density bonus units)

3.4.3.2 Use Regulations

The land use regulations that define permitted, conditionally permitted, and prohibited uses within R-4 Medium Density Multiple Residence Zone are consistent with Chapter 22.20 except as noted in Table 3.8, Use Regulations for the R-4 Zone, or as noted below under Accessory Uses.

Accessory uses and structures are permitted when customarily associated with, and subordinate to, a permitted use on the same site, and would include:

- Administrative office
- Caretaker's quarter
- Assembly/multi-purpose building
- Maintenance/storage facility and structure
- Patio cover/trellis
- Swimming pool, spa, Jacuzzi
- Tennis court, basketball courts, and other multi-purpose courts, recreation and community buildings.

Figure 3.4 Proposed Zoning: West Carson Residential 4 Areas

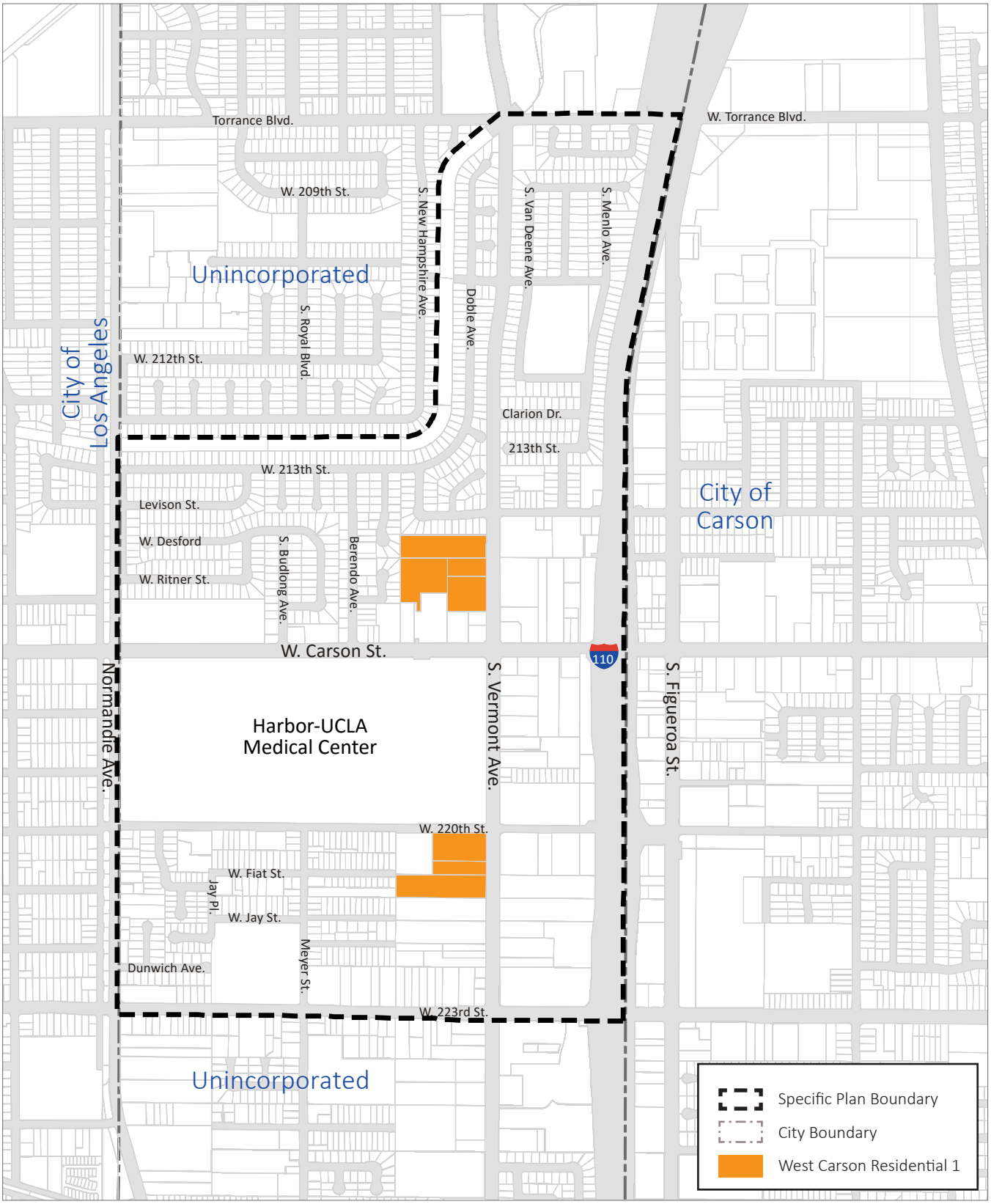


Figure 3.5 Streets with Frontage Requirements



Table 3.6 Use Regulations: R-4 Zone

USE	
RESIDENTIAL	
Condominium and cooperative	Permitted
Mobile home units	Prohibited
Single-family attached and detached dwelling units	Prohibited
Patio home	Prohibited
PUBLIC/INSTITUTIONAL	
Churches, temples and other places of worship	Conditional
School, public or private community college/ educational campus	Conditional
Residential care facility for six or fewer persons	Conditional
COMMERCIAL	
Community care facility for six or fewer persons	Permitted
Convalescent hospital	Conditional
Family care home, foster home, or group home for six or fewer persons	Permitted
Golf courses	Prohibited
Hotel	Prohibited
Transitional/emergency housing	Conditional

3.4.3.3 Development Standards

Standards for the R-4 Zone shall remain consistent with Chapter 22.20, R-4 Medium Density Multiple Residence Zone, unless otherwise specified in this section and Section 3.6, Urban Design Standards, below. The following development standards regulate new site and building development by establishing standards for intensity, building height, open space, and other elements. They have been developed to accommodate the multi-family residential uses anticipated.

Table 3.7 Site Configuration Regulations: R-4 Zone

TYPE	MINIMUM	MAXIMUM
DENSITY		
Multi-family	30 du/ac	50 du/ac[1]
BUILDING SETBACK		
Front Setback	10 ft.	None
BUILDING HEIGHT		
Floors	None	4 stories
Building Height	None	50 ft[2]

Table Notes:

1. Not including up to 35% density bonus allowed per Section 22.52.1830, Density Bonus, and 50% density bonus per Section 22.52.1870, Senior Citizen Housing Option, in Part 17 in Title 22 of the County Code.

2. Building height shall be determined from the finished grade within five feet of the structure to the highest point of the structure, excluding chimneys and rooftop antennas.

a. Frontages

All new development within the R-4 Zone adjacent to a street with frontage requirements, as shown in Figure 3.5, Streets with Frontage Requirements, shall have a primary building façade and entry from the identified street and must adhere to the following building frontage requirements. These frontages dictate the relationship between the street (back of right-of-way) and the façade of the ground floor of the building (see Section 3.6.2, Building Design, for building frontage design standards and guidelines).

- Building orientation shall be determined by the location of the primary entrance, which shall indicate the front of the building.
- Where not a designated frontage, all building sides abutting major public rights-of-way shall require architectural treatment.
- Pedestrian access to public right-of-way is required either through common corridors or courtyards from buildings adjacent to the road.
- Open fencing is allowed, but a solid wall higher than three feet is not allowed.

Table 3.8 Frontage Categories: R-4 Zone

TYPE	VERMONT AVENUE
Shopfront	Permitted
Forecourt	Permitted
Gallery	Permitted
Arcade	Permitted
Terrace	Permitted
Stoop	Permitted

Table Notes

1. See Section 3.6.2, Building Design, for building frontage design standards and guidelines.

b. Built Form & Landscaping

- Residential development shall provide adequate private or common laundry facilities reserved for the exclusive use of the residents residing in the development.
- Use of asphalt for paving driveways and walkways is prohibited.
- Required Open Space: 200 square feet per dwelling unit for multi-family developments for common recreational-leisure areas, private areas, or a combination of both as follows:
  - » Minimum dimension for private areas is seven feet.
  - » Minimum dimension for common areas is 20 feet.
  - » Side and rear yards may be included in the calculation of open space, but not the required front yard setback area.

- Open space areas shall have no parking, driveway, or right-of-way encroachments.
- All common space areas shall be improved as either active or passive facilities, with landscaping or hardscape elements designed to serve the residents of the project, and should have strong connections to building entries and pedestrian paseos.
- All common areas shall be developed and professionally maintained in accordance with approved landscape and irrigation plans.
- Pedestrian walkways within a project shall be a minimum or four feet in width.
- Private useable open space shall be contiguous to the residential units served and screened for privacy.
- Courtyard internal to a project, or enclosed on at least three sides, shall have a minimum of width of 40 feet.

- Site Landscaping
  - A minimum of 20 percent of the project site shall be landscaped or hardscaped with open, useable outdoor space.
  - With the exception of the required paved driveway and walkway, all areas within the street-fronting setback area shall be landscaped and maintained.
  - Where possible, existing trees shall be maintained.
  - Post-construction landscape designs shall comply with all Green Building Landscape Design standards per Section 4.106.5 in Title 31 (Green Building Standards) of the County Code. Specifically:
    - Turf areas shall not exceed 25 percent of the total landscaped area.
    - Non-invasive drought-tolerant plant and tree species appropriate for the climate zone region shall be utilized in at least 75 percent of the total landscaped area.
    - Hydrozoning irrigation techniques shall be incorporated into the landscape design.

- Fences
  - » If perimeter fencing is required for security reasons, a Ministerial Site Plan Review application shall be required. The Director may approve wrought-iron style fences up to five feet high that do not obscure views.
  - » Fence design may include a combination solid wall and open fencing, as long as over 50 percent of the wall is transparent.
  - » Barbed wire and chain-link fencing are prohibited.
- Utility and Mechanical Equipment
  - » All utility and mechanical equipment shall be placed in locations that are not exposed to view from the street or shall be screened from view. Satellite dishes shall be located away from public view.
  - » Screening elements shall be an integral part of the building's design.

c. Circulation and Parking

- Bicycle and pedestrian circulation facilities shall provide connections to surrounding uses and to the plan area networks.
- Parking shall not occupy more than 30 percent of the total frontage on any linear front or side street.
- Parking shall not be located in the street-fronting yard area.
- Carports shall be architecturally compatible with the design of the main structures in the project.
- Parking structures shall be architecturally integrated with the project design and shall be screened from view at street level by architectural detailing, façade treatment, artwork, landscaping, or similar visual features to enhance the street façade.

3.4.4. Residential Planned Development

3.4.4.1 Purpose and Intent

The Residential Planned Development Zone is established, consistent with Section 22.18.050, RPD Residential Planned Development in Title 22, to promote residential amenities beyond those expected under conventional single-family development, to achieve greater flexibility in design, to encourage well-planned neighborhoods through creative and imaginative planning as a unit, and to provide for appropriate use of land that is sufficiently unique in its physical characteristics or other circumstances to warrant special methods of development.

a. Development Potential Summary

- Total Developable Area: 5 acres
- Residential: 87 dwelling units

3.4.4.2 Use Regulations

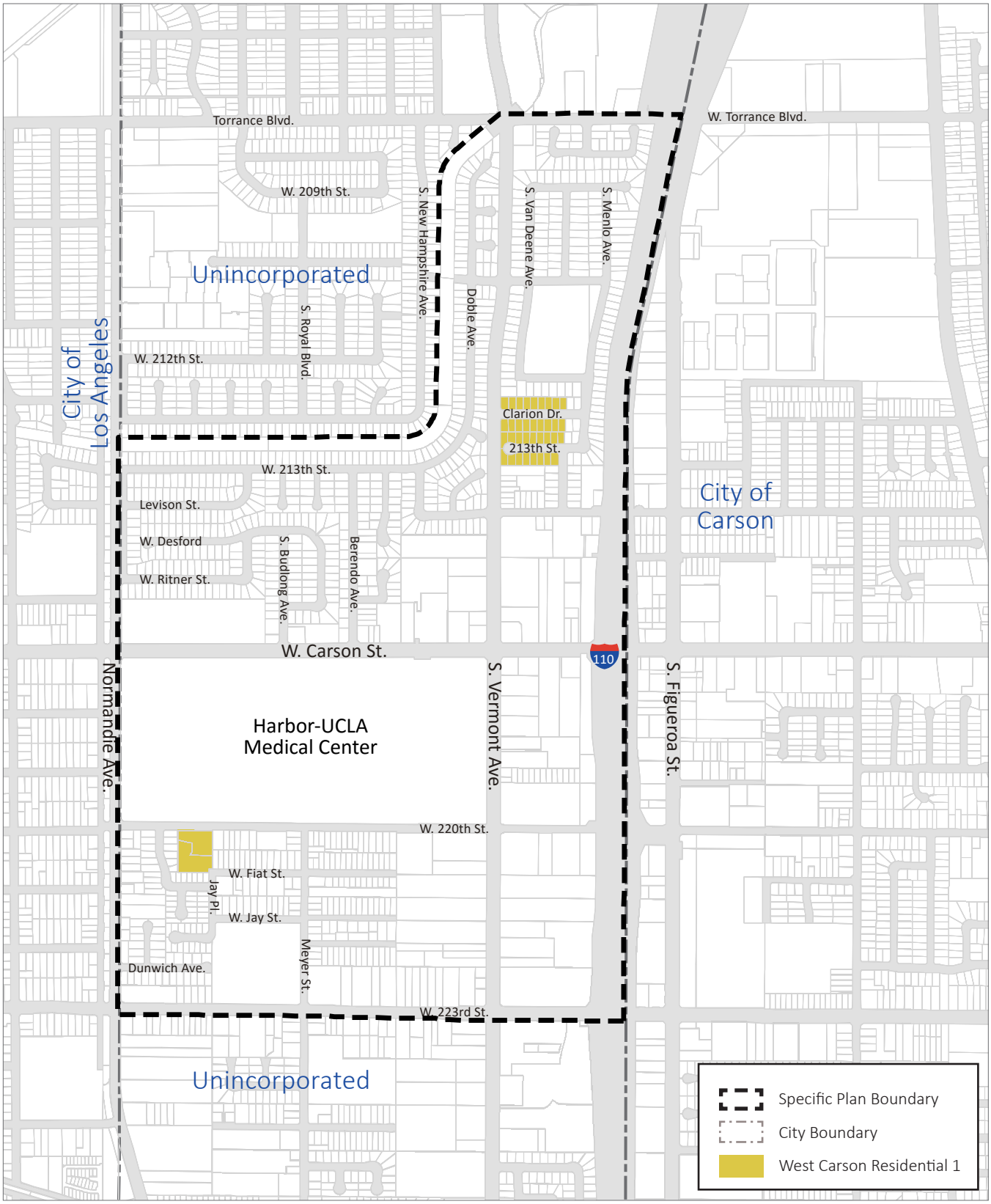
The land use regulations that define permitted, conditionally permitted, and prohibited uses within Residential Planned Development Zone shall remain consistent with Chapter 22.20.46 in Title 22.

Accessory uses and structures are permitted when customarily associated with, and subordinate to, a permitted use on the same site.

3.4.4.3 Development Standards

Standards for the Residential Planned Development Zone shall remain consistent with Chapter 22.20 (Residential Planned Development Zone) in Title 22 of the County Code.

Figure 3.6 Proposed Zoning: Residential Planned Development Areas



3.4.5 Neighborhood Commercial (NC)

3.4.5.1 Purpose and Intent

The Neighborhood Commercial (NC) Zone is established to serve the local retail and service needs of the residents in West Carson. This zone is suited for the two- to five-acre shopping center, often anchored by a grocery store, with ancillary goods, services, and restaurants that serve the daily needs of nearby residents. The intent is to maintain and promote the continuation of the neighborhood-service commercial center along the northern edge of the Study Area at Vermont Avenue. The NC Zone allows for the development of a range of neighborhood-serving retail and service uses.

a. *Development Potential Summary*

- Total Developable Area: 1 acre
- Non-residential: 14,787 sq. ft.

3.4.5.2 Use Regulations: NC Zone

The land use regulations define permitted, conditionally permitted, and prohibited uses within the NC Zone, as shown in Table 3.10, Use Regulations: NC Zone. Use regulations for the NC Zone shall remain consistent with Chapter 22.28, C-2 Neighborhood Business, unless otherwise specified in this section.

Accessory uses are permitted within a detached subordinate building or structure, the use of which is customarily identical to that of the main building or the main use of the land, and which is located in the same or a less restrictive zone on the same lot or parcel of land with the main building or use. A Ministerial Site Plan Review application shall be required for any proposed accessory uses. The Director may approve accessory uses that are consistent with the use regulations and development standards of the NC Zone.

Figure 3.7 Proposed Zoning: Neighborhood Commercial Areas

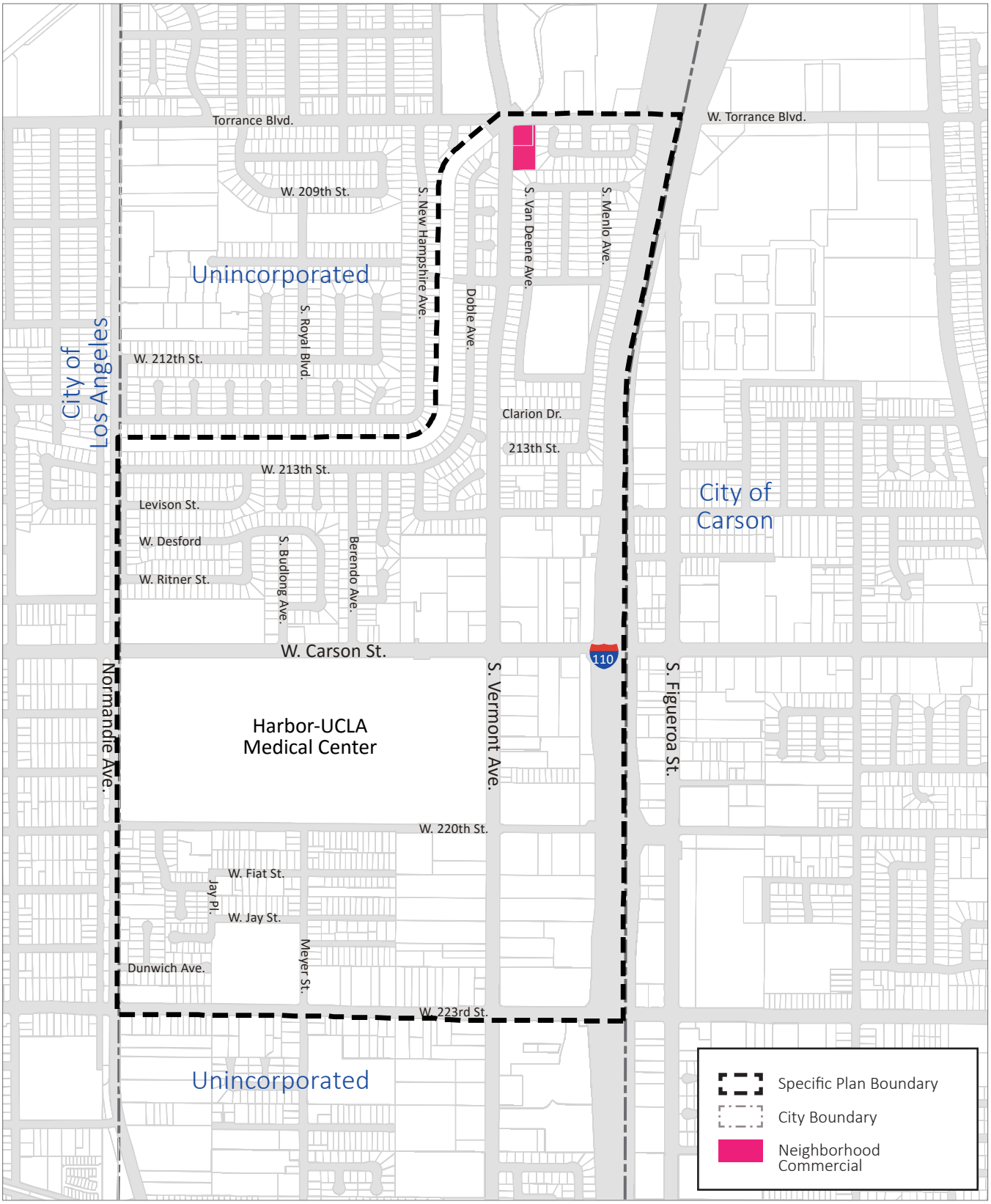


Table 3.9 Use Regulations: NC Zone

USE	
RESIDENTIAL	
Single-family dwelling unit	Prohibited
Mixed use developments	Conditional
Multi-family dwelling unit	Prohibited
PUBLIC/INSTITUTIONAL	
School, private or public	Conditional
Residential care facility for six or fewer persons	Prohibited
Family care home, foster home, or group home for six or fewer persons	Prohibited
Fire station	Conditional
SERVICE COMMERCIAL	
Acute care/rehabilitation uses	Conditional
Automobile service station	Prohibited
Automobile battery and repair shops	Prohibited
Amusement rides and devices	Prohibited
Bulk recycling vending	Prohibited
Car wash	Prohibited
Tobacco shops	Prohibited
Union halls	Prohibited

3.4.5.3 Development Standards

Standards for the NC Zone shall remain consistent with Chapter 22.20.030 (C-2 Neighborhood Business Zone) in Title 22 of the County Code unless otherwise specified in this section and Section 3.6, Urban Design Standards, below. The following development standards regulate new site and building development by establishing standards for intensity, building height, open space, and other elements. They have been developed to accommodate the neighborhood-serving retail and service uses anticipated. They are intended to maintain and promote the continuation of the neighborhood-service commercial center along the northern edge of the study area at Vermont Ave.

Table 3.10 Site Configuration Regulations: NC Zone

TYPE	MINIMUM	MAXIMUM
FLOOR AREA RATIO (FAR)		
	None	.35
BUILDING SETBACK		
Carson Street	10 ft.	None
Torrance Boulevard	10 ft.	None
Interior Yard (Side or Rear)	0 ft.	None
Interior Yard Adjacent to Residential (Side or Rear)	15 ft.	None
BUILDING HEIGHT		
Building Height	None	45 ft.[1]

Table Notes

1. Building height shall be determined from the finished grade within five feet of the structure to the highest point of the structure, excluding chimneys and rooftop antennas.

a. *Landscaping*

- Site Landscaping
  - » A minimum of 20 percent of the lot shall be landscaped with trees, shrubs, ground cover, flowering perennials and biennials and shall be continuously maintained in good condition. Parking lot landscaping does not count toward this requirement. Pedestrian walkways, plazas, and outdoor dining areas may be developed in the landscape area. Setback areas may be included this requirement.
  - » Part 20 Chapter 22.52 establishes site tree requirements, including those for surface parking lots.
- Sites with multiple buildings shall be clustered to the extent possible with shared outdoor spaces and with direct pedestrian access between uses, from parking areas, and from the street.
- Buildings shall be oriented to the street.

b. *Circulation & Parking*

- Bicycle and pedestrian circulation facilities shall provide connections to surrounding uses and to the plan area networks.

3.4.6 Unlimited Commercial (UC)

3.4.6.1 Purpose and Intent

The Unlimited Commercial (UC) Zone is established to meet the commerce and service needs of the resident and business community of West Carson, while ensuring compatibility with adjacent land uses. Given proximity to the elementary school and single-family neighborhoods, multi-family residential is also allowed in a stand-alone or mixed-use configuration up to 30 dwelling units per acre. The intent is to encourage a range of retail, personal, and professional services, as well as multi-family residential in a well-designed, walkable environment.

a. Development Potential Summary

- Total Developable Area: 4 acres
- Non-residential: 50,620 square feet
- Residential: 28 units

3.4.6.2 Use Regulations: UC Zone

The land use regulations define permitted, conditionally permitted, and prohibited uses within the UC Zone, as shown in Table 3.12, Use Regulations: UC Zone. Use regulations for the Unlimited Commercial Zone shall remain consistent with Chapter 22.28, Part 4 (C-3 General Commercial Zone) in Title 22 of the County Code unless otherwise specified in this section.

Accessory uses and structure are permitted when customarily associated with, and subordinate to, a permitted uses on the same site.

Table 3.11 Use Regulations: UC Zone

USE	
RESIDENTIAL	
Multi-family dwelling unit	Permitted
PUBLIC/INSTITUTIONAL	
School, private	Permitted
Preschool, public or private	Permitted
Residential care facility for six or fewer persons	Permitted

Figure 3.8 Proposed Zoning: Unlimited Commercial Areas

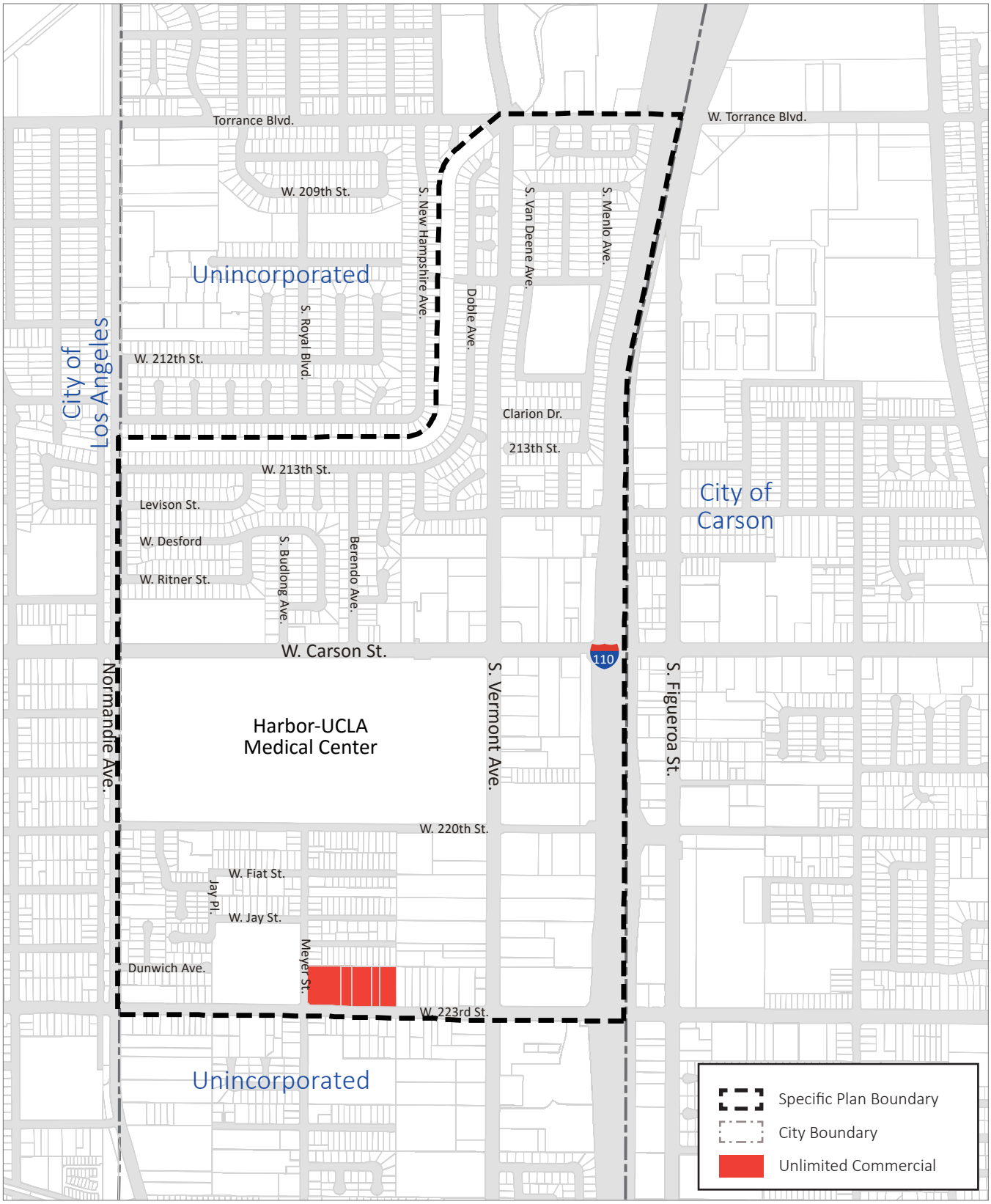


Table 3.11 Use Regulations: UC Zone

USE	
Family care home, foster home, or group home for six or fewer persons	Permitted
COMMERCIAL SALES	
Auction houses	Prohibited
Boat and other marine sales	Prohibited
Mobile home sales	Prohibited
Recreational vehicle sales	Prohibited
Trailer sales, box and utility	Prohibited
SERVICE COMMERCIAL	
Automobile repair shops	Conditional
Recreational vehicle/Truck rentals	Prohibited

3.4.6.3 Development Standards

Standards for the UC Zone shall remain consistent with Chapter 22.20, C-3 General Commercial Zone, unless otherwise specified in this section and Section 3.6, Urban Design Standards, below. The following development standards regulate new site and building development by establishing standards for intensity, building height, open space, and other elements. They have been developed to accommodate the retail, personal and professional services, and multi-family residential uses anticipated.

a. *Built Form & Landscaping*

- Drought-tolerant landscaping requirements shall be consistent with Section 4.106.5 in Title 31 (Green Building Standards) of the County Code.
- When sharing an interior property line with an existing single-family zone, the following requirements shall apply:
  - » Windows, balconies, or similar openings shall be oriented so as to minimize any direct line-of-sight into adjacent units or onto private patios or backyards adjoining the property line
  - » The third floor shall be stepped back by a minimum of 10 feet.

Table 3.12 Site Configuration Regulations: UC Zone

TYPE	MINIMUM	MAXIMUM
DENSITY		
Multi-family	None	30 du/ac
FLOOR AREA RATIO (FAR)		
All Buildings	None	0.5
BUILDING SETBACK		
West 223rd Street	10 ft.	25 ft[1]
Meyler Street	10 ft.	25 ft
Interior Yard (Side or Rear)	0 ft.	None
Interior Yard Adjacent to Residential (Side or Rear)	15 ft.	None
BUILDING HEIGHT		
Floors		3 stories[2]
Building Height	None	40 ft[3,4]

Table Notes

1. For 60% of the property frontage.

2. Building height shall be determined from the finished grade within five feet of the structure to the highest point of the structure, excluding chimneys, rooftop antennas, and rooftop recreational spaces.

3. Excluding signs which are permitted by Part 10 of Chapter 22.52, chimneys, and rooftop antennas.

4. Minimum floor-to-ceiling height of the ground floor for a retail use in a mixed-use development shall be 15 feet.

- New development fronting 223rd Street shall not exceed 40 feet and three stories in height. In addition, new development, including setbacks and stepbacks, will be a maximum of 50 feet in depth from the property line along the street.
- Site Landscaping:
  - » A minimum of 20 percent of the lot shall be landscaped with trees, shrubs, ground cover, flowering perennials and biennials and shall be continuously maintained in good condition.

- Parking lot landscaping does not count toward this requirement.
- Pedestrian walkways, plazas, and outdoor dining areas may be developed in the landscape area.
- Setback areas may be included this requirement.

» Tree planting and maintenance requirements shall be consistent with Part 20 Chapter 22.52, Tree Requirements, except as follows:

- A minimum of three trees shall be planted for every 10,000 square feet of developed lot area regardless of number of parking spaces.
- Wherever possible, existing trees shall be maintained.

» With the exception of the required paved driveway and walkway, all areas within the street-fronting setback area shall be landscaped and maintained.

- Required Open Space: 200 square feet per dwelling unit for multi-family developments for common recreational-leisure areas, private areas, or a combination of both.
  - » Minimum dimension for private areas is seven feet.
  - » Minimum dimension for common areas is 20 feet.
  - » Side and rear yards may be included in the calculation of open space, but not the required front yard setback area.
  - » Open space areas shall have no parking, driveway, or right-of-way encroachments.
  - » All common space areas shall be improved as either active or passive facilities, with landscaping or hardscape elements designed to serve the residents of the project and should have strong connections to building entries and pedestrian paseos.

b. *Circulation & Parking*

- Bicycle and pedestrian circulation facilities shall provide connections to surrounding uses and to the plan area networks.

3.4.7 Industrial Flex (IF)

3.4.7.1 Purpose and Intent

The Industrial Flex District is intended to allow opportunities for non-industrial uses, including commercial, office, and multifamily residential uses, where appropriate, to occur within the light industrial areas south of 220th Street. The Industrial Flex District recognizes the transition that is occurring in the West Carson area from traditional, small-scale light industrial uses, to a broader range of uses to serve the community, including service commercial uses, professional and medical office, and multifamily residential. Over time, the Industrial Flex District will provide a more compatible transition to the existing single-family and multi-family residential areas. Residential uses are intended to provide for housing options and affordability, particularly workforce housing and dwelling units in proximity to both employment uses and transit. Residential uses are only permitted under specific conditions, including environmental remediation of the land if required. The development standards for this designation include conditions for allowing multifamily residential, including minimum project size and adjacency requirements in order to address potential compatibility concerns.

a. Development Potential Summary

- Total Developable Area: 22 acres
- Non-Residential: 1,133,779 sq. ft.
- Residential: Max. 460 units

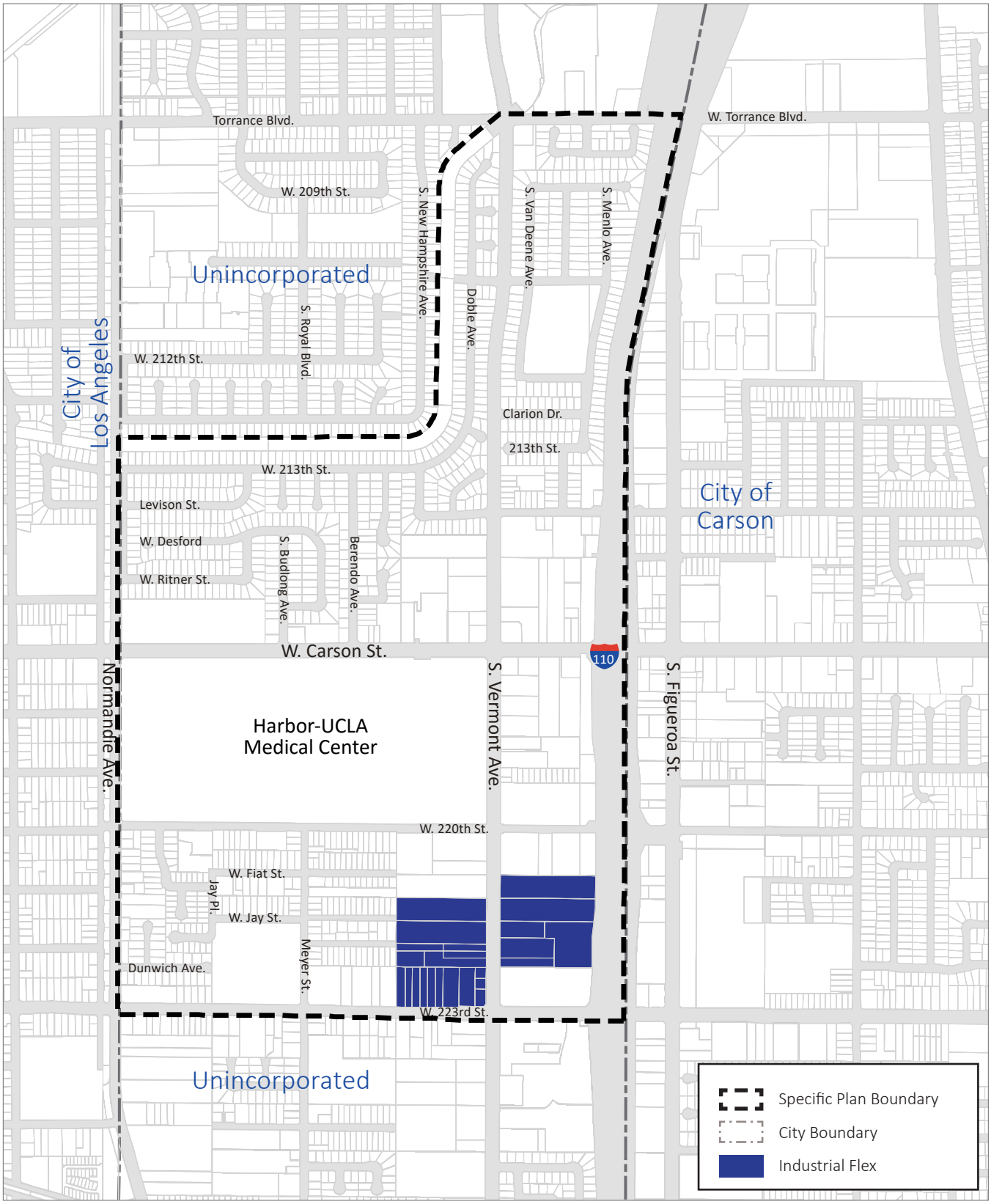
3.4.7.2 Use Regulations: IF Zone

The land use regulations define permitted, conditionally permitted, and prohibited uses in the Industrial Flex zone, as shown in Table 3.16, Regulations (IF). Standards for the Industrial Flex Zone shall remain consistent with Chapter 22.32 (M-1 Light Manufacturing Zone) in Title 22 of the County Code unless otherwise specified in this section.

Accessory uses and structures are permitted when customarily associated with, and subordinate to, a permitted use on the same site, and would include:

- Administrative office
- Assembly/multi-purpose building
- Caretaker's quarter
- Enclosed, screened, outdoor storage
- Maintenance/storage facility and structure

Figure 3.9 Proposed Zoning: Industrial Flex Areas



- Patio cover/trellis
- Swimming pool, spa, Jacuzzi
- Tennis court, basketball courts, and other multi-purpose courts, recreation and community buildings

Table 3.13 Use Regulations: IF Zone

USE	
RESIDENTIAL	
Condominium and cooperative	Permitted
Multiple family dwelling	Permitted
Single family dwelling, attached or detached	Prohibited
PUBLIC/INSTITUTIONAL	
Churches, temples and other places of worship	Permitted
Congregate care, convalescent and assisted living facility	Conditional
Family care home, foster home, or group home for six or fewer persons	Conditional
Open space, public/private	Permitted
Park, playground or accessory use	Permitted
Residential care facility for six or fewer persons	Conditional
School, private or public	Conditional
Transition/emergency housing	Conditional
SERVICE COMMERCIAL	
Acute care/rehabilitation uses	Conditional
Automobile service station	Prohibited
Automobile battery and repair shops	Prohibited
Automobile rental and leasing agencies.	Prohibited
Amusement rides and devices	Prohibited
General service business	Permitted
Health club	Permitted
Hotel	Permitted

Table 3.13 Use Regulations: IF Zone

USE	
Movie theater	Permitted
On-site alcoholic beverage sales establishment	Conditional
Restaurant, family, specialty, food hall	Permitted
Theater, including live performance	Permitted
Tobacco shops	Prohibited
INDUSTRIAL	
Assembly plants	Prohibited
Auction houses	Prohibited
Automobile related uses, including repair, battery, painting/auto body, muffler, service, or sales	Prohibited
Concrete batching	Prohibited
General industrial business and use, including distribution	Prohibited
Light industrial use, general (including fabrication, manufacturing, and assembly)	Conditional
Meat markets	Prohibited
Moving van/operations yards	Prohibited
Oil wells and accessory facilities	Prohibited
Recreational vehicle sales and rentals	Prohibited
Refrigeration plants	Prohibited
Research and development facility	Permitted
Science laboratory	Conditional
Technology exchange/transfer service	Permitted
OFFICE	
General office	Permitted
Medical office/healthcare center	Permitted
Professional office	Permitted

3.4.7.3 Development Standards

Standards for the Industrial Flex Zone shall remain consistent with Chapter 22.32 (M-1 Light Manufacturing Zone) in Title 22 of the County Code, unless otherwise specified in this section and Section 3.6, Urban Design Standards, below. The following development standards regulate new site and building development by establishing standards for intensity, building height, open space, and other elements. They have been developed to accommodate the light industrial, limited commercial retail, and multi-family residential uses anticipated.

a. Frontages

All new development adjacent to a street with frontage requirements as shown in Figure 3.5, Streets with Frontage Requirements, shall have a primary building façade and entry from the identified street and must adhere to the following building frontage requirements. These frontages dictate the relationship between the street (back of right-of-way) and the façade of the ground floor of the building (see Section 3.6.2, Building Design, for building frontage design standards and guidelines).

- Building orientation shall be determined by the location of the primary entrance, which shall indicate the front of the building.
- All building sides abutting major public rights-of-way shall require architectural treatment.
- Pedestrian access to public right-of-way is required either through common corridors or courtyards from buildings adjacent to the road.
- Open fencing is allowed, but a solid wall greater than three feet high shall not be allowed.

»

Table 3.14 Frontage Categories: IF Zone

TYPE	VERMONT AVENUE	223RD STREET
Shopfront	Permitted	Permitted
Forecourt	Permitted	Permitted
Gallery	Permitted	Permitted
Arcade	Permitted	Not permitted
Terrace	Permitted	Permitted
Stoop	Not permitted	Permitted

Table Notes

1. See Section 3.6.2, Building Design, for building frontage design standards and guidelines.

b. Built Form & Landscaping

- Multifamily residential units shall only be allowed under specific conditions in order to address potential compatibility concerns as follows:
  - » Minimum project size of two acres whichever is greater.
  - » Adjacency uses are non-industrial or light industrial uses that do not emit excessive emissions, odor, noise, or vibration.
  - » Environmental remediation of the land if required.
- Site Landscaping
  - » Drought-tolerant landscaping requirements shall be consistent with Section 4.106.5 in Title 31 (Green Building Standards) of the County Code.
  - » A minimum of 20 percent of the lot shall be landscaped with trees, shrubs, ground cover, flowering perennials and biennials and shall be continuously maintained in good condition.
    - Parking lot landscaping does not count toward this requirement.
    - Pedestrian walkways, plazas, and outdoor dining areas may be developed in the landscape area.
    - Setback areas may be included this requirement.

- Tree planting and maintenance requirements shall be consistent with Part 20 Chapter 22.52, Tree Requirements, except as follows:
- A minimum of three trees shall be planted for every 10,000 square feet of developed lot area regardless of number of parking spaces.
- Wherever possible, existing trees shall be maintained.
- With the exception of the required paved driveway and walkway, all areas within the street-fronting setback area shall be landscaped and maintained.
- Required Open Space: 200 square feet per dwelling unit for multi-family developments for common recreational-leisure areas, private areas, or a combination of both.
  - Minimum dimension for private areas is seven feet.
  - Minimum dimension for common areas is 20 feet.
  - Side and rear yards may be included in the calculation of open space, but not the required front yard setback area.
  - Open space areas shall have no parking, driveway, or right-of-way encroachments.
  - All common space areas shall be improved as either active or passive facilities, with landscaping or hardscape elements designed to serve the residents of the project and should have strong connections to building entries and pedestrian paseos.

- Lighting
  - All outdoor lighting systems shall be directed away from the window of a residential uses.

c. Circulation & Parking

- Bicycle and pedestrian circulation facilities shall provide connections to surrounding uses and to the plan area networks.
- Provisions for common vehicular access points and shared parking shall be encouraged and coordinated with any adjacent/proximate development plans where practical.

d. Special Requirements

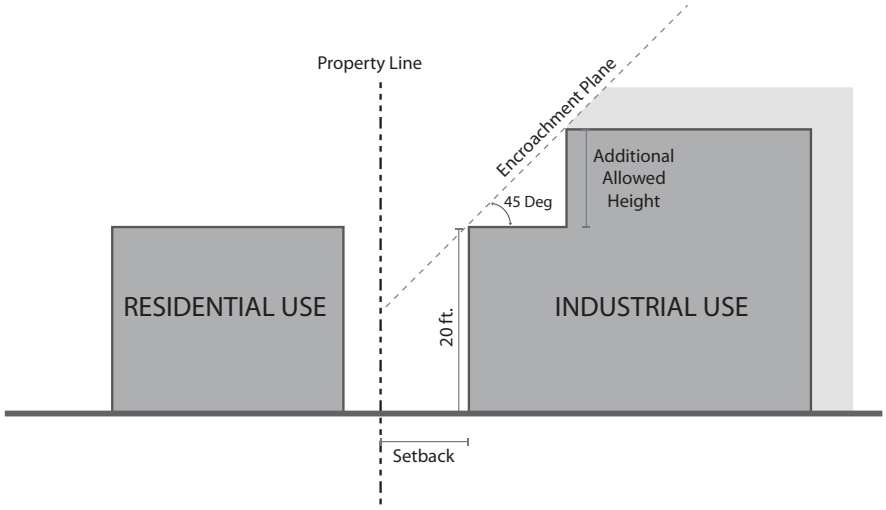
- When sharing an interior property line with an existing single-family zone, the following requirements shall apply:
  - » Windows, balconies, or similar openings shall be oriented to minimize any direct line-of-sight into adjacent units or onto private patios or backyards adjoining the property line.
  - » The third and fourth floor shall be stepped back by a minimum of 10 feet.
- Development built within a 500 foot setback from freeways shall be consistent with Los Angeles County Community Development Commission Notice of Funding Availability and Program Guidelines for Affordable Multifamily Rental Housing pertaining to requirements for affordable residential units and play areas.
- Developments greater than 100 units will be conditioned to provide public benefit to serve the greater community, including public open space, street trees, public art, community/entrance monument, public open space furnishings, or other features needed within the plan area and approved by the Director.
- An application for new construction or expansion of development within the IF Zone shall be subject to the requirements included in Section 22.40.480 (Project Review and Evaluation in Title 22 of the County Code for review of the project's impacts on infrastructure.

e. Special Requirements: Adjacency to Residential Use

If an industrial use is next to a residential use, then these additional standards apply:

- Building Height: Any new industrial building or structure shall be within an encroachment plane sloping upward and inward at a 45 degree angle commencing 20 feet above the existing grade at the inside line of the side yard setback as illustrated in Figure 3.10.

Figure 3.10 Encroachment Plane for Industrial Uses Abutting Residential Uses



- Enclosures: Materials and equipment that emit dust, smoke, gas, fumes, cinder, or refuse matter shall be completely enclosed and mechanically ventilated to prevent fugitive emissions unless another regulatory agency requires natural ventilation. Stacks, vents, and flares are exempt from the enclosure requirement.
- Yard Setback: A new industrial building, structure, or addition shall provide the yard setbacks identified in Table 3.15 when abutting a residential use.

Table 3.15 Yard Setback for New Industrial Uses Abutting a Residential Use

TYPE	FRONT	SIDE	REAR
MINIMUM REQUIRED SETBACK			
Lot depth > 100 ft	15 ft	-	15 ft
Lot depth ≤ 100 ft	5 ft.	-	5 ft.
Lot width ≥ 50 ft	-	15 ft	-
Lot width > 30 ft < 50 feet	-	5 ft	-
Lot width ≤ 30 ft	-	3 ft	-

- Noise generating uses or activities such as fabrication, manufacturing, and assembly, shall not exceed the presumed ambient noise level specified in Chapter 12.08 of Title 12 of the County Code.
  - » Applicants shall submit to Regional Planning an acoustic evaluation report issued by a licensed noise consulting professional which identifies compliance options for noise mitigation. Applicants shall comply with the stated performance-based mitigation measures.
  - » Applicants shall submit to Regional Planning an acoustic evaluation report issued by a licensed noise consulting professional which includes current and projected noise levels at the site and identifies compliance options for noise mitigation. Applicants shall comply with all mitigation measures.
- All open air storage of merchandise or materials shall be confined within a storage area enclosed by a solid, non-combustible wall with self-closing gates, except for construction equipment.
- All outdoor storage shall comply with the height restrictions for materials and equipment per Section 22.140.430 C.5 of Title 22 of County Code.
- Cover or completely enclose materials that are subject to blowing dust or particulate matter.
- For new residential development next to industrial use, required common open space shall be fully buffered from an industrial use by a building on the same project site.

3.4.8 Harbor-UCLA Medical Zone

3.4.8.1 Purpose and Intent

The Harbor-UCLA Medical Zone is established to support the existing and future needs of the Harbor-UCLA Medical Center campus while ensuring compatibility with adjacent land uses. The intent is to accommodate the Harbor-UCLA Master Plan, which seeks to maintain, improve, and expand the hospital facilities; clinic facilities; medical office; research and development; community-serving uses and facilities; and associated supportive uses such as transitional housing, incidental retail, parking, and public open space. The intent is also to encourage expanded pedestrian walkways to improve connectivity between the Harbor UCLA Medical Center, LA BioMed research and development facility, Carson Street uses, Carson Street Station, and the West Carson community.

a. Development Potential Summary

- Total Developable Area: 71 acres
- Non-Residential: 1,941,339 sq. ft.
- Residential: Max. 100 units

3.3.8.2 Use Regulations (Harbor-UCLA Medical)

- Uses shall be consistent with the Harbor-UCLA Hospital Campus Master Plan (adopted 2016).

3.4.8.3 Development Standards

The following development standards regulate new site and building development by establishing standards for intensity, building height, open space, and other elements. They have been developed to accommodate the mix of commercial, office, and other hospital-supportive uses anticipated.

b. Built Form & Landscaping

- Site, building, and landscaping design shall be consistent with the Harbor-UCLA Medical Center Campus Master Plan (adopted 2016) and as follows:
- Landscaping
  - Large facades/walls of structures within 20 feet of a roadway, such as parking structures, operations plant, or other buildings, shall be screened with trees, large shrubs, and other vegetation to soften and buffer massing from the surrounding community.

» Landscaping along Carson Street shall be permeable and open to the street to allow visibility; encourage access and connectivity to/from the walking path along Carson Street and hospital campus; and create an attractive, inviting pedestrian experience.

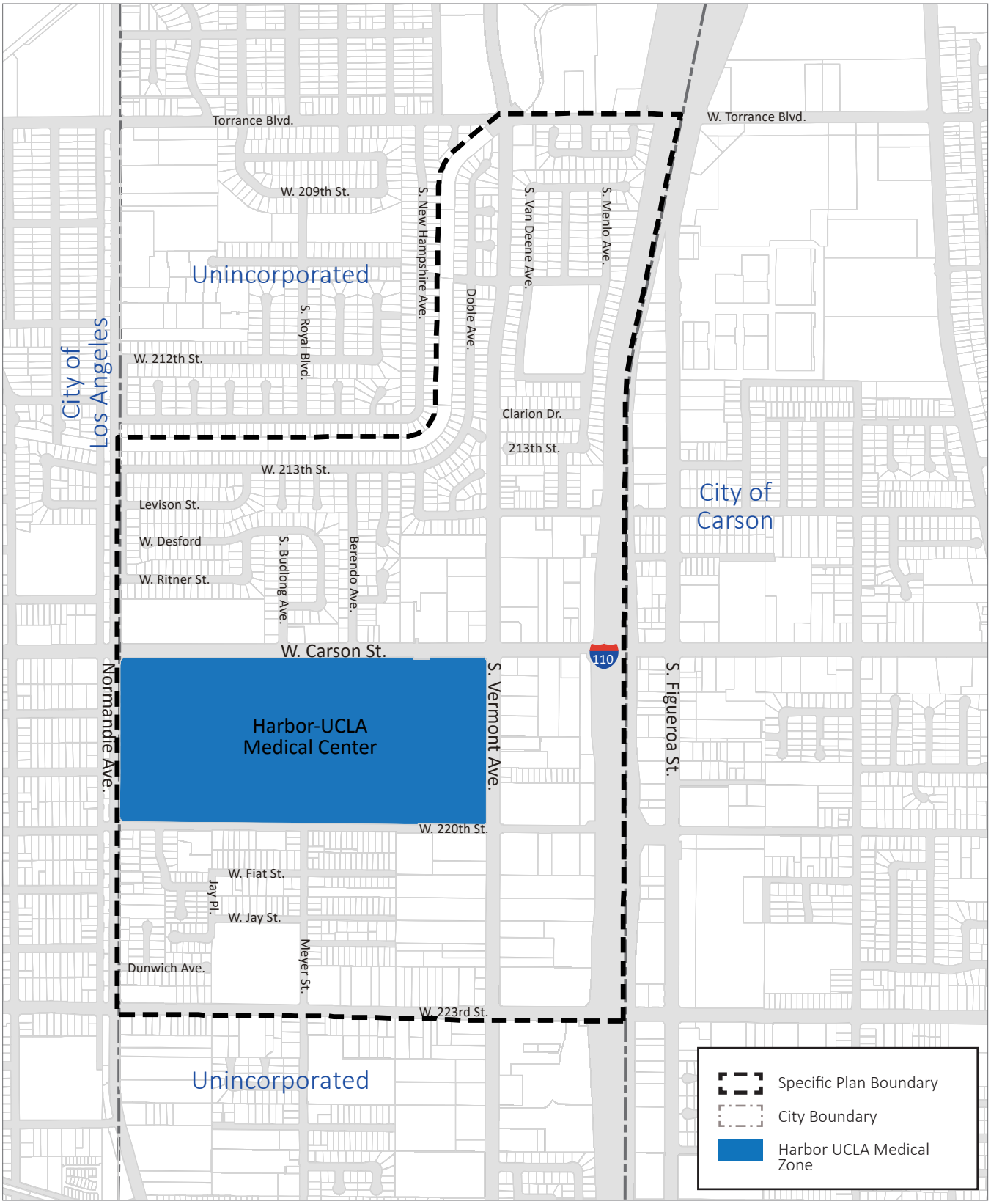
Table 3.16 Site Configuration Regulations (Harbor-UCLA Medical)

TYPE	MINIMUM	MAXIMUM
DENSITY		
Residential	None	30 du/ac
FLOOR AREA RATIO (FAR)[1]		
Nonresidential	None	.78
BUILDING SETBACK		
S. Vermont Ave	5 ft.	None
Carson Street	5 ft.	None
Local Road	15 ft.	None
BUILDING HEIGHT		
Floors		
Building Height	None	None[1]

Table Notes

[1] Building height will be consistent with the Harbor-UCLA Medical Center Campus Master Plan. Information on building height was not yet available at the time this draft was prepared.

Figure 3.11 Proposed Zoning: Harbor- UCLA Medical Zone Areas



3.4.9 Mixed Use 1 (MU1) Zone

3.4.9.1 Purpose and Intent

The Mixed Use 1 (MU1) Zone is located primarily along Carson Street and is intended to promote development of a mix of commercial, office, and residential, with an emphasis on neighborhood and medical campus serving retail, restaurant and services uses. Uses can either be developed in a stand-alone or vertical mixed-use configuration. The MU1 Zone provides for a range of small to large retail or mixed use centers, multiple family residential uses up to 30 dwelling units per acre, and private/public open space components, with strong bicycle and pedestrian connections to the Carson Street Station, medical campus to the south, and broader West Carson community.

a. Development Potential Summary

- Total Developable Area: 20 acres
- Non-Residential: 483,460 sq. ft.
- Residential: Max. 135 units

3.4.9.2 Use Regulations: MU1 Zone

The land use regulations define permitted, conditionally permitted, and prohibited uses in the Mixed Use 1 Zone, as shown in Table 3.20, Use Regulations (Mixed Use 1).

Accessory uses and structures are permitted when customarily associated with, and subordinate to, a permitted use on the same site, and would include:

- Administrative office
- Assembly/multi-purpose building
- Caretaker's quarter
- Enclosed, screened, outdoor storage
- Maintenance/storage facility and structure
- Patio cover/trellis
- Swimming pool, spa, jacuzzi
- Tennis court, basketball courts, and other multi-purpose courts, recreation and community buildings

Figure 3.12 Proposed Zoning: Mixed Use 1 Zone Areas

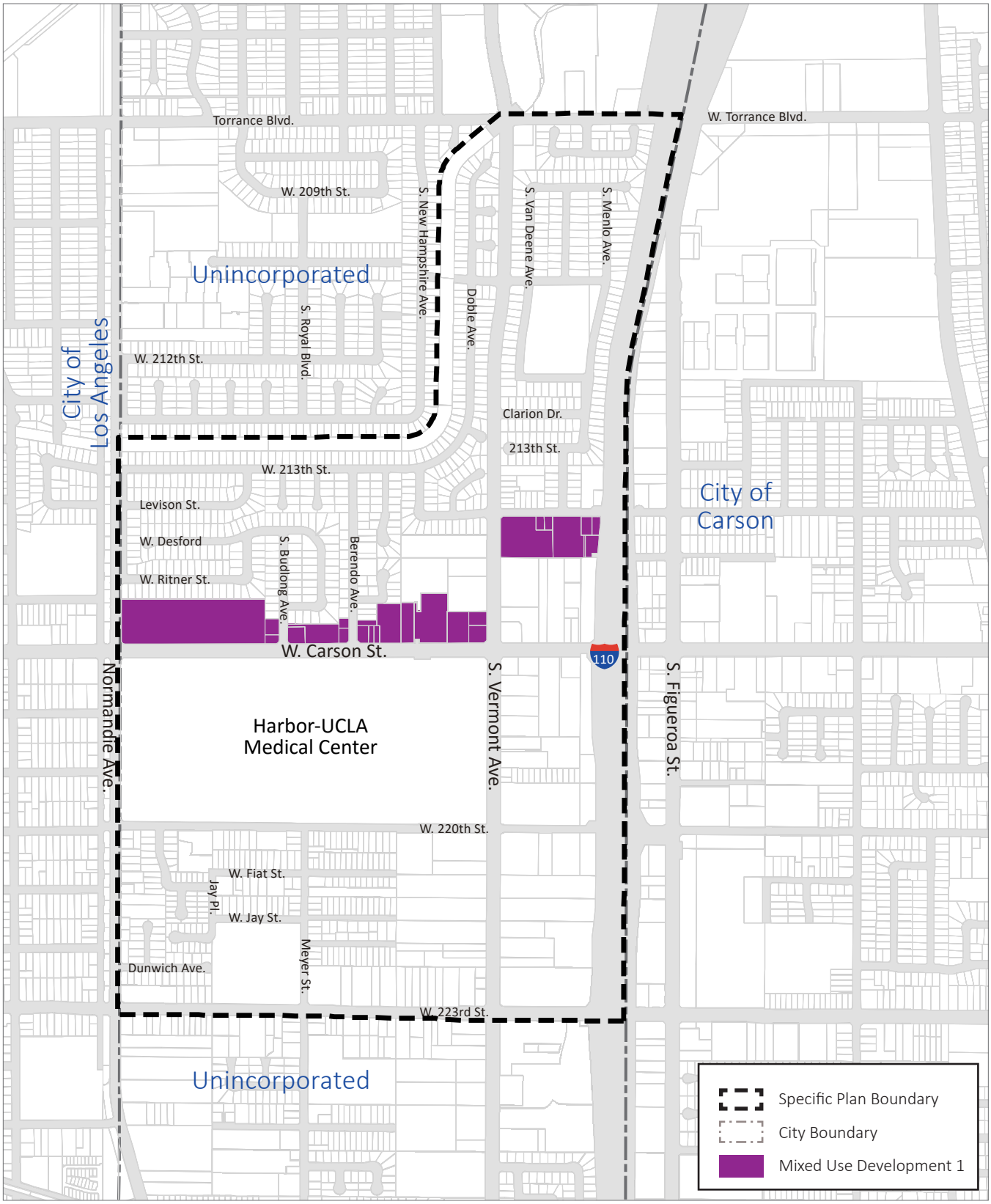


Table 3.17 Use Regulations: MU1 Zone

USE	
RESIDENTIAL	
Multi-family dwelling unit	Permitted
PUBLIC/INSTITUTIONAL	
Art and cultural facility	Permitted
Churches, temples and other places of worship	Conditional
Family care home, foster home, or group home for six or fewer persons	Conditional
Fire station	Conditional
Park, open space, playground and accessory use	Permitted
Residential care facility for six or fewer persons	Conditional
School, private or public	Conditional
SERVICE/RETAIL COMMERCIAL	
Acute care/rehabilitation uses	Conditional
Automobile service station	Prohibited
Automobile battery and repair shops	Prohibited
Amusement rides and devices	Prohibited
Bakery, coffee house/café, delicatessen/cafeteria	Permitted
Bank and financial institution	Permitted
Childcare facility or nursery school	Conditional
Commercial recreational facility	Permitted
Entertainment uses, including restaurants, non-adult-only theaters, and other similar venues	Permitted
Grocery	Permitted
Health club	Conditional
Hotel	Permitted
Movie theater	Permitted
On-site alcoholic beverage sales establishment	Conditional

Table 3.17 Use Regulations: MU1 Zone

USE	
Restaurant, family, specialty, food hall without drive-thru	Permitted
Theater, including live performance	Permitted
Tobacco shops	Prohibited
OFFICE	
General office	Permitted
Medical office	Permitted
Professional office	Permitted

3.4.9.2 Development Standards

The following development standards regulate new site and building development by establishing standards for intensity, building height, open space, and other elements. They have been developed to accommodate the mix of commercial, office, and residential uses anticipated. The standards are intended to encourage the development of medium density housing as well as daily retail and service commercial uses to serve the needs of the West Carson community. Development standards include street-based frontage standards regulating building frontages along existing and new streets to form adequate and pedestrian-friendly building faces. The following development standards apply in conjunction with Section 3.6, Urban Design Standards, below.

Table 3.18 Site Configuration Regulations: MU1 Zone

TYPE	MINIMUM	MAXIMUM
DENSITY		
Residential	18 du/ac	30 du/ac[1]
FLOOR AREA RATIO (FAR)[2]		
Nonresidential	0.5	1.0
BUILDING SETBACK		
S. Vermont Ave	5 ft.	15 ft.
Carson Street	5 ft.	15 ft.
Local Road	15 ft.	None
Interior Yard (Side or Rear)	0 ft.	None
Interior Yard Adjacent to Residential (Side or Rear)	15 ft.	None
BUILDING HEIGHT		
Floors		3 stories
Building Height	None	40 ft[1]

Table Notes

[1] Not including up to 35% density bonus allowed per Section 22.52.1830, Density Bonus, and 50% density bonus per Section 22.52.1870, Senior Citizen Housing Option, in Part 17 of the County Code.

[2] Lot Consolidation Incentive:

- *0.5 acre to 1.0 acre = 0.10 increase in FAR*
- *1.1 acre to 2 acres = 0.25 increase in FAR, and 5 feet increase in height*
- *2.1 acre or more = 0.50 increase in FAR, and 10 feet increase in height*

Building height shall be determined from the finished grade within five feet of the structure to the highest point of the structure, excluding signs that are permitted by Part 10 of Chapter 22.52, chimneys, and rooftop antennas.

a. Frontages

All new development adjacent to a street with frontage requirements, as shown in Figure 3.5, Streets with Frontage Requirements, shall have a primary building façade and entry from the identified street and must adhere to the following building frontage requirements. These frontages dictate the relationship between the street (back of right-of-way) and the façade of the ground-floor of the building (see

Section 3.6.2, Building Design, for building frontage design standards and guidelines).

- Building orientation shall be determined by the location of the primary entrance, which shall indicate the front of the building.
- All building sides abutting major public rights-of-way shall require architectural treatment.
- Pedestrian access to public right-of-way is required either through common corridors or courtyards from buildings adjacent to the road.
- Open fencing is allowed, but a solid wall greater than three feet high shall not be allowed.

Table 3.19 Frontage Categories: MU1 Zone

TYPE	CARSON STREET	VERMONT AVENUE
Shopfront	Permitted	Permitted
Forecourt	Permitted	Permitted
Gallery	Permitted	Permitted
Arcade	Permitted	Permitted
Terrace	Permitted	Permitted
Stoop	Not permitted	Permitted

Table Notes

1. See Section 3.6.2, Building Design, for building frontage design standards and guidelines.

b. Built Form & Landscaping

- When sharing a property line with an existing single-family zone, the following requirements shall apply:
  - Windows, balconies, or similar openings shall be oriented so as to minimize any direct line-of-sight into adjacent units or onto private patios or backyards adjoining the property line.
  - The third floor shall be stepped back by a minimum of 10 feet.

  - » New development fronting Vermont Avenue or 214th Street shall not exceed 40 feet and three stories in height. In addition, new development, including setbacks and stepbacks, will be a maximum of 50 feet in depth from the property line along the street.
- Any development that includes dwelling units shall provide adequate private or common laundry facilities reserved for the exclusive use of the residents of the development.
- Any development that includes dwelling units shall be set back a minimum of 100 feet from Interstate 110.
- Facades
  - » Street wall facades shall be architecturally enhanced. This may be accomplished through the use of arcades, colonnades, recessed entrances, window details, bays, and variation in building materials, color, and other details. The maximum total blank wall area (without windows or entrances) shall not exceed 30 percent of the first-story wall for non-residential and 50 percent for residential.
  - » The façade detailing of mixed-use buildings shall visually differentiate ground-floor uses from upper-story uses. The base shall visibly anchor the building to the ground with a treatment of higher quality materials. The façade detailing of commercial or retail entries shall be differentiated from residential entries.
- Design Features
  - » Projecting features, such as balconies, porches, bays, and dormer windows, are encouraged to create distinction between units and to provide “eyes” on the street.
  - » Private balconies shall be screened by translucent materials that shield visibility of personal items from public view.
  - » All primary ground-floor common entries or individual dwelling unit or commercial entries fronting on streets shall be or oriented to the street, not to the interior or to a parking lot.
  - » Buildings having 100 feet or more of street frontage shall be designed to provide roofs of varying heights.
  - » All glass in windows or entrances on the first two stories shall be either clear or lightly tinted to maximize pedestrian visibility of building interiors from the sidewalk area.

Mirrored, highly reflective, or densely tinted glass shall be prohibited for use in windows and entrances.

- » Operable windows that front Interstate 110 should be avoided.

- Utility and Mechanical Equipment
  - » All utility and mechanical equipment shall be placed in locations that are not exposed to view from the street or shall be screened from view. Satellite dishes shall be located away from public view.
  - » Screening elements shall be an integral part of the building's design.
- Required Residential Open Space
  - » 100 square feet per dwelling unit per dwelling unit for common recreational-leisure areas, private areas, or a combination of both.
  - » Minimum dimension for private areas is seven feet.
  - » Minimum dimension for common areas is 20 feet.
  - » Side and rear yards may be included in the calculation of open space, but not the required front yard setback area.
  - » Open space areas shall have no parking, driveway, or right-of-way encroachments.
  - » All common areas shall be improved as either active or passive facilities, with landscaping or hardscape elements designed to serve the residents of the project. All common areas shall be developed and professionally maintained in accordance with approved landscape and irrigation plans.
  - » Common recreational space shall be located on the same property as the residential it serves and shall be available exclusively for the use of all residents of the development.
  - » Where a rooftop is used for common recreational space, the rooftop shall incorporate landscaping, decorative paving and materials, and amenities. Mechanical equipment storage areas shall not be counted toward meeting the requirement.
  - » Pedestrian walkways within a project shall be a minimum or four feet in width.
  - » Private useable open space shall be contiguous to the residential units served and screened for privacy.

  - » Courtyard internal to a project, or enclosed on at least three sides, shall have a minimum width of 40 feet.
- Required Non-residential Open Space
  - » 500 square feet of non-residential open space requirement for projects less than two acres.
  - » 2,500 square feet of non-residential open space requirement for projects greater than two acres.
  - » Non-residential open space requirement may be satisfied by outdoor dining areas, plazas, or other useable outdoor use as approved by the Director.
  - » Public plazas, urban pocket parks, outdoor dining, promenades, public art, and other outdoor public amenities shall be designed to activate ground-floor uses, engage residents and visitors.
  - » Open spaces shall be appropriately landscaped and provide adequate shade through the placement of trees or other shade devices, including umbrellas, awnings, trellises, and canopies that are integrated into the building or over the open space.

c. Special Requirements

- An application for new construction or expansion of development within the MU1 Zone shall be subject to the requirements included in Section 22.40.480 (Project Review and Evaluation in Title 22 of the County Code for review of the project's impacts on infrastructure.

3.4.10 Mixed Use 2 (MU2) Zone

3.4.10.1 Purpose and Intent

The Mixed Use 2 (MU2) Zone is intended to be developed over time as a transit-supportive environment providing a higher-intensity mix of retail, office, restaurant uses, and residential development in a compact, walkable setting. This designation encourages a range of multiple-family residential housing products in either a stand-alone or mixed-use configuration, up to 70 dwelling units per acre. The development standards and design requirements address vital private/public open space components, bicycle and pedestrian connections to the Carson Street Station and medical campus to the west, and proximity to the Interstate 110 freeway. The MU2 Zone is intended to promote community redevelopment through higher intensity, transit-supporting infill development.

a. Development Potential Summary

- Total Developable Area: 31 acres
- Non-residential: 978,675 sq. ft.
- Residential: Max. 1,158 units

3.4.10.2 Use Regulations: MU2 Zone

The land use regulations define permitted uses within the Mixed Use 2 zone, as shown in Table 3.23, Use Regulations (Mixed Use 2).

Table 3.20 Use Regulations: MU2 Zone

USE	
RESIDENTIAL	
Multi-family dwelling unit	Permitted
Patio home	Prohibited
Single-family dwelling unit attached/ detached	Prohibited
PUBLIC/INSTITUTIONAL	
Art and cultural facility	Permitted
Churches, temples and other places of worship	Conditional
Family care home, foster home, or group home for six or fewer persons	Conditional

Table 3.20 Use Regulations: MU2 Zone

USE	
Fire station	Conditional
Park, open space, playground and accessory use	Permitted
Residential care facility for six or fewer persons	Conditional
School, private or public	Conditional
SERVICE/RETAIL COMMERCIAL	
Acute care/rehabilitation uses	Conditional
Automobile service station	Prohibited
Automobile battery and repair shops	Prohibited
Amusement rides and devices	Prohibited
Bakery, coffee house/café, delicatessen/ cafeteria	Permitted
Bank and financial institution	Permitted
Childcare facility or nursery school	Conditional
Commercial recreational facility	Permitted
Entertainment uses, including restaurants, non-adult-only theaters, and other similar venues	Permitted
Grocery	Permitted
Health club	Conditional
Hotel	Permitted
Movie theater	Permitted
On-site alcoholic beverage sales establishment	Conditional
Restaurant, family, specialty, food hall without drive-thru	Permitted
Theater, including live performance	Permitted
Tobacco shops	Prohibited
OFFICE	
Corporate headquarters	Permitted

Figure 3.13 Proposed Zoning: Mixed Use 2 Zone Areas

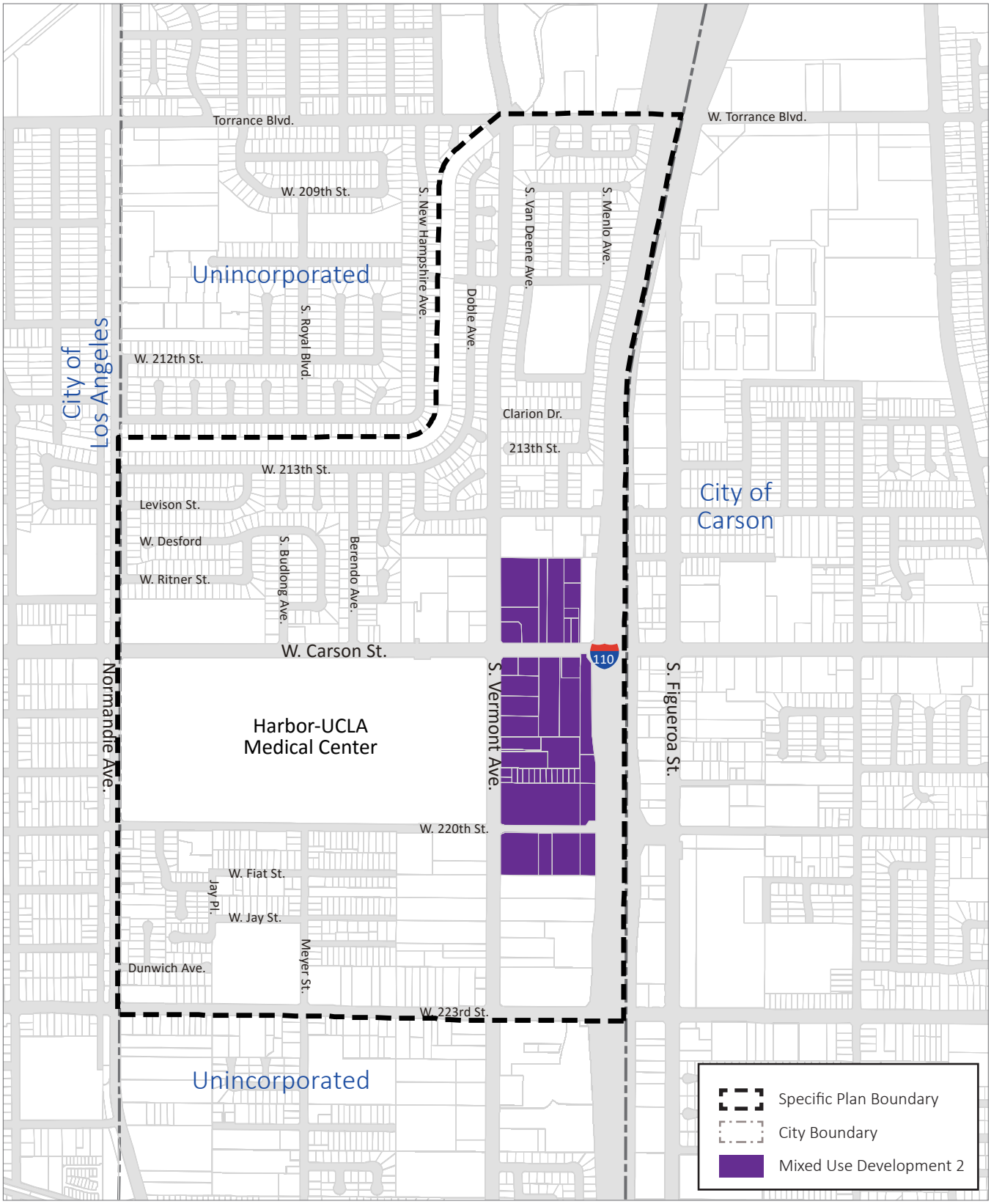


Table 3.20 Use Regulations: MU2 Zone

USE	
General office	Permitted
Medical office	Permitted
Professional office	Permitted

3.4.10.3 Development Standards

The following development standards regulate new site and building development by establishing standards for intensity, building height, open space, and other elements. They have been developed to accommodate the mix of retail, office, restaurant, and residential uses anticipated. The standards are intended to encourage the development of high density housing and retail and service commercial uses to serve the needs of the West Carson community. Development standards include street-based frontage standards regulating buildings frontages along existing and new streets to form adequate and pedestrian-friendly building faces. The following development standards apply in conjunction with Section 3.6, Urban Design Standards, below.

Table 3.21 Site Configuration Regulations: MU2 Zone

TYPE	MINIMUM	MAXIMUM
DENSITY		
Residential	31 du/ac	70 du/ac[1]
FLOOR AREA RATIO (FAR)[1]		
Non-residential	None	3.0
BUILDING SETBACK		
West 223rd St./Meyler St.	10 ft.	25 ft.
Interior Yard Adjacent to Residential (Side or Rear)	15 ft.	None
BUILDING HEIGHT		
Floors	None	5 stories

Building Height		60 ft.[2]

Table Notes

[1]Not including up to 35% density bonus allowed per Section 22.52.1830, Density Bonus, and 50% density bonus per Section 22.52.1870, Senior Citizen Housing Option, in Part 17 in Title 22 of the County Code.

[2] Height excludes signs, chimneys, and rooftop antennas.

a. Frontages

All new development adjacent to a street with frontage requirements, as shown in Figure 3.5, Streets with Frontage Requirements, shall have a primary building façade and entry from the identified street and must adhere to the following building frontage requirements. These frontages dictate the relationship between the street (back of right-of-way) and the façade of the ground floor of the building (see Section 3.6.2, Building Design, for building frontage design standards and guidelines).

- Building orientation shall be determined by the location of the primary entrance, which shall indicate the front of the building.
- All building sides abutting major public rights-of-way shall require architectural treatment.
- Pedestrian access to public right-of-way is required either through common corridors or courtyards from buildings adjacent to the road.

Open fencing is allowed, but a solid wall greater than three feet high shall not be allowed.

Table 3.22 Frontage Categories: MU2 Zone

TYPE	CARSON STREET	VERMONT AVENUE
Shopfront	Permitted	Permitted
Forecourt	Permitted	Permitted
Gallery	Permitted	Permitted
Arcade	Permitted	Permitted
Terrace	Permitted	Permitted
Stoop	Not permitted	Not permitted

Table Notes

1. See Section 3.6.2, Building Design, for building frontage design standards and guidelines.

b. Built Form & Landscaping

- Development at the corner of the intersection of Carson Street and Vermont Avenue must provide the following:
  - » A corner entrance or an entrance oriented toward each street.
  - » Architectural style and detail of buildings that create interest, including display windows, façade materials, colors, art features, rooftop elements, and stepbacks.
- Any development that includes dwelling units shall provide adequate private or common laundry facilities reserved for the exclusive use of the residents of the development.
- Facades
  - » Street wall facades shall be architecturally enhanced. This may be accomplished through the use of arcades, colonnades, recessed entrances, window details, bays, and variation in building materials, color, and other details. The maximum total blank wall area (without windows or entrances) shall not exceed 30 percent of the first story wall for non-residential and 50 percent for residential.
  - » The façade detailing of mixed-use buildings shall visually differentiate ground-floor uses from upper-story uses. The base shall visibly anchor the building to the ground with a treatment of higher quality materials. The façade detailing

of commercial or retail entries shall be differentiated from residential entries.

- Design Features
  - » Projecting features, such as balconies, porches, bays, and dormer windows shall be used to create distinction between units and provide “eyes” on the street.
  - » Private balconies shall be screened by translucent materials that shield visibility of personal items from public view.
  - » All primary ground-floor common entries or individual dwelling unit or commercial entries fronting on streets shall be oriented to the street, not to the interior or to a parking lot.
  - » Buildings having 100 feet or more of street frontage shall be designed to provide façade articulation and roofs of varying heights.
  - » All glass in windows or entrances on the first two stories shall be either clear or lightly tinted to maximize pedestrian visibility of building interiors from the sidewalk area. Mirrored, highly reflective, or densely tinted glass shall be prohibited for use in windows and entrances.
- Utility and Mechanical Equipment
  - » All utility and mechanical equipment shall be placed in locations that are not exposed to view from the street or shall be screened from view. Satellite dishes shall be located away from public view.
  - » Screening elements shall be an integral part of the building’s design.
- Required Residential Open Space
  - » 100 square feet per dwelling unit for common recreational-leisure areas, private areas, or a combination of both.
  - » Minimum dimension for private areas is 7 feet.
  - » Minimum dimension for common areas is 20 feet.
  - » Side and rear yards may be included in the calculation of open space, but not the required front-yard setback area.
  - » Open space areas shall have no parking, driveway, or right-of-way encroachments.
  - » All common areas shall be improved as either active or passive facilities, with landscaping or hardscape elements designed to serve the residents of the project. All common

areas shall be developed and professionally maintained in accordance with approved landscape and irrigation plans.

- Common recreational space shall be located on the same property as the residential it serves and shall be available exclusively for the use of all residents of the development.
- Where a rooftop is used for common recreational space, the rooftop shall incorporate landscaping, decorative paving and materials, and amenities. Mechanical equipment storage areas shall not be counted toward meeting the requirement.
- Pedestrian walkways within a project shall be a minimum of four feet in width.
- Private useable open space shall be contiguous to the residential units served and screened for privacy.
- Courtyard internal to a project, or enclosed on at least three sides, shall have a minimum width of 40 feet.

- Required Non-residential Open Space
  - 500 square feet non-residential open space requirement for projects less than two acres.
  - 2,500 square feet non-residential open space requirement for projects greater than two acres.
  - Non-residential open space requirement may be satisfied by outdoor dining areas, plazas, or other useable outdoor use, as approved by the Director.
  - Public plazas, urban pocket parks, outdoor dining, promenades, public art, and other outdoor public amenities shall be designed to activate ground-floor uses, engage residents and visitors.
  - Open spaces shall be appropriately landscaped and provide adequate shade through the placement of trees or other shade devices, including umbrellas, awnings, trellises, and canopies that are integrated into the building or over the open space.

c. Special Requirements

- An application for new construction or expansion of development within the MU2 Zone shall be subject to the requirements included in Section 22.40.480 (Project Review and Evaluation in Title 22 of the County Code for review of the project's impacts on infrastructure.

3.4.11 Public Zone (P Zone)

3.4.11.1 Purpose and Intent

The West Carson Public Zone provides for established public uses including schools, parks, 208th Street Drain channel, the Carson Street Transit Station park-and-ride, and other public uses. This designation is intended to promote the use of publicly owned land for the purposes of community open space, connection, and activity.

a. Development Potential Summary

- Total Developable Area: 27 acres
- Non-residential: 0 sq. ft.

3.4.11.2 Use Regulations: P Zone

The land use regulations define permitted uses within the Public zone, as shown in Table 3.25, Use Regulations (Public).

Table 3.23 Use Regulations (P Zone)

USE	
PUBLIC/INSTITUTIONAL	
Park, open space, playground and accessory use	Permitted
School, private or public	Conditional

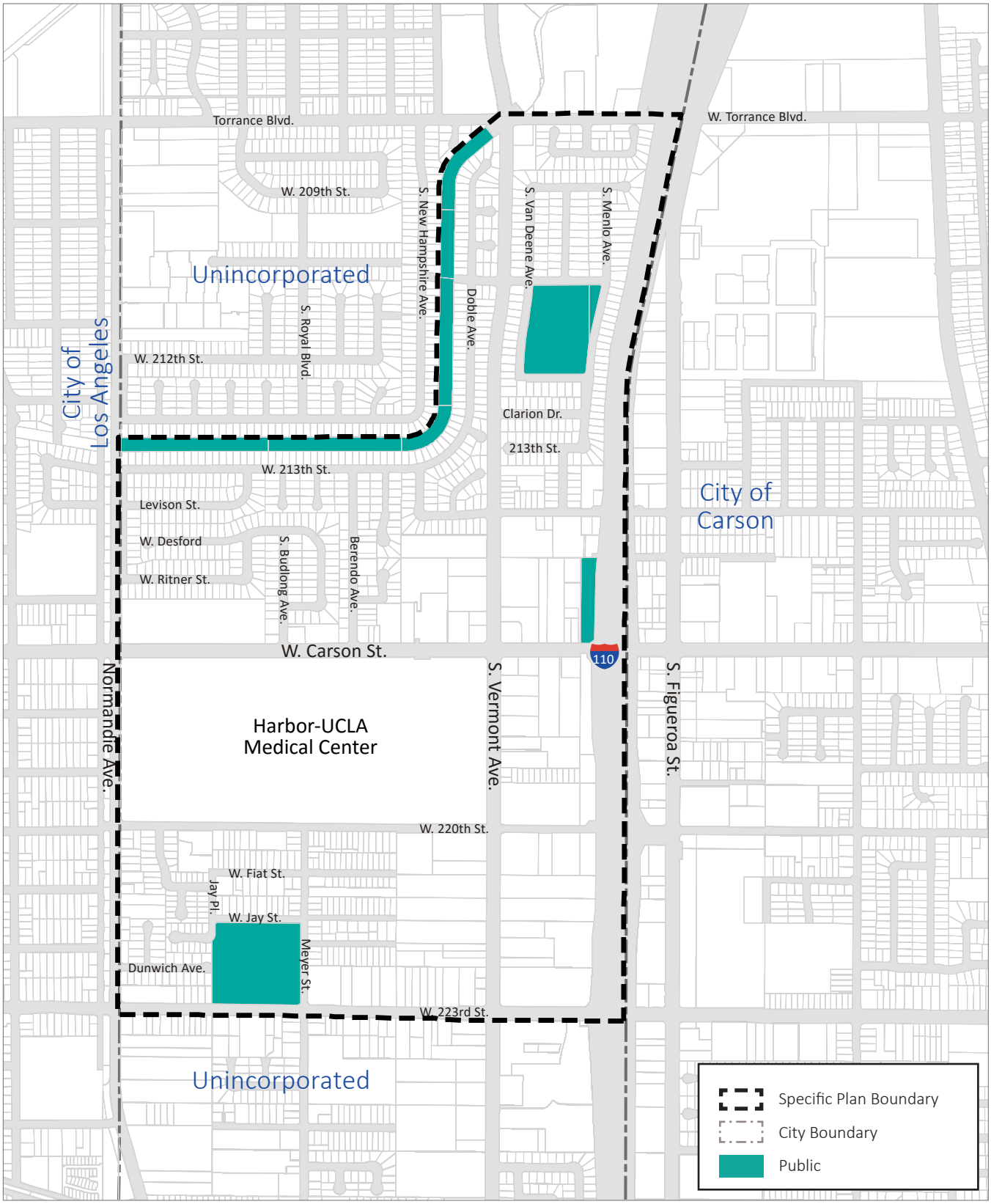
3.4.11.3 Development Standards

The following development standards regulate new site development by establishing standards for intensity, open space, and other elements. The development standards for Public Zone have been tailored to its future use as additional recreational opportunities in the community occur and should be used in conjunction with Section 3.6, Urban Design Standards, below.

Table 3.24 Site Configuration Regulations: P Zone

TYPE	MINIMUM	MAXIMUM
FLOOR AREA RATIO (FAR)[1]		
All areas	*None*	.10
BUILDING SETBACK		
Front	*None*	15 ft.
Rear	10 ft.	*None*
Side	10 ft.	*None*
BUILDING HEIGHT		
Floors		2 stories
Building Height	*None*	30 ft.

Figure 3.14 Proposed Zoning: Public Zone Areas



3.5 GENERAL DEVELOPMENT STANDARDS

The following general regulations shall apply to new development and the reuse of existing structures and facilities, unless specific exceptions are described elsewhere in the Specific Plan.

Use Regulations

Alcohol Beverage Sales

The County of Los Angeles established standards for all on- and off-site alcoholic beverage sales establishments to promote and protect the public health, safety, and general welfare and preserve and enhance the quality of the community. Applicants shall refer to Section 22.56.195 (Alcohol Beverage Sales and Consumption) in Title 22 of the County Code, for standards and guidelines relating to establishments that include the sales of alcoholic beverages for on- and off-site consumption. Alcohol beverage sales require a conditional use permit, as identified in the use regulations of the zone in which the establishment is located.

Outside Storage

All uses shall be conducted within a completely enclosed building, except for off-street parking, loading, approved nursery accessory uses, approved temporary uses, and any outdoor dining specifically permitted in conjunction with eating establishments. Minor ancillary outdoor storage (service vehicle parking, materials storage, or limited equipment assembly associated with a permitted use) may be located outside a building in certain planning areas as an accessory use, provided that there is solid screening and no negative noise or aesthetic impacts on adjacent properties.

Interim and Temporary Uses

Interim uses on County-owned properties shall require approval of a special event permit pursuant to Title 22 of the County code, as applicable. Temporary uses shall be regulated pursuant to Title 22 of the County Code, as applicable.

Utilities

All utility lines serving a new development, with the exception of interim uses, shall be placed underground by the developer in accordance with the county's policies for locating utilities underground.

- Existing utility lines shall also be placed underground with development, where feasible and as required by the County.

- No structures shall be permitted to be developed over active pipelines, abandoned lines, or utility easements, except where approved by the Director of Public Works.
- All utility line and connection costs to the backbone infrastructure/utility system (water supply, sanitary sewer facilities, reclaimed water supply, storm drainage, and other utilities) needed to serve individual projects shall be the responsibility of the new user/owner, or as otherwise determined as a result of a negotiated development agreement or lease.
- All water supply, sanitary sewer facilities, reclaimed water supply, storm drainage, and other facilities shall be provided in accordance with adopted master plans of the respective service providers. Costs shall be assigned to each development lot or parcel in accordance with a cost-benefit formula established by the County, based on estimated engineering construction costs, or as otherwise determined as a result of a negotiated development agreement.

Antennae and Satellite Dish Standards

All provisions of the County Code, as applicable, shall apply.

Mechanical Equipment

Compressors, air conditioning units, vents, exhausts, or similar mechanical equipment located outside a building shall comply with the following:

- All such equipment shall be screened from view from any abutting street or adjacent use. Screening shall be an integral part of the overall architectural design of the project. The top of any screening shall be a minimum of six inches above the top of any mechanical equipment.
- All mechanical equipment shall be maintained in a clean and proper condition to prevent breakdown that might release noxious or toxic materials or create excessive noise, and to avoid accumulation of litter, filth, and materials that would be noxious or unsafe.

Roof-Mounted Solar Collector Panels

- Roof-mounted solar collector panels shall be mounted flush with the surface where possible and painted to match roof surface color. Where panels cannot effectively perform if flush mounted, justification in the form of efficiency

calculations may be submitted to the Department of Regional Planning for consideration of alternative mounting configurations.

Refuse Collection Facilities

- All outdoor refuse collection facilities shall be screened visually from streets and highways. Collection areas shall be shielded from view in all directions, either within a building or within a solid masonry wall of sufficient height to conceal materials temporarily accumulated for collection. The enclosure shall be designed to complement the main building materials.

Encroachments and Site Development

Encroachments

The following encroachments into setback areas are allowed, subject to Title 26 (Building Code) of the County Code:

- Architectural features
- Eaves
- Fireplaces
- Mechanical equipment
- Steps and staircases (open)
- Covered patio trellis or canopies, unenclosed on at least two sides, may encroach into the required side- or rear-yard setback provided they do not cover more than 50 percent of the private yard or open space area on a residential property and comply with the California Building Code related to distance requirements between adjacent structures.

Park Provisions

- Requirements and standards in the Title 21 (Subdivisions) of the County Code will be utilized in reviewing public or private park proposals per parkland dedication requirement.

Environmental

Grading

- All earthwork shall be conducted in accordance with the grading regulations found in Title 26 of the County Code and manual and grading requirements in Los Angeles

County. Grading permits shall consider consistency with the urban design concept. Compliance with National Pollutant Discharge Elimination System (NPDES) regulations related to storm drain runoff from construction sites, as implemented in the County, shall be required.

Vibration

No vibration associated with any use shall be permitted that is discernible beyond the boundary line of the property, unless the vibration does not negatively impact an adjacent property.

Fumes, Odors, and Other Forms of Air Pollution

If any use produces odors, toxic gases, or noxious matter in such quantities as may be readily detectable at any point outside the property lines of the premises, and/or may become a public nuisance or hazard, the use shall be modified to prevent such emissions. Emissions shall be in compliance with the South Coast Air Quality Management District standards.

Hazardous Materials

To ensure that the use, handling, storage, and transportation of hazardous materials comply with the California Government and Health and Safety Codes, and all provisions of Titles 11 (Health and Safety), 12 (Environmental Protection), and 32 (Fire Code) of the County Code.

Noise Control

Plans for noise attenuation of residential units near arterial highways and the freeway, which ensure that interior and exterior noise levels do not exceed state requirements and the Noise Control Ordinance in Title 12 (Environmental Protection) of the County Code, shall be submitted for review and approval prior to building permits being issued to accommodate reuse and/or subdivision approval for residential development, whichever occurs first.

All uses shall be subject to provisions of the Noise Control Ordinance in Title 12 (Environmental Protection) of the County Code.

Enforcement of EIS/EIR Mitigation Measures

Amendments to Section 21081.6 of the California Public Resources Code, as applicable, shall apply. The amendments provide that measures to mitigate or avoid significant effects on the environment shall be fully enforceable through permit conditions, agreements, or other measures. The EIR mitigation measures are in the EIR for the project.

3.6 URBAN DESIGN STANDARDS

Design will play a crucial role in implementing the vision for West Carson. The layout of the blocks, site design, architectural character, outdoor spaces, landscaping, and views will contribute to a "sense of place" that is unique to West Carson.

General development design standards provide a regulatory framework for the physical design of the West Carson TOD Specific Plan area to ensure the creation of a livable, accessible, and sustainable community. It is important to establish a strong set of design criteria that will create a strong identity for the project area while allowing for flexibility to meet market demands.

The purpose of these guidelines and standards is to provide direction that will create a comprehensive approach to high quality design as it relates to West Carson. These are provided in addition to the tailored design standards identified in the development standards under Section 3.4, Regulating Code, above. These standards and guidelines are not meant to dictate a particular architectural style in the area, but to foster innovative design features and site-appropriate architecture that is constructed with quality materials and complemented by landscape, open spaces, and connectivity between uses.

The terms should and shall are used throughout the Urban Design Standards and are used purposefully to indicate required and suggested standards. The use of shall indicates that a requirement is mandatory and the standards and specifications are applicable without deviation. The use of should indicates that a requirement is a recommendation and the standards and specifications are advisory.



Example photo.



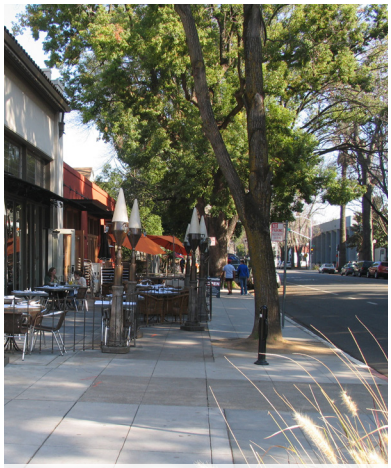
Example photo.

3.6.1 SITE DESIGN

Site design is an important process critical to any development that may occur in West Carson TOD Plan area. The resulting outcome, conveyed in a project's site plan, will determine how buildings are placed on a site, where access will occur, and how structures and spaces are located in relation to each other and to adjacent off-site uses. The following standards and guidelines shall be integrated in the site design of all new projects. Alternatives will be permitted only if the intent of the design standard is met.

3.6.1.1 Building Placement and Orientation

Building placement and orientation have a large impact on the way people experience a developed site and on the building's relationship with local conditions such as views, wind, and sun movements. Visually interesting buildings that are oriented to the street shape the area's character and the visitor's experience. Locating parking behind buildings, placing buildings closer to the public street edge, and placing a majority of active ground-floor uses on the same frontage all contribute to making the public street frontage more inviting to pedestrians.



Example photo.

- Buildings shall be oriented toward public street, pedestrian pathways, or public open spaces to create a strong presence and encourage activity along the street frontage.
- Certain zones have street frontage requirements (see Figure 3.1, Land Use Framework), and buildings shall comply with the frontage type requirement specified for the applicable planning area in Section 3.4. Furthermore, the design of



Example photo.

the frontage shall comply with the frontage type standards provided in Section 3.6.2, Building Design.

- Buildings should be oriented for energy efficiency (e.g., to capture day lighting, minimize heat gain, take advantage of prevailing breezes, and for natural ventilation).
- There shall be an accessible, well-marked, and well-lit travel path of a minimum of four feet in width provided between parking, buildings, and sidewalks.

3.6.1.2 Site Access

- Vehicular access points shall be designed to minimize conflicts with pedestrians through the consideration of curb-cut locations and widths, sight lines, and lighting. Entrance and exit points shall be well marked and lit.
- To slow traffic and enhance the overall site design, site entry and edge design features shall be incorporated, such as colored or textured paving treatments, landscaping, signage, and monumentation.
- Areas between buildings and open spaces shall be linked to and connected by safe, convenient, and accessible pedestrian and bicycle facilities.
- Avoid dead-end driving aisles.
- Nonresidential uses—especially multi-building development projects—should use shared driveways to reduce conflicts with pedestrians.

3.6.1.3 Parking Structures

- Above-ground parking structures must be internalized, screened, or wrapped with other active ground-floor uses (e.g., retail, office, or residential) along public streets so they are only visible at access points for vehicles and less visible from major streets.
- The facades of parking structures that are not lined with active uses must be screened using architectural solutions and/or landscaping that is integrated into the structure's design (e.g., perforated panels, landscape/vine screens, columnar trees, or public art elements).
- Parking structures shall be designed with materials, color, and detail compatible with the principle building.
- Parking structures should have shaded structures/ photovoltaic arrays on the top deck to reduce heat island effects.



Example photo.



Example photo.



Example photo.



- Parking structures must screen night lighting to avoid uplighting, spillover, and glare on nearby properties.
- Parking structures should incorporate usage technology to assist visitors and minimize the time spent searching for a space.

3.6.1.4 Parking (Access)

- Parking shall be located behind, at the side, or at the rear of buildings (away from the street) and can be provided in underground garages, above-ground garages, or interior parking courts.
- The perimeter of parking areas and driveways adjacent to streets and pedestrian pathways should be screened from street views with a low street wall, berms, fences, or landscaping. Screening shall be low enough to ensure that parking remains visible to passerby views.
- New developments should provide accessible, well-lit, and secure bicycle parking visible from buildings, right-of-way, or public open spaces.
- Surface parking lots shall take advantage of adjacent building shade where feasible, or provide sufficient tree coverage to reduce the urban heat island effect and provide shade for vehicles and pedestrians.

3.6.1.5 Service & Loading Areas

- Where feasible, access to service and loading areas should be provided from a secondary or service road.
- Service and loading areas shall be located behind primary structures or properly shielded through fences, gates, landscaping, berms, etc.
- Access to service and loading areas should not block adjacent vehicular or pedestrian circulation and should be clearly marked.
- To consider noise impacts on adjacent properties, service and loading areas should be located away from residential properties.

3.6.1.6 Utility, Storage, Trash, and Recycling Facilities

- Utilities should be located away from the public right-of-way either within a building recess or landscaped or gated area. Where feasible, utility lines should be undergrounded.

3.6.2 BUILDING DESIGN

This section addresses the design elements of a building that help create an interesting public realm, including building frontage treatment, façade design and composition, colors and materials, windows and doors, and roofs. New buildings shall contribute to defining the character of the street and shall represent a single architectural style that all materials and details are true to. Architects are encouraged to innovate, but with full awareness of and respect for appropriate height, massing, variety, and quality of materials that result in a building with architectural integrity.



Example photo.

3.6.2.1 Frontages

This Specific Plan identifies permitted ground-floor frontage types per applicable street type along Carson Street, Vermont Avenue, and 223rd Street. This section provides design standards for each frontage type to ensure that proposed development relates to the street and meets community design objectives. These frontages dictate the relationship between the street (back of right-of-way) and the façade of the ground floor of the building. Along each applicable roadway, buildings shall be designed with at least one of the permitted frontage types based on the street it fronts, per Table 3.26 Frontage Categories, Figure 3.5, Streets with Frontage Requirements.



Example photo.

All new development adjacent to a street with frontage requirements, shall have a primary building façade and entry from the identified street and must adhere to the following building frontage requirements.

These frontage standards shall be used along with other development and design standards herein. While this Specific Plan provides for a variety of frontage types, the actual choice, design, and architectural style are the decision of the property owner based on the proposed uses, site plan, and building design.

Guidelines for all frontage types are provided below. Tables 3.26 to 3.31 on the following pages describe the intent of each frontage type and provide guidelines for application to the building façade and street front.

- Primary building façades must align with the right-of-way, property lines, or easement line unless setbacks are allowed.
- Non-primary building walls shall be consistent in design with the primary building front to the extent possible. Non-primary building walls are not required to use frontage types provided in this Specific Plan.



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Example photo.



Example photo.

- The term "clear" means that the identified area is free of encroachments.
- Canopies, awnings, signs, balconies, and other architectural projections must clear eight feet above the adjacent sidewalk and may encroach into the pedestrian zone up to a maximum of four feet provided a minimum six-foot-wide clear and unobstructed path is provided, unless approved by the Public Works Director and Director of Regional Planning (see also Section 3.19.3).
- Building orientation shall be determined by the location of the primary entrance, which shall indicate the front of the building.
- Where not a designated frontage, all building sides abutting major public rights-of-way shall require architectural treatment.
- Modification of design standards due to site specific, utility conflicts, or other unforeseen factors shall require approval from the Director.

Table 3.25 Frontage Categories

TYPE	CARSON STREET	VERMONT AVENUE	223RD STREET
Shopfront	Permitted	Permitted	Permitted
Forecourt	Permitted	Permitted	Permitted
Gallery	Permitted	Permitted	Permitted
Arcade	Permitted	Permitted	Not permitted
Terrace	Permitted	Permitted	Permitted
Stoop	Not permitted	Permitted	Permitted

Table Notes

1. See Section 3.6.2, Building Design, for building frontage design standards and guidelines.

Table 3.26 Shopfront Frontage Type

SHOPFRONT FRONTAGE
DESCRIPTION
A shopfront is a frontage wherein the building façade and entrance are at sidewalk grade and close to the pedestrian zone. Shopfronts include large areas of transparent openings and doors and are commonly equipped with cantilevered roof(s) or awning(s). Shopfronts typically provide access directly from sidewalks and are oriented to display ground-level commercial uses. This frontage type is conventional for commercial use. This frontage type can be used in conjunction with terrace and/or forecourt to create a more engaging street.
GUIDELINES
A great variety of shopfront designs are possible, but the following should apply: **a.** Desirable shopfront façade area is at least 15 feet tall, as measured from the adjacent walk, and minimum 10 feet wide. **b.** Shopfronts may be recessed from the primary building façade by up to five feet. **c.** The shopfront should provide clear views of merchandise displays. **d.** A base of similar or visually "heavier" materials than the walls is recommended below display windows. **e.** Doors should be substantial, well detailed, and match the materials, design, and character of the display windows. **f.** Canopies and awnings should be integrated to shopfront openings. **g.** Remaining open areas within the frontage zone shall be landscaped per Section 3.6, Public Realm Design.



Example photo.



Example photo.



Example photo.

Figure 3.15 Shopfront Frontage Type





Images for illustrative purposes only.

Table 3.27 Forecourt Frontage Type

FORECOURT FRONTAGE
DESCRIPTION

A forecourt is a frontage wherein a portion of the building façade is recessed from the primary building façade. The forecourt may be used as an entry court and open space for residential uses, or as additional shopping or seating areas for commercial uses. Forecourts with large trees and lush landscaping offer visual and environmental variety to the urban streetscape.

This frontage type is appropriate for either residential and/or commercial uses. A combination of both uses can be achieved by using the forecourt as a residential entrance while commercial uses occupy street adjacent building space. This type can be used in conjunction with shopfronts and stoops as a transition into residential frontage.

GUIDELINES

A great variety of forecourt designs are possible, but the following should apply:

- **a.** A minimum of 10 feet and maximum of 40 feet deep clear.
- **b.** A minimum of 20 feet and maximum of 50 feet wide or 50 percent of the lot width, whichever is less.
- **c.** One building entry must front onto the forecourt.
- **d.** The forecourt may also be raised from the sidewalk, creating a small retaining wall at the property line with entry steps to the forecourt, but shall not exceed three feet in height from the adjacent sidewalk grade.
- **e.** The proportions and solar orientation of the forecourt should be carefully considered for user comfort. Canopies of large trees placed within the forecourt may overhang into the pedestrian zone.
- **f.** A fence or wall at the property line may be used to define the private space of the court and shall comply with per Section 3.6 Public Realm Design.
- **g.** Entrances and pedestrian "gateways" may be announced by posts or pilasters, and may be combined with trellises, special landscaping, decorative lighting, public art, or other special features.
- **h.** Remaining open areas within the frontage zone shall be landscaped per Section 3.6, Public Realm Design.



Example photo.



Example photo.

Figure 3.16 Forecourt Frontage Type



Images for illustrative purposes only.

Table 3.28 Gallery Frontage Type

GALLERY FRONTAGE

DESCRIPTION

A gallery is a frontage wherein the building façade has an attached, cantilevered shed or a lightweight colonnade overlapping the sidewalk. The colonnade may support a roof or balcony above. Balconies may be used for outdoor dining. The gallery covering the sidewalk provides pedestrian shelter and opportunities for covered outdoor dining.

This frontage type is conventional for commercial use.

GUIDELINES

A great variety of gallery designs are possible, but the following should apply:

- **a.** A minimum of 10 feet and maximum of 15 feet deep clear. Galleries may overlap the whole width of the sidewalk within the pedestrian zone but may not encroach into the landscape area.
- **b.** Galleries should be no less than 12 feet wide and 10 feet tall.
- **c.** Galleries should be in alignment with adjacent galleries and/or arcades to the extent possible.
- **d.** Spacing between openings and/or columns should be a minimum of 10 feet.
- **e.** Shopfront openings within galleries should be at least 10 feet tall and shall provide clear views of merchandise displays within the space.
- **f.** The height and the proportions of the gallery should correspond to storefront openings and the building façade consistent with the architectural style of the building.
- **g.** Soffits, columns/arches should be treated consistent with the architecture of the building.
- **h.** Entrances should be at sidewalk grade.
- **i.** The pedestrian zone sidewalk and gallery frontage portions in the frontage zone should be consistent in design and material.
- **j.** Remaining open areas in the frontage zone shall be landscaped per Section 3.6, Public Realm Design.



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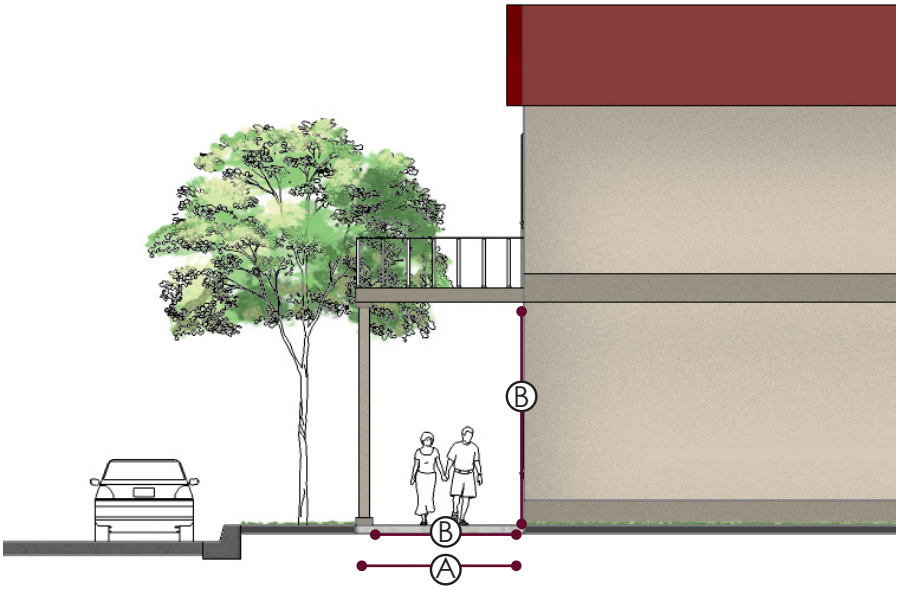
Example photo.

Figure 3.17 Gallery Frontage Type





Images for illustrative purposes only.

Table 3.29 Arcade Frontage Type

ARCADE FRONTAGE
DESCRIPTION
An arcade is a frontage wherein the building façade is aligned close to the pedestrian zone with a colonnade recessed into the building. The colonnade supports habitable commercial or residential space above. The colonnade covering the sidewalk provides pedestrian shelter and opportunities for covered outdoor dining. This frontage type is conventional for commercial use.
GUIDELINES
A great variety of arcade designs are possible, but the following should apply: **a.** A minimum of 10 feet and maximum of 15 feet deep clear. **b.** Arcades should be no less than 12 feet wide and 10 feet tall. **c.** Arcades should be in alignment with adjacent galleries and/or arcades to the extent possible. **d.** Spacing between openings and/or columns should be a minimum of 10 feet. **e.** Shopfront openings within arcades should be at least 10 feet tall and shall provide clear views of merchandise displays within the space. **f.** The height and the proportions of the arcade should correspond to storefront openings and the façade consistent with the architectural style of the building. **g.** Soffits, columns/arches should be treated consistent with the architecture of the building. **h.** Entrances should be at sidewalk grade. **i.** Remaining open areas within the frontage zone shall be landscaped per Section 3.6.3, Public Realm Design.



Example photo.



Example photo.



Example photo.

Figure 3.18 Arcade Frontage Type





Images for illustrative purposes only.

Table 3.30 Terrace Frontage Type

TERRACE FRONTAGE
DESCRIPTION
A terrace is a frontage wherein the building façade is set back from the street, paseo, or open space, by an elevated open area that is paved or planted. This frontage type can effectively buffer building uses from the sidewalk. This type is recommended for residential and commercial use as it allows for semi-private use of frontage areas.
GUIDELINES
A great variety of terrace designs are possible, but the following should apply: **a.** A minimum of five feet to maximum of eight feet deep clear. Terrace design should take into consideration landscape areas, where adjacent to public landscape easement, to the extent possible. **b.** Terraces should be raised to transition into the building. Terraces should not be raised more than three feet from the adjacent grade of the pedestrian zone. A retaining wall may be built around the terrace per Section 3.20.3, Landscape Architecture. **c.** A minimum of six feet wide clear for entry landing. **d.** Fences defining the terrace should not exceed three feet in height from the highest adjacent grade of the terrace and comply with Section 3.6.3, Public Realm Design. **e.** Planted terraces and remaining open areas within the frontage zone shall be landscaped per Section 3.6.3, Public Realm Design.



Example photo.



Example photo.

Figure 3.19Terrace Frontage Type





Images for illustrative purposes only.

Table 3.31 Stoop Frontage Type

STOOP FRONTAGE

DESCRIPTION

A stoop is a frontage wherein the building façade is separated from the street, paseo, or open space by an entrance to the elevated ground floor of the building. The entrance is usually an exterior stair and landing and may be covered.

This type is recommended for ground-floor residential use as it facilitates a transition onto more residential frontage.

GUIDELINES

A great variety of stoop designs are possible, but the following should apply:

- **a.** A minimum of three feet and maximum of five feet deep clear.
- **b.** Fences or walls defining the stoop should not exceed three feet from the highest adjacent grade of the stoop and shall comply with Section 3.6.3, Public Realm Design.
- **c.** Stoops should be raised to transition into the building. The ground-story entry should not be elevated more than 3 feet above the adjacent sidewalk.
- **d.** Stoops should correspond directly with the building entry(s) and be at least three feet wide (perpendicular to or parallel with the adjacent walk).
- **e.** Building façade may be set back the depth of the entry stair from the sidewalk.
- **f.** The stoop may include a covered roof, awning, or door inset within the building front.
- **g.** Remaining open areas within the frontage zone shall be landscaped per Section 3.6.3, Public Realm Design.



Example photo.



Example photo.



Example photo.

Figure 3.20 Stoop Frontage Type





Images for illustrative purposes only.

3.6.2.2 Corner Treatment

- Buildings at the corner of prominent intersections should have a corner entrance or an entrance oriented toward each adjacent street.
- Special attention should be paid to the architectural style and detail of buildings at prominent intersections, including display windows, façade materials, colors, art features, rooftop elements, and stepbacks.
- For corner buildings along major roadways (Vermont Avenue, Carson Street, Torrance Boulevard, 223rd Street, and Normandie Avenue), vertical focal elements such as towers, spires, and domes are encouraged to act as a landmark and orientation point.



Example photo.

3.6.2.3 Building Entrances

- Primary building entrances should be located along major corridors and corners (Vermont Avenue, Carson Street, Torrance Boulevard, 223rd Street, and Normandie Avenue).
- Secondary building entrances should be treated similarly in style and material as primary entrances to the extent possible.
- All building entryways should adhere to the requirements of the ADA and have direct at-grade access at the ground level.
- Each individual storefront entrance should be clearly defined and distinct from others.
- In mixed-use buildings, entrances to residential units should use a separate main entrance located on the primary street.
- Residential uses should have secured entrance areas that are separate from non-residential uses, but accessible from pedestrian pathways and residential parking areas.
- Incorporate Crime Prevention Through Environmental Design (CPTED) measures by creating well-lit and active entryways. Intimidating security features such as window grills or spiked gates are prohibited.



Example photo.

3.6.2.4 Scale, Mass, and Articulation

Building massing refers to how the development program is shaped into a structure that gives a building its architectural form. For example, a building can have a taller mass in one wing, step down in another wing, and have a tower that emphasizes its entrance—all of which is achieved by modeling its massing. Building massing can be



Example photo.



Example photo.



Example photo.

used to frame public spaces, step down to adjacent uses, and provide architectural variety. It is generally more interesting to see multiple buildings with a variety of heights and massing rather than a uniform large building block.

- Building design should avoid sprawling, monotonous facades, long straight-line building fronts, box shapes, and lackluster exterior treatments.
- For single-family residential, entrances and windows, not garages, should be the dominant elements of the front façades. Window and door placement, size, material, and style should help define a building's architectural style.
- Multiple buildings on the same site shall be designed and grouped, to the extent possible, to provide a cohesive, visual relationship among buildings, while at the same time provide for pedestrian plazas, open space, and views.
- Massing breaks, such as entry courts and stepped-back corners, are encouraged to promote visibility and allow block transparency.
- Buildings should reflect the human scale both vertically and horizontally using inset windows, prominent rooflines, articulation, and highlighted entryways.
- A variety of roof forms and heights can be used to alleviate the overall mass of the building and add to its aesthetic quality. Roof forms should match the overall architectural style of the building.

3.6.2.5 Façades

Façade generally refers to a building's external wall that faces a public street or open space. The design and composition of facades involves the arrangement of architectural elements, such as doors, windows, balconies, caps, and pilasters, on the walls of buildings. The façade and ground floor of a building are the most visible components seen by pedestrians, bicyclists, and motorists. How the mass of the building "meets the street" should be well detailed. The design of the facade is what humans experience most intimately when on the sidewalk and is the biggest contributor to district character.

- Building façades should be well defined with a distinct base, body, and roof or parapet that allow adjacent buildings to relate to each other.

- Façade elements such as materials, textures, patterns, colors, and detailing should be used to lessen the perceived mass of larger buildings.
- The highest level of architectural detailing should be focused along the building's ground-floor façade or any area visible from the public realm.
- Along major corridors such as Vermont Ave. and Carson St., breaks in the street wall should be restricted in order to activate the pedestrian realm.



Example photo.

3.6.2.6 Awnings, Canopies, and Marquees

Encroachments such as awnings, canopies, and marquees are encouraged but must be well designed and proportioned so they do not adversely impact the sidewalk environment. Canopies and awnings are encouraged along all retail street frontages.

- The minimum vertical clearance between the ground or street level and the encroachment should be eight feet. In areas of zero setback, awnings, canopies, and marquees should not project more than two-thirds the width of the sidewalk, subject to the California Building Code. At least two feet of clearance must be maintained from the street curb line.
- Awnings or canopies that are designed to require ground support are prohibited on sidewalks. In areas where setbacks are required, awnings, canopies, and marquees should not project past the setback line.
- For awnings and canopies, the materials, shape, dimensions, rigidity, reflectance, color, lighting, and signage should relate to the architectural design of the building.



Example photo.

3.6.2.7 Architectural Lighting

- Lighting should enhance a building's form and enhance the pedestrian experience at night.
- Lighting should not aim directly at the open sky or project off-site or onto adjacent uses.
- Architectural lighting should highlight main building entrances and special architectural elements along the building façade.
- Secondary building entrances should be properly lighted to maintain a safe environment.



Example photo.



Example photo.



Example photo.



Example photo.

- Internal and external storefront lighting should be designed for ground-floor retail and restaurant spaces to augment the pedestrian space.
- Blinking, flashing, and oscillating lights are prohibited.
- Use warm white light where possible. Colored lights should be avoided and shall only be used if they are part of a comprehensive architectural lighting theme of commercial areas or establishments.
- Use automatic timers where feasible to maximize safety at night and conserve energy.

3.6.2.8 Colors and Materials

The colors and materials of buildings can effectively create a streetscape of interest when applied appropriately and in partnership with façade modulation. Quality materials not only last longer and wear better but preserve the quality of the public realm.

- Buildings should use durable, high quality materials that can withstand weather and harsh external factors, are easy to maintain, and enhance the public realm. Where feasible, employ natural and local materials, including natural stone, brick, and precast concrete.
- Colors and materials should be consistent with the overall architectural theme and compatible with the adjacent landscape and development.
- In mixed-use projects, architectural style and materials can vary slightly to differentiate between residential and commercial portions of the project.
- All sides of a building should be considered and should be finished appropriately to provide continuity. Backs of buildings may use more utilitarian materials provided they are compatible with the overall design.
- Material changes should not occur at corners; materials should continue for a minimum distance of four feet around corners.
- Use variation in materials and colors to distinguish form changes at entrances, different uses or tenants, and between stories.
- Concrete and similar finishes can be used as long as they are finished and part of an overall architectural composition.

3.6.2.9 Windows, Doors, and Balconies

Windows, the main source of natural light and fresh air into buildings, should be designed to maximize the light that enters and to take advantage of natural ventilation.

- Clear glass should be used on the ground floor of nonresidential buildings with minor obstructions. Windows on the ground floor facing streets shall constitute a minimum of 30 percent of the building façade, with minimal obstruction from signs or interior displays.
- "Eyes on the street" along major corridors shall be emphasized by placing balconies and bay windows along upper stories.
- For residential buildings, windows shall be of high quality and afford a shadow line as well as depth. This may be achieved through inset windows with an integral frame or insetting the window into the exterior wall.



Example photo.

3.6.2.10 Roofs

- Roof style shall complement the overall architectural style of the building. A variety in planes, heights, and styles must be used.
- Roof access should be provided from the interior of the building and not through exterior ladders.
- Rooftop mechanical equipment shall be located below highest vertical element of the building, and properly screened from public view.
- Inclusion of green roofs that include living plants and growing medium on top of a typical roofing system are encouraged.



Example photo.

3.6.2.11 Green/Sustainable Building Design

- Energy efficient, non-toxic, and recycled-content building materials should be used whenever possible, such as EPA "Energy Star" labeled windows.
- Natural lighting should be utilized where possible to maximize daylighting and reduce cooling and heating requirements.
- Where possible, use materials that reduce the transfer of heat into and/or out of the building, such as cool roofs.



Example photo.



Example photo.



Example photo.



Example photo.

- Buildings and parking garages should integrate sustainable design features, such as photovoltaic panels, cool roofs, grey water systems, and other features to reduce energy consumption.
- In new development, incorporate zero emission and electric vehicle charging stations in parking areas.
- Where feasible, use recyclable and sustainable building materials in new development.

3.6.3 PUBLIC REALM DESIGN

3.6.3.1 Landscaping

In all zoning areas, all landscaping shall conform to the landscape guidelines contained in this Specific Plan or, for issues not addressed in the Specific Plan, Title 12 (Environmental Protection), Title 22 (Planning and Zoning), and Title 31 (Green Building Standards) of the County Code.

- All commonly owned property and landscaped setback areas, exclusive of structural improvements, shall be landscaped and maintained in a weed-free condition with a combination of trees, shrubs, and ground cover.
- Landscaping at intersections shall be designed to not restrict vehicular sight distance.
- Projects are highly encouraged to integrate drought-tolerant, native, and low-water-use plants and grasses where possible.
- Permeable surfaces should be used where feasible, and lawns should be limited to areas that serve a functional purpose.
- Landscaping shall be used to highlight building facades; screen less attractive elements; add color, texture, and visual interest; provide shade; and define the spatial organization of the site.
- Bio-filtration and bio-retention measures are encouraged to slow and treat stormwater runoff.
- Plant species and design should avoid the creation of unsafe places hidden to the public.

- Landscaping requiring irrigation systems should utilize highly efficient irrigation systems such as drip and bubbler irrigation and low-angle, low-flow spray heads.
- Where possible, use green roofs on buildings with drip irrigation systems. Inclusion of green roofs may also contribute to fulfilling other applicable landscaping requirements in Title 22 of the County Code or included in this Specific Plan.



Example photo.

3.6.3.2 Screening: Fences, Walls, and Gates

All provisions of the County Code shall apply to the construction of walls, fences, and hedges in the Specific Plan, with the exception of the following:

- If fencing is required for security reasons, wrought-iron-style fences that do not obscure views are encouraged.
- The use of barbed wire, electrified fence, and chain-link fence in conjunction with any fence, wall, roof, or hedge is prohibited unless required by any law or regulation of the County, federal government, or agency thereof, as applicable.
- Walls and fences should be constructed of durable materials and designed to complement the surrounding architecture.
- Defamation of walls and fences should be prevented through the use of trees, vines, and other landscaping.



Example photo.

3.6.3.3 Outdoor Lighting

- Lighting should be human scale and should be located at all building entryways, parking areas, seating areas, transit stops, open space areas, and pedestrian paths.
- Lighting fixtures shall be compatible with the architectural style of surrounding buildings to reflect the character of the area.
- Lighting must be provided at intervals adequate for safety, while minimizing light spillage and glare onto adjacent uses and the night sky.
- Freestanding light fixtures should be placed outside of pedestrian and bicycle pathways.
- Light fixtures should provide a warm light and use energy-efficient technology, such as solar-powered lighting.



Example photo.



Example photo.



Example photo.

3.6.4 Signage

- Community identification signage for West Carson should be provided beyond the Specific Plan area at major intersections: Vermont Avenue and Lomita Boulevard, Vermont Avenue and E Del Amo Boulevard, Torrance Boulevard and Normandie Avenue, Sepulveda Avenue and Normandie Avenue, and Sepulveda Avenue immediately west of Interstate 110. All signs shall be maintained in good repair.
- All other signage shall be consistent with Chapter 22.52 Part 10 of the County Code.

3.6.5 Special Treatments: Transit Station Areas & Gateways

Key intersections and gateways require greater attention to detail due to their prominent locations and sensitive relationship to the public realm. Special attention to the treatment of buildings and the public realm at key locations can greatly enhance the character of the area and establish a unique sense of identity.

Key opportunity areas exist along major corridors and entrance points in the Specific Plan area—Vermont Avenue, Carson Street, Torrance Boulevard, 223rd Street, and Normandie Avenue.

- Orient and design buildings located at key gateways and intersections to emphasize the corner as a node of activity and architectural prominence. Solutions for developing projects that are of an exemplary quality at gateways or prominent intersections include:
  - Tower elements as a prominent massing feature
  - Entry plazas on corner sites
  - Fountains or water features
  - Distinct changes in the building volume at the primary entry
  - Prominent landscape features, such as tall trees
  - Unique building lighting for nighttime effect
  - Public art installations that reinforce a theme reflective of West Carson
- Buildings should serve as iconic representations of the West Carson character.
- Trademark buildings shall be prohibited if they are not consistent with other design principles established in the standards and guidelines herein.

04

MOBILITY AND PUBLIC REALM

INTRODUCTION

The West Carson Mobility and Public Realm Strategy describes the circulation improvements needed to support transit oriented development (TOD) within the Specific Plan area. A key component of the Specific Plan is the transformation of the current circulation network, which largely supports vehicular travel, to a network that places a higher priority on the principles of complete streets and multi-modal design. The strategies set forth in this document are intended to provide a framework for establishing and maintaining a sustainable circulation network that supports both motorized and non-motorized modes of transportation together in an integrated system.

GOALS AND POLICIES

The following goals and policies set the framework for the mobility and public realm strategy of West Carson. They serve as guidelines and provide direction for future decision-making and development activities. The goals and polices identified in this section were derived from input received from community members, stakeholders, and County staff during the community engagement process and County Task Force meetings. The following lists the major mobility goals and policies for the West Carson TOD Specific Plan.

- **Goal 1:** Provide and maintain a comprehensive circulation system that improves accessibility to transit, connections within the community, and the safe and efficient movement of all users of the roadway.
  - » Policy 1.1: Implement complete streets designs that contribute to a multi-modal transportation system.
  - » Policy 1.2: Ensure that roadway improvements allow for easier, safer, and more efficient transit operations, as well as improved passenger safety and accessibility.
  - » Policy 1.3: Consult with local jurisdictions to provide attractive and convenient bus stops, including shade/ weather protection, seats, transit information, and bus shelters where appropriate.
  - » Policy 1.4: Consider the interactions between bus and bicyclists and design bus stops that will help minimize conflicts.
- **Goal 2:** Provide safe, connected, and accessible bikeway and pedestrian network.
  - » Policy 2.1: Establish a connected pedestrian and bicycle network that links the Metro Silver Line Station, Harbor

UCLA Medical Center, residential neighborhoods, local schools, and retail corridors.

- » Policy 2.2: Complete bicycle infrastructure improvements that close gaps in the County's Bicycle Master Plan and those providing connections to adjacent communities to enhance regional connectivity.
- » Policy 2.3: Identify opportunities to create dedicated bicycle lanes and pedestrian sidewalks that connect the neighborhood and commercial areas to community services.
- » Policy 2.4: Establish and maintain attractive and functional sidewalks that maximizes accessibility, enhances the pedestrian environment, and fosters social interaction.
- » Policy 2.5: Design bicycle and pedestrian infrastructure in accordance with federal, state, and local design standards, including ADA accessibility standards.

- **Goal 3:** Provide and maintain attractive mobility corridors that promote livability and sustainability.
  - » Policy 3.1: Implement streetscape features such as street lighting, street trees, landscaping, and wayfinding to create safer and attractive corridors.
  - » Policy 3.2: Integrate pedestrian amenities, such as benches and public art to transform the streetscape and create public space.
  - » Policy 3.3: Identify new opportunities to incorporate public park and open space improvements within the area that provide small-scale, but well-designed outdoor areas for unstructured play and socializing.
- **Goal 4:** Promote efficient use of parking resources and support programs that attempt to induce mode shifts from single auto occupancy travel to transit, rideshare, bicycle, or pedestrian travel.
  - » Policy 4.1: Utilize shared parking where possible and establish guidelines and standards to optimize parking supply.
  - » Policy 4.2: Encourage and allow shared parking for new development in lieu of the provision of off-street parking spaces.



Example photo.



Example photo.

STREET NETWORK

The West Carson TOD Specific Plan provides guidance for the design of a comprehensive and context sensitive street network as shown in Figure 4.1 Street Network, to connect the West Carson community. Much of the street network within the Specific Plan area will remain the same in order to support new development and growth within the area, however some streetscape improvements are proposed along key arterials within the Specific Plan area. These improvements are intended to transform the existing auto-oriented streetscape into a more sustainable and multi-modal design. The Specific Plan's roadway and circulation network plans are described below.

TORRANCE BOULEVARD

Existing Conditions

Torrance Boulevard is classified as a Secondary Highway on the County's Highway Plan and runs east and west at the northern edge of the Specific Plan boundary. The corridor currently meets the minimum width right-of-way standards for a Secondary Highway classification as set forth in the Los Angeles County General Plan, which is 80 feet. The corridor is surrounded mostly by residential land use with some light industrial and general commercial use. The posted speed limit is 35 miles per hour. Within the project area, the roadway consists of two travel lanes in each direction with a dedicated auxiliary lane in the center. On-street parking is not permitted along the corridor within the project area. Torrance Transit operates a local bus line along a short segment of the corridor.

Vision

Torrance Boulevard's role as a key corridor connecting neighborhoods and communities within West Carson should be reinforced and enhanced through the provision of a well-connected network of high quality pedestrian and bicycle infrastructure. Wider sidewalks with pedestrian amenities, such as street trees, landscaping, and lighting should be considered to enhance safety and the overall pedestrian environment. Bicycle facilities and amenities should be installed to improve connections to the greater bikeway network, promote active modes of transportation, and to provide first-and-last mile strategies to transit.

Plan Strategy

Consistent with the County's Bicycle Master Plan, the West Carson TOD Specific Plan proposes the addition of Class II bicycle facilities along

Torrance Boulevard to improve connections to the regional bikeway network, which includes the proposed 208th Street multi-use path and the Dominguez Channel located in the neighboring City of Carson. The Specific Plan also encourages the provision of community facilities, such as community centers, community gardens, and libraries, as well as enhancements to the pedestrian environment such as landscaping, street trees, and lighting to encourage more pedestrian activity and social interactions.

VERMONT AVENUE

Existing Conditions

Vermont Avenue is classified as a Major Highway on the County Highway Plan and runs north and south within the Specific Plan boundary. The corridor currently meets the minimum width right-of-way standards for a Major Highway classification as set forth in the Los Angeles County General Plan, which is 100 feet. The corridor is surrounded by a variety of land uses including residential, mixed use, light industrial, and public space. The posted speed limit is 40 miles per hour. Within the project area, the roadway consists of two travel lanes in each direction with a dedicated auxiliary lane in the center. Class II striped bike lanes also exist in each direction within the project area. On-street parking is permitted along much, but not all of the corridor within the project area. Torrance Transit and Metro operate bus lines along the corridor.

Vision

Vermont Avenue serves as a primary transit corridor within West Carson, with multiple bus routes from various local transit agencies traversing through the corridor. Vermont Avenue's role as a key transit corridor should be reinforced and enhanced through the provision of high quality transit stop amenities and pedestrian infrastructure, landscaping, lighting, as well as streetscape improvements that will support high levels of pedestrian activity and improve accessibility to the area's rich transit network.

Plan Strategy

The Specific Plan introduces mixed-use and higher density residential development along Vermont Avenue to activate the corridor and encourage more pedestrian activity. The Specific Plan will also introduce streetscape improvements including a striped buffer between existing Class II bicycle facilities and on-street parking in order to improve bicycling safety and landscaped medians to improve overall aesthetics along the corridor.

NORMANDIE AVENUE

Existing Conditions

Normandie Avenue is classified as a Secondary Highway on the County Highway Plan and runs north and south within the Specific Plan boundary. The corridor currently does not meet the minimum width right-of-way standards for a Secondary Highway classification as set forth in the General Plan, which is 80 feet. The roadway is located entirely within the City of Los Angeles and is not maintained by Public Works. The corridor is surrounded by a variety of land uses including residential, mixed use, and public space. The posted speed limit is 35 miles per hour. Within the project area, the roadway consists of two travel lanes in each direction with a dedicated auxiliary lane in the center. On-street parking is permitted along much, but not all of the corridor within the project area. Gardena Municipal and Torrance Transit operate bus lines along the corridor.

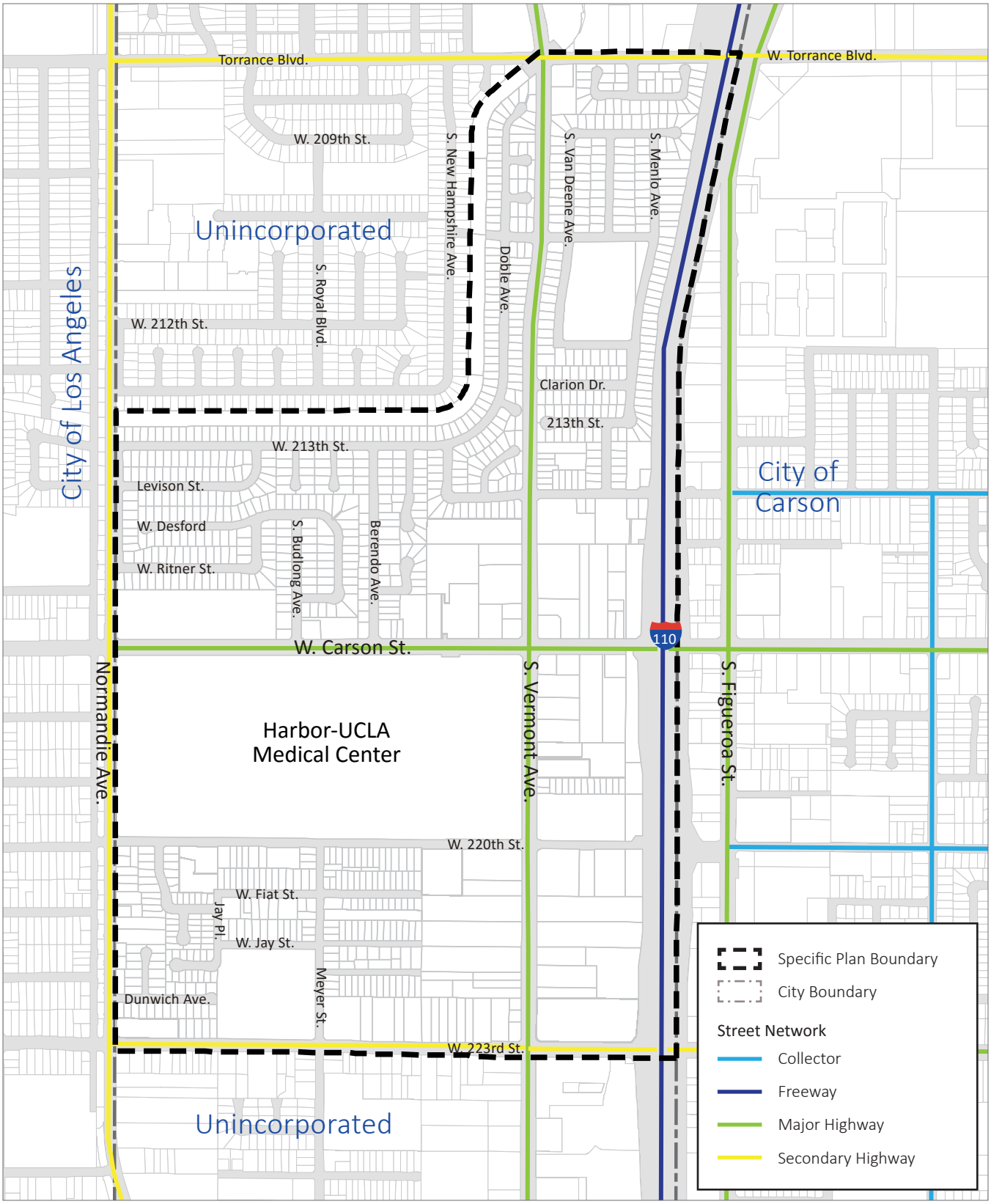
Vision

Normandie Avenue is a major roadway connector throughout the Specific Plan area as well as throughout the local region. Normandie Avenue is a key point of access to the West Carson area and the Harbor-UCLA Medical Center, with several bus routes from multiple transit agencies servicing the corridor. Its role as a key corridor should be reinforced and enhanced through the provision of streetscape improvements, transit amenities, and a well-connected network of high quality pedestrian and bicycle infrastructure.

Plan Strategy

The Specific Plan proposes wider sidewalks along Normandie Avenue to accommodate high levels of pedestrian activity generated from the Harbor-UCLA Medical Center and the adjacent proposed mixed-use land use. The Specific Plan also introduces a Class II bicycle facility along Normandie Avenue to improve connections to the greater regional bikeway network.

Figure 4.1 Street Network





CARSON STREET

Existing Conditions

Carson Street is a Major Highway that runs east and west within the Specific Plan boundary. The corridor currently meets the minimum width right-of-way standards for a Major Highway classification as set forth in the Los Angeles County General Plan, which is 100 feet. The corridor is surrounded by mainly mixed use land use and public space within the project area. The posted speed limit is 35 miles per hour. Within the project area, the roadway consists of two travel lanes in each direction with a dedicated auxiliary lane in the center. On-street parking is permitted along much, but not all of the corridor within the project area. Torrance Transit and Metro operate bus lines along the corridor.

Vision

Carson Street is a gateway to the West Carson TOD Specific Plan area and serves as a primary roadway connector to the Harbor-UCLA Medical Center. The Specific Plan emphasizes a more livable and sustainable Carson Street with more mixed-use development opportunities, enhanced pedestrian and bicycle infrastructure, and a focus on a multi-modal approach to circulation for the area.

Plan Strategy

The Specific Plan proposes mixed-use and higher density development along and adjacent to Carson Street to lay the foundation for a more livable and sustainable corridor that works to improve air quality, traffic congestion, and mobility. The Specific Plan introduces wider sidewalks, landscaping, street trees, reduced on-street parking, striped buffers between existing bicycle facilities and vehicular traffic, and a multi-use pathway to support active modes of transportation. The Specific Plan also encourages the provision of transit amenities, such as shelters, benches, lighting, wayfinding, service route maps and information, and streetscape improvements that focus on facilitating the safe and efficient movement of transit.

223RD STREET



Existing Conditions

223rd Street is a Secondary Highway that runs east and west within the Specific Plan boundary. The corridor meets the minimum width right-of-way standards set forth in Section 22.48.200.A.8 in Title 22 of the County Code, which requires various right-of-way widths ranging from 80 feet to 100 feet depending on the location. The corridor is surrounded by a variety of land uses including residential, general commercial, light industrial, and public space. The posted speed limit is 25 miles per hour between Normandie Avenue and Vermont Avenue and 35 miles per hour east of Vermont Avenue. Within the project area, the roadway consists of two travel lanes in each direction. On-street parking is permitted along much, but not all of the corridor within the project area.

Vision

The Specific Plan transforms the existing auto-oriented design of 223rd Street to a more multi-modal streetscape, incorporating the principles of complete streets into its design with the provision of bicycle facilities, pedestrian amenities, and traffic calming methods to improve safety.

Plan Strategy

Consistent with the County's Bicycle Master Plan and recent efforts to secure grant funding for active transportation projects, the Specific Plan introduces both a Class II and a Class III bicycle facility along various segments of the corridor to improve connectivity to the regional bikeway network. The proposed bicycle facilities are also intended to provide first-last mile solutions to transit within the West Carson area.

TRANSIT CIRCULATION

A key component of the Specific Plan is to improve accessibility to the existing transit system and the overall transit experience, which encompasses more than the transit ride itself, but also includes getting to and from a transit stop and the rider's experience waiting for transit. The following section describes transit circulation within the study area and identifies strategies to improve transit access and the overall transit experience.

LOCAL BUS SERVICES

The Specific Plan area encompasses a rich transit network that is serviced by three local transit agencies which includes Metro, Torrance Transit, and Gardena Municipal. As illustrated in Figure 4.2, a total of eight local bus routes traverse throughout the Specific Plan area on primary transit corridors that include Normandie Avenue, Vermont Avenue, Carson Street, and 220th Street. Of these streets, Normandie Avenue, Vermont Avenue, Carson Street, as well as 223rd Street have been identified as streets with completed Traffic Signal Synchronization Programs (TSSP), which help to prioritize the movement of transit vehicles.

The local bus routes identified in Figure 4.2 not only provide service within the West Carson community, but also serve as feeder routes to the Metro Silver Line, located along the Interstate 110 (I-110) freeway. The Silver Line provides key connections between Downtown Los Angeles and the South Bay communities.

The Specific Plan recommends coordinating operating schedules between local feeder bus routes and the Silver Line to improve overall transit service. Schedule improvements such as minimizing passenger wait times between transfers can help improve efficiency and consequently encourage more transit ridership. Recommended improvements include improvements to bus route arrival/departure times, frequency, and the relocation of bus stops to allow for better connection timing to the Silver Line stop. Local transit agencies should collaborate to ensure service hours for routes improve transit connectivity and the efficiency of multi-operator transit trips.

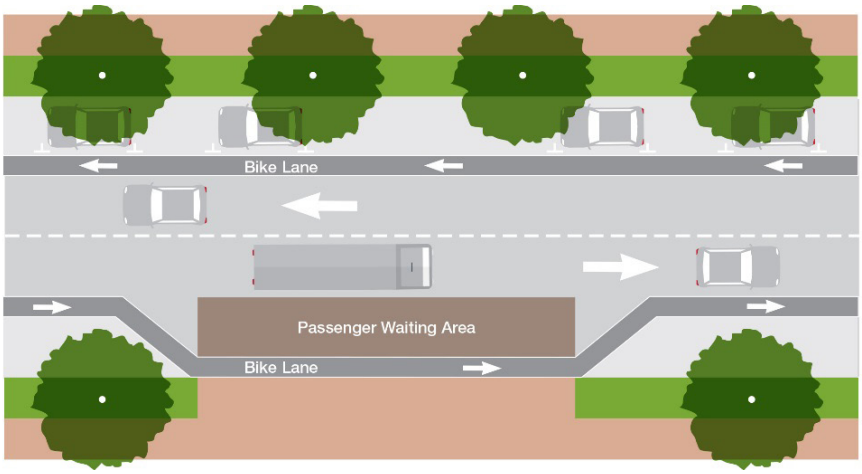
Figure 4.2 Existing Transit Network



BUS AND BIKE INTERFACE

The Specific Plan also acknowledges that alternative modes of transportation, such as transit and bicycling are complementary modes and must often interact with one another on urban and suburban streets. The coexistence between buses and bikes on roadways, however, can present significant challenges due to differences in size, average speed, and stopping patterns. Conflicts often arise as bicyclists must share the right-hand lane and curb with stopping buses. To minimize these types of conflicts, the Specific Plan encourages the exploration of alternative bus stop designs outside of the conventional curbside stops. One such design includes creating a short bike channel that diverts bicycle traffic behind transit stops as depicted in Figure 4.3. Additional analysis should be conducted in order to determine feasibility and to evaluate design effectiveness.

Figure 4.3 Floating Bus Stop And Bike Channel Design



TRANSIT ACCESS, COMFORT AND SAFETY

- A key element impacting the overall transit experience includes the safety and comfort of the transit stop environment. An individuals' perception of safety and comfort walking to and from a transit station as well as waiting for transit will impact their decision to use public transit. The Specific Plan proposes the following improvements to safety and comfort for the Harbor Freeway/Carson Street stop.

Transit Stop Relocation Along the Interstate110

The existing Interstate 110 Harbor Freeway/Carson Street transit stop, which services the Metro Silver Line, is accessed by patrons via stairways and elevators from the Carson Street overpass. The stop's location directly underneath the Carson Street overpass and along the Interstate 110 freeway contributes to its low levels of perceived safety. Although lighting exists at the transit stop, the stop lacks a sense of transparency, or the degree to which an individual can see or perceive what lies beyond the edge of a street or public space in order to feel safe. Additionally, high travel speeds along the freeway also impact perceived safety as the existing stop fronts the Interstate 110 freeway. These factors likely contribute to the low utilization of the existing station.

To improve transit access and safety, the Specific Plan proposes to move the existing transit stop from underneath the Carson Street overpass to a new location along the Interstate 110 freeway. Relocating the stop from underneath the overpass would enhance visibility of waiting transit patrons and improve safety. An example of this configuration is illustrated in Figure 4.4.

Figure 4.4 Proposed Transit Stop Relocation



Freeway Underpass and Overpass Enhancements

Because the I-110 freeway forms the eastern boundary of the Specific Plan area, freeway underpass and overpass enhancements are key in improving safety and comfort for the residents and visitors of West Carson. The Specific Plan recommends incorporating visually-engaging elements at freeway crossings to make a friendlier street and pull active transportation users along the pathway. Incorporating public art along



Example photo.



Example photo.

the I-110 overpass or underpass can also help engage pedestrians and bicyclists by giving them compelling things to look at.

The pedestrian experience and safety along the overpass can also be improved by installing special paving and bollards along curb edges. These features help to improve safety for pedestrians with visual impairments and provide a valuable cue separating the sidewalk from the roadway and vehicular traffic

Transit Amenities

Transit stop amenities work to improve operations, ridership levels, and the overall transit experience. Amenities can include shelters, improved plaza areas, benches, lighting, transit information, bicycle racks, and public art. Well-designed transit stops can improve patron comfort and convenience and attract new riders. Installation of transit stop amenities should be done in consultation with the local transit agencies servicing the area, which includes Metro, Torrance Transit, and Gardena Municipal. Figure 4.26 Pocket Park Concept at the Caltrans Park-n-Ride lot at Carson Street and Interstate 110, is another recommendation for improving transit amenities and safety near the Carson Street Station. These improvements would require coordination with Caltrans, the owner of the parcel.

Bus shelters play an important role in transit operations. They provide patrons shelter from varying weather conditions and provide a place to rest and wait. Bus shelters should provide other amenities such as benches, stop ID, route information, and lighting. Additionally, shelter placement should not obstruct the loading and unloading of passengers or the pedestrian pathway.

Transit information is also an important amenity at transit stops. Whenever possible, transit stops should include information on service routes and schedules, as well as local area maps and wayfinding information. Providing transit information at stops allow patrons to determine whether or not they are waiting at the correct stop and where they need to go once they arrive at their stop. Ideally, real-time arrival information should also be included whenever possible in order to improve transit reliability and encourage transit usage.

FIRST-LAST MILE STRATEGIES

In 2014, the Los Angeles Metropolitan Transportation Authority (Metro) approved its First Last Mile Strategic Plan, which identifies design strategies to improve active transportation access and connections to public transit. The West Carson TOD Specific Plan recognizes that station access is a key element in successful TOD station area planning and has identified strategies that focuses on improving accessibility during the first and last miles of a transit rider's journey. These strategies include streetscape improvements, bicycle and pedestrian infrastructure improvements, as well as signage and wayfinding improvements.

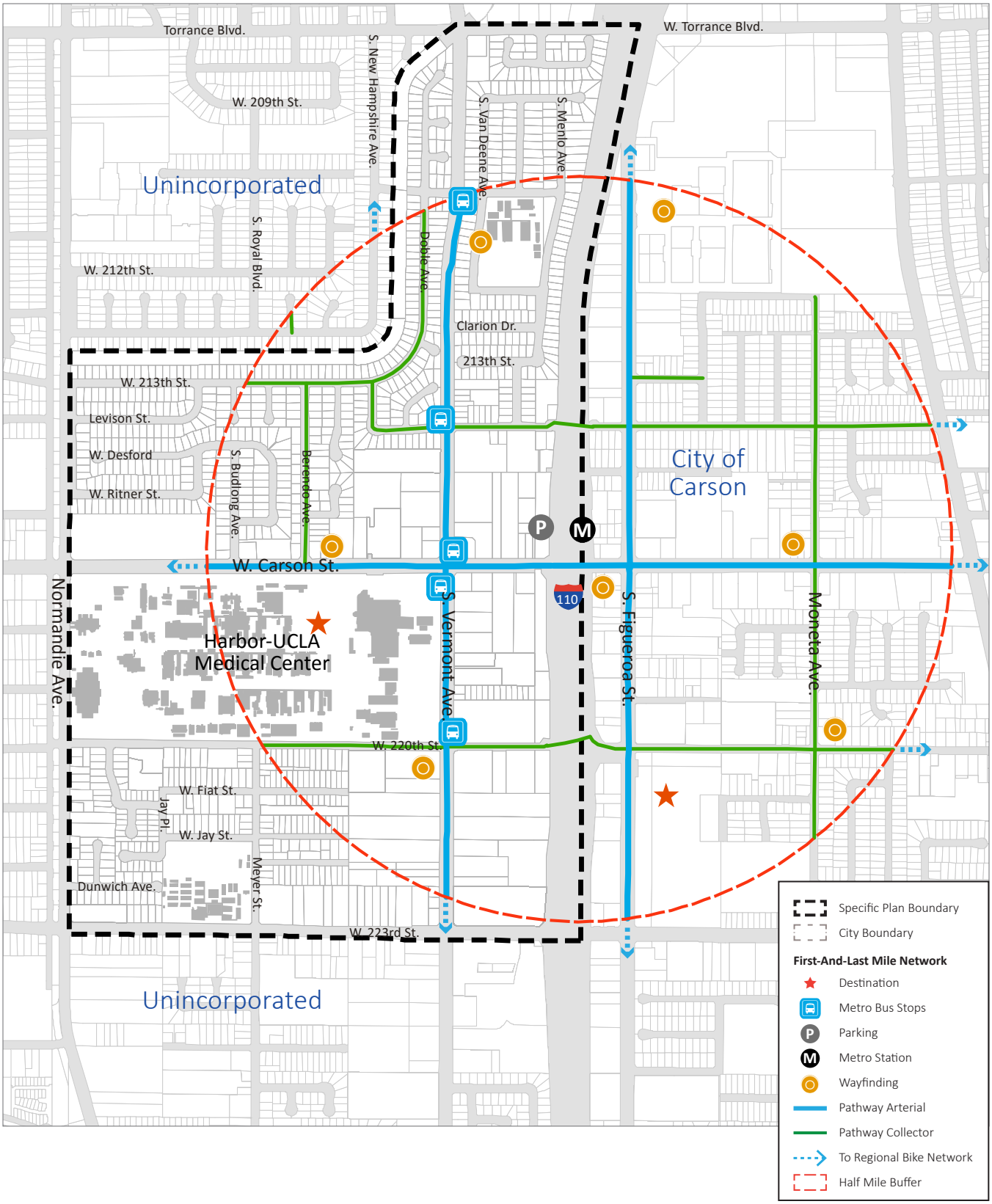
PATHWAYS

The Metro Pathways concept established in Metro's First and Last Mile Strategic Plan includes a hierarchy of pathways that extend to and from a transit station and is designed to support active modes of transportation. These pathways take into consideration the existing street network, key destinations, feeder transit services, existing and planned infrastructure, existing bike and pedestrian volumes, and surrounding land uses in order to design a physical active transportation network that improves transit station access. The Metro Pathways concept is comprised of two types of pathways, pathway arterials and pathway collectors. Pathway arterials serve as the main branches of the network, while pathway collectors serve as feeder routes. Figure 4.5 illustrates the proposed Metro Pathway network surrounding the West Carson station and includes pathway arterials, pathway collectors, existing Metro bus stops, key destinations, and suggested areas for wayfinding signage.

Pathway Arterials

Pathway arterials are primary routes that extend from stations and support maximum throughput activity for active transportation users. They are designed to accommodate high levels of active transportation and a broad range of users. They typically include design treatments such as separated active transportation lanes, signal and crossing improvements, wayfinding, and plug-in components (i.e. bike share). Pathway arterials should typically radiate out from a station portal in at least four directions, and extend out at a minimum of one-half mile from the station to an upper limit of three miles from the station. Pathway arterials should also integrate the regional bikeway network at opportune points beyond the one-half mile access shed. As illustrated in Figure 4.5, pathway arterials surrounding the Harbor

Figure 4.5 First And Last Mile Pathway Network Map



Freeway/Carson Street station include Carson Street, Vermont Avenue, and Figueroa Street.

Pathway Collectors

Pathway collectors are routes within the station area that both feed into pathway arterials and support crossing movements and general station area permeability. They work to reduce travel distances for non-motorized users by focusing on the provision of efficient access to pathway arterials. Pathway collectors include streets and routes located within the one-half mile access shed of a transit station and streets that feed into the main branch lines or pathway arterials. They typically include design considerations that improve intersection and mid-block crossings. As illustrated in Figure 4.5, pathway collectors surrounding the Harbor Freeway/Carson Street station include 213th Street, 214th Street, 220th Street, Moneta Avenue, and Berendo Avenue.

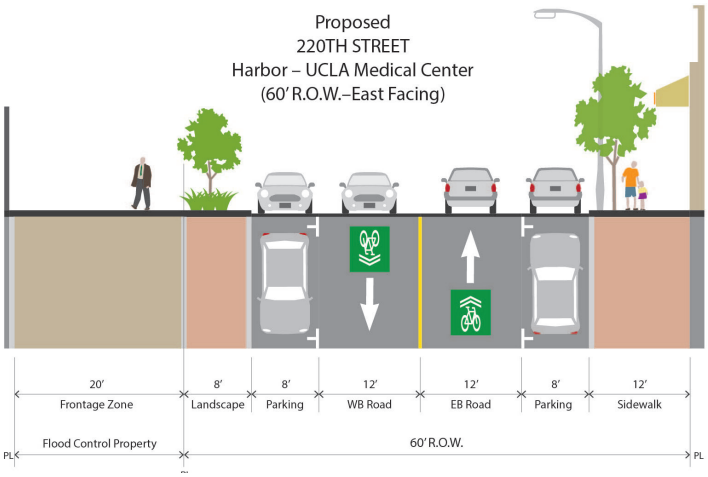
STREETSCAPE IMPROVEMENTS

The West Carson TOD Specific Plan recognizes the role that the built environment and street design plays on a community's health and wellness. Well-designed streets can provide safer and more attractive settings for people to walk and bike, as well as to encourage more transit use. The Specific Plan focuses on laying the foundation for a more unified network of streets that promote multi-modal circulation as well as the safe and efficient movement of motorized and non-motorized modes of transportation. The Specific Plan proposes the following streetscape improvements to promote more livable and sustainable streets. More detailed landscape and hardscape design recommendations are included in the Public Realm Design and Park Design section below.

Vermont Avenue

Vermont Avenue serves as a pathway arterial connecting the Harbor Freeway/Carson Street transit stop. Proposed streetscape improvements for Vermont Avenue are illustrated in Figure 4.6. The improvements are intended to enhance and promote multi-modal activity along the corridor as well as to support its role as a pathway arterial with high levels of non-motorized activity. Streetscape improvements include a Class II bicycle facility with striped buffer between on-street parking to enhance safety, street trees, lighting, reduced travel lane widths, and a landscaped median to improve visual aesthetics along the corridor. The Specific Plan also recommends the installation of wayfinding signage along to corridor to improve navigation to the transit stop.

Figure 4.6 Proposed Vermont Avenue Streetscape Improvements



Carson Street

Similar to Vermont Avenue, Carson Street also serves as a pathway arterial connecting the Carson Street / Vermont Avenue Metro stop and serves as a primary transit corridor with several local bus routes traversing the corridor. Carson Street's role as a pathway arterial and transit corridor solidifies the need for a multi-modal streetscape design that prioritizes the safe and efficient movement of multiple modes of transportation. Streetscape improvements to Carson Street are illustrated in Figure 4.7 and include wider sidewalks, Class II bicycle facilities with striped buffers, reduced travel lane widths, landscaped medians street trees, lighting, and a multi-use path along the south side of Carson Street. The Class II bicycle facilities proposed in this Specific Plan are consistent with existing County street improvement plans. The County was recently awarded grant funding from the California Department of Transportation (Caltrans) Active Transportation Program (ATP) to install a 0.5 mile Class II bicycle facility along Carson Street between Normandie Avenue and Vermont Avenue. The new bikeway is intended to improve connections to existing facilities and the regional bikeway network and support Metro's First-Last Mile Strategic Plan.

Figure 4.7 Proposed Carson Street Streetscape Improvements

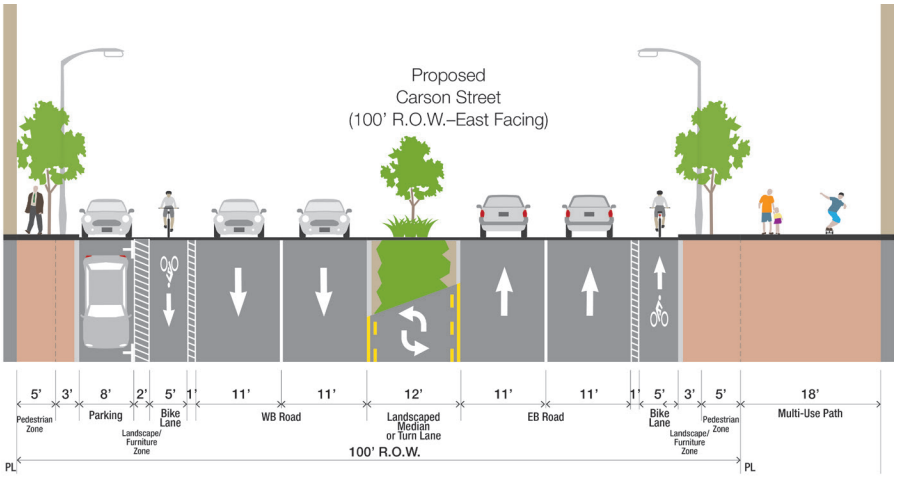
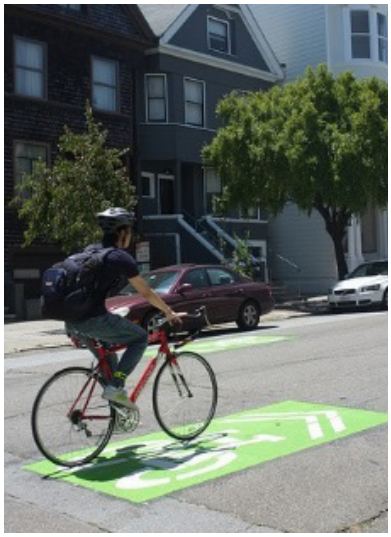


Figure 4.8 Green-backed Sharrows





Possible treatment options for green-backed sharrows.

223rd Street

223rd Street is classified as a Secondary Highway under the County's Highway Master Plan. Proposed streetscape improvements for the 82-foot right-of-way segment of the corridor between Normandie Avenue and Vermont Avenue are illustrated in Figure 4.9. These improvements include incorporating a Class III bicycle facility along the roadway to improve connectivity with the greater regional bikeway network. The bicycle facility will incorporate green-backed sharrows to provide high visibility and send a strong signal to bicyclists as to where they should ride as well as to help alert motorists of their presence. Examples of green-backed sharrows are provided in Figure 4.8. Streetscape improvements also include improved landscaping and street trees.

Streetscape improvements for the 100-foot right-of-way segment of the corridor between Vermont Avenue and the city boundary for the City of Carson are illustrated in Figure 4.10. These improvements include reduced travel lane widths, the provision of on-street parking along the westbound portion of the corridor, and the introduction of a Class II bicycle facility in each direction with striped buffers. These proposed improvements are intended to support the Specific Plan's vision of transforming the existing auto-oriented design of 223rd Street to a more multi-modal streetscape.

Figure 4.9 Proposed 223Rd Street 82'-Row Streetscape Improvements

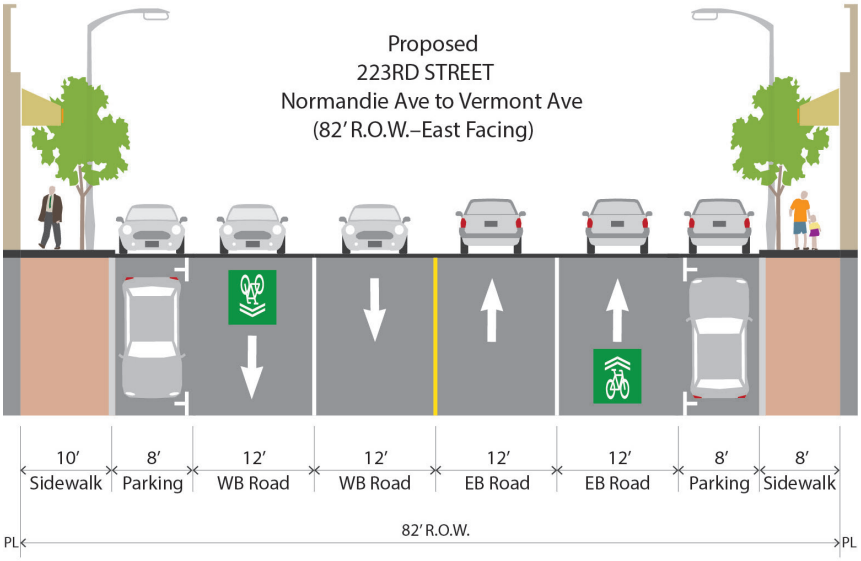
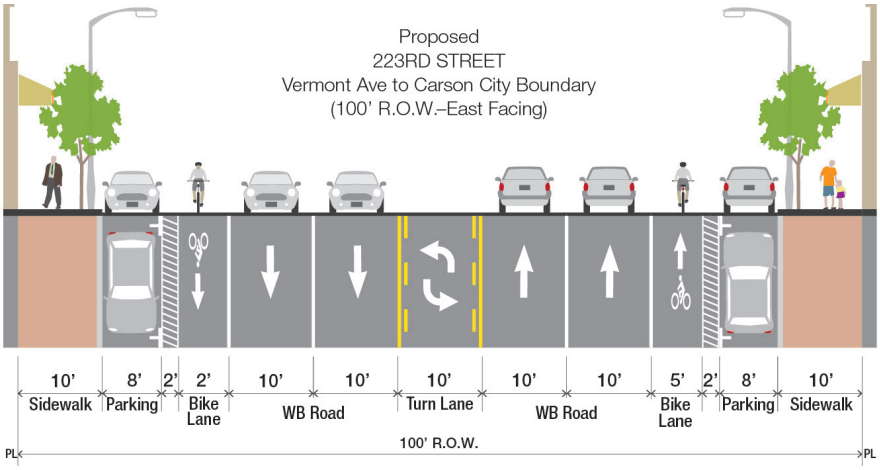


Figure 4.10 Proposed 223Rd Street 100'-Row Streetscape Improvements



220th Street

220th Street serves as a pathway collector and provides connections to the Vermont Avenue and Figueroa Street pathway arterials. As a pathway collector, 220th Street is intended to support crossing movements and moderate levels of activity for active transportation users. Streetscape improvements to the segment of 220th Street adjacent to the Harbor-UCLA Medical Center are illustrated in Figure 4.11. Proposed improvements include relocating the exterior fence surrounding the medical center behind the existing culvert and covering the culvert to support an expanded pedestrian pathway and landscaping. Improvements to the remaining segment of 220th Street are illustrated in Figure 4.12 and include Class III bicycle facilities, street trees, lighting, and wider sidewalks.

In addition to the proposed streetscape improvements, the Specific Plan recommends improvements to the existing 220th Street pedestrian bridge. The pedestrian bridge crosses over the Interstate 110 freeway and is accessed via a walkway at 220th Street. The existing bridge has low levels of visibility and poor lighting conditions, which adversely impacts safety and contributes to the bridge's low levels of utility. The Specific Plan proposes to improve safety at the bridge by incorporating overhead lighting as well as lighting along the proposed handrails. The Plan also focuses on enhancing the visual aesthetics of the bridge by introducing a painted walkway, painted support poles, and a mural to help deter and camouflage graffiti. These proposed improvements are illustrated in Figure 4.13.

Figure 4.11 Proposed 220Th Street Streetscape Improvements (Harbor-UCLA Medical Center)

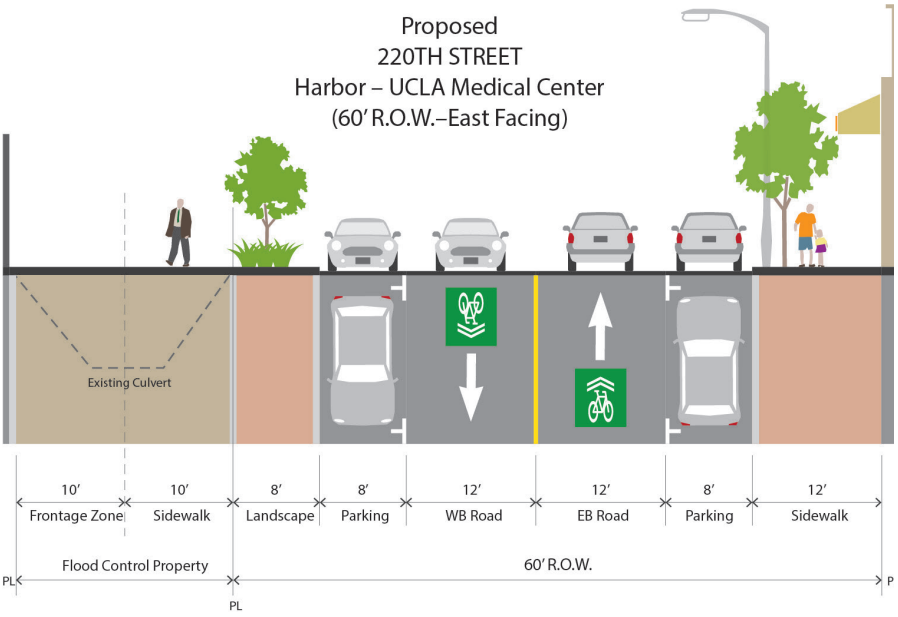


Figure 4.12 Proposed 220Th Street Streetscape Improvements

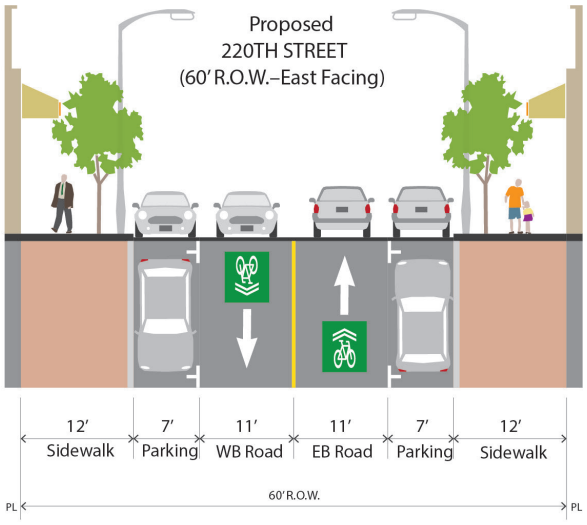


Figure 4.13 Proposed 220Th Street Pedestrian Bridge Improvements

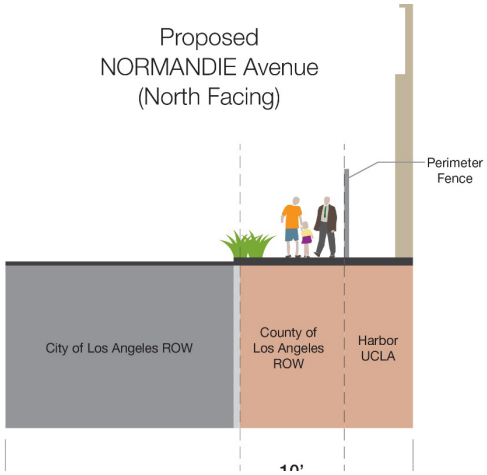


Before and after renderings of the 220th Street pedestrian bridge.

Normandie Avenue

Similar to Vermont Avenue and Carson Street, Normandie Avenue also serves as a pathway arterial connecting the Carson Street/ Vermont Avenue Metro stop. Due to right-of-way constraints, only the pedestrian sidewalk along the east side of Normandie Avenue lies within the County's jurisdiction. The remaining section lies within the City of Los Angeles' right-of-way. Streetscape improvements to Normandie Avenue include improved landscaping to enhance the pedestrian environment as illustrated in Figure 4.14.

Figure 4.14 Proposed Normandie Avenue Streetscape Improvements



PUBLIC REALM DESIGN AND PARK STRATEGIES

One of the most important components of place-making is thoughtful urban design that employs buildings, open space, and landscaping to create engaging and comfortable outdoor places for residents, visitors, and workers of an area. Places such as sidewalks and parkways, multi-purpose trails, parks, plazas and squares should be linked to each other and to the larger community. This interconnected pattern creates a range of valuable venues that accommodate a full spectrum of urban, commercial, and family-oriented activities.

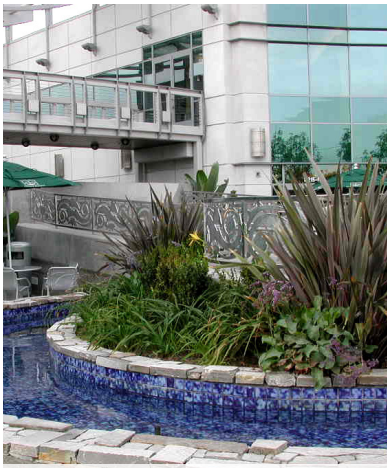
This section identifies recommendations for change in the public realm, including pedestrian circulation, new small park opportunities, a landscape plan for major roads, and the creation of a transit plaza for riders using the Carson Metro Bus Station. It is important to note that as the Harbor UCLA Medical Center Master Plan gets implemented overtime, there will be significant improvements in terms of landscaping, fencing, pedestrian paths, lighting, seating, and public art that will significantly upgrade the public realm along the edges of the campus. The landscape design plan for this specific plan is intended to be integrated with and complement the medical campus.

The recommended strategies can improve the public realm and park network by utilizing using public land/streets and pedestrian connections to bring park and open space amenities within reasonable walking distance for residents. Key components of this strategy include:

- The creation of new open space amenities in tandem with new development. The development regulations for this Specific Plan include detailed requirements for the provision and design of usable open space.
- Requiring new development to have an engaging relationship to public streets, with requirements for how building entrances are designed, front setbacks are designed, and requiring parking to be located to the rear or side of buildings.
- Maximizing visibility and promoting safety of existing and new plaza areas, transit stops, pedestrian bridges, and park areas.
- Transforming vacant or publicly-owned lots, drainage channels, and cul-de-sacs into pocket parks and pathways.
- Improving the sidewalk and parkway systems on the arterial roadways, with the addition of street trees and parkway plantings, street furniture, enhanced street crossings, bus stop



Example photo.



Example photo.

improvements, and pedestrian lighting where needed.

- Enhancing pedestrian crossings with improved marked crosswalks, providing pedestrian safety islands and curb extensions where feasible, and other techniques.

PEDESTRIAN ENVIRONMENT

Sidewalk Hierarchy

The quality of the pedestrian environment often impacts a person's decision to walk or drive to an area. Adequate pedestrian infrastructure, together with appropriate land use designations, can help to activate corridors and promote pedestrian activity. This section discusses some of the existing opportunities to improve the pedestrian environment within West Carson and to reinforce the area as a TOD district.

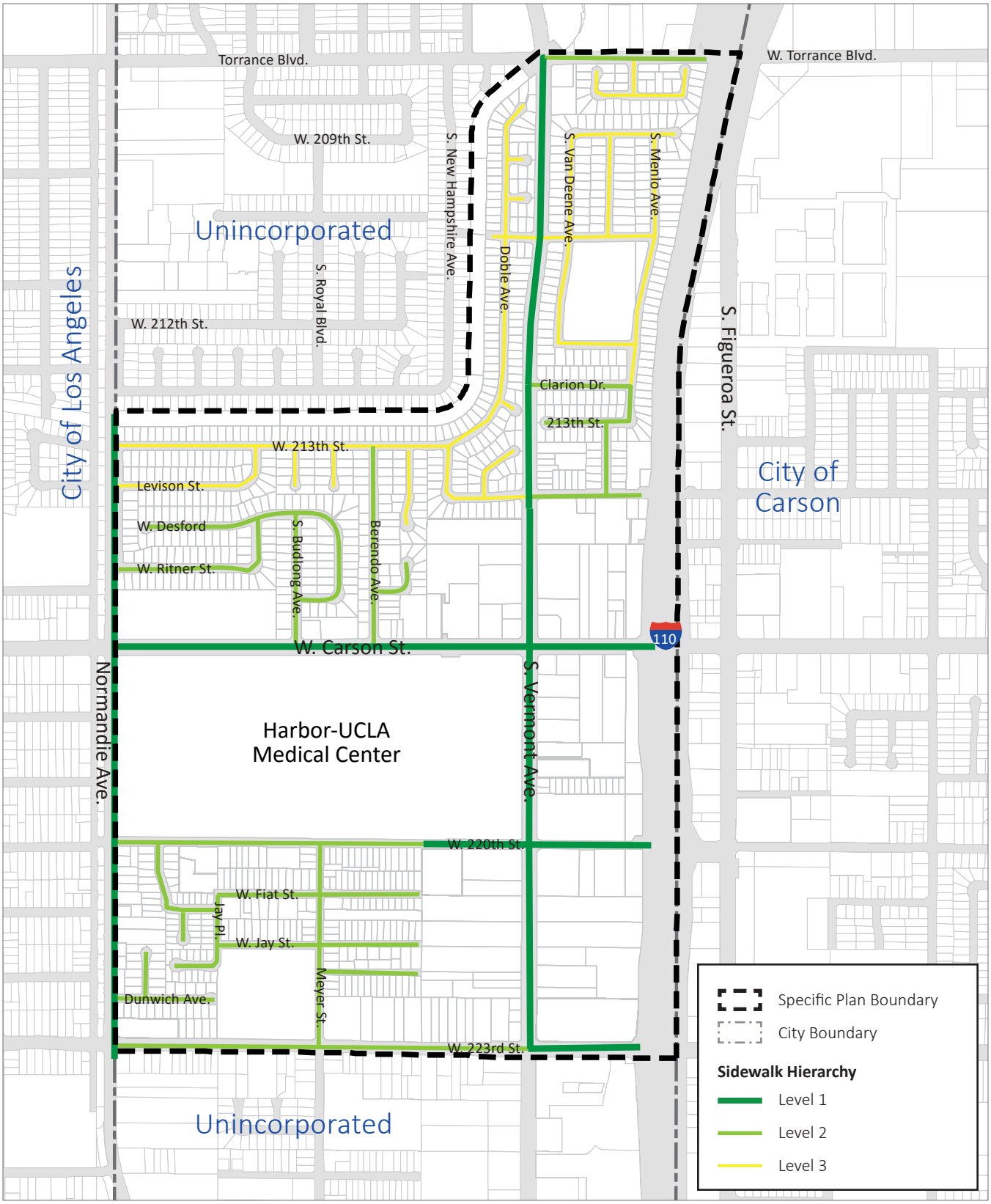
Sidewalks must be recognized not as a pedestrian amenity, but as the back bone of West Carson's pedestrian network. Sidewalks present inventive opportunities to transform streets into public spaces. In order to create a vibrant walking environment that encourages pedestrian activity, sidewalks need to be safe, connected, comfortable, accessible, and attractive.

Although sidewalks exist along major streets within the Specific Plan area, most sidewalks are narrow in width and do not support high levels of pedestrian activity. The Specific Plan proposes a sidewalk hierarchy to establish a physical framework for sidewalk design. The sidewalk hierarchy is intended to facilitate the most appropriate allocation of space that encourages people to walk as a part of their everyday routine.

The sidewalk hierarchy is composed of three levels: Level 1, Level 2, and Level 3 as shown in Figure 4.15 Pedestrian Network Map. Each level varies in their allocation of space amongst the frontage zone, pedestrian zone, furniture zone, and curb zone, which are defined as follows:

- **Frontage Zone:** The frontage zone encompasses the area of the sidewalk that separates pedestrians from the property line or building/store fronts. The frontages zone typically provides space for outdoor seating, store entrances, street vendors, and provides a buffer for pedestrians from opening doors and other architectural elements. There are a variety of frontage types that define how buildings are accessed and how private property interfaces with the sidewalk. Requirements for frontage types on key streets within the specific plan area are included in Chapter 3.

Figure 4.15 Pedestrian Network Map



- **Pedestrian Zone:** The pedestrian zone is the area of the sidewalk that is specifically reserved for pedestrian travel. It should be free of obstacles, well-lit, and functional in all weather conditions. Street furniture, plantings, outdoor seating, utility boxes, and other elements should not protrude into the pedestrian zone. Additionally, the surface quality of the pedestrian zone is of key importance and should be smooth, stable, and slip resistant, with minimal gaps and rough surfaces.
- **Furniture Zone:** The furniture zone is the area of the sidewalk between the pedestrian zone and the street curb. The furniture zone provides space for utilities, such as traffic poles and fire hydrants, as well as amenities, such as benches, bus shelters, and street trees. Items placed in this zone must be strategically located so not to obstruct sight lines, prevent damage from vehicles on the street, and to allow for access to and from parked cars.
- **Curb Zone:** The curb zone is the first six inches of sidewalk area immediately adjacent to the roadway. The curb zone discourages motor vehicles from driving onto the sidewalk, prevents excess water from collecting onto the sidewalk, and provides a valuable cue that separates the sidewalk from the roadway and vehicular traffic.

Each level within the hierarchy is designed to support varying levels of pedestrian activity. Locations of each level corresponds with the locations of the various pathways in the Metro Pathways hierarchy. For instance, Level 1 sidewalks, which are the widest sidewalks, should be located along pathway arterials to accommodate high levels of pedestrian activity. Level 2 sidewalks should be located along pathway collectors to accommodate moderate levels of pedestrian activity, while Level 3 sidewalks should be reserved for low-density residential streets. The various levels of the sidewalk hierarchy are defined as follows:

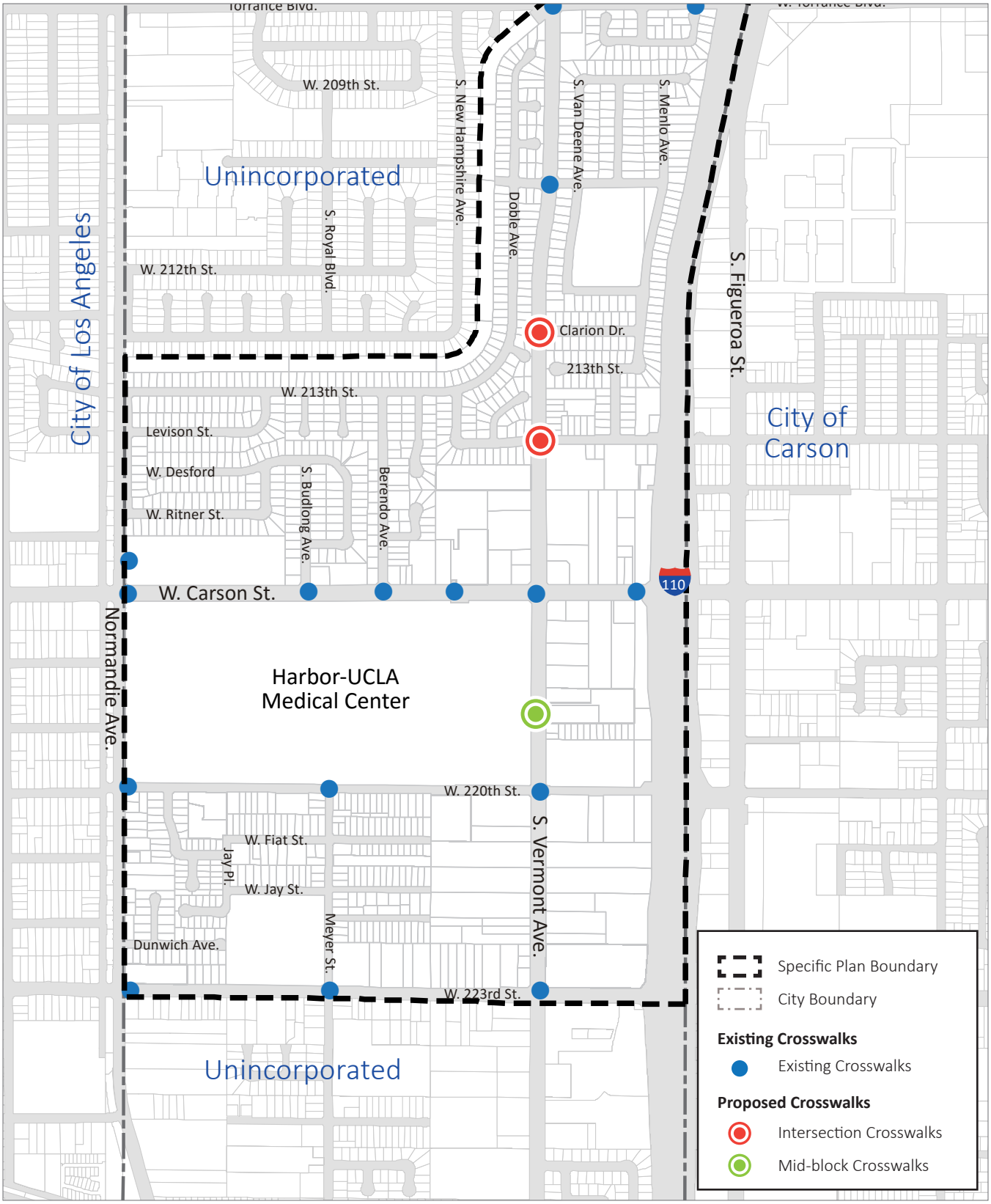
- **Level 1:** Level 1 sidewalks are the widest sidewalks within the hierarchy and should have a minimum width of ten feet in order to support high pedestrian volumes and to accommodate the street trees, benches, outdoor seating, and other amenities. Level 1 sidewalks should be located along pathway arterials and areas with higher density, mixed-use, or commercial land use development. Space allocation for Level 1 sidewalks should favor the pedestrian and frontage zone to provide adequate passing space between pedestrians and to accommodate for store-front amenities such as outdoor seating

within commercial or mixed-use zones. Examples of a Level 1 sidewalk can be seen in the Vermont Avenue and Carson Street streetscape improvements illustrated in Figures 4.5 and 4.6.

- **Level 2:** Level 2 sidewalks are slightly narrower in width than Level 1 sidewalks and should have a minimum width of seven feet in order to accommodate moderate levels of pedestrian activity and to accommodate some pedestrian amenities. Level 2 sidewalks should be located along pathway collectors. Space allocation for Level 2 sidewalks should favor the pedestrian and furniture zone. Examples of a Level 2 sidewalk can be seen in the 82-foot right-of-way streetscape improvement for 223rd Street as illustrated in Figure 4.7.
- **Level 3:** Level 3 sidewalks are the narrowest sidewalks within the hierarchy and should be located along low-density residential streets that do not carry high volumes of traffic or pedestrian activity. They should have a minimum width of five feet in order to meet American Disability Act (ADA) standards and be accessible for all pedestrians regardless of ability. Due to its minimal width, space allocation of Level 3 sidewalks should favor the pedestrian zone.

Figure 4.15 illustrates the suggested locations of the various sidewalk levels. The Specific Plan, however, recognizes that sidewalk design and construction often occurs under constrained conditions, such as narrow right-of-ways, utilities, grading, and topography. These are all key factors to consider when designing and constructing accessible sidewalks.

Figure 4.16 Pedestrian Crossing Map



Pedestrian Crossings



Example photo.

A safe and comprehensive pedestrian network requires the ability to complete two important functions: walking along streets and crossing streets safely. Several tools exist to enhance the overall pedestrian experience and to help make crossing streets easier and safer for pedestrians. They include the installation of crosswalks at intersections and mid-block, curb ramps, pedestrian crossing signs, signals, and more. Figure 4.16 illustrates existing and proposed locations for pedestrian crosswalks. In addition, the Specific Plan recommends the following design guidelines to facilitate safe pedestrian crossing:

Marked Crosswalks: Marked crosswalks are a key element in providing safe pedestrian crossings. Crosswalks help to guide pedestrians and identify locations where it is safe to cross, as well as inform drivers of pedestrian movements. Crosswalks can be located at intersections, mid-block crossings, or uncontrolled crossings. Crosswalks should meet basic requirements for visibility and should follow guidelines set forth in the Federal Highway Administration (FHWA) Manual on Uniform Traffic Control Devices (MUTCD). The Specific Plan recommends that crosswalks be in place at the following locations whenever possible:

1. All signalized intersections
2. Near key transit stops and stations
3. Locations with heavy pedestrian volumes (such as along Vermont Avenue)
4. Along school walking routes (such as along Meyler Street)
5. Trail crossings

Pedestrian Safety Islands: Pedestrian safety islands provide pedestrians refuge and reduces the exposure time experienced at crossing wide intersections and should be installed at locations where pedestrians are required to cross three or more lanes of traffic in one direction, such as along Carson Street and Vermont Avenue.

Curb Extensions: Curb extensions are traffic calming treatments that narrow the roadway to create safer and shorter crossing distance for pedestrians. They also help to improve the overall visibility of pedestrians by placing them in alignment with on-street parking. They should be placed on streets with high pedestrian volumes or along wide streets that are difficult to cross.

Curb Ramps: Curb ramps are critical features to improve accessibility pedestrians with mobility limitations and visual impairments. They should be installed at all crosswalks to comply with ADA requirements.

Pedestrian Signage: Pedestrian crossing signage is used to alert motorists of the presence of pedestrians along roadways. They should be installed at uncontrolled crossings and near key destinations, such as Meyler Elementary School and Van Deene Avenue Elementary School to alert motorists in advance.

Streetscape Design

Streets with comfortable sidewalks and planted parkways provide the unifying structure of the plan area. Pedestrian friendly sidewalks should incorporate amenities that are attractive, pleasant, offer visual stimulation, promote activity. The Specific Plan recommends the following design guidelines to guide the installation of streetscape amenities:

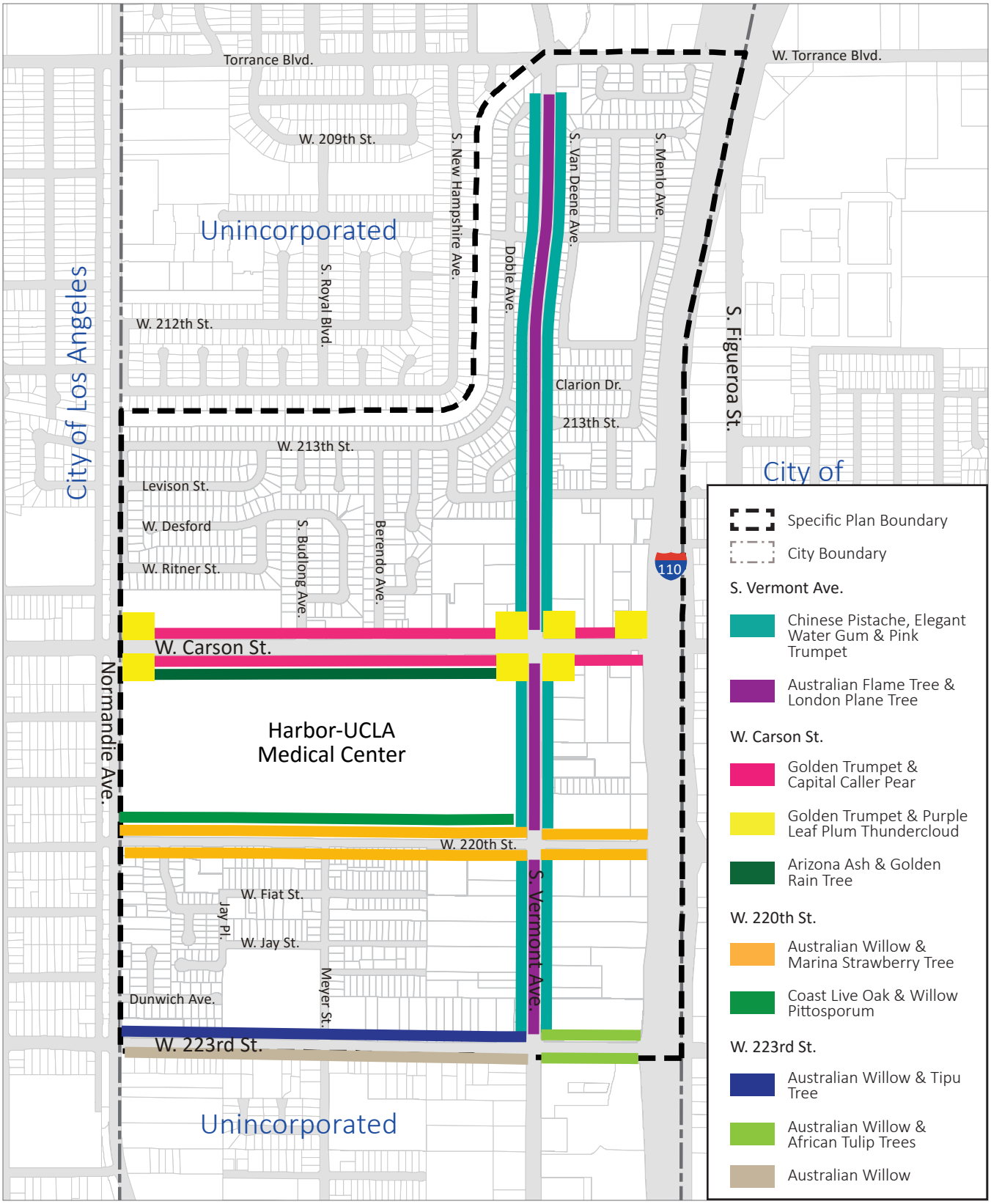
1. **Street Trees:** Street trees serve a variety of urban design functions such as acting as a pedestrian buffer, accentuating spaces, creating a sense of enclosure, improving air quality, reduction of heat island effect by providing shade and filtered light, and improving visual aesthetics along a corridor. Street trees should be incorporated whenever possible, especially along pathway arterials. All street trees should be planted in accordance with established County planting standards.

2. **Seating:** Seating provides reprieve for pedestrians and provides a place to rest or wait. Providing comfortable places to sit can transform a sidewalk into a gathering place for social activity. Pedestrian seating and benches should be installed when feasible and should adhere to ADA standards and should not obstruct pedestrian pathways.

3. **Street Lights:** Street lights provide a sense of safety and security for pedestrians and waiting transit patrons, as well as facilitate the safe movement of vehicular traffic. Appropriate levels of street lighting should be installed to provide safe, consistent lighting along a corridor, while reducing energy consumption and costs. The addition of pedestrian lighting on West Carson Street and segments of Vermont within the specific plan area is highly recommended to increase safety.

4. **Public Art:** Public art features help provide visual stimulation and improve visual aesthetics along a corridor. They can help unify an area or district or help to identify a neighborhood gateway. Care should be given to the installation of public art to ensure that they do not obstruct pedestrian pathways and they adhere to ADA standards. The introduction of public art would

Figure 4.17 Street Tree Plan





Example photo.

be appropriate within the median at the intersection of Carson Street and the Interstate 110 off/on ramps. The art could be an extension of the art improvements planned for Harbor UCLA Medical Center.

5. **Furnishings:** Furnishings such as seating and bike racks encourage pedestrian and bicycle activity by provide a sense of comfort and convenience. Pedestrian-oriented streets and hubs of high pedestrian activity should provide appropriate seating at regular intervals. Seating should be located in areas with shelter, shade, trees, and lighting and may be enhanced with seat walls, landscaping, fountains, and trellises, and other features. Bike racks should be placed in areas with ample space per bike and an adequate pedestrian clearance. Encourage bike rack design to enhance the identity of the community.

The streetscape design recommendations as shown in Figures 4.17-4.24 are focused on the major roadways: Carson Street, South Vermont Avenue, West 220th Street, and West 223rd street. There are currently very few street trees or planted parkways within the public rights-of-way. There are some trees that have been planted along front property lines that help to provide shade for pedestrians. In general, a consistent, well-designed landscape plan for the streets can provide shade, introduce seasonal color, define the street edge, and invite pedestrian activity. The following landscape and planting design recommendations are based on the Department of Public Works' Tree Selection Catalog, LA County's Drought Tolerant Plant List, and Harbor UCLA's Master Plan Landscape Design Guidelines. The landscape recommendations in this chapter are conceptual only. When the County considers such improvements, these recommendations will be further evaluated and supplemented on a case by-case basis.

- Major streets will be composed signature plantings from the plant palette to create clearly defined identities unique to each street to improve wayfinding and announce arrival into West Carson.
- Formal plantings will be arranged along parkways and landscape easements at intervals appropriate with street scale and canopy cover in order to provide a sense of rhythm and movement within the streetscape.
- Flowering trees and trees with seasonal color have been selected to provide a dynamic color palette, the use of color is key for creating an active landscape which denotes the passing of time and creates visual interest.
- The plant palette incorporates deciduous plant material to

provide shade canopies during the warm season while allowing penetration of sunlight during the cooler months to provide a more comfortable and inviting atmosphere.

- Incorporate suspended pavement system(s) improving soil volume to support larger tree species development and improve plant health, promoting higher plant success rates. Additionally, these systems provide storm water quality management through capture, evapotranspiration and storage.
- The placement of trees and portions of planted parkways will provide greater separation for pedestrians from the vehicle traffic, promoting the use of sidewalks by creating a more comfortable experience for pedestrians.



Pink Trumpet Tree



Australian Flame Tree



London Plane Tree



Tipu Tree



Golden Rain Tree



Golden Trumpet Tree



Purple Leaf Plum Thundercloud



New Zealand Christmas Tree



Arizona Ash



Elegant Water Gum



Coast Live Oak



Marina Strawberry Tree



African Tulip Tree



Australian Willow



Desert Willow



Chinese Pistache

Figure 4.18 Street Trees: Carson Street

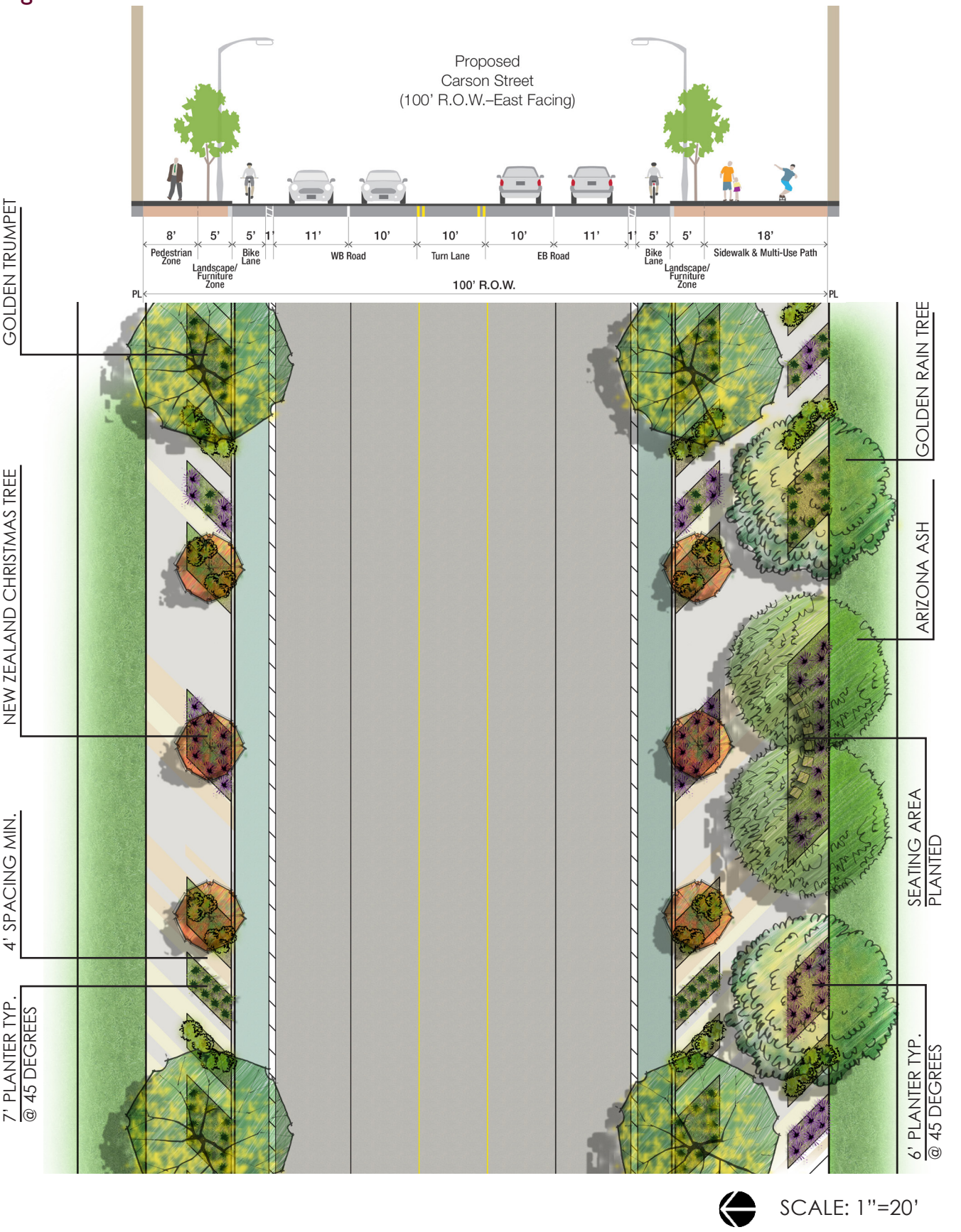


Figure 4.19 Street Trees: Vermont Avenue

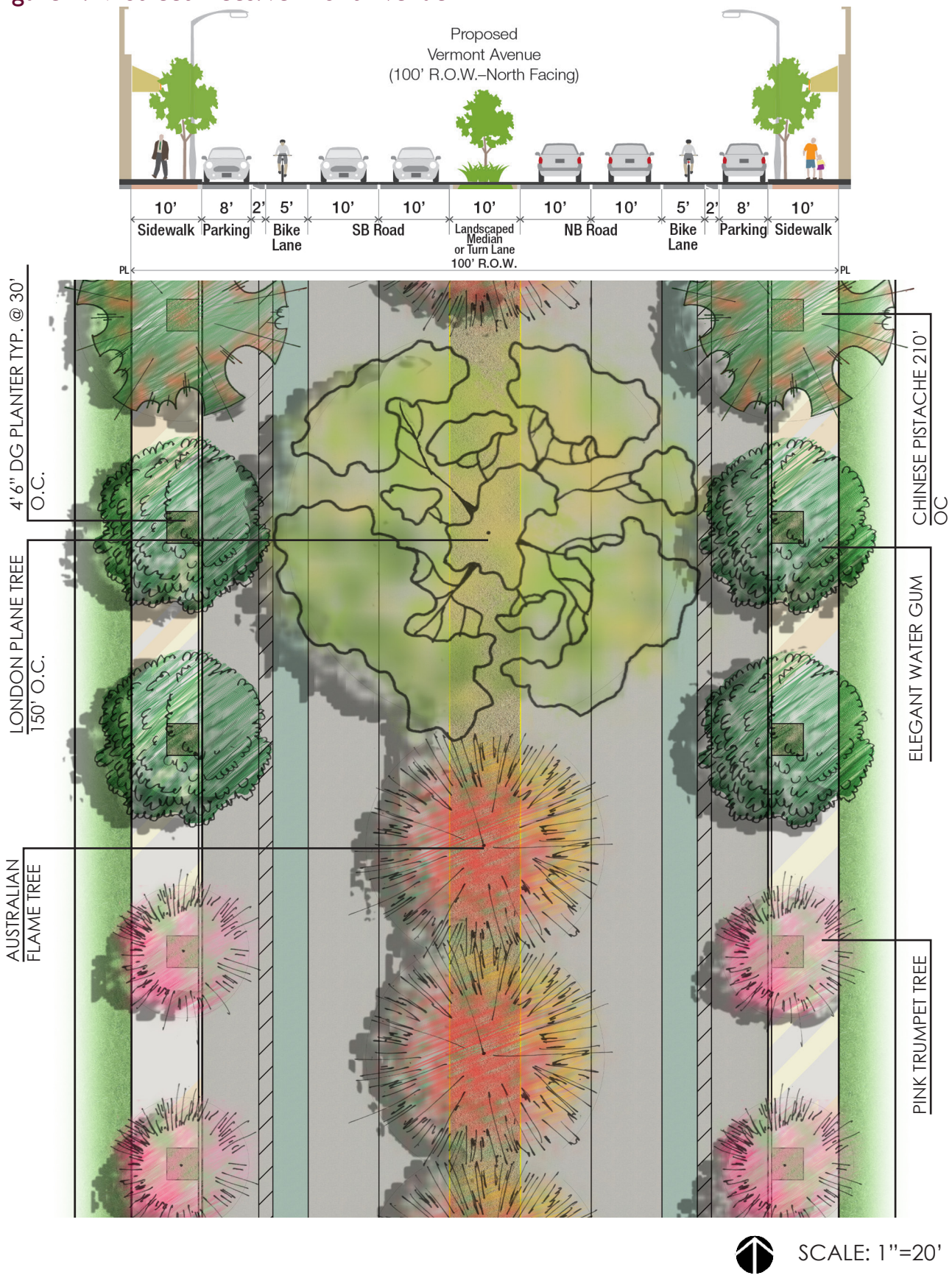


Figure 4.20 Street Trees: 220th Street (West of Vermont Avenue)

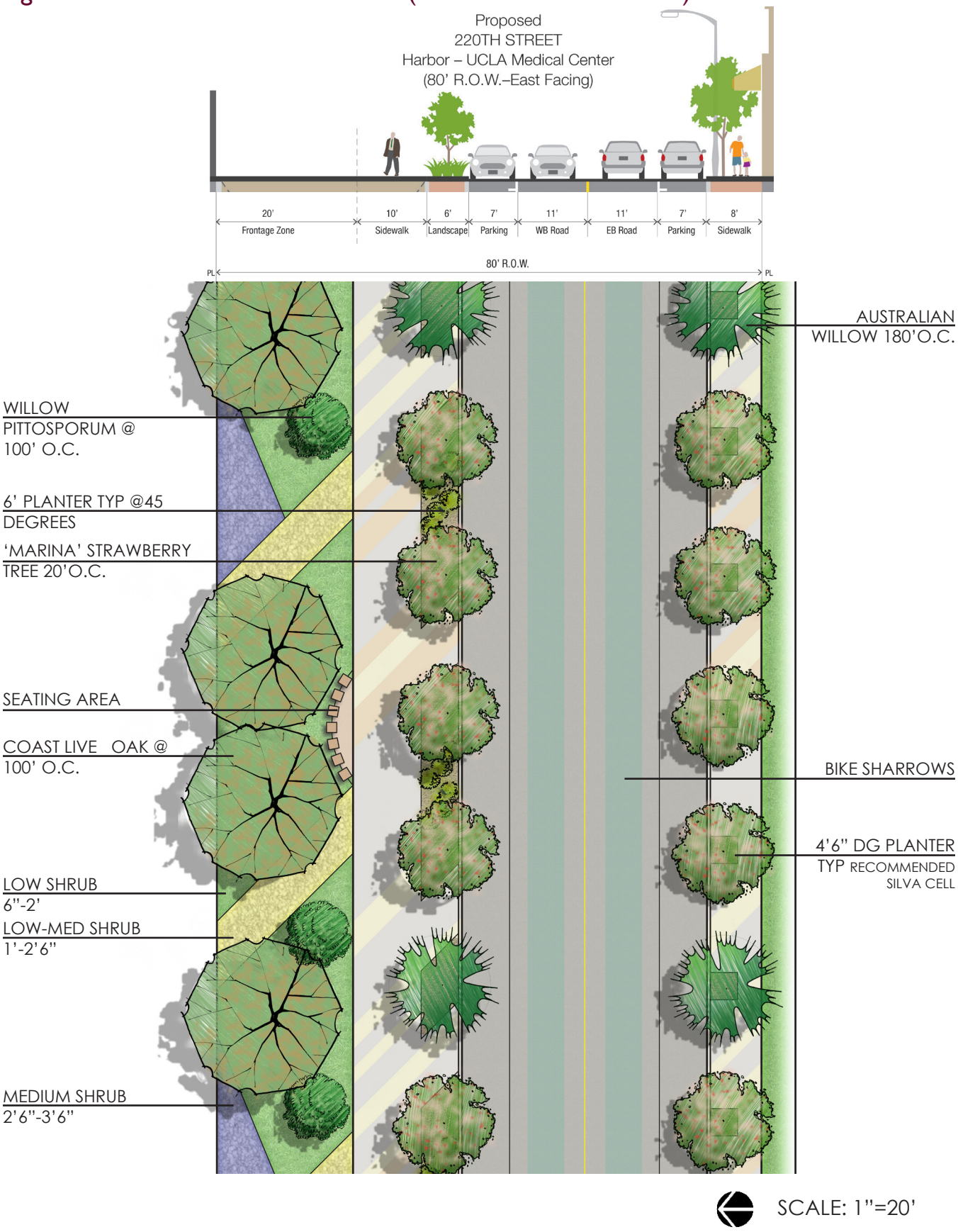


Figure 4.21 Street Trees: 220th Street (East of Vermont Avenue)

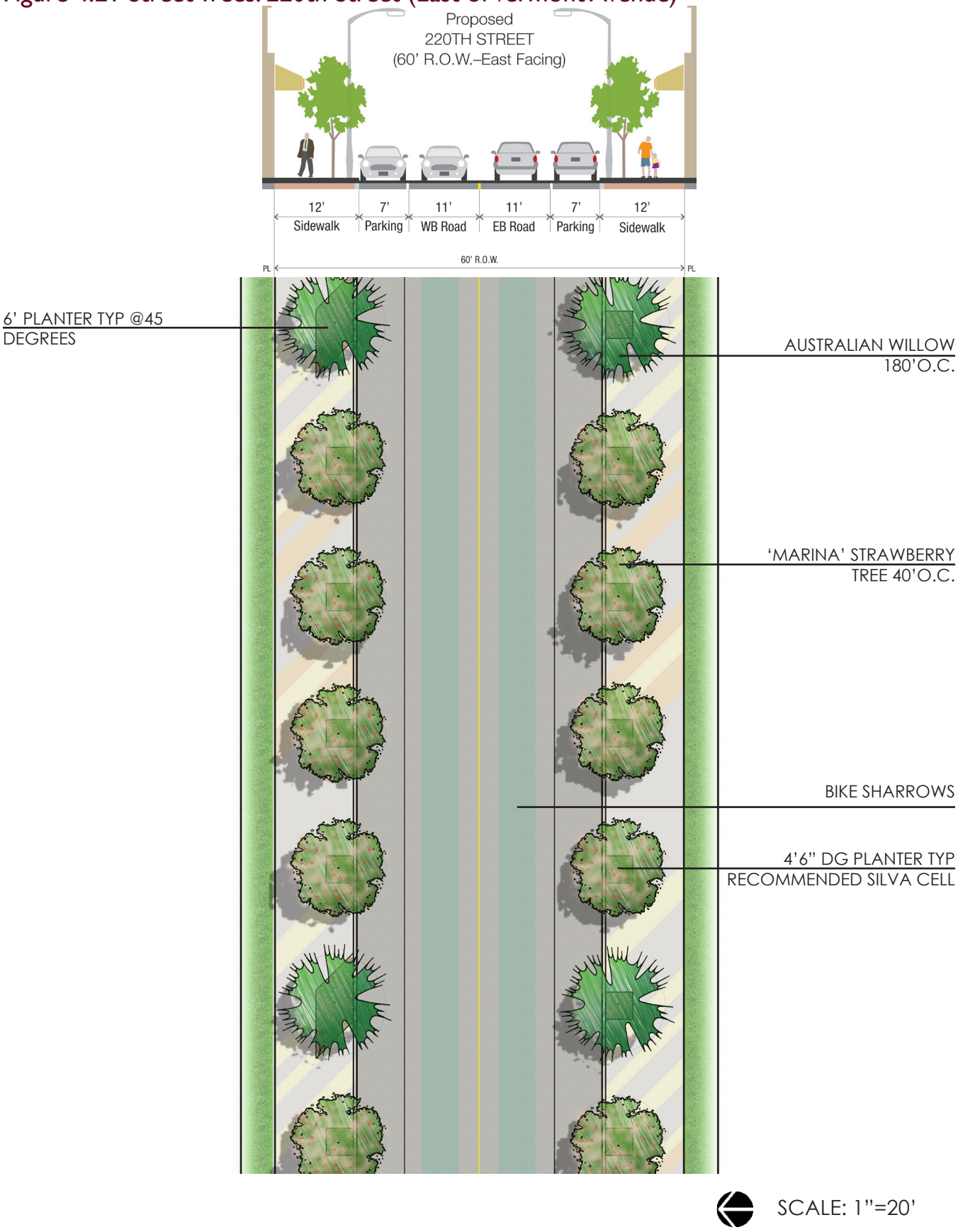


Figure 4.22 Street Trees: 223rd Street (West of Vermont Avenue)

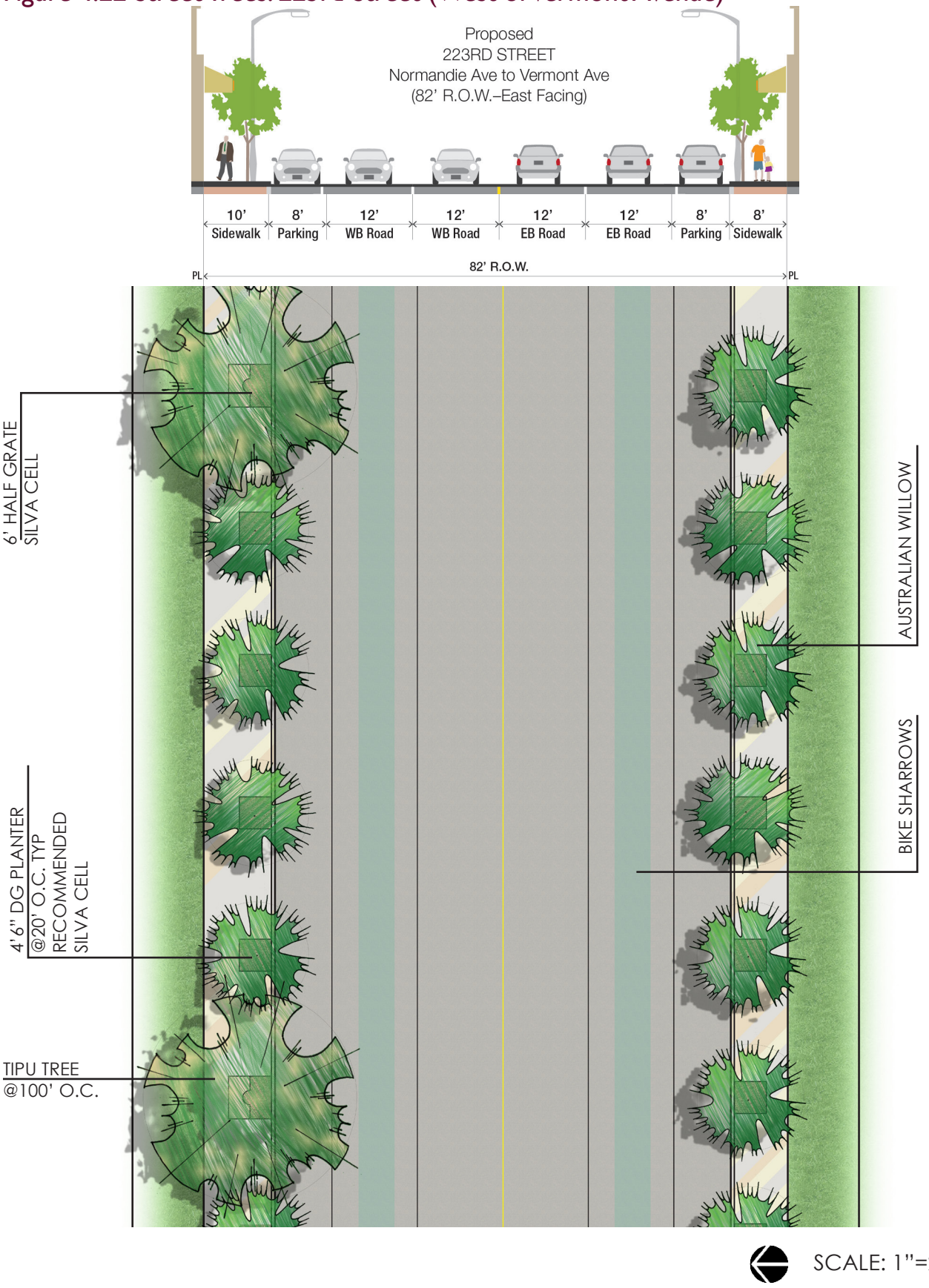


Figure 4.23 Street Trees: 223rd Street (East of Vermont Avenue)

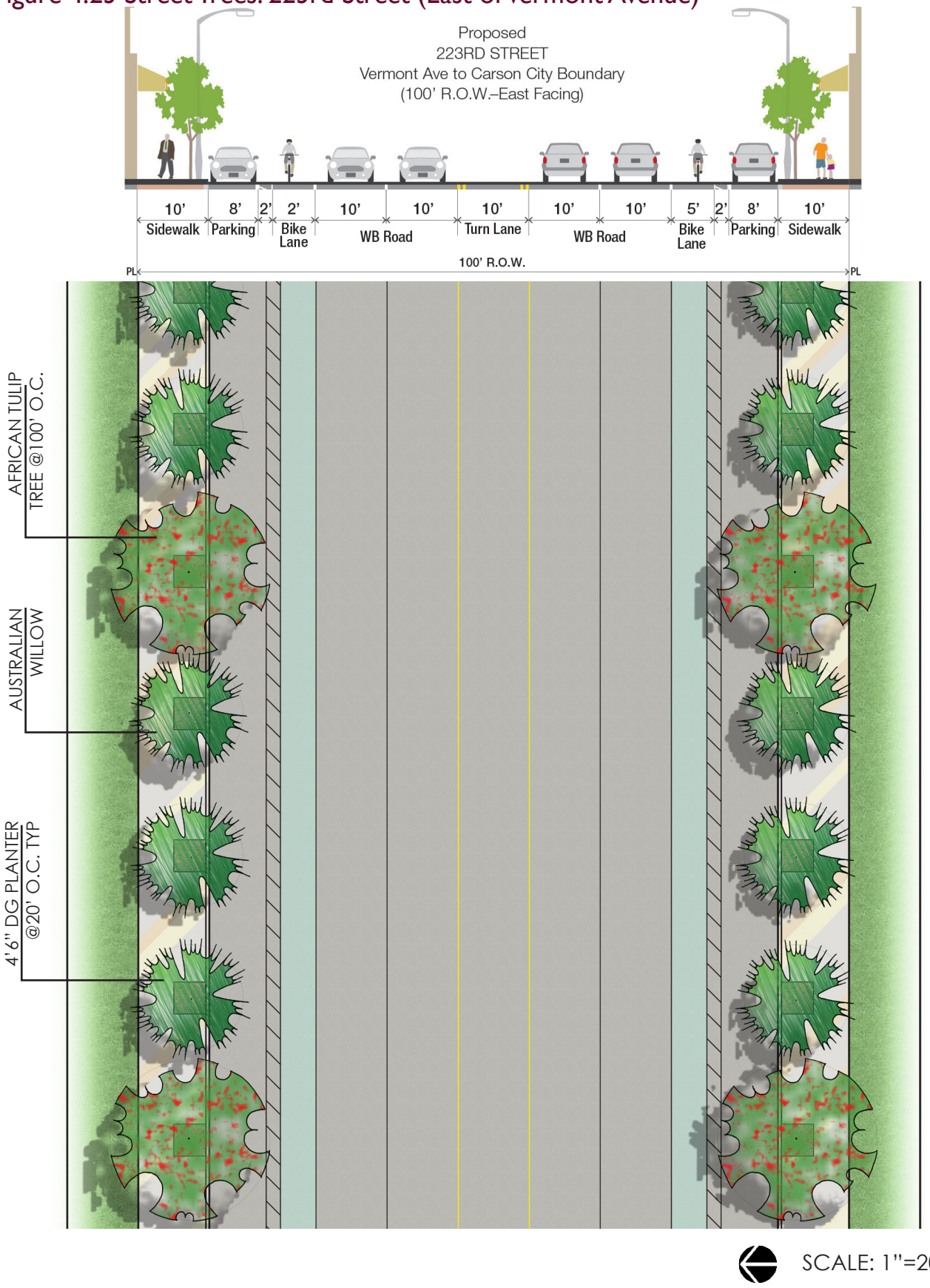
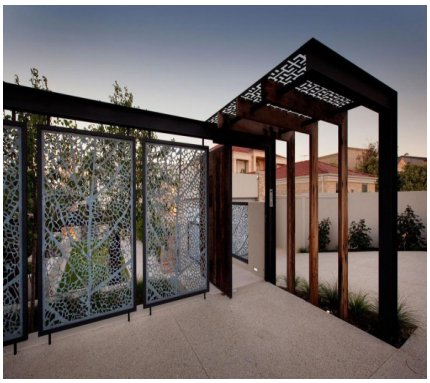


Figure 4.24 Design Recommendations











NEW PARK OPPORTUNITIES

Within the entire unincorporated West Carson area, there is an average of about 0.4 park acres per 1,000 residents, which is well below the county average of 3.3 park acres per 1,000 people. In addition, only 24 percent of people in West Carson live within walking distance (half-mile mile) of a park, as opposed to the County's average of 49 percent. While the majority of specific plan area residents have a high need for parkland and park amenities, there is almost no vacant publicly-owned land available to develop new parks.

Within the Specific Plan area, half an acre of parkland is available for recreational and public use at the Park Learning Grove County Park. This park is a small public green space with no amenities, and is used as a joint-use facility with Meyler Street Elementary School. Park amenities, including basketball courts and playground equipment are available at another joint use park facility located in the specific plan area at Van Deene Avenue Elementary school, but does not include any green or open space. Beyond the specific plan area, the nearest park facilities can be found at the Normandale Recreation Center in the City of Los Angeles, the Veterans Sports Complex in Carson, Carson Park in Carson, and joint-use facilities at White Middle School.

Figures 4.25-4.30 identify potential locations for the creation of pocket parks by converting cul-de-sacs, partially covering a drainage channel, and ultimately reclaiming property that will no longer be needed by Harbor UCLA Medical Center. Each of these concepts shows the potential for passive and active recreation. The ultimate design and programming of these spaces should be done in conjunction with the neighborhood in which they are located. Pocket parks can provide socialization opportunities for a wide variety of age groups.

Figure 4.25 New Park Opportunities

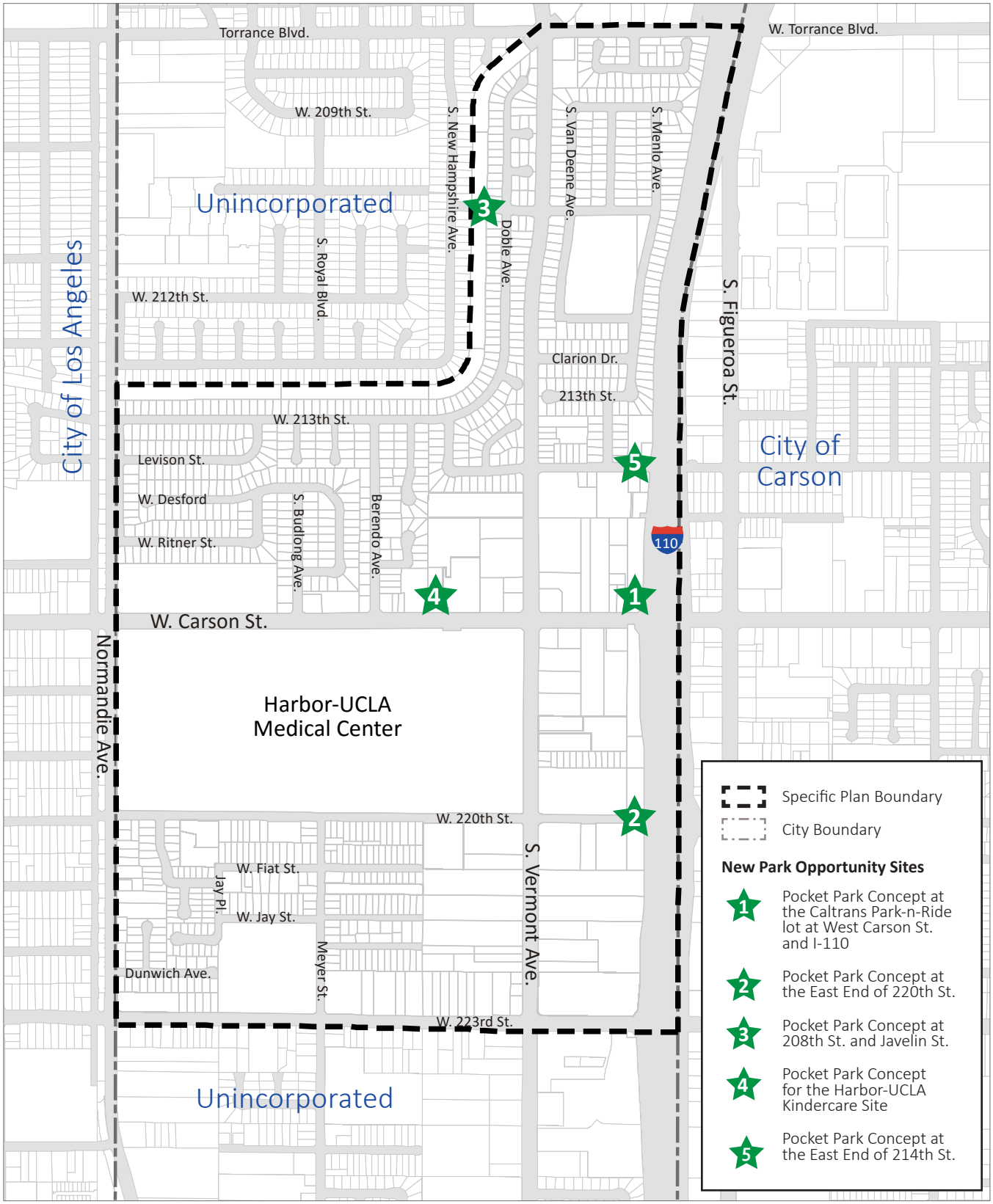


Figure 4.26 Pocket Park Concept at the Caltrans Park-n-Ride lot at Carson Street and Interstate 110

Ⓐ Pergola or other type of overhead structure to anchor corners and provide shade

Ⓑ Real-time bus tracking kiosk

Ⓒ Introduction of new W. Carson St. landscape palette

Ⓓ Bike parking/sharing

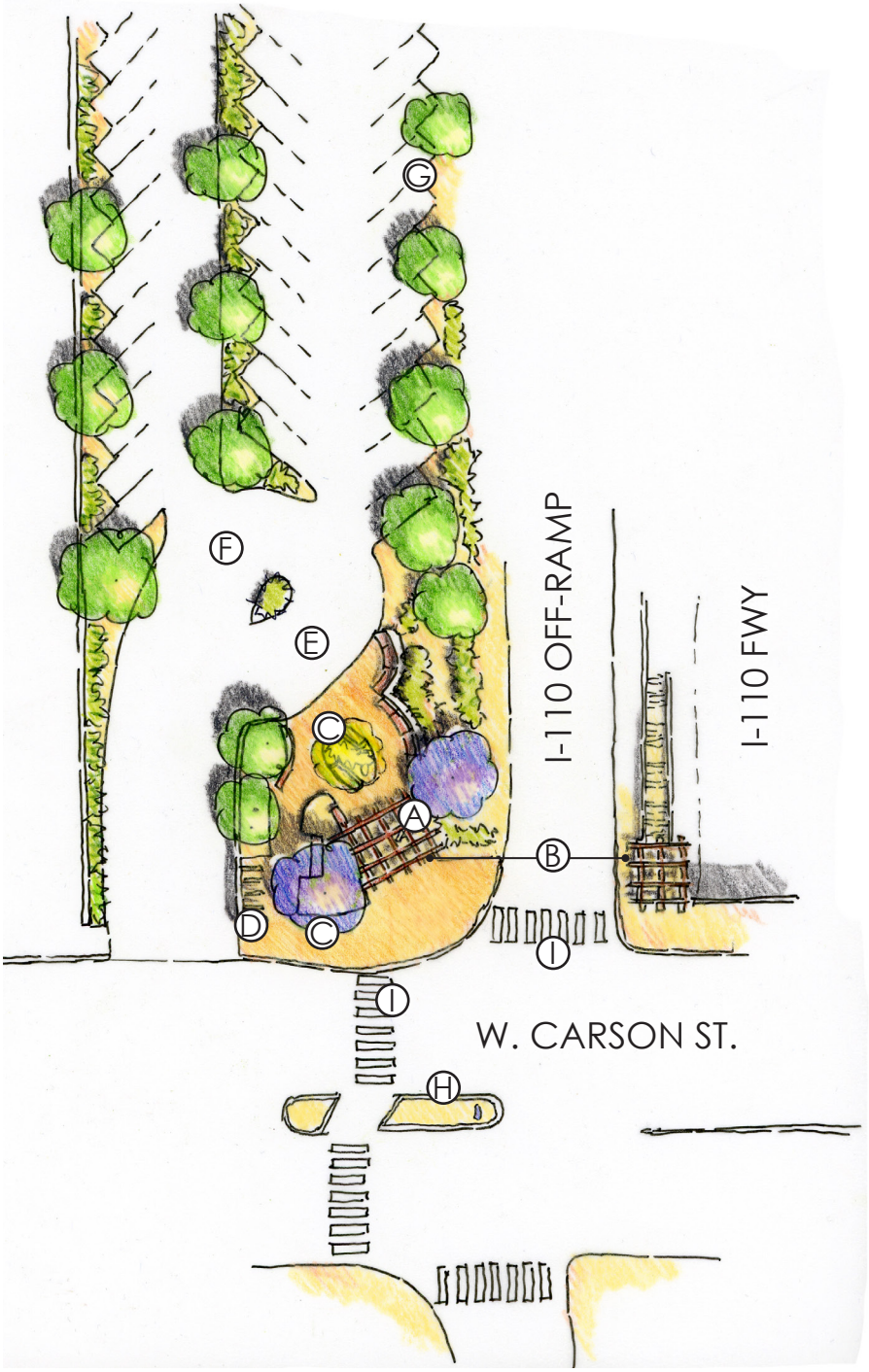
Ⓔ Benches against planter walls

Ⓕ Modified entry to parking lot and restriping

Ⓖ Parking lot landscaping

Ⓗ Entry monument or public art

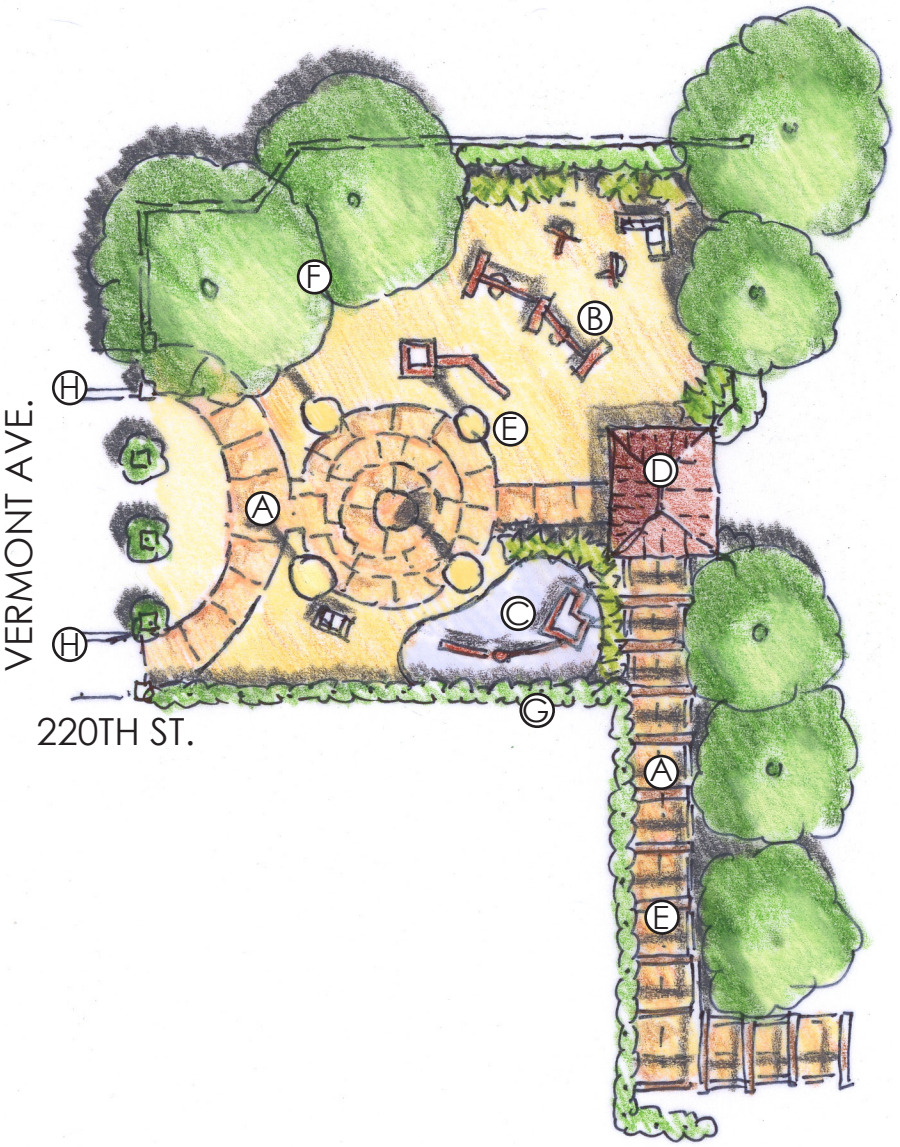
Ⓘ Enhanced cross-walk for safety



Opportunity

- Redesign Caltrans park-n-ride to include transit waiting plaza.
- Create a gateway to West Carson with landscape/hardscape elements that also bring visibility to the transit station.

Figure 4.27 Pocket Park Concept at the East End of 220th Street

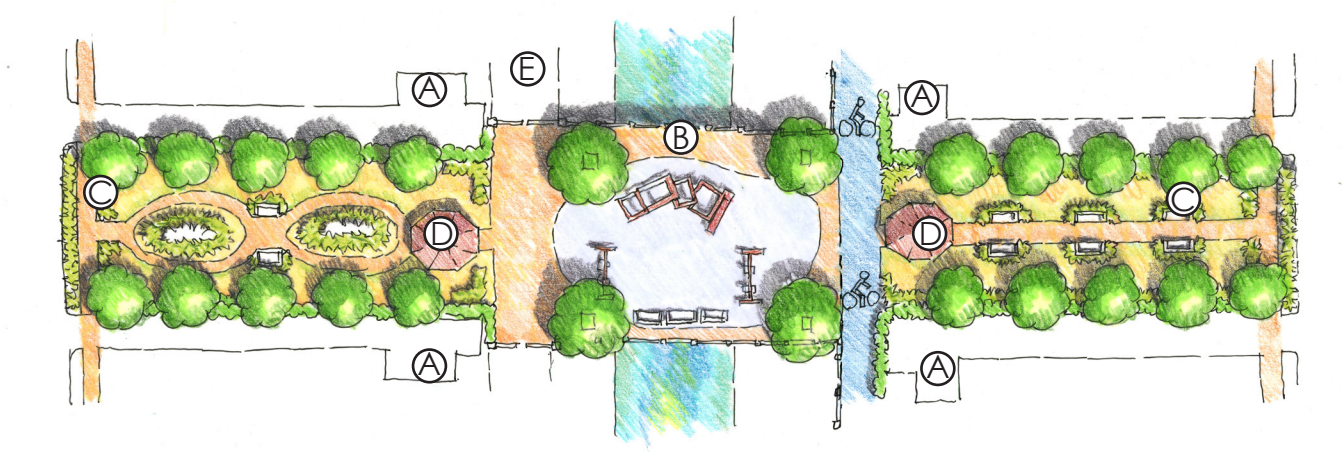


- Ⓐ Decorative pathway leading to bridge
- Ⓑ Play area for children and waiting area for parents
- Ⓒ Play structure
- Ⓓ Small covered area with picnic tables
- Ⓔ Enhanced lighting for park and pathways
- Ⓕ Shade trees
- Ⓖ Reconfigured access within the storage site
- Ⓗ New signage/monumentation at intersection with Vermont

Opportunity

- To provide children and parents with a safer and inviting walking experience to White Middle School via a pedestrian bridge over the Interstate 110.
- To create a small pocket park within the cul-de-sac at 220th Street.
- To improve the pedestrian bridge with new fencing and lighting.

Figure 4.28 Pocket Park Concept at 208th Street and Javelin Street



Opportunity

- To provide new park space to serve the single-family neighborhood north of Carson Street.
- Converts the two cul-de-sacs along Javelin St., connected by a channel cap for additional playground space.
- Includes bike path on one side of the channel and access road on other side.

Ⓐ New 10’ drive to garage

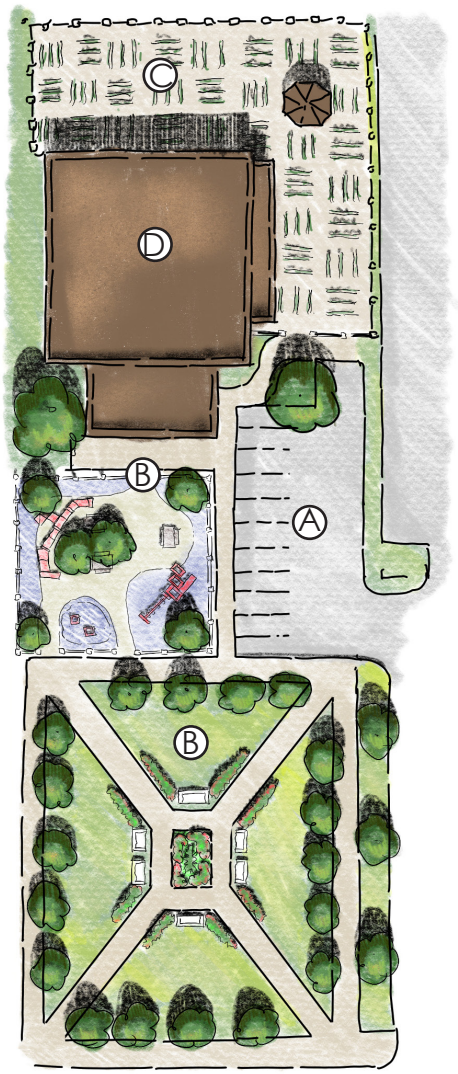
Ⓑ Channel cap with hardscape, playground equipment and boxed trees for shade

Ⓒ Areas for unstructured play, seating, picnics

Ⓓ Shade structure with table

Ⓔ Existing maintenance road with gates at edge of park

Figure 4.29 Pocket Park Concept for the Harbor-UCLA Kindercare Site (Option 1)



Ⓐ Parking for the park site only

Ⓑ Opportunity for differently programmed park areas

Ⓒ Community garden

Ⓓ Re-purposed parks and recreation building

Opportunity

- To repurpose the Harbor UCLA Medical Center Kindercare site, if and when this use relocates to the main hospital campus.
- To provide new park and recreation opportunities accessible from Carson Street and the residential neighborhoods to the north.
- To repurpose the Kindercare building as the West Carson Youth Center, with structured programs and events.
- Create a combined access drive to both the multifamily apartment project and the park at the signalized intersection.

Figure 4.30 Pocket Park Concept for the Harbor-UCLA Kindercare Site (Option 2)

Ⓐ Combined parking for the park and guests of the residential project

Ⓑ Opportunity for differently programmed park areas

Ⓒ Community garden

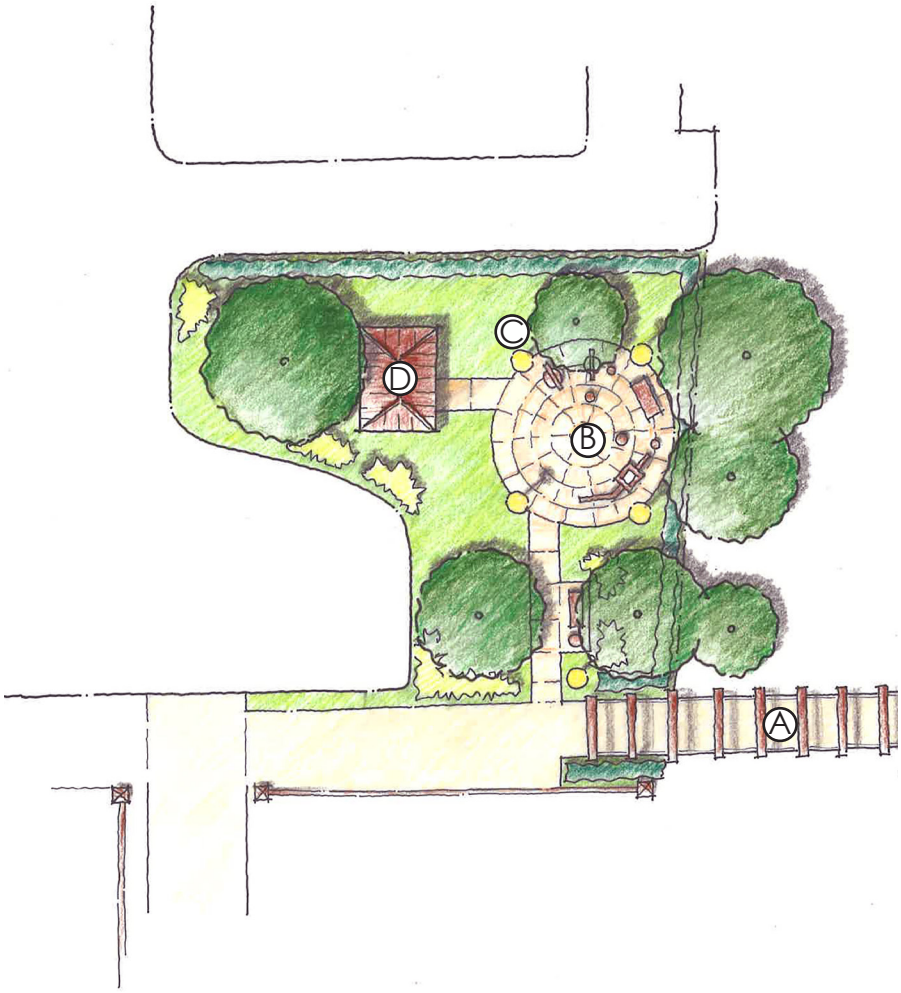
Ⓓ Re-purposed parks and recreation building



Opportunity

- To repurpose the Harbor UCLA Medical Center Kindercare site, if and when this use relocates to the main hospital campus.
- To provide new park and recreation opportunities accessible from Carson Street and the residential neighborhoods to the north.
- To repurpose the Kindercare building as the West Carson Youth Center, with structured programs and events.
- Create a combined access drive to both the multifamily apartment project and the park at the signalized intersection.

Figure 4.31 Pocket Park Concept for the East End of 214th Street



Ⓐ Decorative pathway leading to bridge

Ⓑ Enhanced paving area with play equipment for children and waiting area for parents

Ⓒ Enhanced lighting for park and pathways

Ⓓ Small covered pavilion with picnic amenities

Opportunity

- To provide children and parents with a safer and inviting walking experience via a pedestrian bridge over the Interstate 110.
- To create a small pocket park within the cul-de-sac at 214th Street.
- To improve the pedestrian bridge with new fencing and lighting.

BICYCLE CIRCULATION

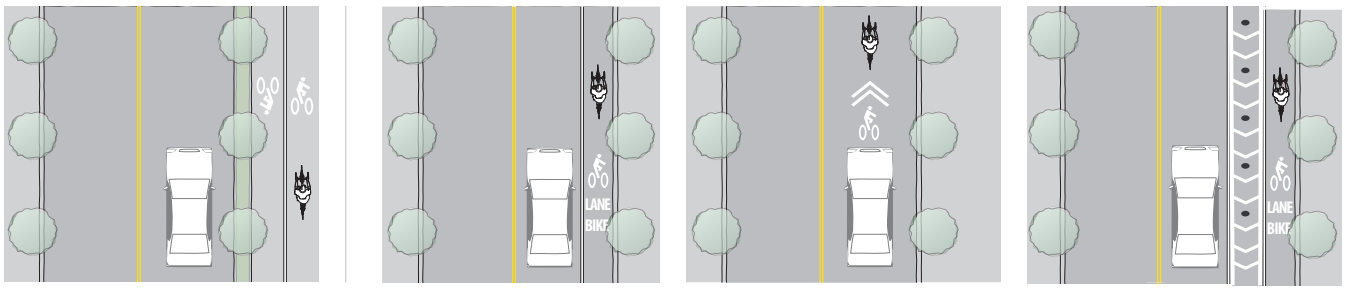
Bicycling provides a sustainable solution for traveling the first and last mile to and from a transit station. While transit and bicycling are complementary modes, issues of infrastructure connectivity often impacts a person's decision to bike the first and last mile of their journey from transit. The following section describes improvements to bicycle network to promote bicycling within the Specific Plan area.

Bicycle Facility Types

Bikeways are facilities that are designated primarily for bicycle travel. They are generally divided into three types: Class I, Class II, Class III, and Class IV.

- **Class I (Bike Path):** Provides a completely separated right-of-way (off-street) designated for the exclusive use of bicycles and pedestrians with crossflow traffic minimized.
- **Class II (Bike Lane):** Provides a restricted right-of-way (on-street) designated for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with crossflows by pedestrians and motorists permitted. Vehicle parking can be allowed to the right of bike lane if sufficient right-of-way width exists.
- **Class III (Bike Route):** Provides for shared use with pedestrians or motor vehicles and is (on-street) designated by signs or permanent markings.
- **Class IV (Cycle Track):** Provides bikeways (cycle tracks) located in or adjacent to a roadway and separated from traffic by a physical barrier such as bollards, on-street parking, or planters. This design allows an exclusive right-of-way for bicycle travel.

Figure 4.32 Bike Facility Types



Class I (Bike Path) *Class II (Bike Lane)* *Class III (Bike Route)* *Class IV (Cycle Track)*

Bicycle Network

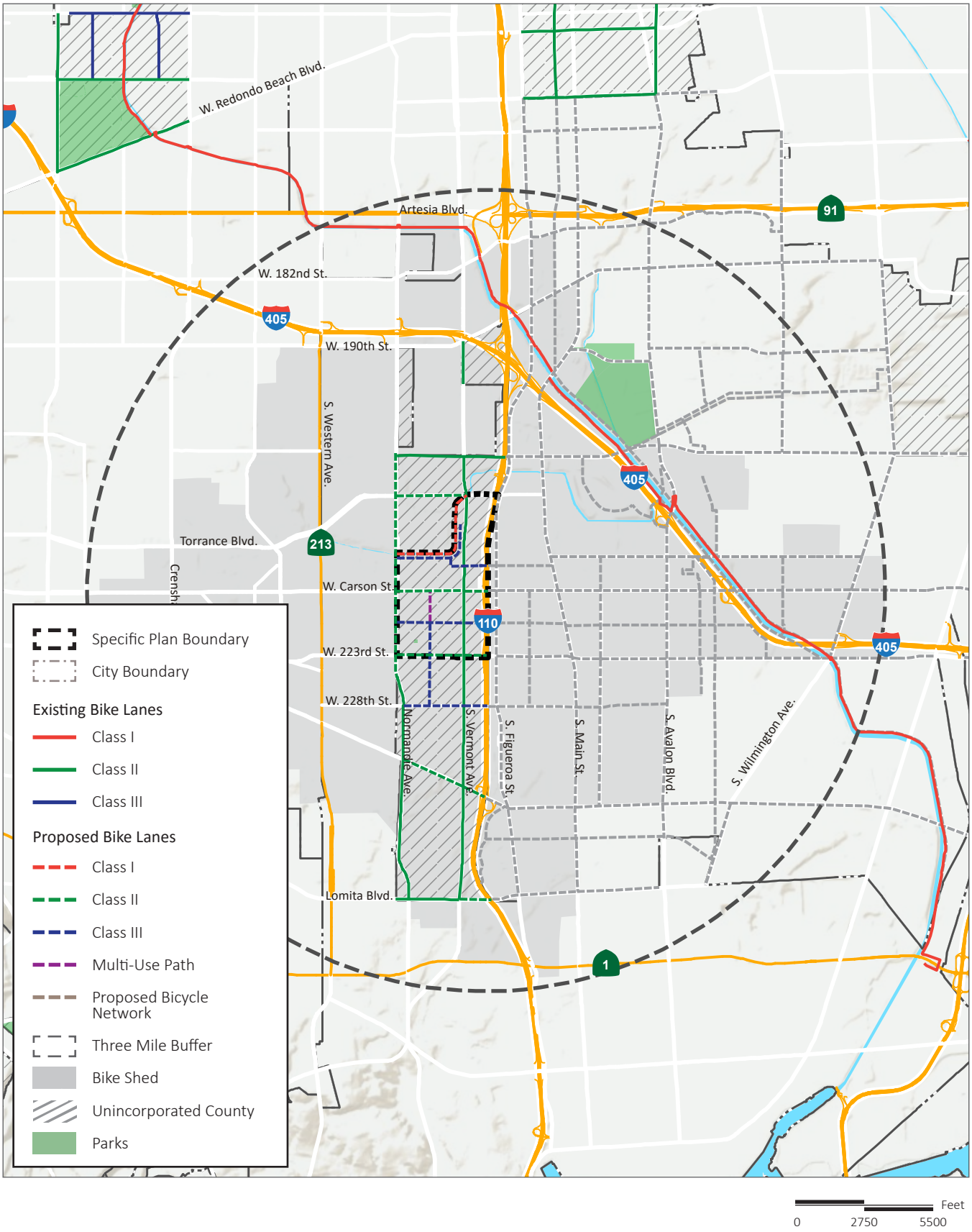
1. Figure 4.32 illustrates the level of bicycle accessibility within a three mile radius of the Carson/Harbor Freeway transit station. Using the station as a starting point, all possible bicycle routes were mapped based on the street grid and then consolidated into a larger catchment shape or bike shed. The existing bicycle network within the Specific Plan area provides limited accessibility and connectivity, with approximately five miles of existing bikeway infrastructure. Of the five miles, four and one half miles are Class II bicycle facilities and one half miles are Class III. One of the main constraints of the existing bicycle network is the limited north and south access, with only two north-south bike paths that traverse through West Carson.

2. The Specific Plan proposes to add approximately 7.50 miles of bikeways to the existing network. These streets were selected based on the opportunities they presented to improve connectivity within West Carson and the regional bikeway network of neighboring cities. The Specific Plan proposes to add the following bicycle facilities:

- 208th Street Drainage Channel Multi-Use Path or Class I bicycle facility
- Meyler Avenue Multi-Use Path (between 220th Street and Carson Street)
- Normandie Avenue Class II bicycle facility
- Carson Street Class II bicycle facility with striped buffer
- 223rd Street Class II bicycle facility with striped buffer (between Vermont Avenue and City of Carson boundary)
- 223rd Street Class III bicycle facility (between Normandie Avenue and Vermont Avenue)
- 220th Street Class III bicycle facility
- Meyler Avenue Class III bicycle facility
- Doble Avenue Class III bicycle facility
- 214th Street Class III bicycle facility

3. Buffered Class II bicycle lanes are proposed along Carson Street, and the segment of 223rd Street between Vermont Avenue and the City of Carson boundary. Buffered bicycle lanes are created by painting a striped buffer between the bicycle facility and on-street parking. These striped buffers help to improve safety and provide additional space between parked cars and bicyclists.

Figure 4.33 Bicycle Network



Striped buffers are recommended along streets with average speeds of 40 mph or more.

4. Additionally, the County, on behalf of West Carson, applied and received funding assistance for its West Carson Community Bikeways project under the Caltrans ATP Cycle 2 program. The West Carson Community Bikeways project includes the design and construction of 0.5 mile Class II bicycle facilities on both Lomita Boulevard and Carson Street, as well as 0.65 miles of Class III bicycle facilities on 220th Street, between Normandie Avenue and Vermont Avenue.

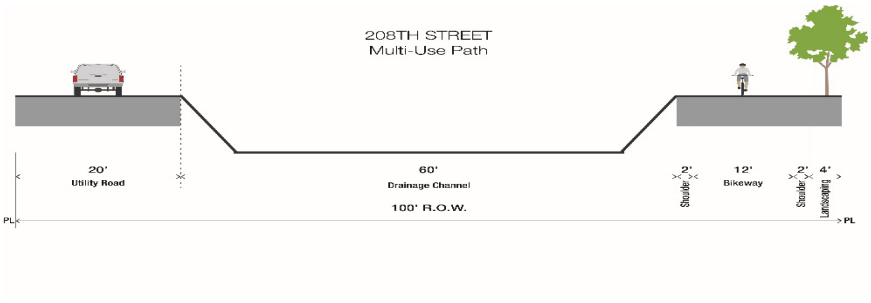


Example photo.

208th Street Multi-Use Path

The 208th Street drainage channel presents an opportunity to implement a multi-use path in order to encourage and promote active transportation. The 208th Street drainage channel located along the northern boundary of the Specific Plan area provides opportunities to connect to the larger regional bikeway network, which includes the existing Class I bicycle facility along the Dominguez Channel. Figure 4.32 illustrates where the proposed multi-use pathway would be located, while Figure 4.33 illustrates its proposed design.

Figure 4.34 Proposed 208Th Street Water Channel Bikeway



Bicycle Infrastructure Amenities

In addition to the provision of bikeways, the Specific Plan recommends the following design guidelines to guide the installation of bicycle infrastructure amenities:

1. **Bicycle Parking:** Providing ample, well-designed bicycle parking is a key component to increasing bicycling within an area. Bicycle parking consists of racks that supports the bicycle upright and provides a secure place to lock. Care should be given to their installation to ensure that they do not obstruct pedestrian pathways and they adhere to ADA standards. Consideration should be given to installing bicycle parking near key transit stops and key destinations. The required amount of bicycle parking to be provided per land use is discussed in detail in the Bicycle Parking Standards section.

2. **Bicycle Crossing Signals:** Bicycle signals facilitate safe intersection crossing by instructing bicyclists when they are able to enter an intersection and by restricting conflicting vehicular movement.

3. **Bicycle Wayfinding Signage:** Bicycle wayfinding systems typically consists of signs or pavement markings that indicate

information regarding route, destinations, and directions. They help familiarize bicyclists with the bikeway network, identify best routes to destinations, and alert motorists of the presence of bicyclists. They should be placed along all streets that are part of the bikeway network.



Example photo.

Bicycle Parking Standards

The provision of bicycle parking provides a number of benefits that can enhance the overall bicycling experience in West Carson. These benefits include reducing bicycle damage from improperly parked bicycles, as well as reducing sidewalk hazards for pedestrians caused by improperly parked bicycles on sidewalks, reducing bicycle thefts, preventing damage to trees and other street furniture, and improving access to local shops, jobs, and transit.

The West Carson TOD Specific Plan provides modifications to the existing bicycle parking requirements contained in Chapter 22.52.1225 of Title 22 of the County's Code of Ordinances. Bicycle parking requirements are provided for both short-term and long-term parking. Per the County's Code of Ordinances, short-term bicycle parking is defined as bicycle parking intended for a period of two hours or less, while long-term bicycle parking is defined as bicycle parking intended for a period of two hours or longer. Short-term bicycle parking is appropriate for individuals making short visits to commercial establishments, offices, or other uses, while long-term bicycle parking is appropriate for residents, employees, transit users, and visitors to hotels nearby.

The proposed modifications to the existing bicycle parking requirements are intended to provide a bicycle parking supply that supports TOD districts and encourages the use of bicycling as an alternative mode of transportation. The West Carson TOD Specific Plan proposes the following bicycle parking requirements:

Table 4.1 Minimum Bicycle Parking Requirements

USE	SHORT-TERM	LONG-TERM
Multi-Family Residential	1 per 10 DU (2 minimum)	1 per 10 DU
General Retail	1 per 4,000 gsf (2 minimum)	1 per 6,000 gsf (2 minimum)
Hotel	1 per 30 guest rooms (2 minimum)	1 per 20 guest rooms (2 minimum)
Office	1 per 13,000 gsf (2 minimum)	1 per 6,000 gsf (2 minimum)
Theaters/Auditoriums/ Other Entertainment	1 per 50 intended visitors (2 minimum)	1 per 100 intended visitors (2 minimum)
Industrial	1 per 20,000 gsf (2 minimum)	1 per 10,000 gsf (2 minimum)
Hospitals	1 per 15,000 gsf (2 minimum)	1 per 10,000 gsf (2 minimum)
Schools	4 per classroom (4 minimum)	1 per 10 classrooms (2 minimum)
Churches	1 per 50 intended visitors (2 minimum)	1 per 100 intended visitors (2 minimum)

Table Notes: DU denotes dwelling units, gsf denotes gross square feet.

SAFETY AND COMFORT

SAFE ROUTES TO SCHOOL

Safe Routes to School (SRTS) is a program that focuses on helping children get to school safely by walking and bicycling. Meyler Street Elementary School and Van Deene Avenue Elementary School bothe lie within the Specific Plan area, creating the need to develop a safe network of pedestrian and bicycle infrastructure for children to utilize. Public Works has identified suggested crossings to be used by children for various elementary schools within the unincorporated areas of Los Angeles County. Figures 4.34 and 4.35 illustrates the County's suggested routes for both schools. Although some controlled intersections exist within the area, there is a general lack of pedestrian crossing signage and protected crosswalks surrounding the area. The Specific Plan proposes the following design guidelines to promote safer routes to school:

1. Appropriate levels of street lighting should be installed on both sides of wide streets.
2. Appropriate traffic controls, such as marked crosswalks, traffic signals, and warning signs or flashers should be utilized at pedestrian crossing locations.
3. Curb ramps with warning strips, such as truncated domes, should be provided at pedestrian street crossings to facilitate the safe crossings of pedestrians with mobility or vison impairments.

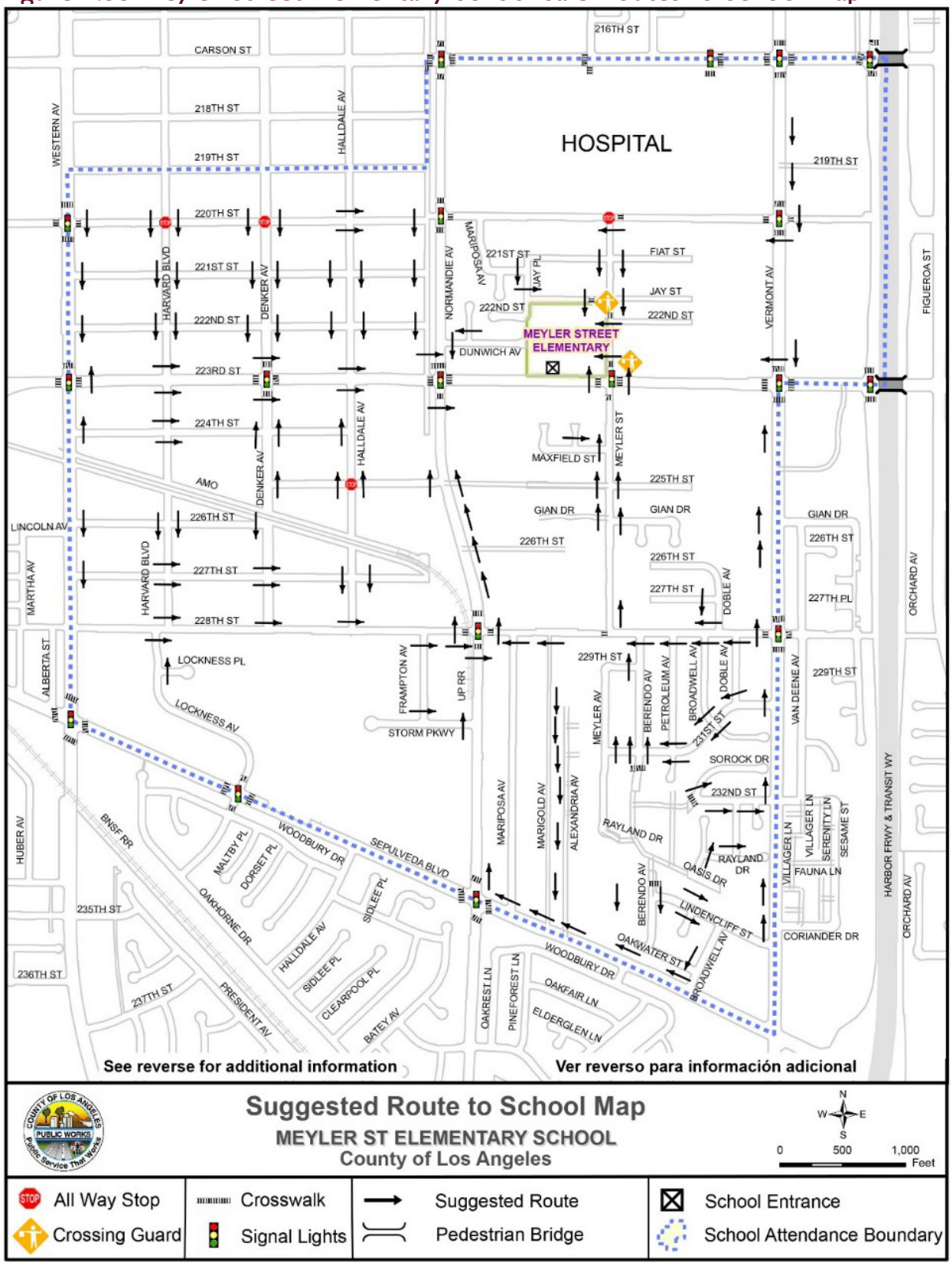


Example photo.



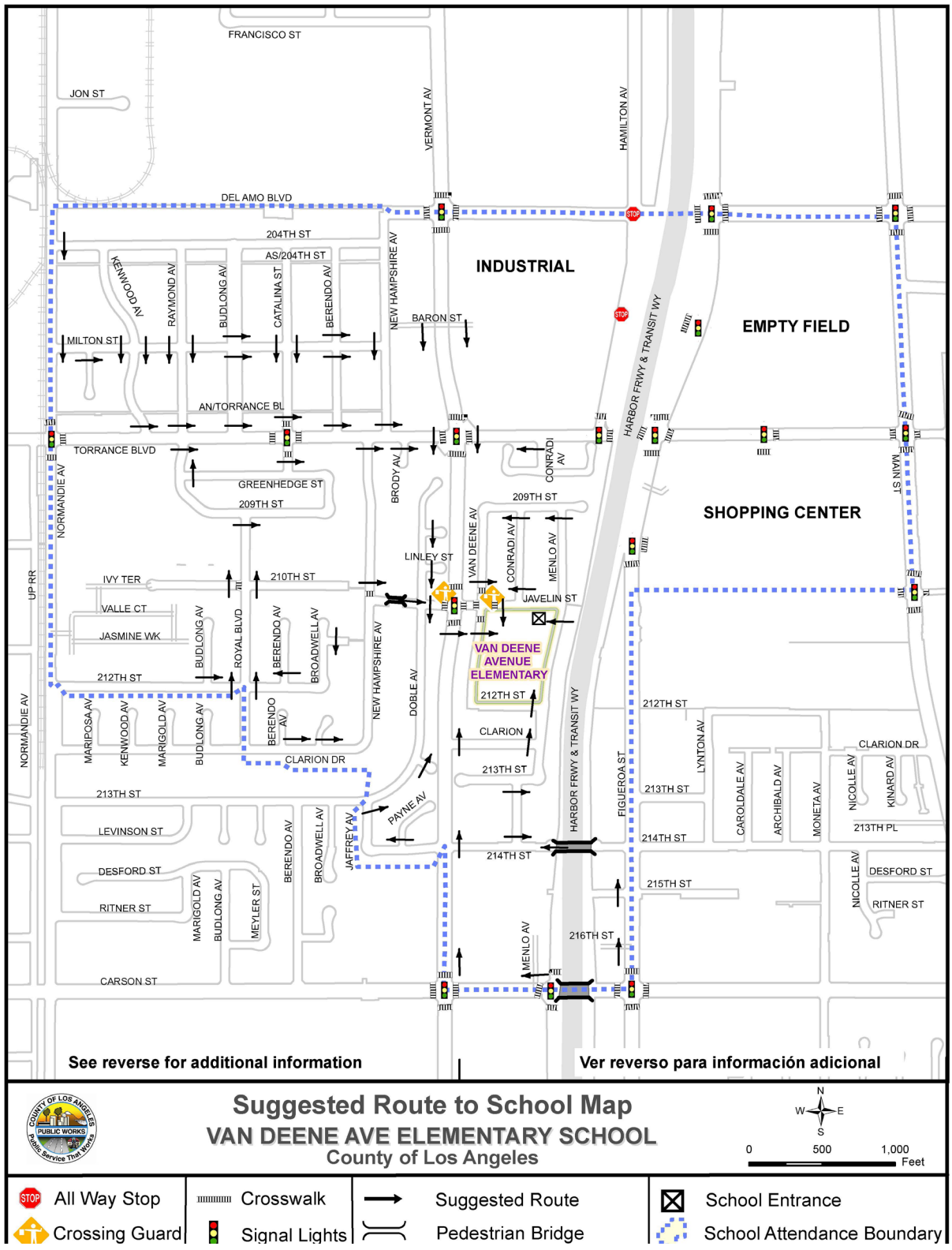
Example photo.

Figure 4.35 Meyler Street Elementary School Safe Routes To School Map



Source: Los Angeles County Department of Public Works

Figure 4.36 Van Deene Avenue Elementary School Safe Routes To School Map



Source: Los Angeles County Department of Public Works

PARKING STANDARDS

Parking policies play a significant role in the viability and success of TOD projects and districts. These policies can help to shape an area's travel behavior, community design, and local economic growth. The existing parking supply within the Specific Plan area is comprised of a combination of on-street and off-street parking resources as shown in Figure 4.36. The West Carson TOD Specific Plan provides modifications to the parking requirements contained in Chapter 22.112 of Title 22 of the County's Code of Ordinances. These modifications are intended to provide a parking supply that supports TOD districts and allows for greater flexibility in the provision of minimum parking spaces.

The West Carson TOD Specific Plan proposes the following off-street parking requirements:

1. Required parking shall be provided on site; and is not permited within the required front yard or corner side yard. Required parking for new single family uses may be uncovered. A Ministerial Site Plan Review (SPR) application (Chapter 22.146 of Title 22) is required for the conversion of covered parking to uncovered parking in existing single family uses.
2. Tandem parking is allowed for single family uses. A parking space for a second unit may be located in tandem with a space serving the existing single-family residence if the design is necessary to provide the required number of spaces for both units.
3. The provisions regarding shared parking contained in Sections 22.138.050 B2, 3, 4 and 5 in Chapter 22.180 (Parking Permits) of Title 22 shall apply.

Required parking shall be provided on site; and is not permited within the required front yard or corner side yard. Required parking for new single family uses may be uncovered. A Ministerial Site Plan Review (SPR) application (Chapter 22.146 of Title 22) is required for the conversion of covered parking to uncovered parking in existing single family uses.

Tandem parking is allowed for single family uses. A parking space for a second unit may be located in tandem with a space serving the existing single-family residence if the design is necessary to provide the required number of spaces for both units.

The provisions regarding shared parking contained in Sections 22.138.050 B2, 3, 4 and 5 in Chapter 22.180 (Parking Permits) of Title 22 shall apply.

Figure 4.37 Parking

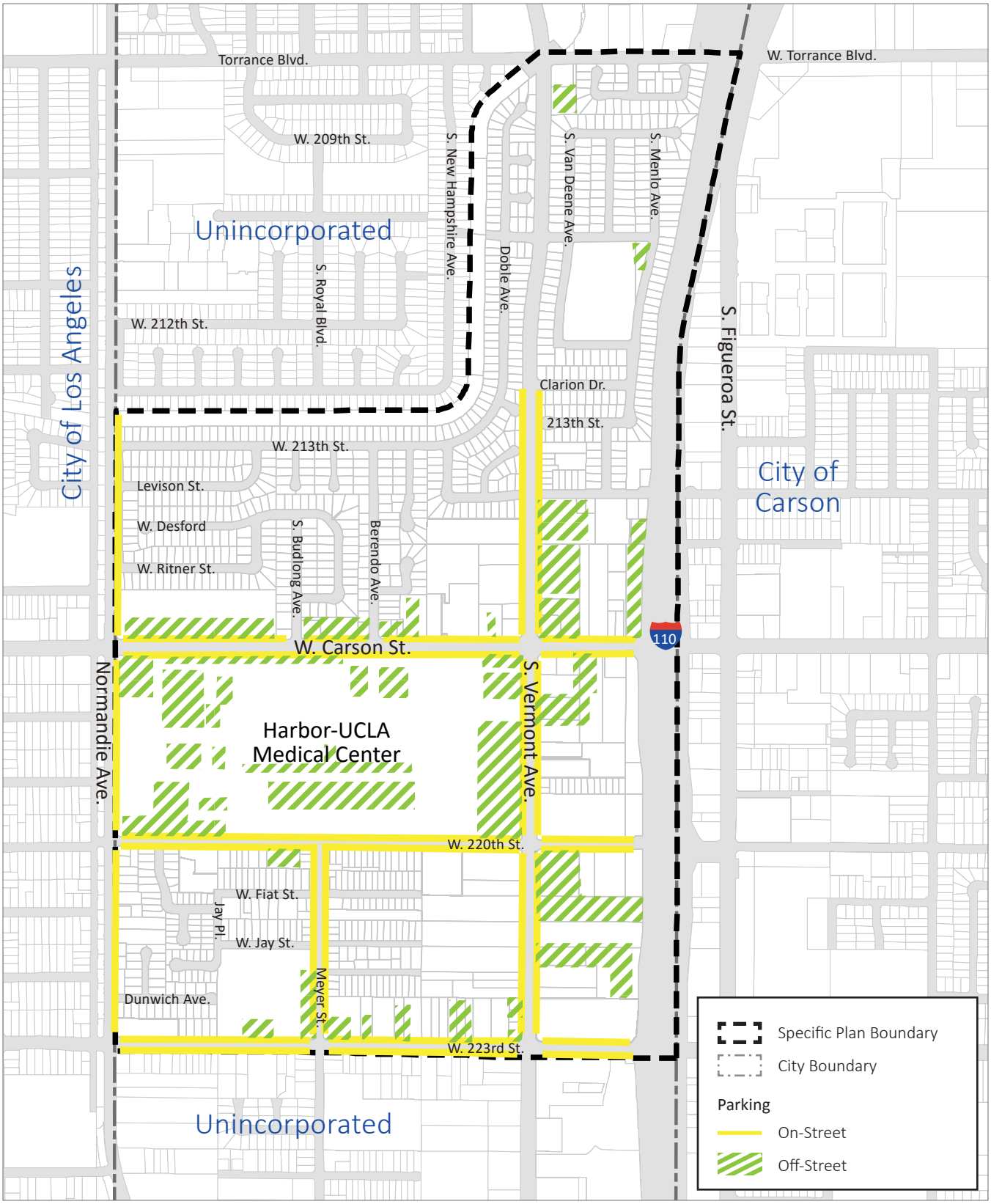


Table 4.2 Parking Requirements

USE	MINIMUM	MAXIMUM
Residential Zone 1		
Single Family Residential	2.00 spaces/DU	*2.00 spaces/DU*
Residential Zone 3		
Bachelor Apartment	0.60 spaces/DU	1.00 spaces/DU
1 Bedroom	0.90 spaces/DU	1.25 spaces/DU
2 Bedroom	1.20 spaces/DU	2.00 spaces/DU
Guest	0.15 spaces/DU	*0.25 spaces/DU*
Residential Zone 4		
Bachelor Apartment	0.60 spaces/DU	1.00 spaces/DU
1 Bedroom	0.90 spaces/DU	1.25 spaces/DU
2 Bedroom	1.20 spaces/DU	2.00 spaces/DU
Guest	0.15 spaces/DU	*0.25 spaces/DU*
Mixed Use Zone 1		
Bachelor Apartment	0.60 spaces/DU	1.00 spaces/DU
1 Bedroom	0.90 spaces/DU	1.25 spaces/DU
2 Bedroom	1.20 spaces/DU	2.00 spaces/DU
Guest	0.15 spaces/DU	0.25 spaces/DU
Office	1.50 spaces/ 1,000 sf	2.50 spaces/ 1,000 sf
Retail	2.50 spaces/ 1,000 sf	3.50 spaces/ 1,000 sf
Restaurant	1.00 space/ 200 seats	1.00 space/ 100 seats

Mixed Use Zone 2		
Bachelor Apartment	0.60 spaces/DU	1.00 spaces/DU
1 Bedroom	0.90 spaces/DU	1.00 spaces/DU
2 Bedroom	1.20 spaces/DU	2.00 spaces/DU
Guest	0.15 spaces/DU	0.25 spaces/DU
Office	1.50 spaces/ 1,000 sf	2.00 spaces/ 1,000 sf
Retail	2.40 spaces/ 1,000 sf	3.00 spaces/ 1,000 sf
Restaurant	1.00 space/ 200 seats	1.00 space/ 100 seats
Harbor UCLA Medical Zone		
Medical Office	2.50 spaces/ 1,000 sf	3.50 spaces/ 1,000 sf
Clinic	2.50 spaces/ 1,000 sf	3.50 spaces/ 1,000 sf
Industrial Flex Zone		
Light Industrial	1.20 spaces/ 1,000 sf	2.00 spaces/ 1,000 sf

Table Notes: DU denotes dwelling units, sf denotes square feet. Guest parking is always required.

05

INFRASTRUCTURE

INTRODUCTION

Utility service infrastructure such as water, wastewater, gas and electric facilities, and storm water drainage facilities are critical services for ensuring orderly growth and community investment. The infrastructure discussion provides an overview of existing and future conditions for water, sewer, and storm drain systems serving the West Carson Specific Plan area. This section identifies the current conditions for these infrastructure systems, along with recommended upgrades to accommodate the levels of new development proposed as part of the Specific Plan land use concepts.

WATER SERVICES

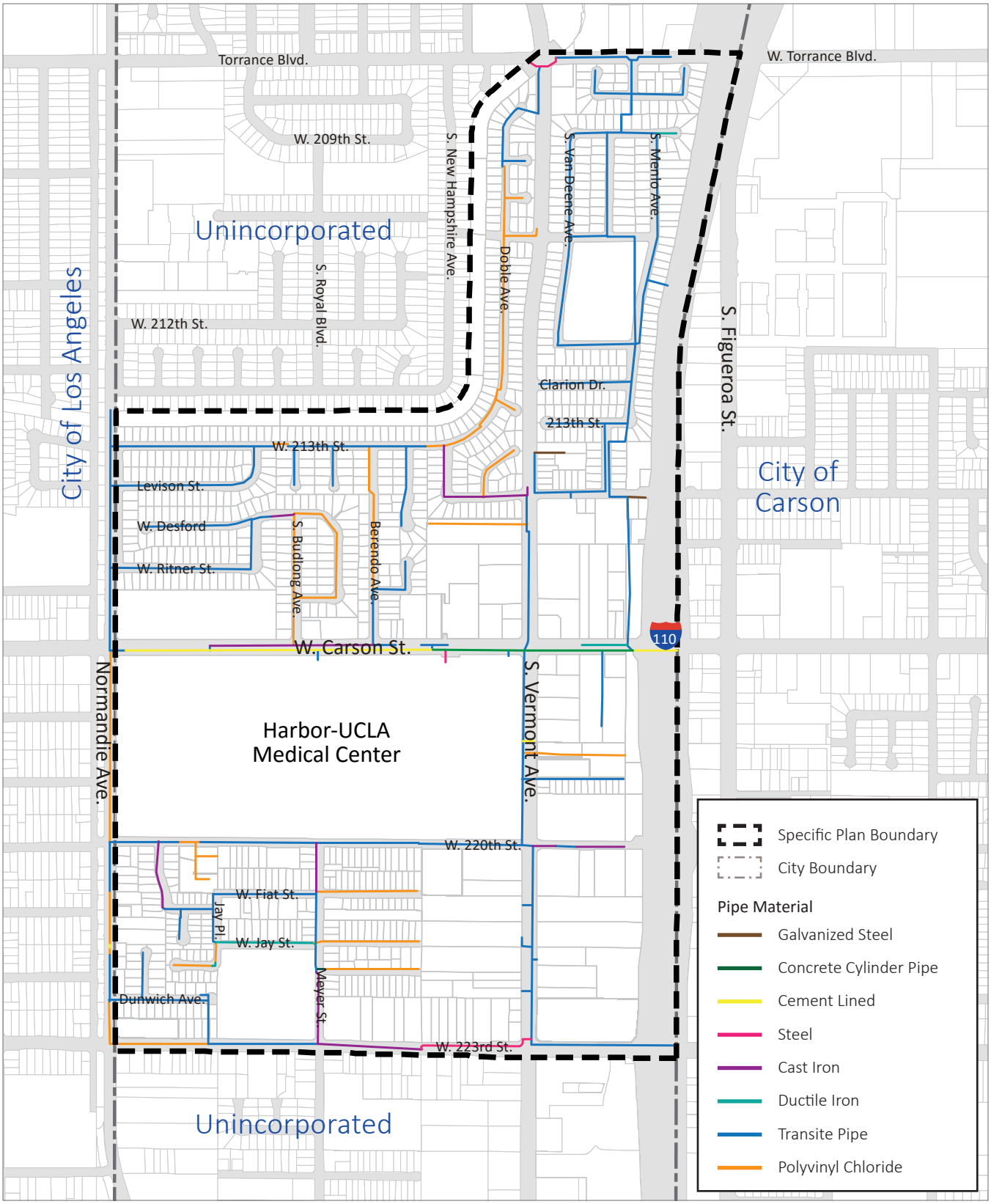
The Rancho Dominguez District of the California Water Service is the provider of potable water within the boundary of the West Carson TOD Specific Plan. The customer needs are met by a combination of local groundwater and surface water purchased from the Metropolitan Water District of Southern California.

WATER SERVICES EXISTING CONDITIONS

The Specific Plan area is serviced by pipe sizes varying from two inch connectors to 33 inch main lines. The vast majority of pipe is composed of one of two materials – transite and PVC. The largest pipe connects the plan area to the east side of Interstate 110 via a 33 inch water main. This decreases to a 16 inch main before connecting to the 10 inch distribution pipe on the west boundary of the plan area on Normandie Avenue. The majority of distribution pipes off the main lines are six inch and eight inch water lines. Figures 5.1 and 5.2 illustrate water pipe materials and size for the West Carson TOD Specific Plan area.

Water supply requirements and flows were estimated using industry standards to determine capacities. The Harbor UCLA Medical Center located along the 33 inch–24 inch main is the largest estimated consumer in the area. The large water main located next to the medical center campus is capable of providing both water supply and fire flow protection with minimal head loss. The distribution pipe size is large enough to sufficiently supply the specific plan area with water.

Figure 5.1 Water System- Pipe Material



California Water Service has a waterline replacement plan in place with the goal to replace water mains every 50 years. The pipes in West Carson are included in this plan. The district no longer uses transite pipes for water mains, and so existing transite pipes will be phased out and replaced over time.

WATER SERVICES FUTURE CONDITIONS

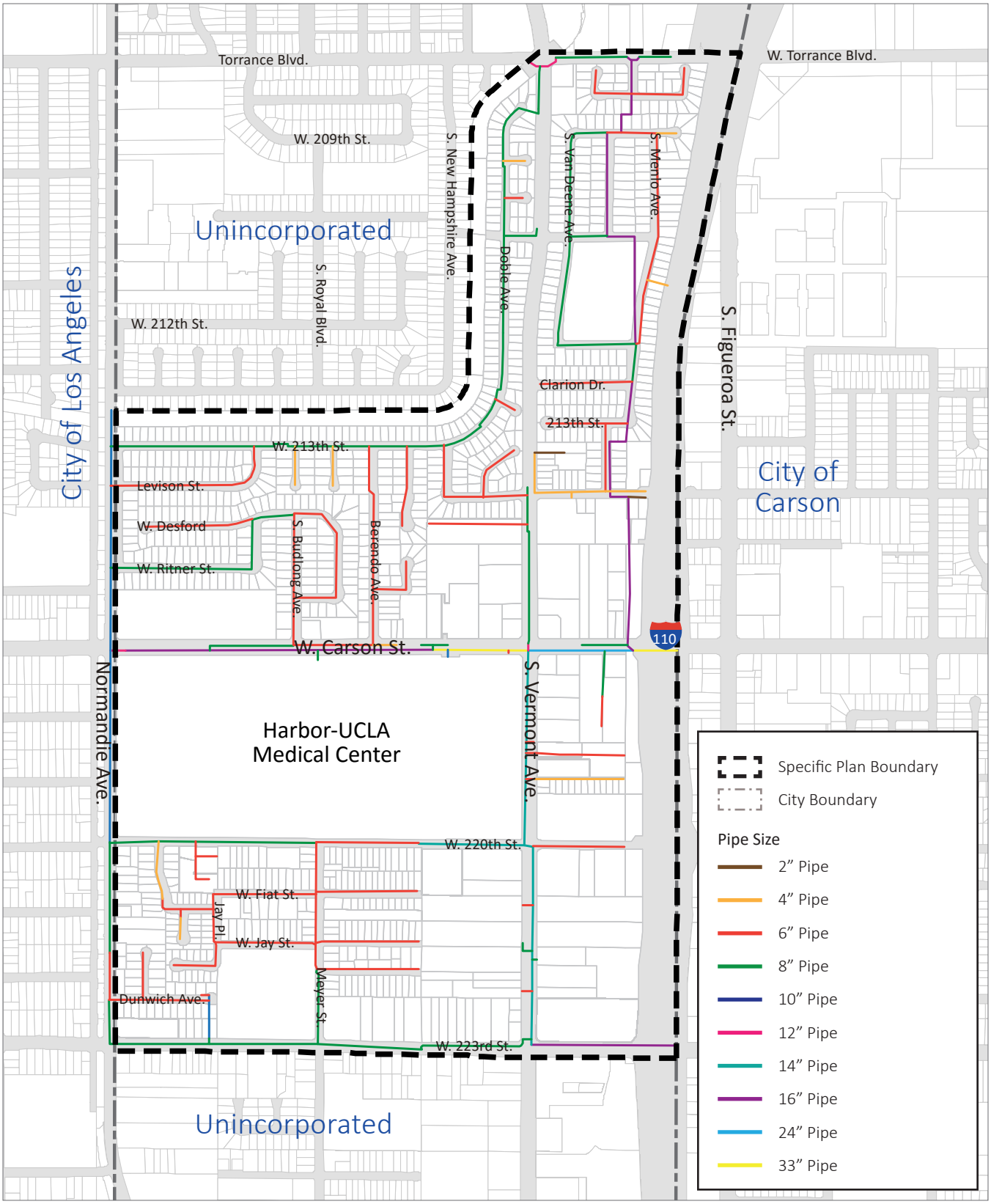
Buildout of the West Carson TOD Specific Plan includes a substantial influx of households which in turn results in an increase in water demand and water flow on the north end of Carson Street and the east side of Vermont Avenue around the Harbor UCLA Medical Center. South from West 220th Street along Vermont Avenue, this increase in flow is a result of additional proposed development on both sides of Vermont Avenue. The water main service line in the area is the 33 inch and 24 inch pipe along Carson Street coming from the east.

The two largest areas associated with planning zone West Carson Residential 1 have no need to increase capacity of service lines because the decrease in square footage will decrease flow to the areas.

In order to meet the demand of water consumption and flows with buildout of the Specific Plan land uses, the following upgrades in water line pipe sizes are recommended:

- The 14 inch Pipe from Carson Street to 220th Street along Vermont Avenue has such a dramatic increase in flow that it will require resizing to a minimum of a 20 inch pipe.
- South from 220th Street to 223rd Street, the 14 inch pipeline is near the headloss threshold. The flow rate north from Carson Street to 214th Street is split between two lines: an eight inch pipe along Vermont Avenue, and a 16 inch along Menlo Avenue. Depending on the locations of the planned households and which distribution line supplies the water, one or both of these lines will need to be replaced. Without knowing flow into each pipeline, exact sizing cannot be recommended at this time. Figure 5.3 highlights the general location of these water system impacts.
- A recent fact sheet from California Water Boards titled “August 2015 Statewide Conservation Data” shows that the average flow in the South Coast Hydrologic Region has decreased significantly to roughly 100 gallons per capita per day. Using this flow, with an assumption that water conservation measures such as low water use toilets, low flow showerheads, watering lawns and gardens in morning or evening hours, improved leak

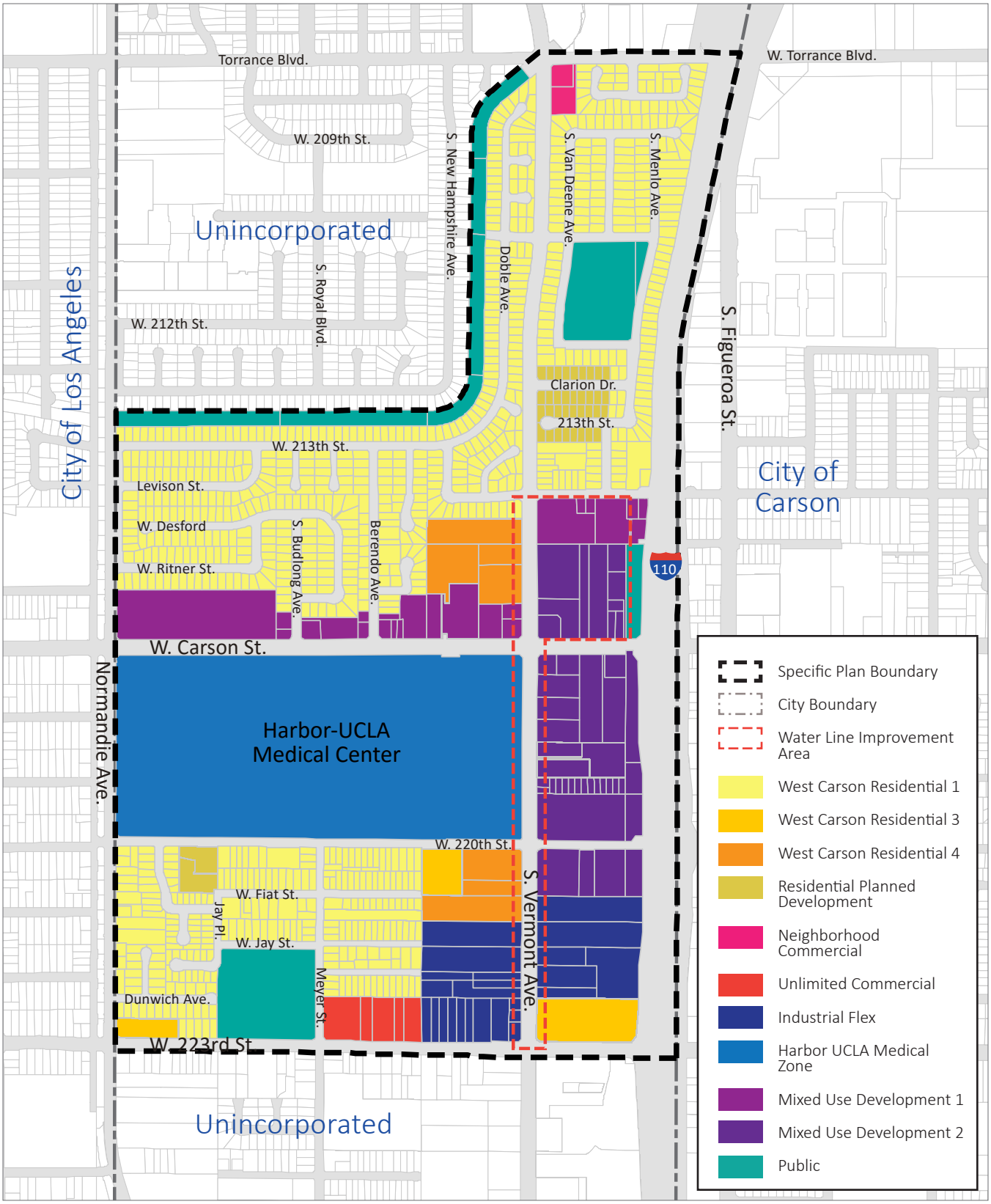
Figure 5.2 Water System- Pipe Size



detection and repair, etc., are in place to maintain a low average daily demand, there is no pipe that exceeds the threshold of headloss per 1,000 feet.

These recommendations are based on an assumption of flow into the area that is independent of factors in the surrounding area. The water provider, California Water Service, will evaluate all development that will occur in the future and holistically analyze and decide whether water facilities require upgrades.

Figure 5.3 Water Services Area of Concern



SEWER SERVICES

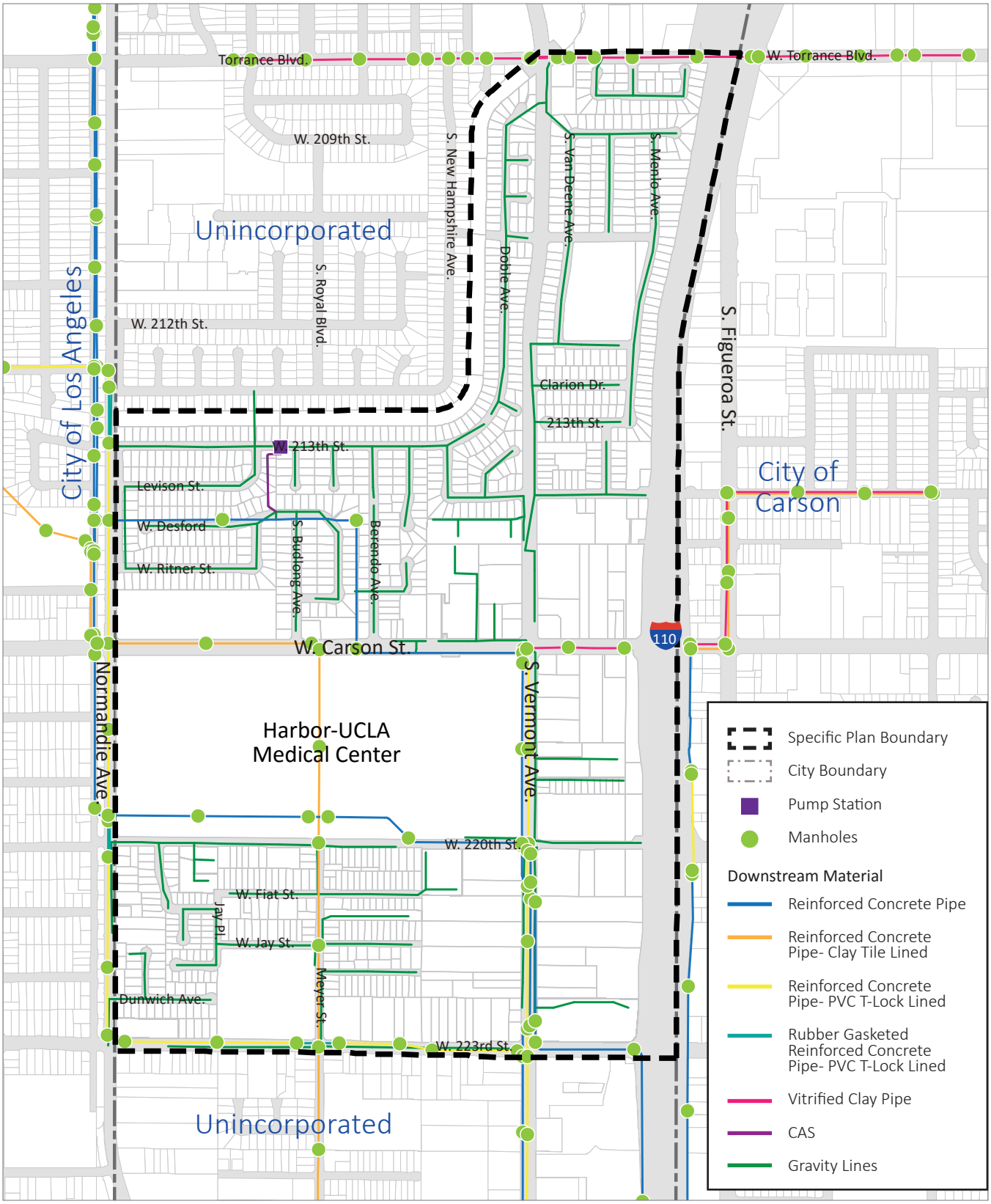
SEWER SERVICES EXISTING CONDITIONS

Two sanitary systems exist in the Specific Plan area – local lines and trunk sewers. The local lines are a series of primarily eight inch gravity mains with laterals connecting to existing buildings. All of these sewers are composed of Vitrified Clay Pipe (VCP). The northwest section of the Specific Plan area collects into a pump of the main trunk. All local sewer lines are owned and operated by Public Works.

The local sewer lines are in the process of televised assessment with completion of assessment scheduled in 2016. Of the currently assessed pipes, four percent are deemed in need of repair and are in the process of being lined or reassessed. Pipe lines that have already been televised and were assessed to need repair will be repaired in the first quarter of 2016.

The trunk sewer lines are owned and operated by the Carson District of the Los Angeles County Sanitation Districts. There are four main segments of these trunk lines collecting the sewage from the Specific Plan area. The northeast corner is served by a 12 inch VCP Trunk. Another trunk line runs east on Desford, south on Berendo, and east on Carson Street before connecting up with the large trunk that runs south on Vermont Avenue. A third trunk, 54 inch in size, runs east on Carson Street at the Specific Plan boundary, cutting south through the Harbor-UCLA Medical Center campus along the same center line as Meyler Street, continuing south past the Specific Plan boundary. The final trunk line runs east on 223rd Street, connecting with the second trunk and continuing south on Vermont Avenue. There are three segments of trunk line that are out of service – 1) 63 inch trunk running east along the southern Harbor-UCLA access road (adjacent to 220th Street) connecting at Vermont Avenue, 2) 66 inch to 78 inch trunk running south along Vermont Avenue from Carson Street to 223rd Street, 3) The continuation of the first unused trunk running south from 220th Street to 223rd Street. The majority of these lines are reinforced concrete with linings as shown in the Figure 5.4.

Figure 5.4 Sanitary Utilities



The 8 inch sanitary collection lines are sufficient size to collect sanitary waste from houses and shops in the area and transport them to the main collection trunks. The medical center is located in close proximity to one of the larger trunks. Because of this, the higher volume of waste produced from the medical facilities is sufficiently captured. In the event the status of the plan area would change with the addition of industrial sites, the collection lines would require evaluation.

SEWER SERVICES FUTURE CONDITIONS

Sewer services in the Specific Plan area would require updating under buildout of the Specific Plan. The connection laterals of the largest zone: West Carson Residential 1, are large enough to accommodate the changes of the area. The large increase in flows under buildout result from a large anticipated increase of population located along a sanitary trunk main that runs along Carson Street north of Harbor UCLA Medical Center and then along Vermont Avenue east of Harbor UCLA; and along West 223rd Street, between Normandie Avenue and Vermont Avenue.

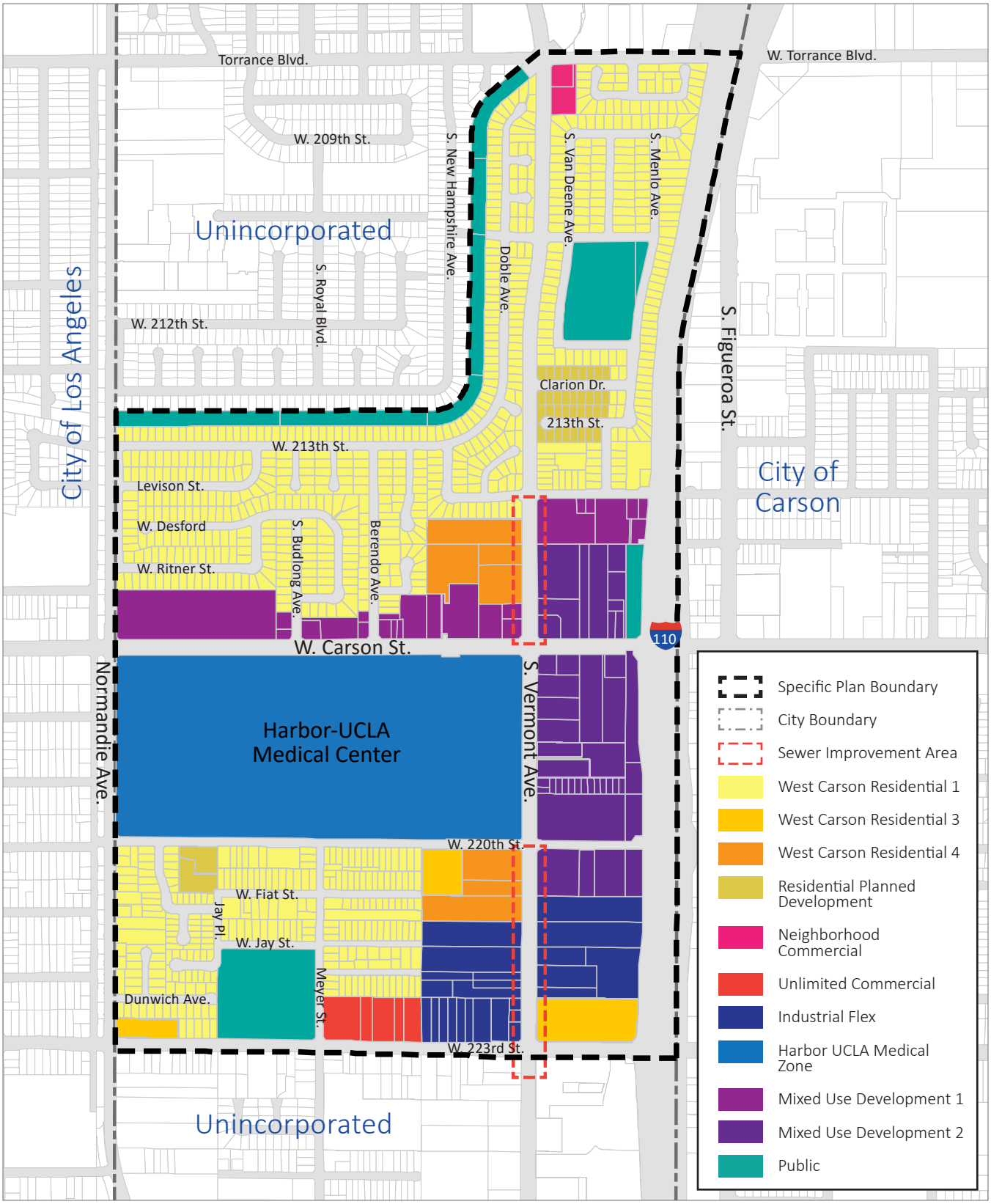
Due to the location of increased development in the Specific Plan, substantial amounts of new development will occur near existing collection trunks. Therefore, collection laterals are not anticipated to need to be resized. However, with buildout of the Specific Plan, area north of Carson Street and east of Vermont Avenue would require connection to the trunk line south of Carson Street. The increased flow in that area cannot be handled by the existing 8 inch collection laterals. With the large increase in flow along the east side of Vermont Avenue, more collection laterals may need to be installed to adequately capture the flow and distribute it to the trunk line servicing the area. The total increased flow to the area will have an increase of peak flow from 4.23 cubic feet per second to 9.90 cubic feet per second. Areas of potential impact are shown in Figure 5.5.

Trunk sewer capacity is highly dependent on upstream and downstream flows. The trunk line south of 220th Street past the Specific Plan area is undersized for flow in the area. With an increase of 5.6 cubic feet per second, this trunk line would need to be addressed. Strategies that could address the flow need include:

- Installation of a pumping station which could provide pressure to the line
- Allowing more sewage flow through it;
- Increasing the size of the trunk; or
- Increasing the slope at which the trunk carries the sewage.

Using the same low flow data from the water service, the trunk line would still be undersized and would need to be addressed. The peak factor would increase the flow by 2.8 cubic feet per second. As these collection trunks span the entire collection system of the Los Angeles County Sanitation District will evaluate all development that will occur and conduct its own analysis of changes to the service trunk and necessary sewer infrastructure upgrades.

Figure 5.5 Sewer Services Area of Concern



STORM WATER SERVICE

STORM DRAINAGE EXISTING CONDITIONS

Stormwater runoff in the Specific Plan area is managed by closed and open drainage channels. The primary source for drainage is a ten foot reinforced cement concrete channel, which is also the north boundary of the Specific Plan Area. All but two sections of pipe drain into this channel, including the five foot reinforced cement concrete channel that is located on the north side of West 220th Street. All drainage basins in the area connected to this channel connect via reinforced concrete pipe ranging from 18 inches to 84 inches in size. This drainage channel drains east and connects to the Dominguez Channel located to the northeast in the City of Carson. The storm drains on the southern part of the Specific Plan area drain south, eventually connecting with the Wilmington Drain. Figure 5.6 illustrates the storm drain system within the West Carson TOD Specific Plan area.



Example photo.

STORM DRAINAGE FUTURE CONDITIONS

Stormwater services in the West Carson TOD Specific Plan area are connected to the large network of open channel drains which are tied to a larger collection basin. Stormwater flow in these channels is greatly dependent on upstream and downstream flow. Buildout of the Specific Plan will generate little increase in runoff to the existing drainage system, since the area is completely developed.

New development will primarily affect the existing impervious surfaces surrounding Harbor UCLA Medical Center and Vermont Avenue. The volume of storm water runoff is expected to not significantly change due to the minimal disturbance of areas having existing pervious surfaces. Areas designated as West Carson Residential 1 are the primary pervious surface locations in the Plan Area, which will remain primarily undisturbed.

Recent trends from the National Oceanic and Atmospheric Administration (NOAA) indicate rainfall events increasing in intensity, but decreasing in duration. This increased intensity does not allow as much stormwater to be captured by pervious surfaces and increases instantaneous flow on impervious surfaces. This trend should be monitored by the county's stormwater management team for future development.



Example photo.

GREEN INFRASTRUCTURE RECOMMENDATIONS

Impervious roadways frequently wash stormwater runoff containing harmful pollutants into nearby water bodies, such as rivers and flood control channels, which lead directly to the ocean. These harmful pollutants include substances commonly present on roadway surfaces, such as dirt, oil, grease, toxic chemicals, and trash, and can harm wildlife in local water bodies as well as nearby plants and vegetation. Impervious roadways can also contribute to problems with stormwater quantity. When stormwater falls onto impervious surfaces, it cannot seep into the ground and therefore can cause flooding on roadways.

The Los Angeles County Department of Public Works (DPW) has developed Green Infrastructure Guidelines to guide new construction and reconstruction of road and flood projects. The goal of the guidelines is to incorporate sustainable practices into the design, construction, and operation of DPW's infrastructure. The guidelines provide low-impact development (LID) design options to consider during planning or designing of road and flood projects intended to manage stormwater runoff.

The West Carson TOD Specific Plan recommends that all new development projects that involve the construction of new roadway projects shall conform to the Green Infrastructure Guidelines as set forth by DPW. The guidelines define roadway projects to include the new and reconstruction of public roads, maintenance access roads, road widening, medians, bike paths, sidewalks, parking lots, grade separation, etc. Further, all new development projects shall incorporate the following best management practices as identified by the guidelines:



Example photo.

Permeable Surfaces

Permeable surfaces should be incorporated whenever feasible to allow infiltration of rainfall and to reduce the total volume of runoff, replenish groundwater, and improve water quality. The following lists some of the guidelines for the application of permeable surfaces from Public Works' Green Infrastructure Guidelines:

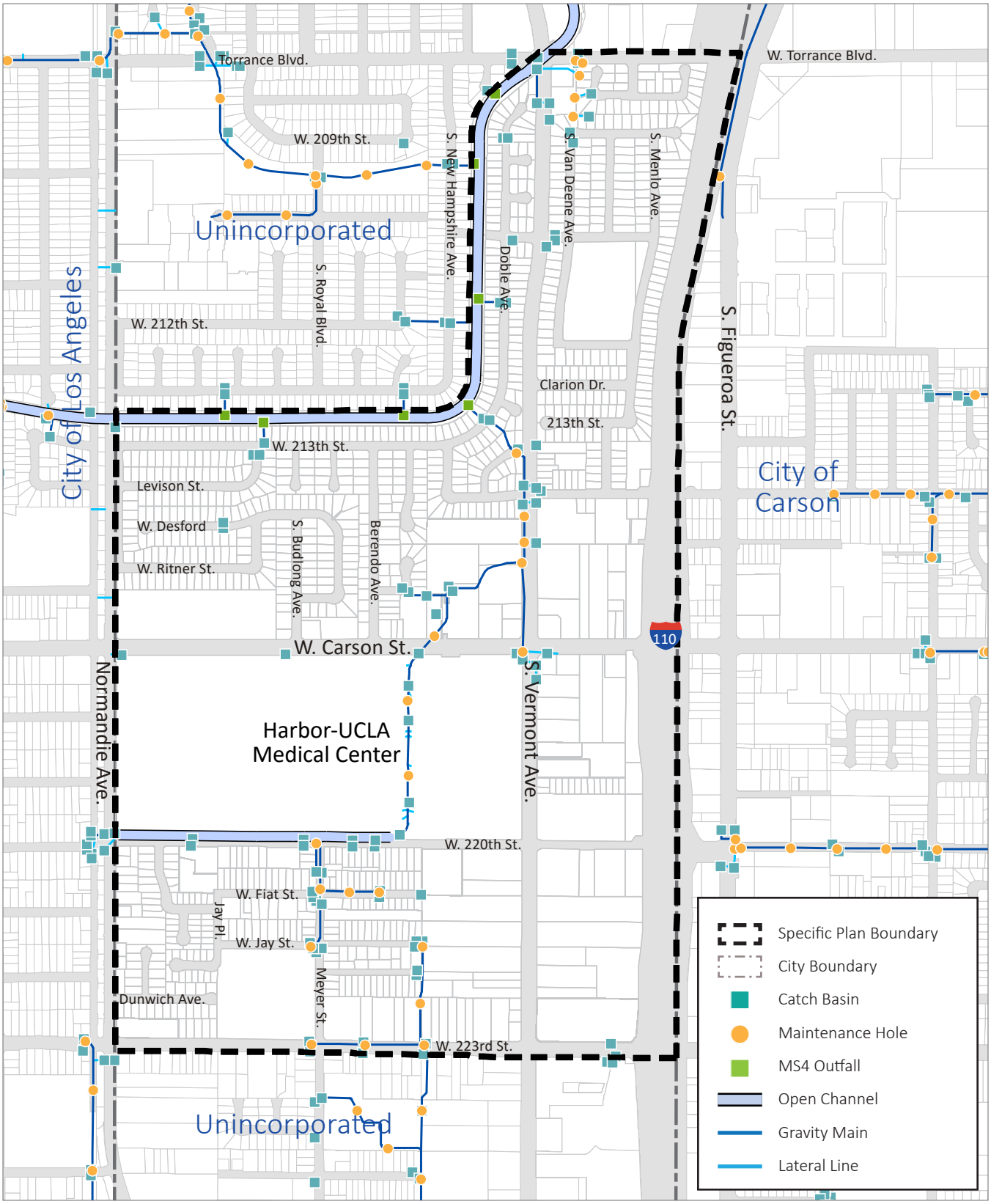
- Permeable sidewalks must adhere to existing Public Works standards for sidewalk design.
- Permeable access roads are not recommended for roadways with high volume of equipment trucks, as they can cause damage to permeable surfaces.
- Permeable pavement and underdrain systems for parking lots shall be directed toward LID-type best management practices if needed to achieve the required volume reduction.
- Permeable alleys are recommended for alleys that are less than eight feet wide since they prevent access from heavy vehicles.

Vegetation and Landscaping

Vegetation and landscaping elements such as vegetated swales, vegetated buffers, planter/tree box filters, bioretention, and filter strips are intended to maximize available permeable space in an area to reduce pollutant concentrations in stormwater runoff and reduce runoff rates. The following lists some of the guidelines for the application of vegetation and landscaping from Public Works' Green Infrastructure Guidelines.

1. Vegetated swales shall be designed in accordance with Chapter 3 of Public Works' Best Management Practices Design and Maintenance Manual.
2. Vegetated swales are recommended in areas where slope is between one and six percent.
3. Plant species for vegetates swales shall be tolerant to both extreme wet and dry conditions. Refer to the vegetated swale plant list of Public Works' Best Management Practices Design and Maintenance Manual.
4. Vegetated swales should be greater than 100 linear feet in length and at least 12 inches in depth from the top of the sidewalk to the swale bottom.

Figure 5.6 Storm Drain System



5. Bioretention facilities shall be designed in accordance with Chapter 5 of DPW's Best Management Practices Design and Maintenance Manual.

6. Planting/tree box filter designs should typically incorporate a concrete vault filled with a bioretention soil mix and vegetation, and may contain an underdrain connected to an adjacent flood control conveyance.

SOLID WASTE MANAGEMENT

The West Carson TOD Specific Plan area utilizes the residential/commercial franchise system for solid waste collection services. Currently, Calmet Services Incorprated provides trash collection and recycling services to the unincorporated residents of Oceanview-La Rambla-West Carson under an exclusive residential franchise agreement with the County.

Key issues surrounding waste management within the County include increasing volumes of waste being disposed and generated, lack of solid waste processing facilities to accommodate volumes of waste generated, and public opposition towards the construction of new solid waste management facilities. As available space for landfills becomes more limited, local jurisdictions must implement effective waste management strategies to reduce solid waste volumes.

In 2014, the County Board of Supervisors adopted a Roadmap to a Sustainable Waste Management Future. This roadmap outlines the process by which the County can implement strategies to reduce solid waste generation in unincorporated areas and with County operations. The West Carson community is part of this program, which includes goals of reducing solid waste destined for landfills by 80 percent by 2030 and 95 percent by 2040.

ELECTRICAL SERVICES

Electricity is provided to the Specific Plan Area by Southern California Edison (SCE), a private utility company. SCE sets its own service standards, with oversight from the California Public Utilities Commission (CPUC), and facility improvement strategies. Electricity is transmitted by above-ground power lines that currently supply sufficient electrical service to the Specific Plan and have adequate capacity to serve the area with buildout of the Plan.

NATURAL GAS SERVICES

The Southern California Gas Company, a subsidiary of Sempra Utilities (The Gas Company), a private utility company, is the natural gas service provider for the Specific Plan area. Natural gas pipelines exist along all major street rights-of-way within the area.

The analysis and decision on capacity to meet future demand under buildout of the Specific Plan will be conducted by The Gas Company in coordination with the County at the time development occurs and building plans are submitted.

TELECOMMUNICATIONS AND CABLE SERVICES

AT&T and Time Warner, two separate private utility companies, both provide local and long distance telecommunications services in the Specific Plan area. Time Warner Cable provides cable and high-speed internet services. Various wireless carriers provide service within the Specific Plan area. Wireless communications facilities, either freestanding or attached to a building or structure, are required to comply with the design guidelines, as well as approval of a conditional use permit. Conditional use permits for wireless communications facilities shall expire ten years from the date of approval, unless amended or extended by the planning commission or hearing officer.

06

ECONOMIC DEVELOPMENT STRATEGY

ECONOMIC DEVELOPMENT STRATEGY

INTRODUCTION

The purpose of this chapter is to provide the Economic Development Strategy for the West Carson TOD Specific Plan. The Specific Plan area is expected to undergo sizable growth in employment to support uses related to the hospital—medical offices; education, research, and development; and retail and commercial offices. The strategy provides economic analysis, a financing strategy, and policy recommendations to realize the full potential of the County's investments in the Harbor-UCLA Medical Center campus and Metro's investments in the Silver Line Carson Street station.

The economic development strategy includes:

- Implementation strategies to help local stakeholders that enhance West Carson's ongoing economic vitality.
- Assessment of the extent to which current strategies are relevant given the unique context of this unincorporated area.
- Recommendations for stimulating job growth, balancing employment and housing opportunities, and spurring new investment to help revitalize the West Carson area.

OPPORTUNITIES FOR ECONOMIC DEVELOPMENT

Three events present incredible economic opportunity drivers for the West Carson community:

- Redevelopment and expansion of the Harbor-UCLA Medical Center campus that will nurture emerging biomedical cluster.
- The extension of the Metro Silver Line to San Pedro (and potential station relocation) that could bring more commuters and increase demand for new housing.
- Potential synergies with new mixed-use developments underway in the City of Carson.

The intent of this Specific Plan is to leverage these public and private investments by creating employment and housing development opportunities in the plan area to serve the greater West Carson community.

The following strategies and recommendations offer a road map to help West Carson achieve its full economic development potential. This includes capitalizing on the district's existing strengths, evaluating key policies already in place, and refining the approach to meet the unique needs of West Carson.

Strategies and initiatives targeted to the Specific Plan Area include:

1. Support the health and biotechnology industries with logistical support and new funding tools.
2. Preserve employment-rich land uses in industrial flex zones while allowing for new residential where appropriate
3. Improve perceptions of public safety to help attract new investment.

1. Support Health and Biotech Industries

The County already has a specific economic development policy to support the healthcare and biomed industries:

1.1 Economic Development Element

The County's Economic Development Element, part of its General Plan, was designed to help the unincorporated County expand its economy, provide jobs, support businesses, and achieve revenue growth.

> **Policy ED 1.4:** Encourage the expansion and retention of targeted industries and other growth economic sectors, such as the entertainment industry, aerospace industry, agriculture, transportation/logistics, healthcare, biomed/biotech, hospitality and tourism.

The West Carson community has strong ties to at least two of the high-growth sectors targeted for expansion in the above policy—healthcare and biomed/biotech.

The County's active involvement in the redevelopment of Harbor-UCLA Medical Center indicates that nurturing the healthcare industry in West Carson remains a significant priority. With respect to biomed and biotechnology, the economic development element cites the lack of high-tech industrial or office space as a major impediment to growing this well-paying cluster. To this end, the inclusion of 200,000 square feet of new research space for biomedical research at the Harbor-UCLA campus should help establish momentum.

A feasibility assessment for developing a biotechnology partnership plan, released in 2011, confirmed this need. Among the findings—To enhance the feasibility of a thriving biotech field would require seeding the initial development of multi-tenant commercial bioscience facilities "as part of an integrated medical district development approach at several of the public hospital campuses, especially those which have research partnerships in place." While LA BioMed currently has its own plans for expansion, the County seeks to amplify these efforts even further by helping support a new Biotech Park at the western edge of Harbor-UCLA Medical Center through a public/private partnership to develop an additional 250,000 square feet of biotech park space.

1.2 County Economic Development Trust Fund (CEDTF)

In an effort to promote economic development and increase County household income through job attraction and retention, the County Board of Supervisors voted to create the County Economic Development Trust Fund (CEDTF). The CEDTF uses one-time funds from the sale of redevelopment agency assets to target catalytic projects, support small businesses and manufacturers, invest in emerging sectors, and promote exports. Specifically, the CEDTF includes a revolving loan fund targeted to the bioscience industry.

The Bioscience Revolving Loan Fund would support the County's cluster-based development strategy by supporting organizations that represent the bioscience cluster, including emerging businesses in the area surrounding LA BioMed. The fund would start with a $1 million initial balance and grow to $4 million in fiscal year 2021–22; it would also include a grant program to fund best-practice cluster development ($125,000 initially, increasing to $2 million by 2021–22). Initial funds could be used to help attract and provide technical assistance to biomed firms and encourage campus success.

1.3 Other Strategies

In addition to the implementation plan that the County is currently undertaking, there are additional strategies for promoting the success of the healthcare and biomed industries in West Carson.

1.3.1 Promote Coordination with Local Universities and Colleges

A key component to the success of the biomed industry will be collaboration with local universities and colleges. Mission Bay in San Francisco was able to create a successful biotech hub due to its co-location with UCSF. The inclusion of UCLA on the campus is critical, but the County should also facilitate collaboration with CalTech and USC because its students and faculty will be critical allies.

1.3.2 Improve Infrastructure Related to the Biomed Industry

The County should ensure that broadband and/or other relevant infrastructure is available at competitive prices and levels of service. The County should consider making the unused capacity available to businesses at a reasonable cost.

2. Preserve High-Value Industrial with Employment-Rich Uses

Developers continue to pressure the County to convert industrial-zoned land into residential uses. With a housing affordability crisis and general lack of supply, the idea of creating more housing on sites with aging industrial uses can be tempting. However, it is critical to the economic health of the County and West Carson that any conversion of industrial land be done strategically in order to avoid incompatible use adjacencies and preserve job-generating uses. The County's employment district classifications (below) can help ensure a nuanced approach that supports a gradual transition to other uses where appropriate.

2.1 Economic Development Element

Policy ED 2.1: Protect industrial lands, especially within Employment Protection Districts, from conversion to non-industrial uses.

The General Plan analyzes employment districts throughout the County and organizes them into two general categories.

- Employment Protection Districts
- Industrial Flex Districts

Employment Protection Districts, with high employment densities and heavy industrial activity, feature policies that discourage land conversion to more profitable short-term uses. Such conversions are increasingly common as rising home prices incentivize developers to seek zone changes to pursue greater returns on cost.

Industrial Flex Districts are slightly less restrictive; they preserve existing employment uses while simultaneously allowing for nonindustrial uses, where appropriate.

The 2035 General Plan does not call for any Employment Protection Districts in West Carson, but it does designate at least four Industrial Flex Districts.

The TOD Study Area itself has one Industrial Flex District along Vermont Avenue just south of Carson Street. Employment generators here are widely varied and include music production and metal fabrication

facilities, silk-screening and embroidered apparel, medical supply outlets, and freight-forwarding brokerages.

However, the general plan also notes that the Specific Plan area has seen a significant amount of large-scale residential development over the past several years. The remaining Industrial Flex District represents a very small portion of the Specific Plan area. Some residents would be attracted to residential opportunities in proximity to a major employment node—allowing for shortened commute times and less spending on transportation—the Flex District therefore allows for conversion to other uses over time, depending on market demand. These districts should retain the flexibility to preserve existing uses—including light industrial and/or uses related to the medical center—but still allow for other development as the market dictates.

2.2 County Economic Development Program

Los Angeles County has made significant strides toward developing a comprehensive economic development program over the past year. The CEDTF mentioned above addresses industrial-zoned land as well as bioscience space. Articulating a holistic strategy was made especially urgent by the demise of Redevelopment and the elimination of the Enterprise Zone program. A dedicated implementation plan ("Economic Development Implementation Roadmap") was transmitted to the Board of Supervisors in April 2015 and provides strategies for achieving its four main goals:

- Supporting small business and manufacturers
- Investing in emerging sectors
- Targeting catalytic projects
- Attracting foreign investment and promoting exports

With a goal to start implementing the "Roadmap" by 2016, the County CEO has approved initial funding for an economic development trust fund of $4.5 million starting in fiscal year 2016–2017 that will gradually increase to $15 million in fiscal year 2021–22.

Specific programs and funding mechanisms that may be applicable to West Carson include the following:[1]

2.3 Manufacturing Business Loan Program

The Manufacturing Business Loan Program would be targeted toward manufacturers in Employment Protection Districts and Industrial Flex Districts. To qualified applicants, it would provide $100,000 to $500,000 in below market loans (fixed at 3 percent) for land acquisition,

1 http://file.lacounty.gov/bos/supdocs/98389.pdf.

construction, working capital, machinery and equipment, and debt refinancing.

2.4 Catalytic Development Fund

The proposed Catalytic Development Fund would promote infill and brownfield development along designated transit corridors like West Carson. This fund would leverage new market tax credits and conventional bank financing to rehabilitate and upgrade industrial properties to house industries targeted by the County for development. The program parameters are currently under development.

2.5 Façade Improvement Program

Improving existing facades is a relatively inexpensive means of updating the local streetscape to attract new tenants and activate the streetscape. The County has an existing Façade Improvement Program that could benefit the West Carson community. Under this program, the Community Development Commission (CDC) helps revitalize older commercial corridors by way of grants and technical assistance for property owners to design, construct, and otherwise improve their storefront facades.

Although West Carson is not currently targeted under this program, the County may want to consider West Carson for this program in the future. As discussed earlier, the Study Area has seen no new retail development in at least ten years. Meanwhile, the principal shopping center, located north of West Carson Street between Normandie Avenue and South Vermont Avenue, is showing signs of age, with a strip mall configuration dating back to 1962.

3. Address Public Safety Issues Related to Homelessness

West Carson residents and other local stakeholders cite homelessness as a significant obstacle to revitalizing the Study Area. Already at crisis levels across the County, homelessness in West Carson is exacerbated by mental health patients being discharged from Harbor-UCLA. According to law enforcement, Harbor-UCLA is an emergency center for mental health patients, who are often discharged without access to transportation or transitional housing. This results in a large mentally ill homeless population surrounding the medical center campus, and few residents feel safe enough to walk along West 220th Street at its southern border.[2]

2 Per kick-off meeting interview with County Sheriff.

The following strategies should be implemented to address issues related to homelessness in West Carson:

3.1 New Public Health Initiatives and Homeless Strategies

The County has the second largest publicly run healthcare system in the nation. The County Department of Health Services currently operates four public hospitals, including Harbor-UCLA Medical Center. The County also provides mental health services through the Department of Mental Health, the largest municipal mental health department in the nation.

Coordination among the myriad departments and agencies that treat mentally ill homeless patients in the area has been a challenge, but may soon become easier. The County Board of Supervisors voted in August 2015 to consolidate three of its health agencies under a single director. Some of the goals for this change are to improve information sharing between departments, lessen overcrowding in hospitals' psychiatric wards, and reduce homelessness among people with medical problems.

3.2 New Funding Sources and Strategies

New dedicated funding sources at the County level may also help alleviate some of the issues associated with homelessness. In September 2015, the County Board of Supervisors voted to pledge $51 million in surplus revenue to expand funding for homeless programs and services. In February 2016, the Board released a detailed strategy for combating homelessness, which brought together 25 County departments, 30 cities, and dozens of community partners

Strategies from this Initiative that might be particularly beneficial in the case of West Carson include the following.

Strategy A2: Set of Discharge Planning Guidelines. Strategy A2 articulates a set of discharge planning guidelines for at-risk patients, bringing together the Department of Health Services, Department of Children and Family Services, Department of Mental Health, Department of Public Health, the Sheriff's Department, the Probation Department, the Veterans Administration, the Los Angeles Homeless Services Authority, the Hospital Association of Southern California, and others. The goal of this program is to prevent individuals from becoming homeless upon discharge.

Strategy B7: Interim/Bridge Housing for Those Exiting Institutions. Strategy B7 would address a critical gap in care for patients discharged from mental health care at Harbor-UCLA. It would bring together the Los

Angeles Homeless Services Authority, Department of Health Services, Department of Mental Health, Probation Department, Department of Children and Family Services, and Sheriff' Department to develop and implement a plan to increase the interim/bridge housing stock across the County, including identification of funding that can be used to support the increase. Proposed zoning changes—particularly in the MU2 Zone—in the Specific Plan may also help support this, allowing bridge housing to be developed near the hospital at appropriate densities.

Strategy E9: Discharge Data Tracking System. There is currently no consistent method of identifying and tracking current and potentially homeless persons in jails, hospitals, the foster care system, or other public systems that may discharge people into homelessness. To the extent permitted by law, such identification is crucial to the implementation of effective and appropriate discharge planning.

3.3 Other Revitalization Strategies

3.3.1 Inter-jurisdictional Coordination

West Carson's central location borders a number of jurisdictions and municipalities, each with its own set of strategies for furthering economic development. Familiarity with these should inform any strategy for West Carson, which should be effectively coordinated to amplify their positive effects.

In Carson, for example, future plans for the 157-acre development site once proposed for an NFL stadium could have a significant impact on the West Carson community. The city has completed much of the environmental cleanup needed to remediate the property and recently entered into exclusive negotiations with Macerich Real Estate company to develop a large, regional-destination retail complex with a high-end fashion outlet. Such a large project may affect the viability of new local retail and increase the value of surrounding property for potential developers.

Closer to the Study Area, Carson is currently renovating Carson Street with a $20 million streetscape program, extending from the Harbor Freeway (I-110) east to the downtown. Meanwhile, housing developers in particular have been making significant investments along the corridor, intensifying Carson Street with vertical and horizontal mixed use. Outreach to these developers could provide helpful strategies for steering appropriate development to the West Carson community.

3.3.2 Improve Bicycle/Pedestrian Connections to Transit

Improving connectivity for cyclists and pedestrians between the Specific Plan Study Area and the Metro Silver Line will increase nonmotorized activity along commercial corridors. Increased bike and foot traffic generally improves public safety and provides a critical mass to support more retail uses that can serve the community and the Harbor-UCLA Medical Center campus, making the campus more desirable for new tenants. Connectivity improvements identified in the Specific Plan should be implemented to assist with revitalization and increased retail strategies.

07

IMPLEMENTATION AND ADMINISTRATION

IMPLEMENTATION AND ADMINISTRATION

GENERAL ADMINISTRATION

Specific Plan Adoption

The West Carson Specific Plan shall be adopted by ordinance and resolution according to the procedures established in Chapter 22.60 in Title 22 of the County Code.

Amendment to the Specific Plan

A Specific Plan Amendment may be initiated by the Board of Supervisors, the Commission, or upon application by a property owner or their designated representative. An amendment to the West Carson Specific Plan shall be processed in accordance with Chapter 22.60 in Title 22 of the County Code.

Enforcement

The Director is responsible for the overall administration and enforcement of the provisions of this Specific Plan.

Applicability

The Specific Plan shall apply to all new development projects for which a complete application has been filed on or after of the ordinance establishing this Specific Plan. Complete applications that were filed before the effective date of this Specific Plan shall comply with the regulations and applicable Title 22 provisions that were in effect at the time that the respective complete applications were filed.

Severability

If any provision of this Specific Plan or the application thereof to any person or circumstance is held to be invalid by a court of competent jurisdiction, such invalidity shall not affect the other West Carson Specific Plan provisions, clauses, or applications thereof which can be implemented without the invalid provision, clause, or application, and to this end the provisions and clauses of this Specific Plan are declared to be severable.

Relationship to Title 22

The provisions contained in the Specific Plan shall be considered to be in combination with the other applicable provisions of Title 22. Where provisions of this Specific Plan conflict with any other provision of Title 22, the West Carson Specific Plan shall govern. Where provisions of the Regulating Code in this Plan are silent, the other applicable provisions of Title 22 (Planning and Zoning) of the County Code shall govern.

Other requirements may apply. No provision in this Specific Plan shall eliminate the need for obtaining any other permit, approval, or entitlement required by the County, or any other applicable special district or agency, or the state or federal government or their agencies, or otherwise comply with applicable state and federal regulations or laws.

Interpretation

The Director or designee has the authority to interpret the intent of this Specific Plan if ambiguity arises concerning the meaning or appropriate application of the provisions of the plan. In so doing, the Director shall consider the following factors:

- The case is similar to previous interpretations of similar provisions.
- The interpretation reflects satisfactorily the vision, intent and purpose of the Specific Plan.
- The resulting project is consistent with the General Plan.
- The decision constitutes sound precedent for other similar situations.

Such interpretations may be appealed to the Commission and ultimately the Board of Supervisors in accordance with the appeal procedures of Chapter 22.60 of Title 22 of the County Code.

Nonconformities

The nonconforming use and structure provisions in Section 22.16 of Title 22 of the County Code shall apply to all uses and structures in the area governed by the Specific Plan that were legally established or built prior to the effective date of this Specific Plan.

Specific Plan EIR Mitigation Monitoring

Pursuant to California Public Resources Code Section 21091.6, a summary of conditions of project approval shall be prepared to mitigate or avoid significant effects on the environment. The Environmental

Impact Report (EIR) for the West Carson Specific Plan includes a Mitigation Monitoring Report that will be completed prior to adoption of this Specific Plan.

Environmental Clearance

The EIR is primarily a source of environmental information and disclosure for the County, the lead agency for the project. The EIR describes the potential impacts from the adoption of the Specific Plan. Subsequent development projects in the Specific Plan are anticipated as it builds out. The EIR has been prepared as a Program EIR (PEIR), as defined by Section 15168 of the CEQA Guidelines, and subsequent projects that are within the scope of this EIR may be subject to a more limited environmental review process, as guided by the provisions of CEQA.

Use of a PEIR provides the County with the opportunity to consider broad policy alternatives and program-wide mitigation measures. It provides the County with greater flexibility to address project-specific and cumulative environmental impacts on a comprehensive basis. Agencies generally prepare PEIRs for programs or a series of related actions that are linked geographically; are logical parts of a chain of

Tiering for future projects consistent with the Specific Plan and EIR

2015 CEQA Guidelines § 15183 (excerpt):

(a) CEQA mandates that projects which are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. This streamlines the review of such projects and reduces the need to prepare repetitive environmental studies.

(b) In approving a project meeting the requirements of this section, a public agency shall limit its examination of environmental effects to those which the agency determines, in an initial study or other analysis:

(1) Are peculiar to the project or the parcel on which the project would be located,

(2) Were not analyzed as significant effects in a prior EIR on the zoning action, general plan, or community plan, with which the project is consistent,

(3) Are potentially significant off-site impacts and cumulative impacts which were not discussed in the prior EIR prepared for the general plan, community plan or zoning action, or

(4) Are previously identified significant effects which, as a result of substantial new information which was not known at the time the EIR was certified, are determined to have a more severe adverse impact than discussed in the prior EIR.

(c) If an impact is not peculiar to the parcel or to the project, has been addressed as a significant effect in the prior EIR, or can be substantially mitigated by the imposition of uniformly applied development policies or standards, as contemplated by subdivision (e) below, then an additional EIR need not be prepared for the project solely on the basis of that impact.

contemplated events, rules, regulations, or plans that govern the conduct of a continuing program; or are individual activities carried out under the same authority and having generally similar environmental effects that can be mitigated in similar ways.

This approach is consistent with the tiering provision in California Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183 for "Projects Consistent with a Community Plan, General Plan or Zoning." This tiering opportunity is only available for plans (e.g., specific plan) for which an EIR has been prepared.

Note that tiering under these provisions will require environmental review and documentation to substantiate that a subsequent project does not result in any new potentially significant impacts. Such review (under PRC Section 21083.3/15083) could be documented in the form of an Initial Study to ensure "topic by topic" review and substantiation. Once consistency has been substantiated and review shows that the project would not result in new significant impacts, neither a mitigated negative declaration nor an EIR would be required.

Additionally, no formal public review would be required. Projects may also be exempt from CEQA review pursuant to other sections of CEQA (e.g., exemptions for residential infill projects, statutory exemptions, or

categorical exemptions) depending on the size of the project and type of development. The type of CEQA review needed for each project will be determined by County staff during their review of the type of project or development proposed.

In addition to a more limited review process, infill and transit-oriented infill projects may qualify for streamlined environmental review. CEQA Guidelines Section 15183.3 allows eligible projects to streamline the environmental review process by limiting the topics subject to review at the project level. California Public Resources Code Sections 21099 and 21155.4 also limit review of environmental topics and exempt certain types of projects.

PROJECT REVIEW PROCEDURES

Applications

No new development or use shall be established under the West Carson Specific Plan, and no grading or building permits shall be issued for these uses, until an application has been approved for the required permit type listed in the Use Regulation tables in Section 3.4 and pursuant to the applicable procedures set forth below.

Ministerial Site Plan Review

1. **Review Authority.** For uses that are permitted in the respective Use Regulation table, the Director shall have the authority to review projects subject to a Ministerial Site Plan Review for compliance with the West Carson Specific Plan and other provisions of Title 22 of the County Code.

2. **Application Requirements.** A Ministerial Site Plan Review application shall include all information required by the form provided by the Department, and the payment of the required fee established in Title 22 of the County Code.

3. **Determination.** If the project complies with the provisions of the West Carson Specific Plan and other applicable provisions of Title 22, the Director shall grant the Ministerial Site Plan Review approval. Otherwise, the Director shall deny the application for a Ministerial Site Plan approval.

Minor Modifications

Minor modifications, as defined herein, shall not require a Specific Plan Amendment, but will be subject to the following “substantial conformance” determination.

1. **Review Authority.** The Hearing Officer shall have the authority to review projects requesting a modification to the development standards identified in subsection 4 below, for substantial compliance with the applicable requirements of the West Carson Specific Plan and other provisions of Title 22 (Planning and Zoning) of the County Code.

2. **Application Requirements.** A modification application shall include all information required by the form provided by the Department, and the payment of the required fee.

3. **Procedures.** A modification request shall be subject to the public hearing procedures and requirements set forth in Title 22 (Planning and Zoning) of the county Code.

4. **Determination.** If the Hearing Officer determines that the request for a modification is consistent with the principles and standards of Section 22.56.1690 in Title 22 of the County Code, the Hearing Officer may approve the modification. Notwithstanding the foregoing, only the following development standards may be modified:

Table 7.1 Modifications

REQUIREMENT	MAXIMUM MODIFICATIONS
Setback	10%
Building Height	10%
Building Size/Massing	15%
Open Space Area/Landscaping	15%
Sign Height/Width/Area	10%
Parking Spaces	10%
Loading Areas	May be modified or waived

5. **Appeals.** The decision of the Hearing Officer may be appealed or called up for review pursuant to the procedures and requirements of Chapter 22.60, Part 5 of Title 22 in the County Code.

6. **Revisions to Modification.** Revisions to a modification grant may be approved by the Director if the revisions do not affect the

intent of the original approval. Revisions that would deviate from the intent of the original approval shall require approval of a new modification.

Specific Plan Modification Review

1. **Review Authority.** The Hearing Officer shall have the authority to review projects subject to a Specific Plan Modification Review for substantial compliance with the applicable standards and implementing options of this Specific Plan and other applicable provisions of Title 22 (Planning and Zoning) of the County Code.

2. **Application Requirements.** A Specific Plan Modification Review application shall include all information required by the form provided by the Department, and the payment of the fee set forth in Chapter 22.60, Part 2 in Title 22 of the County Code.

3. **Procedures.** A Specific Plan Modification Review shall be subject to the public hearing procedures and requirements set forth in Chapter 22.60, Part 4 in Title 22 of the County Code..

4. **Burden of Proof.** The applicant shall substantiate to the satisfaction of the Hearing Officer that:

    a. Approval of the project conforms with the applicable provisions of this Specific Plan and other applicable provisions of Title 22 (Planning and Zoning) of the County Code.

    a. Approval of the project is in the interest of the public health, safety, and general welfare.

    b. Site layout, open space, orientation and location of buildings, vehicular access, circulation and parking, setbacks, heights, and walls and fences are designed to provide a desirable environment within a unifying context that encourages increased pedestrian activity and promotes compatibility among neighboring land uses.

    c. Architectural character, scale, quality of design, building materials, colors, screening of exterior appurtenances, and signs are designed to ensure compatibility of the development with the Specific Plan and the character of the neighborhood.

    d. Project landscaping, including its location, type, size, color, texture, and coverage of plant materials at the time of planting are designed and developed to provide visual interest, complement buildings and structures, and provide an attractive environment for the public. The project landscaping shall also

include measures to provide for irrigation, maintenance, and protection of the landscaped areas.

e. Parking areas are designed and developed to buffer surrounding land uses, complement pedestrian-oriented development, enhance the environmental quality of the site such as to minimize stormwater run-off and the heat-island effect, and achieve a safe, efficient, and harmonious development.

f. Lighting and lighting fixtures are designed to complement buildings, are of appropriate scale, avoid creating glare, and provide adequate light over walkways and parking areas to foster pedestrian safety.

5. **Appeals.** The decision of the Hearing Officer for the Substantial Conformance Review may be appealed or called up for review pursuant to the procedures and requirements of Chapter 22.60, Part 5 of Title 22 of the County Code.

6. **Revisions to Specific Plan Modification Review.** Revisions to the Substantial Conformance Review may be approved by the Director if the revisions do not affect the intent of the original approval. Revisions that would deviate from the intent of the original approval shall require the approval of a new Specific Plan Modification Review.

Conditional Use Permit

When a conditional use permit is required under this Specific Plan or otherwise required under Title 22 (Planning and Zoning) of the County Code, the review procedures for a conditional use permit shall be the same as those prescribed in Chapter 22.56, Part 1 of Title 22 of the County Code.

IMPLEMENTATION AND FINANCING STRATEGY

There are a number of grant, loan, and value capture funding mechanisms that could finance the infrastructure and community benefits identified in this Specific Plan. These resources are detailed in this section.

LOCAL TAX INCREMENT AND ASSESSMENT DISTRICTS

Enhanced Infrastructure Financing District

The Enhanced Infrastructure Financing District (EIFD) is a new funding mechanism that was signed into law on September 2014. Its main purpose is to finance a wide array of infrastructure projects with "communitywide significance," from parks and brownfield remediation to transit improvements and affordable housing.

An EIFD can be created by a city, county, or joint powers authority to fund specific infrastructure and economic development projects as outlined in the financing plan. EIFDs can also leverage multiple funding streams to achieve these goals—including tax increment (if approved by voters), assessment revenues, fees, and other sources such as state and federal grants.

EIFDs share a number of similarities to Community Revitalization Investment Authorities (CRIAs)—another funding mechanism recently passed in California to help carry out revitalization activities. However, a CRIA must operate within an investment area that meets the state's criteria of a disadvantaged community (generally, the district must consist of households making no more than 80 percent of the state's median household income). Therefore, an EIFD would be more viable in West Carson's case than a CRIA, with the census-designated place's (CDP) higher incomes and below average unemployment rates.

Unlike a CRIA, however, an EIFD can be established *without* voter approval and does not require an affordable housing set-aside. EIFDs may not issue debt without a 55 percent vote of the district's registered voters, nor can revenues be used to fund ongoing maintenance and operations. Because an EIFD's strength lies in the power of tax increment financing, Harbor-UCLA's tax exempt status would be a constraint in West Carson's case; none of the assessed improvements associated with the medical campus could be applied toward the increment. Nonetheless, if the Specific Plan were to jumpstart a new wave of investment along West Carson and Vermont, those revenues

could be tapped for any number of improvements, including transit station improvements, water and sewer infrastructure, pedestrian connectivity, and other streetscape amenities.

Special Assessment Districts

Special Assessment Districts can be used fund any improvement that provides a "direct and special" benefit to the assessed property. By this definition, improvements like the recommended medians, sidewalks, lighting, art, and benches that improve connectivity, as well as safety improvements like private security, can be funded via Special Assessment, while "general" benefits like schools may not.

There are two primary challenges in establishing Special Assessment Districts, particularly for those in already developed areas. The first is that total property taxes can only increase a certain amount before new development is disadvantaged relative to properties not subject to an assessment. The second challenge is that assessment districts require a majority vote of property owners weighted by property value to pass. All the affected properties must stand to benefit from that particular improvement, and no assessment can exceed the "reasonable cost" of its special benefit to that parcel. One benefit to forming a Special Assessment District in West Carson's case, however, is that nonprofit uses like Harbor-UCLA would *not* be exempt from paying dues, thereby substantially increasing the available revenue stream.

Business Improvement District

A Business Improvement District (BID) is a common type of Special Assessment District that assesses business and/or property owners to fund maintenance, marketing, and other activities, including additional public services or improvements. If such a district were to be formed in West Carson, funding could be applied toward enhanced sanitation and cleaning as well as other streetscape and pedestrian improvements.

The County would need to undertake extensive outreach to the property owners to educate them on the benefits and obtain majority support before moving forward with formation. If support can be obtained, a BID is a powerful tool for raising funds to provide enhancements to the area, but cannot be used to issue bonds.

Under the California Parking and Business Improvement Area Law of 1989 and Property and Business Improvement District Law of 1994, a district can be established via a County resolution of intent to form a BID. If a majority of property owners do not protest the resolution during a subsequent public hearing, an advisory board would be

appointed. Once formed, a special assessment can be charged to commercial property or business owners for an amount proportional to the benefits they will receive.[1]

Landscape and Lighting District

Like a BID, a Landscape and Lighting Assessment District (LLAD) is another type of Special Assessment District that could be applied in West Carson to fund new street and pedestrian lights, landscaping, parkways, medians, and other amenities, and require benefits to accrue proportionately to the assessed properties. LLADs are more flexible than BIDs in that they can issue bonds and require a simple majority of property owners for formation. The Study Area is already encompassed by one such LLAD that provides funding to maintain street lights. There have been no LLADs established by the County for amenities like pedestrian lighting; forming such a district in West Carson would require creating a new Special Assessment District dedicated to that purpose.

Given the same barrier to entry as a BID, formation of an LLAD that can issue bonds for the commercial areas that are supported by and include the Harbor-UCLA Medical Center is a better approach for raising local funds than the formation of a BID.

OTHER LOCAL SOURCES OF FUNDS

Development Impact Fees

Development impact fees are another potential funding source for affordable housing, parks, and recreational open space. These fees, paid by new residential and commercial development projects, must only be used to pay for improvements that can be demonstrated to serve new residents and businesses (from new development), but these fees can be combined with other funding sources to fund a project that serves both new and existing residents or businesses. A nexus study—which calculates the new increment of development, estimates the portion of an improvement project attributable to that increment of growth, and allocates the fee among the new development projects by land use—is required by state law for implementation. Additional impact fees, such as a transportation and traffic impact fee, could be considered as a means to fund additional improvements that enhance mobility.

1 BID assessments cannot be charged to residential properties or land zoned for agriculture.

Revenue Bonds

Public activities that are revenue generating and create sufficient cash flow to cover operating costs and debt service can potentially issue tax-free municipal debt to cover the cost of capital improvements. A common example of this is revenue bonds for parking garage construction where there is pay parking.

General Obligation Bonds and Other Public Debt

New commercial and lodging projects could generate significant new sales tax and transit occupancy (lodging) tax revenues that will flow into the County's General Fund. This new money could be used to finance debt service on tax-exempt debt obligations so that existing activities provided through the General Fund are not impacted. Such a General Obligation bond, however, requires a two-thirds vote of local residents (except for educational facilities) to approve. Alternatively, for facilities that can serve as collateral for debt, certificates of participation are a public finance technique that do not require voter approval.

The County Board of Supervisors voted in July 2016 to place a parks funding measure on the November ballot. The Safe, Clean Neighborhood Parks, Open Space, Beaches, Rivers Protection, and Water Conservation Measure would replace funding under Proposition A (set to expire in 2019). The proposal would raise up to $94 million annually if approved by voters. Such funding would be especially useful in West Carson's case, given its pronounced lack of open space. According to the County's Parks & Recreation Needs Assessment, published in May 2016, West Carson's "Park Need" category ranks "High," with one of the most acute shortages of park space in the County. If the new funding measure passes, the County should prioritize West Carson as an early recipient of program funds.

REGIONAL AND STATE SOURCES OF FUNDS

Affordable Housing and Sustainable Communities

The 2006 Global Warming Solutions Acts (AB 32) established a cap and trade system in California. The system establishes quarterly auctions of carbon allowances, whose proceeds are deposited into a Greenhouse Gas Reduction Fund. Using revenue from this fund, the Strategic Growth Council administers the Affordable Housing and Sustainable Communities program, which funds land-use, housing, transportation, and land preservation projects to support infill and compact development that reduces greenhouse gas emissions.

Approximately $320 million in AHSC funding was announced in FY 2015–16; recipients will be announced in September 2016. During the 2016–17 funding round, potential projects in West Carson could include the acquisition and rehabilitation of affordable housing, or the conversion of nonresidential structures to residential dwelling units. Affordable housing developers, the LA County Housing Authority, and/or the County's Community Development Commission (Redevelopment successor agency) are all eligible applicants.

Projects that can show the Strategic Growth Council that they reduce vehicle miles traveled by locating near transit are most competitive for funds. However, the market for carbon emissions has shown itself to be relatively unstable. Rather than trading emission allowances, companies are reducing emissions. While this is certainly beneficial to the environment, it means that the future of this funding source is uncertain.

Infrastructure State Revolving Loan Fund

The California Infrastructure and Economic Development Bank (I-Bank) loans money for infrastructure projects around the state. The I-Bank is the state's general purpose financing authority that finances public infrastructure and private development projects that promote economic development and revitalize communities.

Eligible project categories in West Carson could include the rehabilitation of streets and highways, water supply and flood control, new parks and recreational facilities, expanded public transit, public safety features, and power and communications facilities.

Recent loan recipients in Southern California have included the City of San Gabriel, which borrowed $3.8 million at 3.5 percent interest to upgrade, reconstruct, and rehabilitate its public streets.

Integrated Regional Water Management Grant

Using funds from Proposition 1, the water bond passed by California voters in 2014, the California Department of Water Resources will award over $510 million in Integrated Regional Water Management Grants for planning and implementation projects throughout the state, with $98 million specifically allocated to the Los Angeles region starting in 2016. Projects can include stormwater capture, water reuse, and other green streets measures.

Grant applications for implementation will be solicited at a future date; eligible projects for West Carson could include stormwater capture,

water reuse, providing new open space, and other green streets measures.

Caltrans Active Transportation Program

Caltrans's Active Transportation Program (ATP) consolidates various state and federal transportation programs, including the federal Transportation Alternatives Set-Aside (TA Set-Aside), Bicycle Transportation Account, and state Safe Routes to School. Approximately $122 million will be awarded through the fiscal year 2016–17 ATP and distributed to three categories: statewide competition (50 percent), MPO projects for regions with 200,000 or more residents (40 percent), and small urban and rural regions with populations of less than 200,000 (10 percent). In 2016–17, ATP funds came from the following sources.[2]

Source	FY 2016–17 Funding
State Funds	$34,200,000
Surface Transportation Block Grant Program Set-Aside for Transportation Alternatives (Federal)	$65,455,000
Other Federal	$19,950,000

Although some programs request only state funds, most include a combination of funding from all available sources.

The goal of ATP is to encourage increased use of active modes of transportation, including walking and biking, as well as the safety and mobility of non-motorized users. Eligible projects in West Carson could include developing new bike- and walkways, including a pedestrian bridge, and adding new landscaping, traffic control devices, and enhanced street lighting.

Southern California Association of Governments (SCAG) administers the regional portion of the ATP and relies on the California Transportation Commission's Call for Proposals process to select the capital projects to be funded through the regional program.

Funding for the West Carson Community Bikeways plan was awarded through this program in 2015, with $425,000 to be allocated for bike improvements through 2019.[3]

2 http://www.dot.ca.gov/hq/transprog/ctcliaison/2016/0516/22_4.12_orig_PPt.pdf.

3 http://www.catc.ca.gov/programs/ATP/2015/2015_ATP_Staff_Recommendation-Statewide_Small_Urban-Rural.pdf.

FEDERAL SOURCES

Federal Transportation Sources

The Fixing America's Surface Transportation (FAST) Act was signed into law in December 2015, and authorizes federal funding for a wide array of transit improvements through fiscal year 2020. It includes a number of potential funding sources that could benefit the West Carson TOD Study Area, including Capital Investment Grants, Urbanized Area Formula Grants, and Surface Transportation Block Grant Programs. These funds are administered through Caltrans's ATP program, described above.

The FAST Act also established a new National Surface Transportation and Innovative Finance Bureau within the U.S. Department of Transportation to serve as a consolidated resource for providing local government agencies with federal funding, financing, and technical assistance.

Grants: Surface Transportation Block Grant Program

The Surface Transportation Block Grant Program (STBG) is one of the primary flexible funding sources available for transit at the local level. These funds may be used for a wide array of transit corridor capital improvements, including public transportation capital improvements, fringe and corridor parking facilities, bicycle and pedestrian facilities, and intercity or intracity bus terminals and bus facilities.

STBG funding is apportioned directly to SCAG by the Federal Highway Administration. The funding is allocated by the State of California, with a nonfederal funding match requirement of 11.47 percent.

With respect to planning, SGBG funds can be used for surface transportation planning activities, wetland mitigation, transit research and development, and environmental analysis. Other eligible projects under STP include transit safety improvements and most transportation control measures. STP funds are distributed in a state based on population and other programmatic categories.

Transportation Alternatives Set-Aside

Within the STBG funding above is a set amount called the Transportation Alternatives "Set-Aside" (formerly Transportation Alternatives Program, or TAP). The TA Set-Aside finances projects defined as "transportation alternatives," including on- and off-road pedestrian and bicycle facilities, recreational programs, infrastructure projects for improving "nondriver" access to public transportation, enhanced mobility, community improvement activities, and environmental

mitigation. It also funds activities related to the former Safe Routes to School (SRTS) program, which helped fund the construction of infrastructure-related projects on public roads and bicycle-pedestrian pathways near schools. A funding commitment in the vicinity of Meyler Street Elementary School or Van Deene Avenue Elementary School, for example, could finance sidewalk improvements, traffic calming and speed reduction improvements, pedestrian and bicycle crossing improvements and bridges, on-street bicycle facilities, off-street bicycle and pedestrian facilities, secure bicycle parking facilities, and traffic diversion improvements anywhere within two miles of the school (in effect, the entire TOD Study Area).

State Departments of Transportation (DOTs) and MPOs are not eligible entities as defined under the statute, and therefore are not eligible project sponsors for TA Set-Aside funds. However, such agencies may partner with an eligible entity project sponsor to carry out a project.

Economic Adjustment/Revolving Loan Fund

The Economic Development Administration, a bureau in the U.S. Department of Commerce, administers the Economic Adjustment/ Revolving Loan Fund (RLF), which assists state and local entities in creating and implementing strategies to improve local economic conditions in areas that have experienced structural change in their economic bases.

The RLF provides capital to help small businesses and entrepreneurs expand production capabilities with gap financing. Businesses in West Carson looking for assistance would contact the local EDA Regional Office (Pacific Coast Regional) for information on interest rates. Maximum loans are $650,000 per borrower with terms of seven years for working capital, 15 years for fixed assets, and 20 years for real estate. Start-up firms in the BioTech Park, as well as those looking to expand, could benefit from use of this loan program.

A

GLOSSARY OF TERMS

GLOSSARY OF TERMS

Words, phrases, and terms not specifically defined within this Specific Plan shall have the same definition and meaning as provided in the County of Los Angeles County Code of Ordinances (Section 22.08) at the time a project is submitted or, if not defined in the Los Angeles County Code, in a dictionary in common use.

Alley. A public or private way at the rear or side of property, permanently reserved as a means of secondary vehicular and pedestrian access to abutting property.

Architectural feature. Any portion of the outer surface of a structure, including the kind, color, and texture of the building material; the type and style of all windows, doors, lights, signs, walls, fences, awnings, canopies, screens, sculptures, decoration, roof shape, and materials; and other fixtures appurtenant to the essential elements of a structure, such as an antenna, tower, or chimneys attached to a rooftop.

Building. A permanently located structure having a roof (all forms of vehicles excluded).

Complete Street. A transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit vehicles, truckers, and motorists, appropriate to the function and context of the facility.

Density. The number of dwelling units per net acre.

Dwelling unit, multi-family residential. A development that provides multiple attached or detached dwelling units for occupancy by more than one family either on a single parcel of land, such as apartment complexes, or within a subdivision, such as condominiums and planned unit developments.

Dwelling unit, single-family residential. A detached residential dwelling unit that provides complete, independent living facilities on a single parcel of land, is designed for occupancy exclusively by one family, and has direct vehicular and pedestrian access from a public roadway.

Encroachment. Unauthorized, entry, use, or construction that occurs on another's land or within the public right-of-way.

Facade. A building's external wall that faces a public street or open space.

Floor Area Ratio (FAR). The numerical value obtained through dividing the above ground gross floor area of a building or buildings located on a lot or parcel of land by the total area of such lot or parcel of land.

Frontage zone. The area within which the primary building façade is placed, and the right-of-way.

Fully shielded (full cutoff) luminaire. A luminaire emitting no light above the horizontal plane.

Glare. Intense and blinding light that causes visual discomfort or disability.

Goal. An expression of policy that is intended to articulate a desired result.

Height. The vertical distance from the average level of the highest and lowest point of the foundation to the plate line of the uppermost story.

Intensity. The number of square feet of development per acre by land use type with respect to non-residential land uses.

Living Suite. A "living suite" is a portion of a residence that provides flexible living arrangements for the household which occupies the residence. A living suite typically includes a living room with a kitchenette (microwave and refrigerator but no stove), a bathroom, ad one of more bedrooms. A living suite includes an interior connection (typically a door) to the remainder of the residence and may also have a separate exterior entrance. Living suites are well-suited to multi -generational households and provide an additional housing resource for families.

Lot depth. The distance measured along a horizontal line which bisects the lot from the midpoint of the front lot line. For a panhandle or easement-access lot, the measured distance shall not include the "handle" portion of the lot or the road easement to the lot.

Lot width. The shortest horizontal distance measured between opposite boundaries of the lot, along a line the midpoint of which is thirty feet from the front lot line (right-of-way line or private street), provided the front lot line shall be not less than one-half the required width. The width of a panhandle or easement-access lot shall be measured along a line the midpoint of which is thirty feet from the shortest lot line attached to the handle portion of the lot or the access easement.

Luminaire (light fixture). A complete lighting unit consisting of one or more electric lamps, the lamp holder, any reflector or lens, ballast (if any), and any other components and accessories.

Parking space. Any area which is usable and accessible for parking for one motor vehicle. A parking space excludes driveways, ramps, columns, loading areas, and office, laundry, or work areas.

Parking structure. Any off-street parking structure that is available for public parking or storage of vehicles, whether for free or for compensation. Does not include parking that is designated for a specific business or group of businesses.

Parking, fully subterranean. A mechanically ventilated subterranean parking structure the top of which is at existing grade.

Parking, partially subterranean. A mechanically ventilated parking structure, the top of which does not exceed two feet above existing grade measured at the center of the site along the street frontage.

Parking, podium. Parking that is fully enclosed with a common entrance and has dwellings above. Podium parking can be at grade or partially depressed by no more than two feet below existing grade.

Parking, surface. Any off-street lot that is available for public parking or storage of vehicles, whether for free or for compensation. Does not include parking that is designated for a specific business or group of businesses.

Policy. A statement of principle or guiding actions that is set to follow in order to meet goals and objectives.

Projections and encroachments. Architectural elements of a building that may project into required setback areas or encroach into the public right-of-way specified for each district. Projections and encroachments may include architectural features (cornices, eaves, chimneys, bay windows, mechanical equipment, roof overhang, etc.), awnings, canopies, porches, stoops, balconies, bay windows, fences, hedges, and landscape architectural features, as specified for each district.

Public realm. Area between facing building facades.

Right-of-Way. An area of land that is not on a lot or parcel that is dedicated for public or private use to accommodate a transportation system and necessary public utility infrastructure.

Setback. The minimum required distance between any structure and a specified line such as a lot, public or private right-of-way, easement,

future street right-of-way, or buffer line that is required to remain free of structures unless otherwise specified herein.

Sidewalk café. An area adjacent to a street-level eating and drinking establishment, located within the sidewalk area of the public right of way, defined by railings or fencing which separates the encroachment area from the remainder of the sidewalk, and which is used exclusively for dining, drinking, and circulation therein.

Soffit. The underside of a part or member of a building (as of an overhang or staircase).

Street. A public thoroughfare or right-of-way dedicated, deeded, or condemned for use as such, other than an alley which affords the principal means of access to abutting property including an avenue, place, way, drive, lane, boulevard, highway, road, and any other thoroughfare, except as excluded in this Specific Plan.

Structure. Anything which is constructed or built, any edifice or building of any kind, or any piece of work artificially built up or composed of parts jointed together in some definite manner.

Transparency. The percentage of a wall that is transparent. Ensuring a pedestrian-friendly street frontage requires buildings containing retail, office, or other active ground-level uses to provide a minimum percentage of street wall transparency, in order for these uses to get the amount of visibility required for healthy business operation. The percentage of ground floor transparency is specific to certain uses and must follow the standards defined for each district.

Use. The purpose for which land or a building is arranged, designed, or intended, or for which either land or building is or may be occupied or maintained.

Vision. An aspirational description of what the Specific Plan will achieve or accomplish and what West Carson will look like in the long-term future with buildout of the Plan. It is intended to represent the primary goals for development and to guide future courses of action after Plan adoption.

Appendix D Air Quality/GHG Modeling

Appendices

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Criteria Air Pollutant and GHG Emissions Worksheets

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Construction Estimate Worksheet (Summary Output CalEEMod)

Year	Phase	Mitigated ROG	NOX	CO	SO2	PM10	PM2.5
2018	Demolition	4	46	25	0	5	2
2018	Site Preparation	6	83	31	0	12	7
2018	Grading	5	60	36	0	7	4
2018	Building Construction	5	49	35	0	5	2
2018	Paving	2	18	16	0	1	1
2018	Architectural Coating	41	2	4	0	1	0
	Peak Daily Total	63	258	147	0	30	17
2019	Grading	4.87	55.07	34.46	0.07	6.34	3.80
2019	Building Construction	4.34	45.07	32.95	0.10	4.98	2.34
2019	Architectural Coating	40.91	2.00	3.77	0.01	0.58	0.25
2020	Building Construction	3.89	41.18	31.18	0.10	4.75	2.13
2020	Architectural Coating	40.86	1.83	3.58	0.01	0.56	0.23
2021	Building Construction	3.49	37.46	29.71	0.10	4.53	1.92
2022	Building Construction	3.20	34.62	28.60	0.10	4.38	1.77
2023	Building Construction	2.86	28.88	27.43	0.10	4.25	1.65
2024	Building Construction	2.71	27.84	26.75	0.10	4.16	1.57
2025	Building Construction	2.55	26.71	26.11	0.10	4.08	1.49
2026	Building Construction	2.51	26.55	25.64	0.09	4.08	1.49
2027	Building Construction	2.47	26.40	25.23	0.09	4.07	1.49
2028	Building Construction	2.43	26.27	24.88	0.09	4.07	1.49
2029	Building Construction	2.38	26.14	24.52	0.09	4.07	1.48
2030	Building Construction	2.28	21.48	24.28	0.10	3.69	1.13
2031	Building Construction	2.23	21.38	23.99	0.10	3.69	1.13
2032	Building Construction	2.19	21.28	23.72	0.09	3.69	1.13
2033	Building Construction	2.15	21.18	23.50	0.09	3.69	1.13
2034	Building Construction	2.12	21.10	23.28	0.09	3.69	1.13
2035	Building Construction	2.01	20.26	23.06	0.09	3.63	1.07
2036	Building Construction	2.01	20.26	23.06	0.09	3.63	1.07
2037	Building Construction	2.01	20.26	23.06	0.09	3.63	1.07

Regional Operation Emissions Worksheet: Existing (2017)

Criteria Air Pollutants

Summer

Source	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	378.5199	23.0918	451.9567	6.54E-01	48.0248	48.0248
Energy	1.5218	13.2359	7.2319	0.083	1.0514	1.0514
Mobile	79.2188	371.3044	1,266.00	3.3981	251.9303	70.4474
Total	**459.2605**	**407.6321**	**1,725.19**	**4.1353**	**301.0065**	**119.5236**

Winter

Source	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	378.5199	23.0918	451.9567	6.54E-01	48.0248	48.0248
Energy	1.5218	13.2359	7.2319	0.083	1.0514	1.0514
Mobile	77.7222	386.6156	1,191.53	3.2305	251.9502	70.4665
Total	**457.7639**	**422.9433**	**1,650.72**	**3.9677**	**301.0264**	**119.5427**

Max Daily

Source	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	379	23	452	1	48	48
Energy	2	13	7	0	1	1
Mobile	79	387	1266	3	252	70
Total	**459**	**423**	**1725**	**4**	**301**	**120**

GHG Emissions

Source	Buildout MTons/Year	Percent of Project Total
Area	343	1%
Energy	9,141	14%
Mobile	54,850	81%
Waste	2,014	3%
Water	968	1%
Total All Sectors	67,316	100%

Regional Operation Emissions Worksheet: Buildout

Existing - 2035

Summer

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	378.3413	23.0619	450.4936	6.54E-01	48.0313	48.0313
Energy	1.5218	13.2359	7.2319	0.083	1.0514	1.0514
Mobile	28.5445	151.8787	435.594	2.3153	248.4971	67.2251
Total	**408.4076**	**188.1765**	**893.3196**	**3.0525**	**297.5798**	**116.3078**

Winter

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	378.3413	23.0619	450.4936	6.54E-01	48.0313	48.0313
Energy	1.5218	13.2359	7.2319	0.083	1.0514	1.0514
Mobile	27.8678	154.8294	409.1174	2.2116	248.4988	67.2267
Total	**407.7309**	**191.1272**	**866.8429**	**2.9488**	**297.5815**	**116.3094**

Maximum Emissions

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	378.341	23.062	450.494	0.654	48.031	48.031
Energy	1.522	13.236	7.232	0.083	1.051	1.051
Mobile	28.545	154.829	435.594	2.315	248.499	67.227
Total	**408.408**	**191.127**	**893.320**	**3.053**	**297.582**	**116.309**
Regional Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Thresholds?	Yes	Yes	Yes	No	Yes	Yes

Buildout - Year 2035

Remaining Existing Buildings

Summer

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	270.0499	16.6016	324.2799	4.71E-01	34.5766	34.5766
Energy	1.097	9.497	4.8908	0.0598	0.7579	0.7579
Mobile	14.282	76.9826	209.0657	1.1039	117.758	31.8599
Total	**285.4289**	**103.0811**	**538.2364**	**1.6346**	**153.0924**	**67.1944**

Winter

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	270.0499	16.6016	324.2799	4.71E-01	34.5766	34.5766
Energy	1.097	9.497	4.8908	0.0598	0.7579	0.7579
Mobile	13.9253	78.2746	197.0051	1.0541	117.7589	31.8608
Total	**285.0722**	**104.3731**	**526.1758**	**1.5848**	**153.0934**	**67.1953**

Max Daily

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	270.050	16.602	324.280	0.471	34.577	34.577
Energy	1.097	9.497	4.891	0.060	0.758	0.758
Mobile	14.282	78.275	209.066	1.104	117.759	31.861
Total	**285.429**	**104.373**	**538.236**	**1.635**	**153.093**	**67.195**

New Buildings

Summer

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	117.0861	4.46E+01	234.9321	2.80E-01	4.61E+00	4.61E+00
Energy	1.5852	13.832	7.8619	0.0865	1.0952	1.0952
Mobile	46.5287	250.799	681.1082	3.5963	383.6398	103.7952
Total	**165.1999**	**309.2018**	**923.9022**	**3.9628**	**389.3433**	**109.4988**

Winter

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	117.0861	4.46E+01	234.9321	2.80E-01	4.61E+00	4.61E+00
Energy	1.5852	13.832	7.8619	0.0865	1.0952	1.0952
Mobile	45.3669	255.0081	641.8164	3.434	383.6428	103.7982
Total	**164.0381**	**313.4109**	**884.6104**	**3.8005**	**389.3464**	**109.5017**

Max Daily

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	117.086	44.571	234.932	0.280	4.608	4.608
Energy	1.585	13.832	7.862	0.087	1.095	1.095
Mobile	46.529	255.008	681.108	3.596	383.643	103.798
Total	**165.200**	**313.411**	**923.902**	**3.963**	**389.346**	**109.502**

Combined

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	387.136	61.173	559.212	0.751	39.185	39.185
Energy	2.682	23.329	12.753	0.146	1.853	1.853
Mobile	60.811	333.283	890.174	4.700	501.402	135.659
Total	**450.629**	**417.784**	**1,462.139**	**5.597**	**542.440**	**176.697**

Net Difference

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	8.795	38.111	108.718	0.097	-8.846	-8.846
Energy	1.160	10.093	5.521	0.063	0.802	0.802
Mobile	32.266	178.453	454.580	2.385	252.903	68.432
Total	**42.221**	**226.657**	**568.819**	**2.545**	**244.858**	**60.388**
SCAQMD Significance Thresholds	55	55	550	150	150	55
Exceeds Thresholds?	**No**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

Construction + Operation (Worst-Case)

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Construction	62.766	257.880	146.777	0.389	30.183	17.286
Operation	42.221	226.657	568.819	2.545	244.858	60.388
Total	**104.988**	**484.537**	**715.596**	**2.934**	**275.042**	**77.674**
SCAQMD Significance Thresholds	55	55	550	150	150	55
Exceeds Thresholds?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

GHG Emissions Inventory: Buildout

Existing - 2017

Source	Buildout MTons/Year	Percent of Project Total
Area	343	1%
Energy	9,141	14%
Mobile	54,850	81%
Waste	2,014	3%
Water	968	1%
Total All Sectors	67,316	100%
Service Population (Residents & Employees)*	10,522	
Per Capita	6.40	N/A

*IBI Group. 2017, June 9. West Carson TOD Specific Plan Traffic Impact Study.

Construction

Year	MTons Total
2018	3,718
2019	1,471
2020	1,309
2021	1,207
2022	1,188
2023	1,159
2024	1,158
2025	1,141
2026	1,130
2027	1,120
2028	1,107
2029	1,104
2030	1,136
2031	1,131
2032	1,130
2033	1,117
2034	1,113
2035	1,115
2036	1,119
2037	1,097
Total Construction	**25,768**

Proposed Project

Remaining Existing Land Uses

Source	Buildout MTons/Year	Percent of Project Total
Area	247	1%
Energy	5,859	22%
Mobile	18,116	69%
Waste	1,349	5%
Water	609	2%
Total All Sectors	26,179	100%

New Land Uses

Source	Buildout MTons/Year	Percent of Project Total
Area	658	1%
Energy	17,405	21%
Mobile	59,018	73%
Waste	2,641	3%
Water	1,660	2%
Total All Sectors	81,382	100%

Combined

Source	Buildout MTons/Year	Percent of Project Total
Area	905	1%
Energy	23,264	21%
Mobile	77,134	71%
Waste	3,990	4%
Water	2,269	2%
Amortized Construction Emissions*	859	1%
Total All Sectors	108,420	100%

Service Population (Residents & Employees)**	21,138	persons
Per Capita	5.13	N/A
Forecasted Year 2040 Emission Rate	2.4	MTCO2e/SP/year
Exceeds Per Capita Emission Rate?	**Yes**	

*Total construction emissions are amortized over 30 years per SCAQMD methodology; SCAQMD. 2010, September 28. Greenhouse Gases (GHG) CEQA Significance Thresholds Working Group Meeting 15. http://www.aqmd.gov/ceqa/handbook/GHG/2010/sept28mtg/sept29.html.

**IBI Group. 2017, June 9. West Carson TOD Specific Plan Traffic Impact Study.

Net Difference

Source	Buildout MTons/Year	Percent Change
Area	562	164%
Energy	14,123	155%
Mobile	22,283	41%
Waste	1,975	98%
Water	1,301	134%
Amortized Construction Emissions	859	n/a
Total All Sectors	41,104	61%
SCAQMD Bright-Line Screening Threshold	3,000	
Exceed Threshold?	**Yes**	

Criteria Air Pollutant and GHG Emissions Modeling Assumptions

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CalEEMod Project Characteristics Inputs

Name:	West Carson TOD
Project Address:	various
Project Location:	SoCAB
Climate Zone:	8
Land Use Setting:	Urban
Operational Year:	2035
Electricity Company:	Southern California Edison
Natural Gas Company:	Southern California Gas Company
Air Basin:	South Coast Air Basin
Air District:	SCAQMD
SRA:	3

Notes:

Doesn't included permitted (SCAQMD) sources of emissions (industrial sources), such as biolers, chillers, and emergency generators.

Existing

Land Use Districts/Zones	Acres	SF Units	MF Units	TOTAL	Population	Commercial (strip mall) SQFT	General Office SQFT	Light Industrial SQFT	TOTAL Non-Residential SQFT	Employees
Harbor UCLA Medical Zone	71.4	0	0	0	0	0	0	0	0	0
Industrial Flex	21.7	9	6	15	42	16,746	27,174	304,142	348,062	368
Mixed Use Development 1	19.8	17	12	30	84	159,731	50,381	23,816	233,928	317
Mixed Use Development 2	31.2	41	21	63	180	55,562	45,090	157,607	258,258	311
Neighborhood Commercial	1.2	0	0	0	0	7,393	7,393	0	14,787	24
Public	27	0	0	0	0	0	0	0	0	0
Residential planned development	5.5	37	0	37	113	0	0	0	0	0
Unlimited commercial	4.2	0	0	0	0	16,471	16,471	25,886	58,828	78
West Carson Residential 1	118.1	924	31	955	2,895	0	0	0	0	0
West Carson Residential 3	7.1	44	43	87	242	0	0	0	0	0
West Carson Residential 4	12.1	58	58	116	322	0	0	42,473	42,473	41
TOTAL	319.3	1,131	172	1,304	3,879	255,902	146,510	553,923	956,335	1,140
without Harbor UCLA	247.9	3,364	512							

CalEEMod Project Characteristics Inputs

Name:	West Carson TOD
Project Address:	various
Project Location:	SoCAB
Climate Zone:	8
Land Use Setting:	Urban
Operational Year:	2035
Electricity Company:	Southern California Edison
Natural Gas Company:	Southern California Gas Company
Air Basin:	South Coast Air Basin
Air District:	SCAQMD
SRA:	3

Project

Land Use Districts/Zones	Acres	SF Units	MF Units	TOTAL	Population	Commercial (strip mall) SQFT	General Office SQFT	Light Industrial SQFT	TOTAL Non-Residential SQFT	Employees
Harbor UCLA Medical Zone*	71.4	0	0	100	0	0	0	0	0	0
Industrial Flex	21.7	0	486	486	1,417	113,378	453,511	566,889	1,133,779	1,612
Mixed Use Development 1	19.8	0	143	143	416	145,038	338,422	0	483,460	868
Mixed Use Development 2	31.2	0	1,223	1,223	3,568	489,337	489,337	0	978,675	1,590
Neighborhood Commercial	1.2	0	0	0	0	1,479	13,308	0	14,787	29
Public	27	0	0	0	0	0	0	0	0	0
Residential planned development	5.5	88	0	88	228	0	0	0	0	0
Unlimited commercial	4.2	0	30	30	87	5,062	40,496	5,062	50,620	94
West Carson Residential 1	118.1	851	0	851	2,215	0	0	0	0	0
West Carson Residential 3	7.1	0	171	171	498	0	0	0	0	0
West Carson Residential 4	12.1	0	484	484	1,411	0	0	0	0	0
TOTAL	319.3	938	2,536	3,474	9,840	754,294	1,335,075	571,951	2,661,320	4,194
	247.9	2,657	7,183							

Note:

* The 100 Transitional Units for the homeless population exiting the Harbor UCLA hospital are modeled as Assisted Living Units. Because it is transitional housing for homeless exiting in-patient services at the hospital, no population is assigned to these units.

Change from Existing

	Acres	SF Units	MF Units	TOTAL	Population	Commercial (strip mall) SQFT	General Office SQFT	Light Industrial SQFT	TOTAL Non-Residential SQFT	Employees
Change from Existing	**0**	**-193**	**2,364**	**2,170**	**5,961**	**498,392**	**1,188,565**	**18,028**	**1,704,985**	**3,054**
		-17%	1374%	166%	154%	195%	811%	3%	178%	268%
Employee Rates (from Section 5.10, Population and Housing)				Minimum Parking Standard		2.4	1.5	1.2		
	SQFT per Employee			6% of Parking = EV		72	107	1	180	
Commercial	836									
Office	487									
Industrial	1,040									

Source: Natelson Company, The. 2001, October 31. Employment Density Study Summary Report. http://www.scag.ca.gov/pdfs/Employment_Density_Study.pdf.
The employment density factor used for commercial use is Other Retail/Services, and the factor used for office use is Low-Rise Office

CalEEMod Project Characteristics Inputs

Name:	West Carson TOD
Project Address:	various
Project Location:	SoCAB
Climate Zone:	8
Land Use Setting:	Urban
Operational Year:	2035
Electricity Company:	Southern California Edison
Natural Gas Company:	Southern California Gas Company
Air Basin:	South Coast Air Basin
Air District:	SCAQMD
SRA:	3

Project

Land Use Districts/Zones	Acres	SF Units	MF Units	TOTAL	Commercial (strip mall) SQFT	General Office SQFT	Light Industrial SQFT	TOTAL Non-Residential SQFT
Existing	247.9	1,131	172	1,304	255,902	146,510	553,923	956,335
Assumed Demolition		193	172	365	96,172	146,510	223,896	466,577
Remaining Existing		938	0	939	159,730	0	330,027	489,758
Proposed New		0	2,536	2,535	594,564	1,335,075	241,924	2,171,562
Total Proposed Scenario	247.9	938	2,536	3,474	754,294	1,335,075	571,951	2,661,320

Note:

* The 100 Transitional Units for the homeless population exiting the Harbor UCLA hospital are modeled as Assisted Living Units. Because it is transitional housing for homeless exiting in-patient services at the hospital, no population is assigned to these units.

CalEEMod Inputs & VMT and Trips for CalEEMod

IBI Group, 2017, May. West Carson Traffic Impact Report. VMT and Trip Generation Tables.

CalEEMod = 100% primary trips

	Annual VMT			Daily VMT		
	Existing No Project	Future With Project	Change	Existing No Project	Future With Project	Change
VMT	110,898,268	304,253,634	193,355,366	319,592	876,812	557,220
VMT With Reductions	110,898,268	223,691,381	112,793,113	319,592	644,644	325,052
VMT Reductions		-80,562,253			-232,168	

Annual vehicles miles traveled (VMT) divided by 347 days/year to account for reduced traffic on weekends and holidays. This assumption is consistent with the 2008 California Air Resources Board's (CARB) methodology within the Climate Change Scoping Plan Measure Documentation Supplement.

	Existing No Project	Future With Project	Change
Trips With Pass-By Reductions	22,507	57,772	35,265
Trips With TDM Reductions	22,507	51,995	29,488
TDM Reductions		-5,777	

	Existing No Project	Future With Project
Average Trip Length	14.20	12.40

CalEEMod Project Characteristics Inputs

Name:	West Carson TOD
Project Address:	various
Project Location:	SoCAB
Climate Zone:	8
Land Use Setting:	Urban
Operational Year:	2035
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Natural Gas Company:	Southern California Gas Company
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Trip Generation for CalEEMod

	Existing Units/TSF	Traffic Study Units/TSF	Project Units/TSF	Traffic Study Units/TSF
Single Family Residential	1,131	959	938	939
Multi-Family Residential (Mid-Rise)	172	344	2,536	2,637
Transitional Units (AL)	0	0	100	0
Total Residential	1,303	1,303	3,574	3,576
Strip Mall	255.902	329.191	754.294	754.295
General Office	146.510	73.221	1335.075	1335.076
Light Industrial	553.923	487.634	571.951	571.952
Hospital		66.289		0
Total NonResidential	956.335	956.335	2,661.320	2661.323
VMT	94,444,905	191,120,966		

		Existing				Project			
	CalEEMod Weekday Trip Rate	Trips	Adjusted Trips	Adjusted Trip Rate		Trips	Adjusted Trips	Adjusted Trip Rate	
Single Family Residential	9.52	10,767	8,435	7.46	119775.8092	8,930	5,957	6.35	
Multi-Family Residential (Mid-Rise)	6.65	1,144	896	5.21	12723.88257	16,864	11,251	4.44	
Transitional Units (AL)	NA			0				0	
Strip Mall	44.32	11,342	8,885	34.72	126166.1911	33,430	22,303	29.568	276514.1469
General Office	11.03	1,616	1,266	8.64	17976.79811	14,726	9,824	7.359	
Light Industrial	6.97	3,861	3,025	5.46	42948.86948	3,986	2,660	4.650	
		28,729	22,507		319591.5504	77,937	51,995		
Difference		6,222				25,942			
Percent Difference		22%				33%			

Notes

Because the transitional housing for homeless serves the exiting in-patient services at the hospital, no trip generation or VMT is assigned to these units.

CalEEMod Project Characteristics Inputs

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Land Use Setting:	Urban
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Energy

Carbon Intensity: Modeling is conservative because it does not account for additional reductions from the 33% RPS and 50% RPS under Executive Order B-30-15.

Existing Energy

Existing residential and non-residential modeled using historic energy demand rates. This is conservative because the existing buildings were construction to achieve pre-2005 building codes. Therefore, modeling is conservative because the net increase in energy use due to the project is likely smaller than reflected due to improved building energy efficiency between the project and existing land uses.

Project Energy

2016 Building Energy Efficiency Standards

Residential Exceed Title 24 28% Improvement over 2013[1]

Non-Residential Exceed Title 24 5% Improvement over 2013[1]

Sources:

[1] California Energy Commission. 2015a. 2016 Building Energy Efficiency Standards, Adoption Hearing Presentation. http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/ June 10.

**Multi-family of 4 stories and higher are treated as non-residential for the Building and Energy Efficiency Standards.*

Energy Calculations (CalEEMod User's Guide)

EnergyUseLandUseSubType	E-2005 T24E Kwh/unit/yr	E-2005 T24NG KBTU/unit/yr	E-2013 T24E Kwh/unit/yr	E-2013 T24NG KBTU/unit/yr	P-2016 T24E Kwh/unit/yr	P-2016 T24NG KBTU/unit/yr	Blended-2005+2016 T24E Kwh/unit/yr	Blended-2005+2016 T24NG KBTU/unit/yr	Assumptions
Single Family Housing	505.84546	25627.22415	287.34	25682.16	206.88	18491.16	505.85	25627.22	No change
Apartments Mid Rise	226.42627	7475.0496	211.98	8530.25	201.38	8103.74	201.38	8103.74	All MF is new
Transitional (AL)	NA	NA	211.98	8530.25	201.38	8103.74	201.38	8103.74	all new
	Kwh/SQFT/yr	KBTU/SQFT/yr	Kwh/SQFT/yr	KBTU/SQFT/yr	Kwh/SQFT/yr	KBTU/SQFT/yr	Kwh/SQFT/yr	KBTU/SQFT/yr	
Strip Mall	3.79	1.06	3.07	0.96	2.92	0.91	3.10	0.94	
General Office Building	6.17	10.28	4.94	8.63	4.69	8.20	6.17	10.28	
General Light Industry	2.12	15.24	1.71	14.11	1.62	13.40	1.91	14.46	
Parking Structure			3.92	0	3.72	0.00	3.72	0.00	

Notes

Blended rate multiplies the 2005 and 2016 Title 24 (T24) electricity (E) and natural gas (NG) rates by the proportion that are existing and new, respectively. Assumes Multi-Family and Transitional Housing could be 4 stories or higher.

CalEEMod Project Characteristics Inputs

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Project Address:	various
Project Location:	SoCAB
Climate Zone:	8
Land Use Setting:	Urban
Operational Year:	2035
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Natural Gas Company:	Southern California Gas Company
Air Basin:	South Coast Air Basin
Air District:	SCAQMD
SRA:	3

Water

IBI Group, 2017, March. West Carson Environmental Assessment (Infrastructure Report)

Wastewater

	GPD/Unit	Existing Units	Gallons/Day	Gallons/Year	Total Project Units	Gallons/Day	Gallons/Year	Change
SF Flow Rate	250 Per Unit	1,131	282,750	103,203,750	938	234,500	85,592,500	-17,611,250
MF Flow Rate	300 Per Unit	172	51,600	18,834,000	2,536	760,800	277,692,000	258,858,000
Transitional (AL) (Based on MF)	300 Per Unit	0	0	0	100	30,000	10,950,000	10,950,000
Commercial Flow Rate	0.1 Per SQFT	255,902	25,590	9,340,423	754,294	75,429	27,531,731	18,191,308
Office Flow Rate	0.2 Per SQFT	146,510	29,302	10,695,230	1,335,075	267,015	97,460,475	86,765,245
Industrial Flow Rate	0.3 Per SQFT	553,923	166,177	60,654,569	571,951	171,585	62,628,635	1,974,066
TOTAL			555,419	202,727,972		1,539,330	561,855,341	359,127,369

	GPD/Unit	Remaining Existing Units	Gallons/Day	Gallons/Year	New Project Units	Gallons/Day	Gallons/Year
SF Flow Rate	250 Per Unit	938	234,500	85,592,500	0	0	0
MF Flow Rate	300 Per Unit	0	0	0	2,536	760,800	277,692,000
Transitional (AL) (Based on MF)	300 Per Unit	0	0	0	100	30,000	10,950,000
Commercial Flow Rate	0.1 Per SQFT	159,730	15,973	5,830,162	594,564	59,456	21,701,569
Office Flow Rate	0.2 Per SQFT	0	0	33	1,335,075	267,015	97,460,442
Industrial Flow Rate	0.3 Per SQFT	330,027	99,008	36,138,006	241,924	72,577	26,490,628
TOTAL			349,481	127,560,701		1,189,848	434,294,640

The water supply analysis identifies less total water use than wastewater. Because of this, modeling conservatively assumes all water is also treated wastewater.

Septic Tank	0%
Aerobic	100%
Facultative Lagoons	0%

Water Mitigation: CALGreen and WELO requirements

Install Low Flow Bathroom Faucet	32	% Reduction in flow
Install Low Flow Kitchen Faucet	18	% Reduction in flow
Install Low Flow Toilet	20	% Reduction in flow
Install Low Flow Shower	20	% Reduction in flow
Use Water Efficiency Irrigation System	6.1	% Reduction in flow

CalEEMod Project Characteristics Inputs

Name:	West Carson TOD
Project Address:	various
Project Location:	SoCAB
Climate Zone:	8
Land Use Setting:	Urban
Operational Year:	2035
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Natural Gas Company:	Southern California Gas Company
Air Basin:	South Coast Air Basin
Air District:	SCAQMD
SRA:	3

Solid Waste Disposal

Section 5.15, Utilities and Service Systems. Based on rates from CalRecycle.

	lbs/day/unit		Existing Units	lbs/day	tons/year	Total Proposed Project Units	lbs/day	tons/year	Change (Tons)
SF Rate	10	Per Unit	1,131	11,310	2,064	938	9,380	1,712	-352
MF Rate	5.31	Per Unit	172	913	167	2,536	13,466	2,458	2,291
Transitional (AL) Based on MF	5.31	Per Unit	0	0	0	100	531	97	97
Commercial Rate	0.006	Per SQFT	255,902	1,535	280	754,294	4,526	826	546
Office	0.006	Per SQFT	146,510	879	160	1,335,075	8,010	1,462	1,301
Industrial	0.0132	Per SQFT	553,923	7,312	1,334	571,951	7,550	1,378	43
TOTAL				21,950	4,006	2,664,894	43,463	7,932	3,926

Section 5.15, Utilities and Service Systems. Based on rates from CalRecycle.

	lbs/day/unit		Remaining Existing Units	lbs/day	tons/year	New Project Units	lbs/day	tons/year
SF Rate	10	Per Unit	938	9,380	1,712	0	0	0
MF Rate	5.31	Per Unit	0	0	0	2,536	13,466	2,458
Transitional (AL) Based on MF	5.31	Per Unit	0	0	0	100	531	97
Commercial Rate	0.006	Per SQFT	159,730	958	175	594,564	3,567	651
Office	0.006	Per SQFT	0	0	0	1,335,075	8,010	1,462
Industrial	0.0132	Per SQFT	330,027	4,356	795	241,924	3,193	583
TOTAL				14,695	2,682	2,174,198	28,768	5,250

Architectural Coatings

Percentage Interior Painted:	100%
Percentage Exterior Painted:	100%

SCAQMD Rule 1113	Residential		Non Residential		Parking Lot	
Interior Paint VOC content:	50	grams per liter	100	grams per liter		
Exterior Paint VOC content:	50	grams per liter	100	grams per liter	100	grams per liter

CalEEMod Project Characteristics Inputs

Name:	West Carson TOD
Project Address:	various
Project Location:	SoCAB
Climate Zone:	8
Land Use Setting:	Urban
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Air District:	SCAQMD
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Fire Places

Assume all new units (except transitional) have Gas Fireplaces

	Existing		Project	
	SF	MF	SF	MF
Wood	57	9	57	0
Gas	961	146	881	2,536
None	113	17	0	0
	1131	172	938	2536

Construction Assumptions

1 Approximately 35% of the total acreage would be disturbed + ROW. (Plus approximately 6.25-acres on the Harbor UCLA Medical campus for the transitional housing units).
2 50% of the ROW would be disturbed for utility improvements, traffic improvements, and repaving.
3 Assumes 1,000,000 square feet of parking garage (subterranean or above-ground)
4 Assumes 50% of parking structures are subteranean. Assumes for every 250,000 square feet of parking garage, approximately 50,000 cubic yards of export would be required.
5 Assumes architectural coating would be on-going through building and would occur on 25% of the construction timeline.
6 Assumes subphases of construction could overlap at any given time due to multiple projects occuring within West Carson TOD SP
7 CalEEMod default assumptions are modified for the building construction and architectural coating phases to account for the way modeling was conducted for this programmatic evaluation. Because all phases were assumed to overlap, modeling assumes 100 employees and vendors (200 employee and vendor trips per day) for

	Square Footage Demolished	Unit/SQFT New	Remaining	Percent Remaining
Single Family Residential	347,400	0	938	100%
Multi-Family Residential (Mid-Rise)	172,000	2,536	0	0%
Transitional (AL)	0	100		6.25 acres
Total Residential	519,400	2,536	938	
Strip Mall	96,172	594,564	159,730	21%
General Office	146,510	1,335,075	0	100%
Light Industrial	223,896	241,924	330,027	58%
Total NonResidential	466,577	2,171,562		
Total Demo	985,977			
Acreage Disturbed	107			
ROW	14			
Parking Structure		1,000,000		
Soil Export (CY)		100,000		

	CalEEMod default
MF SQFT/DU	1000
SF SQFT/DU	1800

CalEEMod Project Characteristics Inputs

Name:	West Carson TOD
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CalEEMod Default Durations

PhaseName	Default days	NumDays	Notes
Demolition	200	200	
Site Preparation	120	120	
Grading	310	310	
Building Construction	3100	5215	extended to cover 20-year buildout (model default 3,100 days)
Paving	220	220	
Architectural Coating	220	775	based on 25% of the model default rather than the 20-year buildout extended timeline

Construction Mitigation

Construction -

SCAQMD Rule 403

Replace Ground Cover	PM10:	5
	PM25:	5
Water Exposed Area	Frequency:	2
	PM10:	55
	PM25:	55
Unpaved Roads	Vehicle Speed:	15

SCAQMD Rule 1186

9 % PM Reduction (Clean Paved Road)

Architectural Coating

SCAQMD Rule 1113	Residential		Non-Residential	
Exterior Paint VOC content:	50	grams per liter	100	grams per liter
Interior Paint VOC content:	50	grams per liter	50	grams per liter

GHG Emissions Target Setting - Forecasting the 2030 Efficiency Target

2020 Scoping Plan Emissions Inventory

Source: CARB 1990 Inventory. California Air Resources Board. 2007, November. California Greenhouse Gas Inventory (millions of metric tonnes of CO2 equivalent) — Summary by Economic Sector.

1990 End Use Sector	MTCOe2	Notes
Electricity	96,100,000	Removed Industrial
Transportation	137,990,000	On-Road Only
Landfills	6,260,000	Landfill Extracted from Industrial
Wastewater	3,170,000	Wastewater Treatment Extracted from Industrial
Commercial	13,860,000	Removed National Security
Residential	29,660,000	Includes all
TOTAL LAND USE	**287,040,000**	

2030 Scoping Plan Emissions Inventory

Source: Pathways Main Outputs Final (Jan 2017). California Air Resources Board. 2017, January 20. The 2017 Climate Change Scoping Plan Update: The Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target. https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf.

End Use Sector 2030	MMTCO2e				
	Reference Scenario	Scoping Plan Scenario	Change	Percent Change	Sector Definition
Residential	47.6	38.4	-9.2	-19.3%	Residential final energy consumption
Commercial	37.2	26.8	-10.4	-27.8%	Commercial final energy consumption
Transportation	123.1	104.1	-19	-15.5%	Transportation energy consumption
Industrial*	32.2	27.7	-4.5	-14.0%	Industrial manufacturing final energy consumption,
Oil & Gas Extraction*	11.6	11.2	-0.4	-3.4%	Energy used in the extraction of oil and gas
Petroleum Refining*	42.8	36.8	-5.9	-13.9%	Energy used in petroleum Refining
Agriculture	7.9	6	-1.9	-24.1%	Energy use of physical infrastructure of agriculture, like buildings and pumps
Transportation Communications and Utilities	5.7	4.3	-1.4	-23.8%	Transportation Communications and Utilities (TCU) energy supports public infrastructure, like street lighting and waste treatment facilities
Non-Energy GHGs*	84.3	49.4	-34.9	-41.40%	Examples of non-energy GHG emissions include methane and N2O emissions from agriculture and waste, refrigerant F-gases, and emissions from cement production
Solid Waste Non-Energy GHGs	10.73	9.17	-1.56	-14.54%	Isolated the Solid Waste Subsector
Unspecified	0	0	0	n/a	
	392.4	304.8	-87.6	-22.30%	
GAP* Cap-and-Trade (Industrial Sectors)	-132.4	-44.8			
*Cap-and-Trade & new 20% Industrial Measure to Cover GAP					

GHG Emissions Target Setting - Forecasting the 2030 Efficiency Target

STATEWIDE SERVICE POPULATION CALCULATIONS

Population

2020	40,619,346
2030	44,085,600
2035	45,747,645
2040	47,233,240
2050	49,779,362

California Department of Finance. 2014, December. Report P-1 (County): State and County Total Population Projections, 2010-2060 (5 -year increments). http://www.dof.ca.gov/Forecasting/Demographics/Projections/

CALIFORNIA SERVICE POPULATION (ESTIMATE)

Employment

	Total Employment	Farm Employment	Natural Resources and Mining Employment	Manufacturing Employment	Employment w/o Industrial and Agricultural Sectors
2020	17,511,810	417,750	25,690	1330860	15,737,510
2030	19,210,760	420,010	25,790	1370380	17,394,580
2035	20,027,660	421,330	25,980	1388630	18,191,720
2040	20,848,900	422,660	26,180	1407190	18,992,870
2050	22,595,640	425,320	26,590	1445270	20,698,460

California Department of Transportation. 2016. Long-Term Socio-Economic Forecasts by County. http://www.dot.ca.gov/hq/tpp/offices/eab/socio_economic.html

Service Population (SP)

	Total Employment	Employment w/o Industrial and Agricultural Sectors
2020	58,131,156	56,356,856
2030	63,296,360	61,480,180
2035	65,775,305	63,939,365
2040	68,082,140	66,226,110
2050	72,375,002	70,477,822

Project Horizon Year Estimate	2035
2035 population	18,191,720
2035 employment (w/o industrial & Ag)	45,747,645
2035 SP	63,939,365

GHG Emissions Target Setting - Forecasting the 2030 Efficiency Target

2030 Scoping Plan - Efficiency Metric

Year 2020 Plan-Level			
2020 Target (Plan-Level)	MMTCO2e	431	
2020 Per Capita Target	MTCO2e/pc	10.6	
2020 Per Service Population Target (Plan-Level)	MTCO2e/sp	7.6	
Year 2020 Project-Level			
2020 Target (Project-Level)	MMTCO2e	287.0	
2020 Per Capita Target	MTCO2e/pc	7.1	
2020 Per Service Population Target (Project-Level)	MTCO2e/sp	5.1	
Year 2030 Plan-Level			
2030 Target (Plan-Level)	MMTCO2e	260	
2030 Per Capita Target	MTCO2e/pc	5.9	
2030 Per Service Population Target (Plan-Level)	MTCO2e/sp	4.1	
Year 2030 Project-Level			
Land Use Inventory (Project-Level)	MMTCO2e	182.8	
2030 Per Capita Target	MTCO2e/pc	4.1	
2030 Per Service Population Target (Project-Level)	MTCO2e/sp	3.0	
Year 2050 Plan-Level			
2050 Target estimated (Plan-Level)	MMTCO2e	86	
2050 Per Capita Target	MTCO2e/pc	1.7	
2050 Per Service Population Target (Plan-Level)	MTCO2e/sp	1.2	
Year 2050 Project-Level			
2050 Target estimated (Plan-Level)	MMTCO2e	57	
2050 Per Capita Target	MTCO2e/pc	1.2	
2050 Per Service Population Target (Plan-Level)	MTCO2e/sp	0.8	
Project Horizon Year Estimate	2035		
Land Use Inventory (Project-Level)	MMTCO2e	151.4	-47%
2035 Per Service Population Target (Project-Level)	MTCO2e/sp	2.4	

CalEEMod Output – Operation: Existing

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WestCarsonTOD_Existing

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	146.51	1000sqft	3.36	146,510.00	0
General Light Industry	553.92	1000sqft	12.72	553,923.00	0
Apartments Mid Rise	172.00	Dwelling Unit	4.53	172,000.00	512
Single Family Housing	1,131.00	Dwelling Unit	221.42	2,035,800.00	3364
Strip Mall	255.90	1000sqft	5.87	255,902.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Assumptions (Existing).

Construction Phase - No Constructio = Existing

Off-road Equipment - No Construction = Existing

Trips and VMT - No Construction = Existing

Architectural Coating - No Construction = Existing

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No woodstoves

Energy Use -

Water And Wastewater - see assumptions = 100% treated wastewater.

Solid Waste - See Assumptions

Vehicle Trips - Based on trip generation and VMT data provided by IBI.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	50.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	0.00
tblConstructionPhase	NumDays	330.00	1.00
tblFleetMix	FleetMixLandUseSubType	General Office Building	Apartments Mid Rise
tblFleetMix	FleetMixLandUseSubType	Apartments Mid Rise	General Office Building
tblLandUse	BuildingSpaceSquareFeet	553,920.00	553,923.00
tblLandUse	BuildingSpaceSquareFeet	255,900.00	255,902.00
tblLandUse	LandUseSquareFeet	553,920.00	553,923.00
tblLandUse	LandUseSquareFeet	255,900.00	255,902.00
tblLandUse	LotAcreage	367.21	221.42
tblLandUse	Population	492.00	512.00
tblLandUse	Population	3,235.00	3,364.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	OperationalYear	2018	2017
tblSolidWaste	SolidWasteGenerationRate	79.12	167.00
tblSolidWaste	SolidWasteGenerationRate	686.86	1,334.00
tblSolidWaste	SolidWasteGenerationRate	136.25	160.00
tblSolidWaste	SolidWasteGenerationRate	1,379.24	2,064.00
tblSolidWaste	SolidWasteGenerationRate	268.69	280.00
tblTripsAndVMT	WorkerTripNumber	178.00	0.00
tblVehicleTrips	CC_TL	8.40	14.20
tblVehicleTrips	CC_TL	8.40	14.20
tblVehicleTrips	CC_TL	8.40	14.20
tblVehicleTrips	CC_TTP	28.00	100.00
tblVehicleTrips	CC_TTP	48.00	100.00
tblVehicleTrips	CC_TTP	64.40	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00

tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	14.20
tblVehicleTrips	HW_TL	14.70	14.20
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	6.39	5.21

tblVehicleTrips	ST_TR	1.32	5.46
tblVehicleTrips	ST_TR	2.46	8.64
tblVehicleTrips	ST_TR	9.91	7.46
tblVehicleTrips	ST_TR	42.04	34.72
tblVehicleTrips	SU_TR	5.86	5.21
tblVehicleTrips	SU_TR	0.68	5.46
tblVehicleTrips	SU_TR	1.05	8.64
tblVehicleTrips	SU_TR	8.62	7.46
tblVehicleTrips	SU_TR	20.43	34.72
tblVehicleTrips	WD_TR	6.65	5.21
tblVehicleTrips	WD_TR	6.97	5.46
tblVehicleTrips	WD_TR	11.03	8.64
tblVehicleTrips	WD_TR	9.52	7.46
tblVehicleTrips	WD_TR	44.32	34.72
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	11,206,492.41	18,834,000.00
tblWater	IndoorWaterUseRate	128,094,000.00	60,654,569.00
tblWater	IndoorWaterUseRate	26,039,771.42	10,695,230.00

tblWater	IndoorWaterUseRate	73,689,202.98	103,203,750.00
tblWater	IndoorWaterUseRate	18,955,158.25	9,340,423.00
tblWater	OutdoorWaterUseRate	7,064,962.60	0.00
tblWater	OutdoorWaterUseRate	15,959,859.90	0.00
tblWater	OutdoorWaterUseRate	46,456,236.66	0.00
tblWater	OutdoorWaterUseRate	11,617,677.64	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	8.60	0.00
tblWoodstoves	NumberCatalytic	56.55	0.00
tblWoodstoves	NumberNoncatalytic	8.60	0.00
tblWoodstoves	NumberNoncatalytic	56.55	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	378.5199	23.0918	451.9567	0.6542		48.0248	48.0248		48.0248	48.0248	4,515.2598	23,647.7730	28,163.0328	0.6444	0.8284	28,426.0045
Energy	1.5218	13.2359	7.2319	0.0830		1.0514	1.0514		1.0514	1.0514		16,601.3222	16,601.3222	0.3182	0.3044	16,699.9756

Mobile	79.2188	371.3044	1,265.9976	3.3981	247.4954	4.4349	251.9303	66.2647	4.1828	70.4474		344,013.8526	344,013.8526	21.3645		344,547.9651
Total	**459.2605**	**407.6321**	**1,725.1862**	**4.1353**	**247.4954**	**53.5111**	**301.0065**	**66.2647**	**53.2590**	**119.5236**	**4,515.2598**	**384,262.9478**	**388,778.2076**	**22.3271**	**1.1328**	**389,673.9451**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	378.5199	23.0918	451.9567	0.6542		48.0248	48.0248		48.0248	48.0248	4,515.2598	23,647.7730	28,163.0328	0.6444	0.8284	28,426.0045
Energy	1.5218	13.2359	7.2319	0.0830		1.0514	1.0514		1.0514	1.0514		16,601.3222	16,601.3222	0.3182	0.3044	16,699.9756
Mobile	79.2188	371.3044	1,265.9976	3.3981	247.4954	4.4349	251.9303	66.2647	4.1828	70.4474		344,013.8526	344,013.8526	21.3645		344,547.9651
Total	**459.2605**	**407.6321**	**1,725.1862**	**4.1353**	**247.4954**	**53.5111**	**301.0065**	**66.2647**	**53.2590**	**119.5236**	**4,515.2598**	**384,262.9478**	**388,778.2076**	**22.3271**	**1.1328**	**389,673.9451**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	79.2188	371.3044	1,265.9976	3.3981	247.4954	4.4349	251.9303	66.2647	4.1828	70.4474		344,013.8526	344,013.8526	21.3645		344,547.9651
Unmitigated	79.2188	371.3044	1,265.9976	3.3981	247.4954	4.4349	251.9303	66.2647	4.1828	70.4474		344,013.8526	344,013.8526	21.3645		344,547.9651

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	896.12	896.12	896.12	4,631,865	4,631,865
General Light Industry	3,024.40	3,024.40	3024.40	15,632,535	15,632,535
General Office Building	1,265.85	1,265.85	1265.85	6,542,907	6,542,907
Single Family Housing	8,437.26	8,437.26	8437.26	43,610,509	43,610,509
Strip Mall	8,884.85	8,884.85	8884.85	45,924,002	45,924,002
Total	22,508.48	22,508.48	22,508.48	116,341,819	116,341,819

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.20	0.00	0.00	100.00	0.00	0.00	100	0	0
General Light Industry	0.00	14.20	0.00	0.00	100.00	0.00	100	0	0
General Office Building	0.00	14.20	0.00	0.00	100.00	0.00	100	0	0
Single Family Housing	14.20	0.00	0.00	100.00	0.00	0.00	100	0	0
Strip Mall	0.00	14.20	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.547512	0.046663	0.198227	0.127154	0.018333	0.005870	0.017956	0.026928	0.002295	0.002753	0.004678	0.000662	0.000968
General Light Industry	0.547512	0.046663	0.198227	0.127154	0.018333	0.005870	0.017956	0.026928	0.002295	0.002753	0.004678	0.000662	0.000968
General Office Building	0.547512	0.046663	0.198227	0.127154	0.018333	0.005870	0.017956	0.026928	0.002295	0.002753	0.004678	0.000662	0.000968
Single Family Housing	0.547512	0.046663	0.198227	0.127154	0.018333	0.005870	0.017956	0.026928	0.002295	0.002753	0.004678	0.000662	0.000968
Strip Mall	0.547512	0.046663	0.198227	0.127154	0.018333	0.005870	0.017956	0.026928	0.002295	0.002753	0.004678	0.000662	0.000968

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.5218	13.2359	7.2319	0.0830		1.0514	1.0514		1.0514	1.0514		16,601.3222	16,601.3222	0.3182	0.3044	16,699.9756
NaturalGas Unmitigated	1.5218	13.2359	7.2319	0.0830		1.0514	1.0514		1.0514	1.0514		16,601.3222	16,601.3222	0.3182	0.3044	16,699.9756

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	4305.68	0.0464	0.3968	0.1689	2.5300e-003		0.0321	0.0321		0.0321	0.0321		506.5504	506.5504	9.7100e-003	9.2900e-003	509.5606
General Light Industry	33538.9	0.3617	3.2881	2.7620	0.0197		0.2499	0.2499		0.2499	0.2499		3,945.7529	3,945.7529	0.0756	0.0723	3,969.2005
General Office Building	4347.13	0.0469	0.4262	0.3580	2.5600e-003		0.0324	0.0324		0.0324	0.0324		511.4273	511.4273	9.8000e-003	9.3800e-003	514.4665
Single Family Housing	97440.2	1.0508	8.9798	3.8212	0.0573		0.7260	0.7260		0.7260	0.7260		11,463.5535	11,463.5535	0.2197	0.2102	11,531.6757
Strip Mall	1479.32	0.0160	0.1450	0.1218	8.7000e-004		0.0110	0.0110		0.0110	0.0110		174.0381	174.0381	3.3400e-003	3.1900e-003	175.0723
Total		**1.5218**	**13.2359**	**7.2319**	**0.0830**		**1.0514**	**1.0514**		**1.0514**	**1.0514**		**16,601.3222**	**16,601.3222**	**0.3182**	**0.3044**	**16,699.9756**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	4.30568	0.0464	0.3968	0.1689	2.5300e-003		0.0321	0.0321		0.0321	0.0321		506.5504	506.5504	9.7100e-003	9.2900e-003	509.5606
General Light Industry	33.5389	0.3617	3.2881	2.7620	0.0197		0.2499	0.2499		0.2499	0.2499		3,945.7529	3,945.7529	0.0756	0.0723	3,969.2005
General Office Building	4.34713	0.0469	0.4262	0.3580	2.5600e-003		0.0324	0.0324		0.0324	0.0324		511.4273	511.4273	9.8000e-003	9.3800e-003	514.4665
Single Family Housing	97.4402	1.0508	8.9798	3.8212	0.0573		0.7260	0.7260		0.7260	0.7260		11,463.5535	11,463.5535	0.2197	0.2102	11,531.6757
Strip Mall	1.47932	0.0160	0.1450	0.1218	8.7000e-004		0.0110	0.0110		0.0110	0.0110		174.0381	174.0381	3.3400e-003	3.1900e-003	175.0723

Total		**1.5218**	**13.2359**	**7.2319**	**0.0830**		**1.0514**	**1.0514**		**1.0514**	**1.0514**		**16,601.3222**	**16,601.3222**	**0.3182**	**0.3044**	**16,699.9756**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	378.5199	23.0918	451.9567	0.6542		48.0248	48.0248		48.0248	48.0248	4,515.2598	23,647.7730	28,163.0328	0.6444	0.8284	28,426.0045
Unmitigated	378.5199	23.0918	451.9567	0.6542		48.0248	48.0248		48.0248	48.0248	4,515.2598	23,647.7730	28,163.0328	0.6444	0.8284	28,426.0045

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.2137					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	62.6499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Hearth	306.2660	21.8252	343.2753	0.6485		47.4348	47.4348		47.4348	47.4348	4,515.2598	23,454.0000	27,969.2598	0.4495	0.8284	28,227.3600
Landscaping	3.3904	1.2666	108.6815	5.6800e-003		0.5900	0.5900		0.5900	0.5900		193.7730	193.7730	0.1949		198.6444
Total	**378.5199**	**23.0918**	**451.9568**	**0.6542**		**48.0248**	**48.0248**		**48.0248**	**48.0248**	**4,515.2598**	**23,647.7730**	**28,163.0328**	**0.6444**	**0.8284**	**28,426.0045**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.2137					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	62.6499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	306.2660	21.8252	343.2753	0.6485		47.4348	47.4348		47.4348	47.4348	4,515.2598	23,454.0000	27,969.2598	0.4495	0.8284	28,227.3600
Landscaping	3.3904	1.2666	108.6815	5.6800e-003		0.5900	0.5900		0.5900	0.5900		193.7730	193.7730	0.1949		198.6444
Total	**378.5199**	**23.0918**	**451.9568**	**0.6542**		**48.0248**	**48.0248**		**48.0248**	**48.0248**	**4,515.2598**	**23,647.7730**	**28,163.0328**	**0.6444**	**0.8284**	**28,426.0045**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

WestCarsonTOD_Existing

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	146.51	1000sqft	3.36	146,510.00	0
General Light Industry	553.92	1000sqft	12.72	553,923.00	0
Apartments Mid Rise	172.00	Dwelling Unit	4.53	172,000.00	512
Single Family Housing	1,131.00	Dwelling Unit	221.42	2,035,800.00	3364
Strip Mall	255.90	1000sqft	5.87	255,902.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Assumptions (Existing).

Construction Phase - No Constructio = Existing

Off-road Equipment - No Construction = Existing

Trips and VMT - No Construction = Existing

Architectural Coating - No Construction = Existing

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No woodstoves

Energy Use -

Water And Wastewater - see assumptions = 100% treated wastewater.

Solid Waste - See Assumptions

Vehicle Trips - Based on trip generation and VMT data provided by IBI.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	50.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	0.00
tblConstructionPhase	NumDays	330.00	1.00
tblFleetMix	FleetMixLandUseSubType	General Office Building	Apartments Mid Rise
tblFleetMix	FleetMixLandUseSubType	Apartments Mid Rise	General Office Building
tblLandUse	BuildingSpaceSquareFeet	553,920.00	553,923.00
tblLandUse	BuildingSpaceSquareFeet	255,900.00	255,902.00
tblLandUse	LandUseSquareFeet	553,920.00	553,923.00
tblLandUse	LandUseSquareFeet	255,900.00	255,902.00
tblLandUse	LotAcreage	367.21	221.42
tblLandUse	Population	492.00	512.00
tblLandUse	Population	3,235.00	3,364.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	OperationalYear	2018	2017
tblSolidWaste	SolidWasteGenerationRate	79.12	167.00
tblSolidWaste	SolidWasteGenerationRate	686.86	1,334.00
tblSolidWaste	SolidWasteGenerationRate	136.25	160.00
tblSolidWaste	SolidWasteGenerationRate	1,379.24	2,064.00
tblSolidWaste	SolidWasteGenerationRate	268.69	280.00
tblTripsAndVMT	WorkerTripNumber	178.00	0.00
tblVehicleTrips	CC_TL	8.40	14.20
tblVehicleTrips	CC_TL	8.40	14.20
tblVehicleTrips	CC_TL	8.40	14.20
tblVehicleTrips	CC_TTP	28.00	100.00
tblVehicleTrips	CC_TTP	48.00	100.00
tblVehicleTrips	CC_TTP	64.40	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00

tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	14.20
tblVehicleTrips	HW_TL	14.70	14.20
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	6.39	5.21

tblVehicleTrips	ST_TR	1.32	5.46
tblVehicleTrips	ST_TR	2.46	8.64
tblVehicleTrips	ST_TR	9.91	7.46
tblVehicleTrips	ST_TR	42.04	34.72
tblVehicleTrips	SU_TR	5.86	5.21
tblVehicleTrips	SU_TR	0.68	5.46
tblVehicleTrips	SU_TR	1.05	8.64
tblVehicleTrips	SU_TR	8.62	7.46
tblVehicleTrips	SU_TR	20.43	34.72
tblVehicleTrips	WD_TR	6.65	5.21
tblVehicleTrips	WD_TR	6.97	5.46
tblVehicleTrips	WD_TR	11.03	8.64
tblVehicleTrips	WD_TR	9.52	7.46
tblVehicleTrips	WD_TR	44.32	34.72
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	11,206,492.41	18,834,000.00
tblWater	IndoorWaterUseRate	128,094,000.00	60,654,569.00
tblWater	IndoorWaterUseRate	26,039,771.42	10,695,230.00

tblWater	IndoorWaterUseRate	73,689,202.98	103,203,750.00
tblWater	IndoorWaterUseRate	18,955,158.25	9,340,423.00
tblWater	OutdoorWaterUseRate	7,064,962.60	0.00
tblWater	OutdoorWaterUseRate	15,959,859.90	0.00
tblWater	OutdoorWaterUseRate	46,456,236.66	0.00
tblWater	OutdoorWaterUseRate	11,617,677.64	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	8.60	0.00
tblWoodstoves	NumberCatalytic	56.55	0.00
tblWoodstoves	NumberNoncatalytic	8.60	0.00
tblWoodstoves	NumberNoncatalytic	56.55	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	378.5199	23.0918	451.9567	0.6542		48.0248	48.0248		48.0248	48.0248	4,515.2598	23,647.7730	28,163.0328	0.6444	0.8284	28,426.0045
Energy	1.5218	13.2359	7.2319	0.0830		1.0514	1.0514		1.0514	1.0514		16,601.3222	16,601.3222	0.3182	0.3044	16,699.9756

Mobile	77.7222	386.6156	1,191.5295	3.2305	247.4954	4.4548	251.9502	66.2647	4.2018	70.4665		327,323.6821	327,323.6821	21.0451		327,849.8102
Total	**457.7639**	**422.9433**	**1,650.7182**	**3.9677**	**247.4954**	**53.5310**	**301.0264**	**66.2647**	**53.2780**	**119.5427**	**4,515.2598**	**367,572.7773**	**372,088.0371**	**22.0077**	**1.1328**	**372,975.7903**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	378.5199	23.0918	451.9567	0.6542		48.0248	48.0248		48.0248	48.0248	4,515.2598	23,647.7730	28,163.0328	0.6444	0.8284	28,426.0045
Energy	1.5218	13.2359	7.2319	0.0830		1.0514	1.0514		1.0514	1.0514		16,601.3222	16,601.3222	0.3182	0.3044	16,699.9756
Mobile	77.7222	386.6156	1,191.5295	3.2305	247.4954	4.4548	251.9502	66.2647	4.2018	70.4665		327,323.6821	327,323.6821	21.0451		327,849.8102
Total	**457.7639**	**422.9433**	**1,650.7182**	**3.9677**	**247.4954**	**53.5310**	**301.0264**	**66.2647**	**53.2780**	**119.5427**	**4,515.2598**	**367,572.7773**	**372,088.0371**	**22.0077**	**1.1328**	**372,975.7903**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	77.7222	386.6156	1,191.5295	3.2305	247.4954	4.4548	251.9502	66.2647	4.2018	70.4665		327,323.6821	327,323.6821	21.0451		327,849.8102
Unmitigated	77.7222	386.6156	1,191.5295	3.2305	247.4954	4.4548	251.9502	66.2647	4.2018	70.4665		327,323.6821	327,323.6821	21.0451		327,849.8102

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	896.12	896.12	896.12	4,631,865	4,631,865
General Light Industry	3,024.40	3,024.40	3024.40	15,632,535	15,632,535
General Office Building	1,265.85	1,265.85	1265.85	6,542,907	6,542,907
Single Family Housing	8,437.26	8,437.26	8437.26	43,610,509	43,610,509
Strip Mall	8,884.85	8,884.85	8884.85	45,924,002	45,924,002
Total	22,508.48	22,508.48	22,508.48	116,341,819	116,341,819

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.20	0.00	0.00	100.00	0.00	0.00	100	0	0
General Light Industry	0.00	14.20	0.00	0.00	100.00	0.00	100	0	0
General Office Building	0.00	14.20	0.00	0.00	100.00	0.00	100	0	0
Single Family Housing	14.20	0.00	0.00	100.00	0.00	0.00	100	0	0
Strip Mall	0.00	14.20	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.547512	0.046663	0.198227	0.127154	0.018333	0.005870	0.017956	0.026928	0.002295	0.002753	0.004678	0.000662	0.000968
General Light Industry	0.547512	0.046663	0.198227	0.127154	0.018333	0.005870	0.017956	0.026928	0.002295	0.002753	0.004678	0.000662	0.000968
General Office Building	0.547512	0.046663	0.198227	0.127154	0.018333	0.005870	0.017956	0.026928	0.002295	0.002753	0.004678	0.000662	0.000968
Single Family Housing	0.547512	0.046663	0.198227	0.127154	0.018333	0.005870	0.017956	0.026928	0.002295	0.002753	0.004678	0.000662	0.000968
Strip Mall	0.547512	0.046663	0.198227	0.127154	0.018333	0.005870	0.017956	0.026928	0.002295	0.002753	0.004678	0.000662	0.000968

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.5218	13.2359	7.2319	0.0830		1.0514	1.0514		1.0514	1.0514		16,601.3222	16,601.3222	0.3182	0.3044	16,699.9756
NaturalGas Unmitigated	1.5218	13.2359	7.2319	0.0830		1.0514	1.0514		1.0514	1.0514		16,601.3222	16,601.3222	0.3182	0.3044	16,699.9756

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	4305.68	0.0464	0.3968	0.1689	2.5300e-003		0.0321	0.0321		0.0321	0.0321		506.5504	506.5504	9.7100e-003	9.2900e-003	509.5606
General Light Industry	33538.9	0.3617	3.2881	2.7620	0.0197		0.2499	0.2499		0.2499	0.2499		3,945.7529	3,945.7529	0.0756	0.0723	3,969.2005
General Office Building	4347.13	0.0469	0.4262	0.3580	2.5600e-003		0.0324	0.0324		0.0324	0.0324		511.4273	511.4273	9.8000e-003	9.3800e-003	514.4665
Single Family Housing	97440.2	1.0508	8.9798	3.8212	0.0573		0.7260	0.7260		0.7260	0.7260		11,463.5535	11,463.5535	0.2197	0.2102	11,531.6757
Strip Mall	1479.32	0.0160	0.1450	0.1218	8.7000e-004		0.0110	0.0110		0.0110	0.0110		174.0381	174.0381	3.3400e-003	3.1900e-003	175.0723
Total		**1.5218**	**13.2359**	**7.2319**	**0.0830**		**1.0514**	**1.0514**		**1.0514**	**1.0514**		**16,601.3222**	**16,601.3222**	**0.3182**	**0.3044**	**16,699.9756**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	4.30568	0.0464	0.3968	0.1689	2.5300e-003		0.0321	0.0321		0.0321	0.0321		506.5504	506.5504	9.7100e-003	9.2900e-003	509.5606
General Light Industry	33.5389	0.3617	3.2881	2.7620	0.0197		0.2499	0.2499		0.2499	0.2499		3,945.7529	3,945.7529	0.0756	0.0723	3,969.2005
General Office Building	4.34713	0.0469	0.4262	0.3580	2.5600e-003		0.0324	0.0324		0.0324	0.0324		511.4273	511.4273	9.8000e-003	9.3800e-003	514.4665
Single Family Housing	97.4402	1.0508	8.9798	3.8212	0.0573		0.7260	0.7260		0.7260	0.7260		11,463.5535	11,463.5535	0.2197	0.2102	11,531.6757
Strip Mall	1.47932	0.0160	0.1450	0.1218	8.7000e-004		0.0110	0.0110		0.0110	0.0110		174.0381	174.0381	3.3400e-003	3.1900e-003	175.0723

Total		**1.5218**	**13.2359**	**7.2319**	**0.0830**		**1.0514**	**1.0514**		**1.0514**	**1.0514**		**16,601.3222**	**16,601.3222**	**0.3182**	**0.3044**	**16,699.9756**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	378.5199	23.0918	451.9567	0.6542		48.0248	48.0248		48.0248	48.0248	4,515.2598	23,647.7730	28,163.0328	0.6444	0.8284	28,426.0045
Unmitigated	378.5199	23.0918	451.9567	0.6542		48.0248	48.0248		48.0248	48.0248	4,515.2598	23,647.7730	28,163.0328	0.6444	0.8284	28,426.0045

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.2137					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	62.6499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Hearth	306.2660	21.8252	343.2753	0.6485		47.4348	47.4348		47.4348	47.4348	4,515.2598	23,454.0000	27,969.2598	0.4495	0.8284	28,227.3600
Landscaping	3.3904	1.2666	108.6815	5.6800e-003		0.5900	0.5900		0.5900	0.5900		193.7730	193.7730	0.1949		198.6444
Total	**378.5199**	**23.0918**	**451.9568**	**0.6542**		**48.0248**	**48.0248**		**48.0248**	**48.0248**	**4,515.2598**	**23,647.7730**	**28,163.0328**	**0.6444**	**0.8284**	**28,426.0045**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.2137					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	62.6499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	306.2660	21.8252	343.2753	0.6485		47.4348	47.4348		47.4348	47.4348	4,515.2598	23,454.0000	27,969.2598	0.4495	0.8284	28,227.3600
Landscaping	3.3904	1.2666	108.6815	5.6800e-003		0.5900	0.5900		0.5900	0.5900		193.7730	193.7730	0.1949		198.6444
Total	**378.5199**	**23.0918**	**451.9568**	**0.6542**		**48.0248**	**48.0248**		**48.0248**	**48.0248**	**4,515.2598**	**23,647.7730**	**28,163.0328**	**0.6444**	**0.8284**	**28,426.0045**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

WestCarsonTOD_Existing

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	146.51	1000sqft	3.36	146,510.00	0
General Light Industry	553.92	1000sqft	12.72	553,923.00	0
Apartments Mid Rise	172.00	Dwelling Unit	4.53	172,000.00	512
Single Family Housing	1,131.00	Dwelling Unit	221.42	2,035,800.00	3364
Strip Mall	255.90	1000sqft	5.87	255,902.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Assumptions (Existing).

Construction Phase - No Constructio = Existing

Off-road Equipment - No Construction = Existing

Trips and VMT - No Construction = Existing

Architectural Coating - No Construction = Existing

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No woodstoves

Energy Use -

Water And Wastewater - see assumptions = 100% treated wastewater.

Solid Waste - See Assumptions

Vehicle Trips - Based on trip generation and VMT data provided by IBI.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	50.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	0.00
tblConstructionPhase	NumDays	330.00	1.00
tblFleetMix	FleetMixLandUseSubType	General Office Building	Apartments Mid Rise
tblFleetMix	FleetMixLandUseSubType	Apartments Mid Rise	General Office Building
tblLandUse	BuildingSpaceSquareFeet	553,920.00	553,923.00
tblLandUse	BuildingSpaceSquareFeet	255,900.00	255,902.00
tblLandUse	LandUseSquareFeet	553,920.00	553,923.00
tblLandUse	LandUseSquareFeet	255,900.00	255,902.00
tblLandUse	LotAcreage	367.21	221.42
tblLandUse	Population	492.00	512.00

tblLandUse	Population	3,235.00	3,364.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	OperationalYear	2018	2017
tblSolidWaste	SolidWasteGenerationRate	79.12	167.00
tblSolidWaste	SolidWasteGenerationRate	686.86	1,334.00
tblSolidWaste	SolidWasteGenerationRate	136.25	160.00
tblSolidWaste	SolidWasteGenerationRate	1,379.24	2,064.00
tblSolidWaste	SolidWasteGenerationRate	268.69	280.00
tblTripsAndVMT	WorkerTripNumber	178.00	0.00
tblVehicleTrips	CC_TL	8.40	14.20
tblVehicleTrips	CC_TL	8.40	14.20
tblVehicleTrips	CC_TL	8.40	14.20
tblVehicleTrips	CC_TTP	28.00	100.00
tblVehicleTrips	CC_TTP	48.00	100.00
tblVehicleTrips	CC_TTP	64.40	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	16.60	0.00

tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	14.20
tblVehicleTrips	HW_TL	14.70	14.20
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00

tblVehicleTrips	ST_TR	6.39	5.21
tblVehicleTrips	ST_TR	1.32	5.46
tblVehicleTrips	ST_TR	2.46	8.64
tblVehicleTrips	ST_TR	9.91	7.46
tblVehicleTrips	ST_TR	42.04	34.72
tblVehicleTrips	SU_TR	5.86	5.21
tblVehicleTrips	SU_TR	0.68	5.46
tblVehicleTrips	SU_TR	1.05	8.64
tblVehicleTrips	SU_TR	8.62	7.46
tblVehicleTrips	SU_TR	20.43	34.72
tblVehicleTrips	WD_TR	6.65	5.21
tblVehicleTrips	WD_TR	6.97	5.46
tblVehicleTrips	WD_TR	11.03	8.64
tblVehicleTrips	WD_TR	9.52	7.46
tblVehicleTrips	WD_TR	44.32	34.72
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	11,206,492.41	18,834,000.00
tblWater	IndoorWaterUseRate	128,094,000.00	60,654,569.00

tblWater	IndoorWaterUseRate	26,039,771.42	10,695,230.00
tblWater	IndoorWaterUseRate	73,689,202.98	103,203,750.00
tblWater	IndoorWaterUseRate	18,955,158.25	9,340,423.00
tblWater	OutdoorWaterUseRate	7,064,962.60	0.00
tblWater	OutdoorWaterUseRate	15,959,859.90	0.00
tblWater	OutdoorWaterUseRate	46,456,236.66	0.00
tblWater	OutdoorWaterUseRate	11,617,677.64	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	8.60	0.00
tblWoodstoves	NumberCatalytic	56.55	0.00
tblWoodstoves	NumberNoncatalytic	8.60	0.00
tblWoodstoves	NumberNoncatalytic	56.55	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	16.8197	0.4311	17.8761	8.8200e-003		0.6667	0.6667		0.6667	0.6667	51.2022	287.9374	339.1396	0.0272	9.3900e-003	342.6188

Energy	0.2777	2.4156	1.3198	0.0152		0.1919	0.1919		0.1919	0.1919	0.0000	9,101.4756	9,101.4756	0.3150	0.1047	9,140.5366
Mobile	13.8815	71.7558	220.6278	0.5959	44.1750	0.8077	44.9827	11.8468	0.7618	12.6086	0.0000	54,763.3081	54,763.3081	3.4786	0.0000	54,850.2729
Waste						0.0000	0.0000		0.0000	0.0000	812.9788	0.0000	812.9788	48.0457	0.0000	2,014.1206
Water						0.0000	0.0000		0.0000	0.0000	71.7255	841.0716	912.7971	0.2816	0.1632	968.4597
Total	**30.9789**	**74.6025**	**239.8238**	**0.6199**	**44.1750**	**1.6663**	**45.8413**	**11.8468**	**1.6204**	**13.4672**	**935.9065**	**64,993.7927**	**65,929.6992**	**52.1480**	**0.2772**	**67,316.0085**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	16.8197	0.4311	17.8761	8.8200e-003		0.6667	0.6667		0.6667	0.6667	51.2022	287.9374	339.1396	0.0272	9.3900e-003	342.6188
Energy	0.2777	2.4156	1.3198	0.0152		0.1919	0.1919		0.1919	0.1919	0.0000	9,101.4756	9,101.4756	0.3150	0.1047	9,140.5366
Mobile	13.8815	71.7558	220.6278	0.5959	44.1750	0.8077	44.9827	11.8468	0.7618	12.6086	0.0000	54,763.3081	54,763.3081	3.4786	0.0000	54,850.2729
Waste						0.0000	0.0000		0.0000	0.0000	812.9788	0.0000	812.9788	48.0457	0.0000	2,014.1206
Water						0.0000	0.0000		0.0000	0.0000	71.7255	841.0716	912.7971	0.2816	0.1632	968.4597
Total	**30.9789**	**74.6025**	**239.8238**	**0.6199**	**44.1750**	**1.6663**	**45.8413**	**11.8468**	**1.6204**	**13.4672**	**935.9065**	**64,993.7927**	**65,929.6992**	**52.1480**	**0.2772**	**67,316.0085**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	13.8815	71.7558	220.6278	0.5959	44.1750	0.8077	44.9827	11.8468	0.7618	12.6086	0.0000	54,763.3081	54,763.3081	3.4786	0.0000	54,850.2729
Unmitigated	13.8815	71.7558	220.6278	0.5959	44.1750	0.8077	44.9827	11.8468	0.7618	12.6086	0.0000	54,763.3081	54,763.3081	3.4786	0.0000	54,850.2729

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	896.12	896.12	896.12	4,631,865	4,631,865
General Light Industry	3,024.40	3,024.40	3024.40	15,632,535	15,632,535
General Office Building	1,265.85	1,265.85	1265.85	6,542,907	6,542,907
Single Family Housing	8,437.26	8,437.26	8437.26	43,610,509	43,610,509
Strip Mall	8,884.85	8,884.85	8884.85	45,924,002	45,924,002
Total	22,508.48	22,508.48	22,508.48	116,341,819	116,341,819

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.20	0.00	0.00	100.00	0.00	0.00	100	0	0

General Light Industry	0.00	14.20	0.00	0.00	100.00	0.00	100	0	0
General Office Building	0.00	14.20	0.00	0.00	100.00	0.00	100	0	0
Single Family Housing	14.20	0.00	0.00	100.00	0.00	0.00	100	0	0
Strip Mall	0.00	14.20	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.547512	0.046663	0.198227	0.127154	0.018333	0.005870	0.017956	0.026928	0.002295	0.002753	0.004678	0.000662	0.000968
General Light Industry	0.547512	0.046663	0.198227	0.127154	0.018333	0.005870	0.017956	0.026928	0.002295	0.002753	0.004678	0.000662	0.000968
General Office Building	0.547512	0.046663	0.198227	0.127154	0.018333	0.005870	0.017956	0.026928	0.002295	0.002753	0.004678	0.000662	0.000968
Single Family Housing	0.547512	0.046663	0.198227	0.127154	0.018333	0.005870	0.017956	0.026928	0.002295	0.002753	0.004678	0.000662	0.000968
Strip Mall	0.547512	0.046663	0.198227	0.127154	0.018333	0.005870	0.017956	0.026928	0.002295	0.002753	0.004678	0.000662	0.000968

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6,352.9405	6,352.9405	0.2623	0.0543	6,375.6683
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6,352.9405	6,352.9405	0.2623	0.0543	6,375.6683

NaturalGas Mitigated	0.2777	2.4156	1.3198	0.0152		0.1919	0.1919		0.1919	0.1919	0.0000	2,748.5351	2,748.5351	0.0527	0.0504	2,764.8683
NaturalGas Unmitigated	0.2777	2.4156	1.3198	0.0152		0.1919	0.1919		0.1919	0.1919	0.0000	2,748.5351	2,748.5351	0.0527	0.0504	2,764.8683

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.57157e+006	8.4700e-003	0.0724	0.0308	4.6000e-004		5.8500e-003	5.8500e-003		5.8500e-003	5.8500e-003	0.0000	83.8651	83.8651	1.6100e-003	1.5400e-003	84.3635
General Light Industry	1.22417e+007	0.0660	0.6001	0.5041	3.6000e-003		0.0456	0.0456		0.0456	0.0456	0.0000	653.2636	653.2636	0.0125	0.0120	657.1457
General Office Building	1.5867e+006	8.5600e-003	0.0778	0.0653	4.7000e-004		5.9100e-003	5.9100e-003		5.9100e-003	5.9100e-003	0.0000	84.6725	84.6725	1.6200e-003	1.5500e-003	85.1757
Single Family Housing	3.55657e+007	0.1918	1.6388	0.6974	0.0105		0.1325	0.1325		0.1325	0.1325	0.0000	1,897.9199	1,897.9199	0.0364	0.0348	1,909.1982
Strip Mall	539953	2.9100e-003	0.0265	0.0222	1.6000e-004		2.0100e-003	2.0100e-003		2.0100e-003	2.0100e-003	0.0000	28.8140	28.8140	5.5000e-004	5.3000e-004	28.9852
Total		**0.2777**	**2.4156**	**1.3198**	**0.0152**		**0.1919**	**0.1919**		**0.1919**	**0.1919**	**0.0000**	**2,748.5351**	**2,748.5351**	**0.0527**	**0.0504**	**2,764.8683**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.57157e+006	8.4700e-003	0.0724	0.0308	4.6000e-004		5.8500e-003	5.8500e-003		5.8500e-003	5.8500e-003	0.0000	83.8651	83.8651	1.6100e-003	1.5400e-003	84.3635

General Light Industry	1.22417e+007	0.0660	0.6001	0.5041	3.6000e-003		0.0456	0.0456		0.0456	0.0456	0.0000	653.2636	653.2636	0.0125	0.0120	657.1457
General Office Building	1.5867e+006	8.5600e-003	0.0778	0.0653	4.7000e-004		5.9100e-003	5.9100e-003		5.9100e-003	5.9100e-003	0.0000	84.6725	84.6725	1.6200e-003	1.5500e-003	85.1757
Single Family Housing	3.55657e+007	0.1918	1.6388	0.6974	0.0105		0.1325	0.1325		0.1325	0.1325	0.0000	1,897.9199	1,897.9199	0.0364	0.0348	1,909.1982
Strip Mall	539953	2.9100e-003	0.0265	0.0222	1.6000e-004		2.0100e-003	2.0100e-003		2.0100e-003	2.0100e-003	0.0000	28.8140	28.8140	5.5000e-004	5.3000e-004	28.9852
Total		**0.2777**	**2.4156**	**1.3198**	**0.0152**		**0.1919**	**0.1919**		**0.1919**	**0.1919**	**0.0000**	**2,748.5351**	**2,748.5351**	**0.0527**	**0.0504**	**2,764.8683**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	606033	193.0952	7.9700e-003	1.6500e-003	193.7860
General Light Industry	5.34536e+006	1,703.1453	0.0703	0.0146	1,709.2383
General Office Building	2.39983e+006	764.6385	0.0316	6.5300e-003	767.3740
Single Family Housing	8.14829e+006	2,596.2196	0.1072	0.0222	2,605.5077
Strip Mall	3.43932e+006	1,095.8420	0.0452	9.3600e-003	1,099.7624
Total		**6,352.9405**	**0.2623**	**0.0543**	**6,375.6683**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	606033	193.0952	7.9700e-003	1.6500e-003	193.7860
General Light Industry	5.34536e+006	1,703.1453	0.0703	0.0146	1,709.2383
General Office Building	2.39983e+006	764.6385	0.0316	6.5300e-003	767.3740
Single Family Housing	8.14829e+006	2,596.2196	0.1072	0.0222	2,605.5077
Strip Mall	3.43932e+006	1,095.8420	0.0452	9.3600e-003	1,099.7624
Total		**6,352.9405**	**0.2623**	**0.0543**	**6,375.6683**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	16.8197	0.4311	17.8761	8.8200e-003		0.6667	0.6667		0.6667	0.6667	51.2022	287.9374	339.1396	0.0272	9.3900e-003	342.6188
Unmitigated	16.8197	0.4311	17.8761	8.8200e-003		0.6667	0.6667		0.6667	0.6667	51.2022	287.9374	339.1396	0.0272	9.3900e-003	342.6188

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.1340					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	11.4336					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.8283	0.2728	4.2909	8.1100e-003		0.5929	0.5929		0.5929	0.5929	51.2022	265.9639	317.1661	5.1000e-003	9.3900e-003	320.0929
Landscaping	0.4238	0.1583	13.5852	7.1000e-004		0.0737	0.0737		0.0737	0.0737	0.0000	21.9735	21.9735	0.0221	0.0000	22.5259
Total	**16.8197**	**0.4311**	**17.8761**	**8.8200e-003**		**0.6667**	**0.6667**		**0.6667**	**0.6667**	**51.2022**	**287.9374**	**339.1396**	**0.0272**	**9.3900e-003**	**342.6188**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.1340					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	11.4336					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.8283	0.2728	4.2909	8.1100e-003		0.5929	0.5929		0.5929	0.5929	51.2022	265.9639	317.1661	5.1000e-003	9.3900e-003	320.0929
Landscaping	0.4238	0.1583	13.5852	7.1000e-004		0.0737	0.0737		0.0737	0.0737	0.0000	21.9735	21.9735	0.0221	0.0000	22.5259

Total	**16.8197**	**0.4311**	**17.8761**	**8.8200e-003**		**0.6667**	**0.6667**		**0.6667**	**0.6667**	**51.2022**	**287.9374**	**339.1396**	**0.0272**	**9.3900e-003**	**342.6188**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	912.7971	0.2816	0.1632	968.4597
Unmitigated	912.7971	0.2816	0.1632	968.4597

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	18.834 / 0	84.8014	0.0262	0.0152	89.9726
General Light Industry	60.6546 / 0	273.1015	0.0843	0.0488	289.7553

General Office Building	10.6952 / 0	48.1560	0.0149	8.6100e-003	51.0926
Single Family Housing	103.204 / 0	464.6822	0.1434	0.0831	493.0187
Strip Mall	9.34042 / 0	42.0559	0.0130	7.5200e-003	44.6205
Total		**912.7971**	**0.2816**	**0.1632**	**968.4597**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	18.834 / 0	84.8014	0.0262	0.0152	89.9726
General Light Industry	60.6546 / 0	273.1015	0.0843	0.0488	289.7553
General Office Building	10.6952 / 0	48.1560	0.0149	8.6100e-003	51.0926
Single Family Housing	103.204 / 0	464.6822	0.1434	0.0831	493.0187
Strip Mall	9.34042 / 0	42.0559	0.0130	7.5200e-003	44.6205
Total		**912.7971**	**0.2816**	**0.1632**	**968.4597**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	812.9788	48.0457	0.0000	2,014.1206
Unmitigated	812.9788	48.0457	0.0000	2,014.1206

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	167	33.8995	2.0034	0.0000	83.9846
General Light Industry	1334	270.7899	16.0032	0.0000	670.8706
General Office Building	160	32.4786	1.9194	0.0000	80.4642
Single Family Housing	2064	418.9734	24.7606	0.0000	1,037.9887
Strip Mall	280	56.8375	3.3590	0.0000	140.8124
Total		**812.9788**	**48.0457**	**0.0000**	**2,014.1206**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	167	33.8995	2.0034	0.0000	83.9846
General Light Industry	1334	270.7899	16.0032	0.0000	670.8706
General Office Building	160	32.4786	1.9194	0.0000	80.4642
Single Family Housing	2064	418.9734	24.7606	0.0000	1,037.9887
Strip Mall	280	56.8375	3.3590	0.0000	140.8124
Total		**812.9788**	**48.0457**	**0.0000**	**2,014.120**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

WestCarsonTOD_Existing

Los Angeles-South Coast, Summary Report

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	146.51	1000sqft	3.36	146,510.00	0
General Light Industry	553.92	1000sqft	12.72	553,923.00	0
Apartments Mid Rise	172.00	Dwelling Unit	4.53	172,000.00	512
Single Family Housing	1,131.00	Dwelling Unit	221.42	2,035,800.00	3364
Strip Mall	255.90	1000sqft	5.87	255,902.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments

Only CalEEMod defaults were used.

Project Characteristics -

Land Use - See Assumptions (Existing).

Construction Phase - No Constructio = Existing

Off-road Equipment - No Construction = Existing

Trips and VMT - No Construction = Existing

Architectural Coating - No Construction = Existing

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No woodstoves

Energy Use -

Water And Wastewater - see assumptions = 100% treated wastewater.

Solid Waste - See Assumptions

Vehicle Trips - Based on trip generation and VMT data provided by IBI.

2.0 Peak Daily Emissions

Peak Daily Operational Emissions

Peak Daily Operational Emissions

		Unmitigated						Mitigated					
		ROG	NOX	CO	SO2	PM10	PM2.5	ROG	NOX	CO	SO2	PM10	PM2.5
	Operational Activity	lb/day											
On-Site	Area	378.5199 S	23.0918 S	451.9567 S	0.6542 S	48.0248 S	48.0248 S	378.5199 S	23.0918 S	451.9567 S	0.6542 S	48.0248 S	48.0248 S
On-Site	Energy	1.5218 S	13.2359 S	7.2319 S	0.0830 S	1.0514 S	1.0514 S	1.5218 S	13.2359 S	7.2319 S	0.0830 S	1.0514 S	1.0514 S
Off-Site	Mobile	79.2188 S	386.6156 W	1,265.9976 S	3.3981 S	251.9502 W	70.4665 W	79.2188 S	386.6156 W	1,265.9976 S	3.3981 S	251.9502 W	70.4665 W
	Peak Daily Total	459.2605 S	422.9433 W	1,725.1862 S	4.1353 S	301.0264 W	119.5427 W	459.2605 S	422.9433 W	1,725.1862 S	4.1353 S	301.0264 W	119.5427 W
	Air District Threshold												
	Exceed Significance?												

3.0 Annual GHG Emissions

Annual GHG

Annual GHG

		Unmitigated				Mitigated			
		CO2	CH4	N2O	CO2e	CO2	CH4	N2O	CO2e
GHG Activity	Year	MT/yr							
Operational	2017	65,929.6992	52.1480	0.2772	67,316.0077	65,929.6992	52.1480	0.2772	67,316.0077
	Total								
	Significance Threshold								
	Exceed Significance?								

WestCarsonTOD_Existing

Los Angeles-South Coast County, Mitigation Report

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.28	0.61		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			

No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			
No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			
No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	50.00
No	Use Low VOC Paint (Residential Exterior)	50.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	100.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

CalEEMod Output – Operation: Existing (2035)

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WestCarsonTOD_Existing

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	146.51	1000sqft	3.36	146,510.00	0
General Light Industry	553.92	1000sqft	12.72	553,923.00	0
Apartments Mid Rise	172.00	Dwelling Unit	4.53	172,000.00	512
Single Family Housing	1,131.00	Dwelling Unit	221.42	2,035,800.00	3364
Strip Mall	255.90	1000sqft	5.87	255,902.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Assumptions (Existing).

Construction Phase - No Constructio = Existing

Off-road Equipment - No Construction = Existing

Trips and VMT - No Construction = Existing

Architectural Coating - No Construction = Existing

Vehicle Trips - Based on trip generation and VMT data provided by IBI.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No woodstoves

Energy Use -

Water And Wastewater - see assumptions = 100% treated wastewater.

Solid Waste - See Assumptions

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	50.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	0.00
tblConstructionPhase	NumDays	330.00	1.00
tblLandUse	BuildingSpaceSquareFeet	553,920.00	553,923.00
tblLandUse	BuildingSpaceSquareFeet	255,900.00	255,902.00
tblLandUse	LandUseSquareFeet	553,920.00	553,923.00
tblLandUse	LandUseSquareFeet	255,900.00	255,902.00
tblLandUse	LotAcreage	367.21	221.42
tblLandUse	Population	492.00	512.00
tblLandUse	Population	3,235.00	3,364.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblProjectCharacteristics	OperationalYear	2018	2035
tblSolidWaste	SolidWasteGenerationRate	79.12	167.00
tblSolidWaste	SolidWasteGenerationRate	686.86	1,334.00
tblSolidWaste	SolidWasteGenerationRate	136.25	160.00
tblSolidWaste	SolidWasteGenerationRate	1,379.24	2,064.00
tblSolidWaste	SolidWasteGenerationRate	268.69	280.00
tblTripsAndVMT	WorkerTripNumber	178.00	0.00
tblVehicleTrips	CC_TL	8.40	14.20
tblVehicleTrips	CC_TL	8.40	14.20
tblVehicleTrips	CC_TL	8.40	14.20
tblVehicleTrips	CC_TTP	28.00	100.00
tblVehicleTrips	CC_TTP	48.00	100.00
tblVehicleTrips	CC_TTP	64.40	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00

tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	14.20
tblVehicleTrips	HW_TL	14.70	14.20
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	6.39	5.21
tblVehicleTrips	ST_TR	1.32	5.46

tblVehicleTrips	ST_TR	2.46	8.64
tblVehicleTrips	ST_TR	9.91	7.46
tblVehicleTrips	ST_TR	42.04	34.72
tblVehicleTrips	SU_TR	5.86	5.21
tblVehicleTrips	SU_TR	0.68	5.46
tblVehicleTrips	SU_TR	1.05	8.64
tblVehicleTrips	SU_TR	8.62	7.46
tblVehicleTrips	SU_TR	20.43	34.72
tblVehicleTrips	WD_TR	6.65	5.21
tblVehicleTrips	WD_TR	6.97	5.46
tblVehicleTrips	WD_TR	11.03	8.64
tblVehicleTrips	WD_TR	9.52	7.46
tblVehicleTrips	WD_TR	44.32	34.72
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	11,206,492.41	18,834,000.00
tblWater	IndoorWaterUseRate	128,094,000.00	60,654,569.00
tblWater	IndoorWaterUseRate	26,039,771.42	10,695,230.00
tblWater	IndoorWaterUseRate	73,689,202.98	103,203,750.00

tblWater	IndoorWaterUseRate	18,955,158.25	9,340,423.00
tblWater	OutdoorWaterUseRate	7,064,962.60	0.00
tblWater	OutdoorWaterUseRate	15,959,859.90	0.00
tblWater	OutdoorWaterUseRate	46,456,236.66	0.00
tblWater	OutdoorWaterUseRate	11,617,677.64	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	8.60	0.00
tblWoodstoves	NumberCatalytic	56.55	0.00
tblWoodstoves	NumberNoncatalytic	8.60	0.00
tblWoodstoves	NumberNoncatalytic	56.55	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	378.3413	23.0619	450.4936	0.6542		48.0313	48.0313		48.0313	48.0313	4,515.2598	23,647.7729	28,163.0328	0.6343	0.8284	28,425.7530
Energy	1.5218	13.2359	7.2319	0.0830		1.0514	1.0514		1.0514	1.0514		16,601.3222	16,601.3222	0.3182	0.3044	16,699.9756

Mobile	28.5445	151.8787	435.5940	2.3153	247.3643	1.1328	248.4971	66.1723	1.0528	67.2251		237,430.8104	237,430.8104	8.7712		237,650.0905
Total	**408.4076**	**188.1765**	**893.3196**	**3.0525**	**247.3643**	**50.2155**	**297.5798**	**66.1723**	**50.1355**	**116.3078**	**4,515.2598**	**277,679.9056**	**282,195.1654**	**9.7237**	**1.1328**	**282,775.8191**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	378.3413	23.0619	450.4936	0.6542		48.0313	48.0313		48.0313	48.0313	4,515.2598	23,647.7729	28,163.0328	0.6343	0.8284	28,425.7530
Energy	1.5218	13.2359	7.2319	0.0830		1.0514	1.0514		1.0514	1.0514		16,601.3222	16,601.3222	0.3182	0.3044	16,699.9756
Mobile	28.5445	151.8787	435.5940	2.3153	247.3643	1.1328	248.4971	66.1723	1.0528	67.2251		237,430.8104	237,430.8104	8.7712		237,650.0905
Total	**408.4076**	**188.1765**	**893.3196**	**3.0525**	**247.3643**	**50.2155**	**297.5798**	**66.1723**	**50.1355**	**116.3078**	**4,515.2598**	**277,679.9056**	**282,195.1654**	**9.7237**	**1.1328**	**282,775.8191**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	28.5445	151.8787	435.5940	2.3153	247.3643	1.1328	248.4971	66.1723	1.0528	67.2251		237,430.8104	237,430.8104	8.7712		237,650.0905
Unmitigated	28.5445	151.8787	435.5940	2.3153	247.3643	1.1328	248.4971	66.1723	1.0528	67.2251		237,430.8104	237,430.8104	8.7712		237,650.0905

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	896.12	896.12	896.12	4,631,865	4,631,865
General Light Industry	3,024.40	3,024.40	3024.40	15,632,535	15,632,535
General Office Building	1,265.85	1,265.85	1265.85	6,542,907	6,542,907
Single Family Housing	8,437.26	8,437.26	8437.26	43,610,509	43,610,509
Strip Mall	8,884.85	8,884.85	8884.85	45,924,002	45,924,002
Total	22,508.48	22,508.48	22,508.48	116,341,819	116,341,819

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.20	0.00	0.00	100.00	0.00	0.00	100	0	0
General Light Industry	0.00	14.20	0.00	0.00	100.00	0.00	100	0	0
General Office Building	0.00	14.20	0.00	0.00	100.00	0.00	100	0	0
Single Family Housing	14.20	0.00	0.00	100.00	0.00	0.00	100	0	0
Strip Mall	0.00	14.20	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
General Light Industry	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Apartments Mid Rise	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Single Family Housing	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Strip Mall	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.5218	13.2359	7.2319	0.0830		1.0514	1.0514		1.0514	1.0514		16,601.3222	16,601.3222	0.3182	0.3044	16,699.9756
NaturalGas Unmitigated	1.5218	13.2359	7.2319	0.0830		1.0514	1.0514		1.0514	1.0514		16,601.3222	16,601.3222	0.3182	0.3044	16,699.9756

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	4305.68	0.0464	0.3968	0.1689	2.5300e-003		0.0321	0.0321		0.0321	0.0321		506.5504	506.5504	9.7100e-003	9.2900e-003	509.5606
General Light Industry	33538.9	0.3617	3.2881	2.7620	0.0197		0.2499	0.2499		0.2499	0.2499		3,945.7529	3,945.7529	0.0756	0.0723	3,969.2005
General Office Building	4347.13	0.0469	0.4262	0.3580	2.5600e-003		0.0324	0.0324		0.0324	0.0324		511.4273	511.4273	9.8000e-003	9.3800e-003	514.4665
Single Family Housing	97440.2	1.0508	8.9798	3.8212	0.0573		0.7260	0.7260		0.7260	0.7260		11,463.5535	11,463.5535	0.2197	0.2102	11,531.6757
Strip Mall	1479.32	0.0160	0.1450	0.1218	8.7000e-004		0.0110	0.0110		0.0110	0.0110		174.0381	174.0381	3.3400e-003	3.1900e-003	175.0723
Total		**1.5218**	**13.2359**	**7.2319**	**0.0830**		**1.0514**	**1.0514**		**1.0514**	**1.0514**		**16,601.3222**	**16,601.3222**	**0.3182**	**0.3044**	**16,699.9756**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	4.30568	0.0464	0.3968	0.1689	2.5300e-003		0.0321	0.0321		0.0321	0.0321		506.5504	506.5504	9.7100e-003	9.2900e-003	509.5606
General Light Industry	33.5389	0.3617	3.2881	2.7620	0.0197		0.2499	0.2499		0.2499	0.2499		3,945.7529	3,945.7529	0.0756	0.0723	3,969.2005
General Office Building	4.34713	0.0469	0.4262	0.3580	2.5600e-003		0.0324	0.0324		0.0324	0.0324		511.4273	511.4273	9.8000e-003	9.3800e-003	514.4665
Single Family Housing	97.4402	1.0508	8.9798	3.8212	0.0573		0.7260	0.7260		0.7260	0.7260		11,463.5535	11,463.5535	0.2197	0.2102	11,531.6757
Strip Mall	1.47932	0.0160	0.1450	0.1218	8.7000e-004		0.0110	0.0110		0.0110	0.0110		174.0381	174.0381	3.3400e-003	3.1900e-003	175.0723

Total		**1.5218**	**13.2359**	**7.2319**	**0.0830**		**1.0514**	**1.0514**		**1.0514**	**1.0514**		**16,601.3222**	**16,601.3222**	**0.3182**	**0.3044**	**16,699.9756**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	378.3413	23.0619	450.4936	0.6542		48.0313	48.0313		48.0313	48.0313	4,515.2598	23,647.7729	28,163.0328	0.6343	0.8284	28,425.7530
Unmitigated	378.3413	23.0619	450.4936	0.6542		48.0313	48.0313		48.0313	48.0313	4,515.2598	23,647.7729	28,163.0328	0.6343	0.8284	28,425.7530

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.2137					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	62.6499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Hearth	306.2660	21.8252	343.2753	0.6485		47.4348	47.4348		47.4348	47.4348	4,515.2598	23,454.0000	27,969.2598	0.4495	0.8284	28,227.3600
Landscaping	3.2118	1.2367	107.2184	5.6800e-003		0.5965	0.5965		0.5965	0.5965		193.7729	193.7729	0.1848		198.3930
Total	**378.3413**	**23.0619**	**450.4936**	**0.6542**		**48.0313**	**48.0313**		**48.0313**	**48.0313**	**4,515.2598**	**23,647.7729**	**28,163.0328**	**0.6343**	**0.8284**	**28,425.7530**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.2137					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	62.6499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	306.2660	21.8252	343.2753	0.6485		47.4348	47.4348		47.4348	47.4348	4,515.2598	23,454.0000	27,969.2598	0.4495	0.8284	28,227.3600
Landscaping	3.2118	1.2367	107.2184	5.6800e-003		0.5965	0.5965		0.5965	0.5965		193.7729	193.7729	0.1848		198.3930
Total	**378.3413**	**23.0619**	**450.4936**	**0.6542**		**48.0313**	**48.0313**		**48.0313**	**48.0313**	**4,515.2598**	**23,647.7729**	**28,163.0328**	**0.6343**	**0.8284**	**28,425.7530**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

WestCarsonTOD_Existing

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	146.51	1000sqft	3.36	146,510.00	0
General Light Industry	553.92	1000sqft	12.72	553,923.00	0
Apartments Mid Rise	172.00	Dwelling Unit	4.53	172,000.00	512
Single Family Housing	1,131.00	Dwelling Unit	221.42	2,035,800.00	3364
Strip Mall	255.90	1000sqft	5.87	255,902.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Assumptions (Existing).

Construction Phase - No Constructio = Existing

Off-road Equipment - No Construction = Existing

Trips and VMT - No Construction = Existing

Architectural Coating - No Construction = Existing

Vehicle Trips - Based on trip generation and VMT data provided by IBI.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No woodstoves

Energy Use -

Water And Wastewater - see assumptions = 100% treated wastewater.

Solid Waste - See Assumptions

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	50.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	0.00
tblConstructionPhase	NumDays	330.00	1.00
tblLandUse	BuildingSpaceSquareFeet	553,920.00	553,923.00
tblLandUse	BuildingSpaceSquareFeet	255,900.00	255,902.00
tblLandUse	LandUseSquareFeet	553,920.00	553,923.00
tblLandUse	LandUseSquareFeet	255,900.00	255,902.00
tblLandUse	LotAcreage	367.21	221.42
tblLandUse	Population	492.00	512.00
tblLandUse	Population	3,235.00	3,364.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblProjectCharacteristics	OperationalYear	2018	2035
tblSolidWaste	SolidWasteGenerationRate	79.12	167.00
tblSolidWaste	SolidWasteGenerationRate	686.86	1,334.00
tblSolidWaste	SolidWasteGenerationRate	136.25	160.00
tblSolidWaste	SolidWasteGenerationRate	1,379.24	2,064.00
tblSolidWaste	SolidWasteGenerationRate	268.69	280.00
tblTripsAndVMT	WorkerTripNumber	178.00	0.00
tblVehicleTrips	CC_TL	8.40	14.20
tblVehicleTrips	CC_TL	8.40	14.20
tblVehicleTrips	CC_TL	8.40	14.20
tblVehicleTrips	CC_TTP	28.00	100.00
tblVehicleTrips	CC_TTP	48.00	100.00
tblVehicleTrips	CC_TTP	64.40	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00

tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	14.20
tblVehicleTrips	HW_TL	14.70	14.20
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	6.39	5.21
tblVehicleTrips	ST_TR	1.32	5.46

tblVehicleTrips	ST_TR	2.46	8.64
tblVehicleTrips	ST_TR	9.91	7.46
tblVehicleTrips	ST_TR	42.04	34.72
tblVehicleTrips	SU_TR	5.86	5.21
tblVehicleTrips	SU_TR	0.68	5.46
tblVehicleTrips	SU_TR	1.05	8.64
tblVehicleTrips	SU_TR	8.62	7.46
tblVehicleTrips	SU_TR	20.43	34.72
tblVehicleTrips	WD_TR	6.65	5.21
tblVehicleTrips	WD_TR	6.97	5.46
tblVehicleTrips	WD_TR	11.03	8.64
tblVehicleTrips	WD_TR	9.52	7.46
tblVehicleTrips	WD_TR	44.32	34.72
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	11,206,492.41	18,834,000.00
tblWater	IndoorWaterUseRate	128,094,000.00	60,654,569.00
tblWater	IndoorWaterUseRate	26,039,771.42	10,695,230.00
tblWater	IndoorWaterUseRate	73,689,202.98	103,203,750.00

tblWater	IndoorWaterUseRate	18,955,158.25	9,340,423.00
tblWater	OutdoorWaterUseRate	7,064,962.60	0.00
tblWater	OutdoorWaterUseRate	15,959,859.90	0.00
tblWater	OutdoorWaterUseRate	46,456,236.66	0.00
tblWater	OutdoorWaterUseRate	11,617,677.64	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	8.60	0.00
tblWoodstoves	NumberCatalytic	56.55	0.00
tblWoodstoves	NumberNoncatalytic	8.60	0.00
tblWoodstoves	NumberNoncatalytic	56.55	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	378.3413	23.0619	450.4936	0.6542		48.0313	48.0313		48.0313	48.0313	4,515.2598	23,647.7729	28,163.0328	0.6343	0.8284	28,425.7530
Energy	1.5218	13.2359	7.2319	0.0830		1.0514	1.0514		1.0514	1.0514		16,601.3222	16,601.3222	0.3182	0.3044	16,699.9756

Mobile	27.8678	154.8294	409.1174	2.2116	247.3643	1.1345	248.4988	66.1723	1.0544	67.2267		227,001.2514	227,001.2514	8.7801		227,220.7528
Total	**407.7309**	**191.1272**	**866.8429**	**2.9488**	**247.3643**	**50.2173**	**297.5815**	**66.1723**	**50.1371**	**116.3094**	**4,515.2598**	**267,250.3465**	**271,765.6064**	**9.7326**	**1.1328**	**272,346.4814**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	378.3413	23.0619	450.4936	0.6542		48.0313	48.0313		48.0313	48.0313	4,515.2598	23,647.7729	28,163.0328	0.6343	0.8284	28,425.7530
Energy	1.5218	13.2359	7.2319	0.0830		1.0514	1.0514		1.0514	1.0514		16,601.3222	16,601.3222	0.3182	0.3044	16,699.9756
Mobile	27.8678	154.8294	409.1174	2.2116	247.3643	1.1345	248.4988	66.1723	1.0544	67.2267		227,001.2514	227,001.2514	8.7801		227,220.7528
Total	**407.7309**	**191.1272**	**866.8429**	**2.9488**	**247.3643**	**50.2173**	**297.5815**	**66.1723**	**50.1371**	**116.3094**	**4,515.2598**	**267,250.3465**	**271,765.6064**	**9.7326**	**1.1328**	**272,346.4814**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	27.8678	154.8294	409.1174	2.2116	247.3643	1.1345	248.4988	66.1723	1.0544	67.2267		227,001.2514	227,001.2514	8.7801		227,220.7528
Unmitigated	27.8678	154.8294	409.1174	2.2116	247.3643	1.1345	248.4988	66.1723	1.0544	67.2267		227,001.2514	227,001.2514	8.7801		227,220.7528

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	896.12	896.12	896.12	4,631,865	4,631,865
General Light Industry	3,024.40	3,024.40	3024.40	15,632,535	15,632,535
General Office Building	1,265.85	1,265.85	1265.85	6,542,907	6,542,907
Single Family Housing	8,437.26	8,437.26	8437.26	43,610,509	43,610,509
Strip Mall	8,884.85	8,884.85	8884.85	45,924,002	45,924,002
Total	22,508.48	22,508.48	22,508.48	116,341,819	116,341,819

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.20	0.00	0.00	100.00	0.00	0.00	100	0	0
General Light Industry	0.00	14.20	0.00	0.00	100.00	0.00	100	0	0
General Office Building	0.00	14.20	0.00	0.00	100.00	0.00	100	0	0
Single Family Housing	14.20	0.00	0.00	100.00	0.00	0.00	100	0	0
Strip Mall	0.00	14.20	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
General Light Industry	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Apartments Mid Rise	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Single Family Housing	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Strip Mall	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.5218	13.2359	7.2319	0.0830		1.0514	1.0514		1.0514	1.0514		16,601.3222	16,601.3222	0.3182	0.3044	16,699.9756
NaturalGas Unmitigated	1.5218	13.2359	7.2319	0.0830		1.0514	1.0514		1.0514	1.0514		16,601.3222	16,601.3222	0.3182	0.3044	16,699.9756

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	4305.68	0.0464	0.3968	0.1689	2.5300e-003		0.0321	0.0321		0.0321	0.0321		506.5504	506.5504	9.7100e-003	9.2900e-003	509.5606
General Light Industry	33538.9	0.3617	3.2881	2.7620	0.0197		0.2499	0.2499		0.2499	0.2499		3,945.7529	3,945.7529	0.0756	0.0723	3,969.2005
General Office Building	4347.13	0.0469	0.4262	0.3580	2.5600e-003		0.0324	0.0324		0.0324	0.0324		511.4273	511.4273	9.8000e-003	9.3800e-003	514.4665
Single Family Housing	97440.2	1.0508	8.9798	3.8212	0.0573		0.7260	0.7260		0.7260	0.7260		11,463.5535	11,463.5535	0.2197	0.2102	11,531.6757
Strip Mall	1479.32	0.0160	0.1450	0.1218	8.7000e-004		0.0110	0.0110		0.0110	0.0110		174.0381	174.0381	3.3400e-003	3.1900e-003	175.0723
Total		**1.5218**	**13.2359**	**7.2319**	**0.0830**		**1.0514**	**1.0514**		**1.0514**	**1.0514**		**16,601.3222**	**16,601.3222**	**0.3182**	**0.3044**	**16,699.9756**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	4.30568	0.0464	0.3968	0.1689	2.5300e-003		0.0321	0.0321		0.0321	0.0321		506.5504	506.5504	9.7100e-003	9.2900e-003	509.5606
General Light Industry	33.5389	0.3617	3.2881	2.7620	0.0197		0.2499	0.2499		0.2499	0.2499		3,945.7529	3,945.7529	0.0756	0.0723	3,969.2005
General Office Building	4.34713	0.0469	0.4262	0.3580	2.5600e-003		0.0324	0.0324		0.0324	0.0324		511.4273	511.4273	9.8000e-003	9.3800e-003	514.4665
Single Family Housing	97.4402	1.0508	8.9798	3.8212	0.0573		0.7260	0.7260		0.7260	0.7260		11,463.5535	11,463.5535	0.2197	0.2102	11,531.6757
Strip Mall	1.47932	0.0160	0.1450	0.1218	8.7000e-004		0.0110	0.0110		0.0110	0.0110		174.0381	174.0381	3.3400e-003	3.1900e-003	175.0723

Total		**1.5218**	**13.2359**	**7.2319**	**0.0830**		**1.0514**	**1.0514**		**1.0514**	**1.0514**		**16,601.3222**	**16,601.3222**	**0.3182**	**0.3044**	**16,699.9756**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	378.3413	23.0619	450.4936	0.6542		48.0313	48.0313		48.0313	48.0313	4,515.2598	23,647.7729	28,163.0328	0.6343	0.8284	28,425.7530
Unmitigated	378.3413	23.0619	450.4936	0.6542		48.0313	48.0313		48.0313	48.0313	4,515.2598	23,647.7729	28,163.0328	0.6343	0.8284	28,425.7530

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.2137					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	62.6499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Hearth	306.2660	21.8252	343.2753	0.6485		47.4348	47.4348		47.4348	47.4348	4,515.2598	23,454.0000	27,969.2598	0.4495	0.8284	28,227.3600
Landscaping	3.2118	1.2367	107.2184	5.6800e-003		0.5965	0.5965		0.5965	0.5965		193.7729	193.7729	0.1848		198.3930
Total	**378.3413**	**23.0619**	**450.4936**	**0.6542**		**48.0313**	**48.0313**		**48.0313**	**48.0313**	**4,515.2598**	**23,647.7729**	**28,163.0328**	**0.6343**	**0.8284**	**28,425.7530**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.2137					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	62.6499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	306.2660	21.8252	343.2753	0.6485		47.4348	47.4348		47.4348	47.4348	4,515.2598	23,454.0000	27,969.2598	0.4495	0.8284	28,227.3600
Landscaping	3.2118	1.2367	107.2184	5.6800e-003		0.5965	0.5965		0.5965	0.5965		193.7729	193.7729	0.1848		198.3930
Total	**378.3413**	**23.0619**	**450.4936**	**0.6542**		**48.0313**	**48.0313**		**48.0313**	**48.0313**	**4,515.2598**	**23,647.7729**	**28,163.0328**	**0.6343**	**0.8284**	**28,425.7530**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

WestCarsonTOD_Existing

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	146.51	1000sqft	3.36	146,510.00	0
General Light Industry	553.92	1000sqft	12.72	553,923.00	0
Apartments Mid Rise	172.00	Dwelling Unit	4.53	172,000.00	512
Single Family Housing	1,131.00	Dwelling Unit	221.42	2,035,800.00	3364
Strip Mall	255.90	1000sqft	5.87	255,902.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Assumptions (Existing).

Construction Phase - No Constructio = Existing

Off-road Equipment - No Construction = Existing

Trips and VMT - No Construction = Existing

Architectural Coating - No Construction = Existing

Vehicle Trips - Based on trip generation and VMT data provided by IBI.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No woodstoves

Energy Use -

Water And Wastewater - see assumptions = 100% treated wastewater.

Solid Waste - See Assumptions

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	50.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	0.00
tblConstructionPhase	NumDays	330.00	1.00
tblLandUse	BuildingSpaceSquareFeet	553,920.00	553,923.00
tblLandUse	BuildingSpaceSquareFeet	255,900.00	255,902.00
tblLandUse	LandUseSquareFeet	553,920.00	553,923.00
tblLandUse	LandUseSquareFeet	255,900.00	255,902.00
tblLandUse	LotAcreage	367.21	221.42
tblLandUse	Population	492.00	512.00
tblLandUse	Population	3,235.00	3,364.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	OperationalYear	2018	2035
tblSolidWaste	SolidWasteGenerationRate	79.12	167.00
tblSolidWaste	SolidWasteGenerationRate	686.86	1,334.00
tblSolidWaste	SolidWasteGenerationRate	136.25	160.00
tblSolidWaste	SolidWasteGenerationRate	1,379.24	2,064.00
tblSolidWaste	SolidWasteGenerationRate	268.69	280.00
tblTripsAndVMT	WorkerTripNumber	178.00	0.00
tblVehicleTrips	CC_TL	8.40	14.20
tblVehicleTrips	CC_TL	8.40	14.20
tblVehicleTrips	CC_TL	8.40	14.20
tblVehicleTrips	CC_TTP	28.00	100.00
tblVehicleTrips	CC_TTP	48.00	100.00
tblVehicleTrips	CC_TTP	64.40	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00

tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	14.20
tblVehicleTrips	HW_TL	14.70	14.20
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	6.39	5.21

tblVehicleTrips	ST_TR	1.32	5.46
tblVehicleTrips	ST_TR	2.46	8.64
tblVehicleTrips	ST_TR	9.91	7.46
tblVehicleTrips	ST_TR	42.04	34.72
tblVehicleTrips	SU_TR	5.86	5.21
tblVehicleTrips	SU_TR	0.68	5.46
tblVehicleTrips	SU_TR	1.05	8.64
tblVehicleTrips	SU_TR	8.62	7.46
tblVehicleTrips	SU_TR	20.43	34.72
tblVehicleTrips	WD_TR	6.65	5.21
tblVehicleTrips	WD_TR	6.97	5.46
tblVehicleTrips	WD_TR	11.03	8.64
tblVehicleTrips	WD_TR	9.52	7.46
tblVehicleTrips	WD_TR	44.32	34.72
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	11,206,492.41	18,834,000.00
tblWater	IndoorWaterUseRate	128,094,000.00	60,654,569.00
tblWater	IndoorWaterUseRate	26,039,771.42	10,695,230.00

tblWater	IndoorWaterUseRate	73,689,202.98	103,203,750.00
tblWater	IndoorWaterUseRate	18,955,158.25	9,340,423.00
tblWater	OutdoorWaterUseRate	7,064,962.60	0.00
tblWater	OutdoorWaterUseRate	15,959,859.90	0.00
tblWater	OutdoorWaterUseRate	46,456,236.66	0.00
tblWater	OutdoorWaterUseRate	11,617,677.64	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	8.60	0.00
tblWoodstoves	NumberCatalytic	56.55	0.00
tblWoodstoves	NumberNoncatalytic	8.60	0.00
tblWoodstoves	NumberNoncatalytic	56.55	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	16.7974	0.4274	17.6932	8.8200e-003		0.6675	0.6675		0.6675	0.6675	51.2022	287.9374	339.1396	0.0261	9.3900e-003	342.5903

Energy	0.2777	2.4156	1.3198	0.0152		0.1919	0.1919		0.1919	0.1919	0.0000	9,101.4756	9,101.4756	0.3150	0.1047	9,140.5366
Mobile	4.9920	28.6482	75.6785	0.4076	44.1511	0.2061	44.3572	11.8300	0.1915	12.0215	0.0000	37,952.9121	37,952.9121	1.4435	0.0000	37,988.9983
Waste						0.0000	0.0000		0.0000	0.0000	812.9788	0.0000	812.9788	48.0457	0.0000	2,014.1206
Water						0.0000	0.0000		0.0000	0.0000	71.7255	841.0716	912.7971	0.2816	0.1632	968.4597
Total	**22.0671**	**31.4912**	**94.6916**	**0.4316**	**44.1511**	**1.0654**	**45.2166**	**11.8300**	**1.0509**	**12.8809**	**935.9065**	**48,183.3967**	**49,119.3032**	**50.1117**	**0.2772**	**50,454.7054**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	16.7974	0.4274	17.6932	8.8200e-003		0.6675	0.6675		0.6675	0.6675	51.2022	287.9374	339.1396	0.0261	9.3900e-003	342.5903
Energy	0.2777	2.4156	1.3198	0.0152		0.1919	0.1919		0.1919	0.1919	0.0000	9,101.4756	9,101.4756	0.3150	0.1047	9,140.5366
Mobile	4.9920	28.6482	75.6785	0.4076	44.1511	0.2061	44.3572	11.8300	0.1915	12.0215	0.0000	37,952.9121	37,952.9121	1.4435	0.0000	37,988.9983
Waste						0.0000	0.0000		0.0000	0.0000	812.9788	0.0000	812.9788	48.0457	0.0000	2,014.1206
Water						0.0000	0.0000		0.0000	0.0000	71.7255	841.0716	912.7971	0.2816	0.1632	968.4597
Total	**22.0671**	**31.4912**	**94.6916**	**0.4316**	**44.1511**	**1.0654**	**45.2166**	**11.8300**	**1.0509**	**12.8809**	**935.9065**	**48,183.3967**	**49,119.3032**	**50.1117**	**0.2772**	**50,454.7054**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.9920	28.6482	75.6785	0.4076	44.1511	0.2061	44.3572	11.8300	0.1915	12.0215	0.0000	37,952.9121	37,952.9121	1.4435	0.0000	37,988.9983
Unmitigated	4.9920	28.6482	75.6785	0.4076	44.1511	0.2061	44.3572	11.8300	0.1915	12.0215	0.0000	37,952.9121	37,952.9121	1.4435	0.0000	37,988.9983

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	896.12	896.12	896.12	4,631,865	4,631,865
General Light Industry	3,024.40	3,024.40	3024.40	15,632,535	15,632,535
General Office Building	1,265.85	1,265.85	1265.85	6,542,907	6,542,907
Single Family Housing	8,437.26	8,437.26	8437.26	43,610,509	43,610,509
Strip Mall	8,884.85	8,884.85	8884.85	45,924,002	45,924,002
Total	22,508.48	22,508.48	22,508.48	116,341,819	116,341,819

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.20	0.00	0.00	100.00	0.00	0.00	100	0	0

General Light Industry	0.00	14.20	0.00	0.00	100.00	0.00	100	0	0
General Office Building	0.00	14.20	0.00	0.00	100.00	0.00	100	0	0
Single Family Housing	14.20	0.00	0.00	100.00	0.00	0.00	100	0	0
Strip Mall	0.00	14.20	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
General Light Industry	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Apartments Mid Rise	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Single Family Housing	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Strip Mall	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6,352.9405	6,352.9405	0.2623	0.0543	6,375.6683
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6,352.9405	6,352.9405	0.2623	0.0543	6,375.6683

NaturalGas Mitigated	0.2777	2.4156	1.3198	0.0152		0.1919	0.1919		0.1919	0.1919	0.0000	2,748.5351	2,748.5351	0.0527	0.0504	2,764.8683
NaturalGas Unmitigated	0.2777	2.4156	1.3198	0.0152		0.1919	0.1919		0.1919	0.1919	0.0000	2,748.5351	2,748.5351	0.0527	0.0504	2,764.8683

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.57157e+006	8.4700e-003	0.0724	0.0308	4.6000e-004		5.8500e-003	5.8500e-003		5.8500e-003	5.8500e-003	0.0000	83.8651	83.8651	1.6100e-003	1.5400e-003	84.3635
General Light Industry	1.22417e+007	0.0660	0.6001	0.5041	3.6000e-003		0.0456	0.0456		0.0456	0.0456	0.0000	653.2636	653.2636	0.0125	0.0120	657.1457
General Office Building	1.5867e+006	8.5600e-003	0.0778	0.0653	4.7000e-004		5.9100e-003	5.9100e-003		5.9100e-003	5.9100e-003	0.0000	84.6725	84.6725	1.6200e-003	1.5500e-003	85.1757
Single Family Housing	3.55657e+007	0.1918	1.6388	0.6974	0.0105		0.1325	0.1325		0.1325	0.1325	0.0000	1,897.9199	1,897.9199	0.0364	0.0348	1,909.1982
Strip Mall	539953	2.9100e-003	0.0265	0.0222	1.6000e-004		2.0100e-003	2.0100e-003		2.0100e-003	2.0100e-003	0.0000	28.8140	28.8140	5.5000e-004	5.3000e-004	28.9852
Total		**0.2777**	**2.4156**	**1.3198**	**0.0152**		**0.1919**	**0.1919**		**0.1919**	**0.1919**	**0.0000**	**2,748.5351**	**2,748.5351**	**0.0527**	**0.0504**	**2,764.8683**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.57157e+006	8.4700e-003	0.0724	0.0308	4.6000e-004		5.8500e-003	5.8500e-003		5.8500e-003	5.8500e-003	0.0000	83.8651	83.8651	1.6100e-003	1.5400e-003	84.3635

General Light Industry	1.22417e+007	0.0660	0.6001	0.5041	3.6000e-003		0.0456	0.0456		0.0456	0.0456	0.0000	653.2636	653.2636	0.0125	0.0120	657.1457
General Office Building	1.5867e+006	8.5600e-003	0.0778	0.0653	4.7000e-004		5.9100e-003	5.9100e-003		5.9100e-003	5.9100e-003	0.0000	84.6725	84.6725	1.6200e-003	1.5500e-003	85.1757
Single Family Housing	3.55657e+007	0.1918	1.6388	0.6974	0.0105		0.1325	0.1325		0.1325	0.1325	0.0000	1,897.9199	1,897.9199	0.0364	0.0348	1,909.1982
Strip Mall	539953	2.9100e-003	0.0265	0.0222	1.6000e-004		2.0100e-003	2.0100e-003		2.0100e-003	2.0100e-003	0.0000	28.8140	28.8140	5.5000e-004	5.3000e-004	28.9852
Total		**0.2777**	**2.4156**	**1.3198**	**0.0152**		**0.1919**	**0.1919**		**0.1919**	**0.1919**	**0.0000**	**2,748.5351**	**2,748.5351**	**0.0527**	**0.0504**	**2,764.8683**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	606033	193.0952	7.9700e-003	1.6500e-003	193.7860
General Light Industry	5.34536e+006	1,703.1453	0.0703	0.0146	1,709.2383
General Office Building	2.39983e+006	764.6385	0.0316	6.5300e-003	767.3740
Single Family Housing	8.14829e+006	2,596.2196	0.1072	0.0222	2,605.5077
Strip Mall	3.43932e+006	1,095.8420	0.0452	9.3600e-003	1,099.7624
Total		**6,352.9405**	**0.2623**	**0.0543**	**6,375.6683**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	606033	193.0952	7.9700e-003	1.6500e-003	193.7860
General Light Industry	5.34536e+006	1,703.1453	0.0703	0.0146	1,709.2383
General Office Building	2.39983e+006	764.6385	0.0316	6.5300e-003	767.3740
Single Family Housing	8.14829e+006	2,596.2196	0.1072	0.0222	2,605.5077
Strip Mall	3.43932e+006	1,095.8420	0.0452	9.3600e-003	1,099.7624
Total		**6,352.9405**	**0.2623**	**0.0543**	**6,375.6683**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	16.7974	0.4274	17.6932	8.8200e-003		0.6675	0.6675		0.6675	0.6675	51.2022	287.9374	339.1396	0.0261	9.3900e-003	342.5903
Unmitigated	16.7974	0.4274	17.6932	8.8200e-003		0.6675	0.6675		0.6675	0.6675	51.2022	287.9374	339.1396	0.0261	9.3900e-003	342.5903

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.1340					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	11.4336					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.8283	0.2728	4.2909	8.1100e-003		0.5929	0.5929		0.5929	0.5929	51.2022	265.9639	317.1661	5.1000e-003	9.3900e-003	320.0929
Landscaping	0.4015	0.1546	13.4023	7.1000e-004		0.0746	0.0746		0.0746	0.0746	0.0000	21.9735	21.9735	0.0210	0.0000	22.4974
Total	**16.7974**	**0.4274**	**17.6932**	**8.8200e-003**		**0.6675**	**0.6675**		**0.6675**	**0.6675**	**51.2022**	**287.9374**	**339.1396**	**0.0261**	**9.3900e-003**	**342.5903**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.1340					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	11.4336					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.8283	0.2728	4.2909	8.1100e-003		0.5929	0.5929		0.5929	0.5929	51.2022	265.9639	317.1661	5.1000e-003	9.3900e-003	320.0929
Landscaping	0.4015	0.1546	13.4023	7.1000e-004		0.0746	0.0746		0.0746	0.0746	0.0000	21.9735	21.9735	0.0210	0.0000	22.4974

Total	**16.7974**	**0.4274**	**17.6932**	**8.8200e-003**		**0.6675**	**0.6675**		**0.6675**	**0.6675**	**51.2022**	**287.9374**	**339.1396**	**0.0261**	**9.3900e-003**	**342.5903**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	912.7971	0.2816	0.1632	968.4597
Unmitigated	912.7971	0.2816	0.1632	968.4597

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	18.834 / 0	84.8014	0.0262	0.0152	89.9726
General Light Industry	60.6546 / 0	273.1015	0.0843	0.0488	289.7553

General Office Building	10.6952 / 0	48.1560	0.0149	8.6100e-003	51.0926
Single Family Housing	103.204 / 0	464.6822	0.1434	0.0831	493.0187
Strip Mall	9.34042 / 0	42.0559	0.0130	7.5200e-003	44.6205
Total		**912.7971**	**0.2816**	**0.1632**	**968.4597**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	18.834 / 0	84.8014	0.0262	0.0152	89.9726
General Light Industry	60.6546 / 0	273.1015	0.0843	0.0488	289.7553
General Office Building	10.6952 / 0	48.1560	0.0149	8.6100e-003	51.0926
Single Family Housing	103.204 / 0	464.6822	0.1434	0.0831	493.0187
Strip Mall	9.34042 / 0	42.0559	0.0130	7.5200e-003	44.6205
Total		**912.7971**	**0.2816**	**0.1632**	**968.4597**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	812.9788	48.0457	0.0000	2,014.1206
Unmitigated	812.9788	48.0457	0.0000	2,014.1206

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	167	33.8995	2.0034	0.0000	83.9846
General Light Industry	1334	270.7899	16.0032	0.0000	670.8706
General Office Building	160	32.4786	1.9194	0.0000	80.4642
Single Family Housing	2064	418.9734	24.7606	0.0000	1,037.9887
Strip Mall	280	56.8375	3.3590	0.0000	140.8124
Total		**812.9788**	**48.0457**	**0.0000**	**2,014.1206**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	167	33.8995	2.0034	0.0000	83.9846
General Light Industry	1334	270.7899	16.0032	0.0000	670.8706
General Office Building	160	32.4786	1.9194	0.0000	80.4642
Single Family Housing	2064	418.9734	24.7606	0.0000	1,037.9887
Strip Mall	280	56.8375	3.3590	0.0000	140.8124
Total		**812.9788**	**48.0457**	**0.0000**	**2,014.1206**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

WestCarsonTOD_Existing

Los Angeles-South Coast, Summary Report

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	146.51	1000sqft	3.36	146,510.00	0
General Light Industry	553.92	1000sqft	12.72	553,923.00	0
Apartments Mid Rise	172.00	Dwelling Unit	4.53	172,000.00	512
Single Family Housing	1,131.00	Dwelling Unit	221.42	2,035,800.00	3364
Strip Mall	255.90	1000sqft	5.87	255,902.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments

Only CalEEMod defaults were used.

Project Characteristics -

Land Use - See Assumptions (Existing).

Construction Phase - No Constructio = Existing

Off-road Equipment - No Construction = Existing

Trips and VMT - No Construction = Existing

Architectural Coating - No Construction = Existing

Vehicle Trips - Based on trip generation and VMT data provided by IBI.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No woodstoves

Energy Use -

Water And Wastewater - see assumptions = 100% treated wastewater.

Solid Waste - See Assumptions

Fleet Mix -

2.0 Peak Daily Emissions

Peak Daily Operational Emissions

Peak Daily Operational Emissions

		Unmitigated						Mitigated					
		ROG	NOX	CO	SO2	PM10	PM2.5	ROG	NOX	CO	SO2	PM10	PM2.5
	Operational Activity	lb/day											
On-Site	Area	378.3413 S	23.0619 S	450.4936 S	0.6542 S	48.0313 S	48.0313 S	378.3413 S	23.0619 S	450.4936 S	0.6542 S	48.0313 S	48.0313 S
On-Site	Energy	1.5218 S	13.2359 S	7.2319 S	0.0830 S	1.0514 S	1.0514 S	1.5218 S	13.2359 S	7.2319 S	0.0830 S	1.0514 S	1.0514 S
Off-Site	Mobile	28.5445 S	154.8294 W	435.5940 S	2.3153 S	248.4988 W	67.2267 W	28.5445 S	154.8294 W	435.5940 S	2.3153 S	248.4988 W	67.2267 W
	Peak Daily Total	408.4076 S	191.1272 W	893.3196 S	3.0525 S	297.5815 W	116.3094 W	408.4076 S	191.1272 W	893.3196 S	3.0525 S	297.5815 W	116.3094 W
	Air District Threshold												
	Exceed Significance?												

3.0 Annual GHG Emissions

Annual GHG

Annual GHG

		Unmitigated				Mitigated			
		CO2	CH4	N2O	CO2e	CO2	CH4	N2O	CO2e
GHG Activity	Year	MT/yr							
Operational	2035	49,119.3032	50.1117	0.2772	50,454.7046	49,119.3032	50.1117	0.2772	50,454.7046
	Total								
	Significance Threshold								
	Exceed Significance?								

WestCarsonTOD_Existing

Los Angeles-South Coast County, Mitigation Report

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.28	0.61		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			

No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			
No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			
No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	50.00
No	Use Low VOC Paint (Residential Exterior)	50.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	100.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

CalEEMod Output – Operation: Existing Remaining Uses

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Remaining Existing Uses

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	330.03	1000sqft	7.58	330,027.00	0
Single Family Housing	938.00	Dwelling Unit	183.64	1,688,400.00	2583
Strip Mall	159.73	1000sqft	3.67	159,730.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Based on calculated stats provided.

Construction Phase -

Vehicle Trips - Based on trip generation and VMT data provided by IBI.

Woodstoves - No woodstoves

Energy Use -

Water And Wastewater - see assumptions = 100% treated wastewater.

Solid Waste - See Assumptions

Table Name	Column Name	Default Value	New Value
tblLandUse	BuildingSpaceSquareFeet	330,030.00	330,027.00
tblLandUse	LandUseSquareFeet	330,030.00	330,027.00
tblLandUse	LotAcreage	304.55	183.64
tblLandUse	Population	2,683.00	2,583.00
tblProjectCharacteristics	OperationalYear	2018	2035
tblSolidWaste	SolidWasteGenerationRate	409.24	795.00
tblSolidWaste	SolidWasteGenerationRate	1,059.03	1,712.00
tblSolidWaste	SolidWasteGenerationRate	167.72	175.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	12.40
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CC_TTP	64.40	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	12.40
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00

tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	12.40
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	1.32	4.65
tblVehicleTrips	ST_TR	9.91	6.35
tblVehicleTrips	ST_TR	42.04	29.57
tblVehicleTrips	SU_TR	0.68	4.65
tblVehicleTrips	SU_TR	8.62	6.35
tblVehicleTrips	SU_TR	20.43	29.57
tblVehicleTrips	WD_TR	6.97	4.65
tblVehicleTrips	WD_TR	9.52	6.35
tblVehicleTrips	WD_TR	44.32	29.57
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00

tblWater	IndoorWaterUseRate	76,319,437.50	36,138,006.00
tblWater	IndoorWaterUseRate	61,114,476.03	85,592,500.00
tblWater	IndoorWaterUseRate	11,831,603.86	5,830,162.00
tblWater	OutdoorWaterUseRate	38,528,691.41	0.00
tblWater	OutdoorWaterUseRate	7,251,628.17	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	46.90	0.00
tblWoodstoves	NumberNoncatalytic	46.90	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	270.0499	16.6016	324.2799	0.4709		34.5766	34.5766		34.5766	34.5766	3,250.4326	17,023.4492	20,273.8819	0.4565	0.5963	20,463.0054
Energy	1.0970	9.4970	4.8908	0.0598		0.7579	0.7579		0.7579	0.7579		11,966.8594	11,966.8594	0.2294	0.2194	12,037.9725
Mobile	14.2820	76.9826	209.0657	1.1039	117.2162	0.5417	117.7580	31.3565	0.5034	31.8599		113,230.9062	113,230.9062	4.2175		113,336.3432
Total	**285.4289**	**103.0811**	**538.2364**	**1.6346**	**117.2162**	**35.8762**	**153.0924**	**31.3565**	**35.8379**	**67.1944**	**3,250.4326**	**142,221.2149**	**145,471.6475**	**4.9034**	**0.8157**	**145,837.3210**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	270.0499	16.6016	324.2799	0.4709		34.5766	34.5766		34.5766	34.5766	3,250.4326	17,023.4492	20,273.8819	0.4565	0.5963	20,463.0054
Energy	1.0970	9.4970	4.8908	0.0598		0.7579	0.7579		0.7579	0.7579		11,966.8594	11,966.8594	0.2294	0.2194	12,037.9725
Mobile	14.2820	76.9826	209.0657	1.1039	117.2162	0.5417	117.7580	31.3565	0.5034	31.8599		113,230.9062	113,230.9062	4.2175		113,336.3432
Total	**285.4289**	**103.0811**	**538.2364**	**1.6346**	**117.2162**	**35.8762**	**153.0924**	**31.3565**	**35.8379**	**67.1944**	**3,250.4326**	**142,221.2149**	**145,471.6475**	**4.9034**	**0.8157**	**145,837.3210**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	14.2820	76.9826	209.0657	1.1039	117.2162	0.5417	117.7580	31.3565	0.5034	31.8599		113,230.9062	113,230.9062	4.2175		113,336.3432
Unmitigated	14.2820	76.9826	209.0657	1.1039	117.2162	0.5417	117.7580	31.3565	0.5034	31.8599		113,230.9062	113,230.9062	4.2175		113,336.3432

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	1,534.64	1,534.64	1534.64	6,926,749	6,926,749
Single Family Housing	5,956.30	5,956.30	5956.30	26,884,356	26,884,356
Strip Mall	4,723.22	4,723.22	4723.22	21,318,708	21,318,708
Total	12,214.16	12,214.16	12,214.16	55,129,813	55,129,813

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	12.40	0.00	0.00	100.00	0.00	0.00	100	0	0
Single Family Housing	12.40	0.00	0.00	100.00	0.00	0.00	100	0	0
Strip Mall	0.00	12.40	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Single Family Housing	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Strip Mall	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.0970	9.4970	4.8908	0.0598		0.7579	0.7579		0.7579	0.7579		11,966.8594	11,966.8594	0.2294	0.2194	12,037.9725
NaturalGas Unmitigated	1.0970	9.4970	4.8908	0.0598		0.7579	0.7579		0.7579	0.7579		11,966.8594	11,966.8594	0.2294	0.2194	12,037.9725

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	19982.5	0.2155	1.9591	1.6456	0.0118		0.1489	0.1489		0.1489	0.1489		2,350.8773	2,350.8773	0.0451	0.0431	2,364.8474
Single Family Housing	80812.5	0.8715	7.4474	3.1691	0.0475		0.6021	0.6021		0.6021	0.6021		9,507.3503	9,507.3503	0.1822	0.1743	9,563.8478
Strip Mall	923.371	9.9600e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003		108.6319	108.6319	2.0800e-003	1.9900e-003	109.2774
Total		**1.0970**	**9.4970**	**4.8908**	**0.0598**		**0.7579**	**0.7579**		**0.7579**	**0.7579**		**11,966.8594**	**11,966.8594**	**0.2294**	**0.2194**	**12,037.9725**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	19.9825	0.2155	1.9591	1.6456	0.0118		0.1489	0.1489		0.1489	0.1489		2,350.8773	2,350.8773	0.0451	0.0431	2,364.8474
Single Family Housing	80.8125	0.8715	7.4474	3.1691	0.0475		0.6021	0.6021		0.6021	0.6021		9,507.3503	9,507.3503	0.1822	0.1743	9,563.8478
Strip Mall	0.923371	9.9600e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003		108.6319	108.6319	2.0800e-003	1.9900e-003	109.2774
Total		**1.0970**	**9.4970**	**4.8908**	**0.0598**		**0.7579**	**0.7579**		**0.7579**	**0.7579**		**11,966.8594**	**11,966.8594**	**0.2294**	**0.2194**	**12,037.9725**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	270.0499	16.6016	324.2799	0.4709		34.5766	34.5766		34.5766	34.5766	3,250.4326	17,023.4492	20,273.8819	0.4565	0.5963	20,463.0054
Unmitigated	270.0499	16.6016	324.2799	0.4709		34.5766	34.5766		34.5766	34.5766	3,250.4326	17,023.4492	20,273.8819	0.4565	0.5963	20,463.0054

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.1383					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	43.1275					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	220.4739	15.7114	247.1160	0.4668		34.1473	34.1473		34.1473	34.1473	3,250.4326	16,884.0000	20,134.4326	0.3236	0.5963	20,320.2331
Landscaping	2.3102	0.8901	77.1639	4.0900e-003		0.4293	0.4293		0.4293	0.4293		139.4492	139.4492	0.1329		142.7723
Total	**270.0499**	**16.6015**	**324.2799**	**0.4709**		**34.5766**	**34.5766**		**34.5766**	**34.5766**	**3,250.4326**	**17,023.4492**	**20,273.8819**	**0.4565**	**0.5963**	**20,463.0054**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.1383					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	43.1275					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	220.4739	15.7114	247.1160	0.4668		34.1473	34.1473		34.1473	34.1473	3,250.4326	16,884.0000	20,134.4326	0.3236	0.5963	20,320.2331
Landscaping	2.3102	0.8901	77.1639	4.0900e-003		0.4293	0.4293		0.4293	0.4293		139.4492	139.4492	0.1329		142.7723
Total	**270.0499**	**16.6015**	**324.2799**	**0.4709**		**34.5766**	**34.5766**		**34.5766**	**34.5766**	**3,250.4326**	**17,023.4492**	**20,273.8819**	**0.4565**	**0.5963**	**20,463.0054**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Remaining Existing Uses

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	330.03	1000sqft	7.58	330,027.00	0
Single Family Housing	938.00	Dwelling Unit	183.64	1,688,400.00	2583
Strip Mall	159.73	1000sqft	3.67	159,730.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Based on calculated stats provided.

Construction Phase -

Vehicle Trips - Based on trip generation and VMT data provided by IBI.

Woodstoves - No woodstoves

Energy Use -

Water And Wastewater - see assumptions = 100% treated wastewater.

Solid Waste - See Assumptions

Table Name	Column Name	Default Value	New Value
tblLandUse	BuildingSpaceSquareFeet	330,030.00	330,027.00
tblLandUse	LandUseSquareFeet	330,030.00	330,027.00
tblLandUse	LotAcreage	304.55	183.64
tblLandUse	Population	2,683.00	2,583.00
tblProjectCharacteristics	OperationalYear	2018	2035
tblSolidWaste	SolidWasteGenerationRate	409.24	795.00
tblSolidWaste	SolidWasteGenerationRate	1,059.03	1,712.00
tblSolidWaste	SolidWasteGenerationRate	167.72	175.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	12.40
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CC_TTP	64.40	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	12.40
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00

tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	12.40
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	1.32	4.65
tblVehicleTrips	ST_TR	9.91	6.35
tblVehicleTrips	ST_TR	42.04	29.57
tblVehicleTrips	SU_TR	0.68	4.65
tblVehicleTrips	SU_TR	8.62	6.35
tblVehicleTrips	SU_TR	20.43	29.57
tblVehicleTrips	WD_TR	6.97	4.65
tblVehicleTrips	WD_TR	9.52	6.35
tblVehicleTrips	WD_TR	44.32	29.57
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00

tblWater	IndoorWaterUseRate	76,319,437.50	36,138,006.00
tblWater	IndoorWaterUseRate	61,114,476.03	85,592,500.00
tblWater	IndoorWaterUseRate	11,831,603.86	5,830,162.00
tblWater	OutdoorWaterUseRate	38,528,691.41	0.00
tblWater	OutdoorWaterUseRate	7,251,628.17	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	46.90	0.00
tblWoodstoves	NumberNoncatalytic	46.90	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	270.0499	16.6016	324.2799	0.4709		34.5766	34.5766		34.5766	34.5766	3,250.4326	17,023.4492	20,273.8819	0.4565	0.5963	20,463.0054
Energy	1.0970	9.4970	4.8908	0.0598		0.7579	0.7579		0.7579	0.7579		11,966.8594	11,966.8594	0.2294	0.2194	12,037.9725
Mobile	13.9253	78.2746	197.0051	1.0541	117.2162	0.5427	117.7589	31.3565	0.5043	31.8608		108,213.2943	108,213.2943	4.2293		108,319.0274
Total	**285.0722**	**104.3731**	**526.1758**	**1.5848**	**117.2162**	**35.8772**	**153.0934**	**31.3565**	**35.8388**	**67.1953**	**3,250.4326**	**137,203.6030**	**140,454.0356**	**4.9152**	**0.8157**	**140,820.0052**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	270.0499	16.6016	324.2799	0.4709		34.5766	34.5766		34.5766	34.5766	3,250.4326	17,023.4492	20,273.8819	0.4565	0.5963	20,463.0054
Energy	1.0970	9.4970	4.8908	0.0598		0.7579	0.7579		0.7579	0.7579		11,966.8594	11,966.8594	0.2294	0.2194	12,037.9725
Mobile	13.9253	78.2746	197.0051	1.0541	117.2162	0.5427	117.7589	31.3565	0.5043	31.8608		108,213.2943	108,213.2943	4.2293		108,319.0274
Total	**285.0722**	**104.3731**	**526.1758**	**1.5848**	**117.2162**	**35.8772**	**153.0934**	**31.3565**	**35.8388**	**67.1953**	**3,250.4326**	**137,203.6030**	**140,454.0356**	**4.9152**	**0.8157**	**140,820.0052**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Mitigated	13.9253	78.2746	197.0051	1.0541	117.2162	0.5427	117.7589	31.3565	0.5043	31.8608		108,213.2943	108,213.2943	4.2293		108,319.0274
Unmitigated	13.9253	78.2746	197.0051	1.0541	117.2162	0.5427	117.7589	31.3565	0.5043	31.8608		108,213.2943	108,213.2943	4.2293		108,319.0274

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	1,534.64	1,534.64	1534.64	6,926,749	6,926,749
Single Family Housing	5,956.30	5,956.30	5956.30	26,884,356	26,884,356
Strip Mall	4,723.22	4,723.22	4723.22	21,318,708	21,318,708
Total	12,214.16	12,214.16	12,214.16	55,129,813	55,129,813

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	12.40	0.00	0.00	100.00	0.00	0.00	100	0	0
Single Family Housing	12.40	0.00	0.00	100.00	0.00	0.00	100	0	0
Strip Mall	0.00	12.40	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Single Family Housing	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Strip Mall	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.0970	9.4970	4.8908	0.0598		0.7579	0.7579		0.7579	0.7579		11,966.8594	11,966.8594	0.2294	0.2194	12,037.9725
NaturalGas Unmitigated	1.0970	9.4970	4.8908	0.0598		0.7579	0.7579		0.7579	0.7579		11,966.8594	11,966.8594	0.2294	0.2194	12,037.9725

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	19982.5	0.2155	1.9591	1.6456	0.0118		0.1489	0.1489		0.1489	0.1489		2,350.8773	2,350.8773	0.0451	0.0431	2,364.8474
Single Family Housing	80812.5	0.8715	7.4474	3.1691	0.0475		0.6021	0.6021		0.6021	0.6021		9,507.3503	9,507.3503	0.1822	0.1743	9,563.8478
Strip Mall	923.371	9.9600e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003		108.6319	108.6319	2.0800e-003	1.9900e-003	109.2774
Total		**1.0970**	**9.4970**	**4.8908**	**0.0598**		**0.7579**	**0.7579**		**0.7579**	**0.7579**		**11,966.8594**	**11,966.8594**	**0.2294**	**0.2194**	**12,037.9725**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	19.9825	0.2155	1.9591	1.6456	0.0118		0.1489	0.1489		0.1489	0.1489		2,350.8773	2,350.8773	0.0451	0.0431	2,364.8474
Single Family Housing	80.8125	0.8715	7.4474	3.1691	0.0475		0.6021	0.6021		0.6021	0.6021		9,507.3503	9,507.3503	0.1822	0.1743	9,563.8478
Strip Mall	0.923371	9.9600e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003		108.6319	108.6319	2.0800e-003	1.9900e-003	109.2774
Total		**1.0970**	**9.4970**	**4.8908**	**0.0598**		**0.7579**	**0.7579**		**0.7579**	**0.7579**		**11,966.8594**	**11,966.8594**	**0.2294**	**0.2194**	**12,037.9725**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	270.0499	16.6016	324.2799	0.4709		34.5766	34.5766		34.5766	34.5766	3,250.4326	17,023.4492	20,273.8819	0.4565	0.5963	20,463.0054
Unmitigated	270.0499	16.6016	324.2799	0.4709		34.5766	34.5766		34.5766	34.5766	3,250.4326	17,023.4492	20,273.8819	0.4565	0.5963	20,463.0054

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.1383					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	43.1275					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	220.4739	15.7114	247.1160	0.4668		34.1473	34.1473		34.1473	34.1473	3,250.4326	16,884.0000	20,134.4326	0.3236	0.5963	20,320.2331
Landscaping	2.3102	0.8901	77.1639	4.0900e-003		0.4293	0.4293		0.4293	0.4293		139.4492	139.4492	0.1329		142.7723
Total	**270.0499**	**16.6015**	**324.2799**	**0.4709**		**34.5766**	**34.5766**		**34.5766**	**34.5766**	**3,250.4326**	**17,023.4492**	**20,273.8819**	**0.4565**	**0.5963**	**20,463.0054**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.1383					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	43.1275					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	220.4739	15.7114	247.1160	0.4668		34.1473	34.1473		34.1473	34.1473	3,250.4326	16,884.0000	20,134.4326	0.3236	0.5963	20,320.2331
Landscaping	2.3102	0.8901	77.1639	4.0900e-003		0.4293	0.4293		0.4293	0.4293		139.4492	139.4492	0.1329		142.7723
Total	**270.0499**	**16.6015**	**324.2799**	**0.4709**		**34.5766**	**34.5766**		**34.5766**	**34.5766**	**3,250.4326**	**17,023.4492**	**20,273.8819**	**0.4565**	**0.5963**	**20,463.0054**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Remaining Existing Uses

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	330.03	1000sqft	7.58	330,027.00	0
Single Family Housing	938.00	Dwelling Unit	183.64	1,688,400.00	2583
Strip Mall	159.73	1000sqft	3.67	159,730.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Based on calculated stats provided.

Construction Phase -

Vehicle Trips - Based on trip generation and VMT data provided by IBI.

Woodstoves - No woodstoves

Energy Use -

Water And Wastewater - see assumptions = 100% treated wastewater.

Solid Waste - See Assumptions

Table Name	Column Name	Default Value	New Value

tblLandUse	BuildingSpaceSquareFeet	330,030.00	330,027.00
tblLandUse	LandUseSquareFeet	330,030.00	330,027.00
tblLandUse	LotAcreage	304.55	183.64
tblLandUse	Population	2,683.00	2,583.00
tblProjectCharacteristics	OperationalYear	2018	2035
tblSolidWaste	SolidWasteGenerationRate	409.24	795.00
tblSolidWaste	SolidWasteGenerationRate	1,059.03	1,712.00
tblSolidWaste	SolidWasteGenerationRate	167.72	175.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	12.40
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CC_TTP	64.40	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	12.40
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	12.40
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00

tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	1.32	4.65
tblVehicleTrips	ST_TR	9.91	6.35
tblVehicleTrips	ST_TR	42.04	29.57
tblVehicleTrips	SU_TR	0.68	4.65
tblVehicleTrips	SU_TR	8.62	6.35
tblVehicleTrips	SU_TR	20.43	29.57
tblVehicleTrips	WD_TR	6.97	4.65
tblVehicleTrips	WD_TR	9.52	6.35
tblVehicleTrips	WD_TR	44.32	29.57
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	76,319,437.50	36,138,006.00
tblWater	IndoorWaterUseRate	61,114,476.03	85,592,500.00
tblWater	IndoorWaterUseRate	11,831,603.86	5,830,162.00
tblWater	OutdoorWaterUseRate	38,528,691.41	0.00
tblWater	OutdoorWaterUseRate	7,251,628.17	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	46.90	0.00
tblWoodstoves	NumberNoncatalytic	46.90	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	11.6707	0.3077	12.7344	6.3500e-003		0.4805	0.4805		0.4805	0.4805	36.8593	207.2746	244.1339	0.0187	6.7600e-003	246.6177
Energy	0.2002	1.7332	0.8926	0.0109		0.1383	0.1383		0.1383	0.1383	0.0000	5,833.1746	5,833.1746	0.1970	0.0692	5,858.7285
Mobile	2.4901	14.4794	36.4066	0.1943	20.9215	0.0986	21.0200	5.6058	0.0916	5.6974	0.0000	18,098.1964	18,098.1964	0.6947	0.0000	18,115.5641
Waste						0.0000	0.0000		0.0000	0.0000	544.4218	0.0000	544.4218	32.1744	0.0000	1,348.7819
Water						0.0000	0.0000		0.0000	0.0000	45.1312	529.2198	574.3510	0.1772	0.1027	609.3751
Total	**14.3611**	**16.5203**	**50.0336**	**0.2116**	**20.9215**	**0.7174**	**21.6389**	**5.6058**	**0.7104**	**6.3162**	**626.4122**	**24,667.8655**	**25,294.2777**	**33.2620**	**0.1787**	**26,179.0672**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	11.6707	0.3077	12.7344	6.3500e-003		0.4805	0.4805		0.4805	0.4805	36.8593	207.2746	244.1339	0.0187	6.7600e-003	246.6177
Energy	0.2002	1.7332	0.8926	0.0109		0.1383	0.1383		0.1383	0.1383	0.0000	5,833.1746	5,833.1746	0.1970	0.0692	5,858.7285
Mobile	2.4901	14.4794	36.4066	0.1943	20.9215	0.0986	21.0200	5.6058	0.0916	5.6974	0.0000	18,098.1964	18,098.1964	0.6947	0.0000	18,115.5641
Waste						0.0000	0.0000		0.0000	0.0000	544.4218	0.0000	544.4218	32.1744	0.0000	1,348.7819
Water						0.0000	0.0000		0.0000	0.0000	45.1312	529.2198	574.3510	0.1772	0.1027	609.3751
Total	**14.3611**	**16.5203**	**50.0336**	**0.2116**	**20.9215**	**0.7174**	**21.6389**	**5.6058**	**0.7104**	**6.3162**	**626.4122**	**24,667.8655**	**25,294.2777**	**33.2620**	**0.1787**	**26,179.0672**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.4901	14.4794	36.4066	0.1943	20.9215	0.0986	21.0200	5.6058	0.0916	5.6974	0.0000	18,098.1964	18,098.1964	0.6947	0.0000	18,115.5641
Unmitigated	2.4901	14.4794	36.4066	0.1943	20.9215	0.0986	21.0200	5.6058	0.0916	5.6974	0.0000	18,098.1964	18,098.1964	0.6947	0.0000	18,115.5641

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	1,534.64	1,534.64	1534.64	6,926,749	6,926,749
Single Family Housing	5,956.30	5,956.30	5956.30	26,884,356	26,884,356
Strip Mall	4,723.22	4,723.22	4723.22	21,318,708	21,318,708
Total	12,214.16	12,214.16	12,214.16	55,129,813	55,129,813

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-...	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	12.40	0.00	0.00	100.00	0.00	0.00	100	0	0
Single Family Housing	12.40	0.00	0.00	100.00	0.00	0.00	100	0	0
Strip Mall	0.00	12.40	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Single Family Housing	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Strip Mall	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,851.9268	3,851.9268	0.1590	0.0329	3,865.7072
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,851.9268	3,851.9268	0.1590	0.0329	3,865.7072
NaturalGas Mitigated	0.2002	1.7332	0.8926	0.0109		0.1383	0.1383		0.1383	0.1383	0.0000	1,981.2478	1,981.2478	0.0380	0.0363	1,993.0214
NaturalGas Unmitigated	0.2002	1.7332	0.8926	0.0109		0.1383	0.1383		0.1383	0.1383	0.0000	1,981.2478	1,981.2478	0.0380	0.0363	1,993.0214

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					

General Light Industry	7.2936e+006	0.0393	0.3575	0.3003	2.1500e-003		0.0272	0.0272		0.0272	0.0272	0.0000	389.2141	389.2141	7.4600e-003	7.1400e-003	391.5270
Single Family Housing	2.94966e+007	0.1591	1.3592	0.5784	8.6800e-003		0.1099	0.1099		0.1099	0.1099	0.0000	1,574.0485	1,574.0485	0.0302	0.0289	1,583.4023
Strip Mall	337030	1.8200e-003	0.0165	0.0139	1.0000e-004		1.2600e-003	1.2600e-003		1.2600e-003	1.2600e-003	0.0000	17.9852	17.9852	3.4000e-004	3.3000e-004	18.0921
Total		**0.2002**	**1.7332**	**0.8926**	**0.0109**		**0.1383**	**0.1383**		**0.1383**	**0.1383**	**0.0000**	**1,981.2478**	**1,981.2478**	**0.0380**	**0.0363**	**1,993.0214**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	7.2936e+006	0.0393	0.3575	0.3003	2.1500e-003		0.0272	0.0272		0.0272	0.0272	0.0000	389.2141	389.2141	7.4600e-003	7.1400e-003	391.5270
Single Family Housing	2.94966e+007	0.1591	1.3592	0.5784	8.6800e-003		0.1099	0.1099		0.1099	0.1099	0.0000	1,574.0485	1,574.0485	0.0302	0.0289	1,583.4023
Strip Mall	337030	1.8200e-003	0.0165	0.0139	1.0000e-004		1.2600e-003	1.2600e-003		1.2600e-003	1.2600e-003	0.0000	17.9852	17.9852	3.4000e-004	3.3000e-004	18.0921
Total		**0.2002**	**1.7332**	**0.8926**	**0.0109**		**0.1383**	**0.1383**		**0.1383**	**0.1383**	**0.0000**	**1,981.2478**	**1,981.2478**	**0.0380**	**0.0363**	**1,993.0214**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	3.18476e+006	1,014.7329	0.0419	8.6700e-003	1,018.3632
Single Family Housing	6.75782e+006	2,153.1866	0.0889	0.0184	2,160.8896
Strip Mall	2.14677e+006	684.0073	0.0282	5.8400e-003	686.4544

Total		**3,851.9268**	**0.1590**	**0.0329**	**3,865.7072**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	3.18476e+006	1,014.7329	0.0419	8.6700e-003	1,018.3632
Single Family Housing	6.75782e+006	2,153.1866	0.0889	0.0184	2,160.8896
Strip Mall	2.14677e+006	684.0073	0.0282	5.8400e-003	686.4544
Total		**3,851.9268**	**0.1590**	**0.0329**	**3,865.7072**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	11.6707	0.3077	12.7344	6.3500e-003		0.4805	0.4805		0.4805	0.4805	36.8593	207.2746	244.1339	0.0187	6.7600e-003	246.6177
Unmitigated	11.6707	0.3077	12.7344	6.3500e-003		0.4805	0.4805		0.4805	0.4805	36.8593	207.2746	244.1339	0.0187	6.7600e-003	246.6177

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.7552					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.8708					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.7559	0.1964	3.0890	5.8400e-003		0.4268	0.4268		0.4268	0.4268	36.8593	191.4613	228.3206	3.6700e-003	6.7600e-003	230.4276
Landscaping	0.2888	0.1113	9.6455	5.1000e-004		0.0537	0.0537		0.0537	0.0537	0.0000	15.8133	15.8133	0.0151	0.0000	16.1901
Total	**11.6707**	**0.3077**	**12.7344**	**6.3500e-003**		**0.4805**	**0.4805**		**0.4805**	**0.4805**	**36.8593**	**207.2746**	**244.1339**	**0.0187**	**6.7600e-003**	**246.6177**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.7552					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.8708					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.7559	0.1964	3.0890	5.8400e-003		0.4268	0.4268		0.4268	0.4268	36.8593	191.4613	228.3206	3.6700e-003	6.7600e-003	230.4276
Landscaping	0.2888	0.1113	9.6455	5.1000e-004		0.0537	0.0537		0.0537	0.0537	0.0000	15.8133	15.8133	0.0151	0.0000	16.1901
Total	**11.6707**	**0.3077**	**12.7344**	**6.3500e-003**		**0.4805**	**0.4805**		**0.4805**	**0.4805**	**36.8593**	**207.2746**	**244.1339**	**0.0187**	**6.7600e-003**	**246.6177**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	574.3510	0.1772	0.1027	609.3751
Unmitigated	574.3510	0.1772	0.1027	609.3751

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	36.138 / 0	162.7139	0.0502	0.0291	172.6363
Single Family Housing	85.5925 / 0	385.3863	0.1189	0.0689	408.8873
Strip Mall	5.83016 / 0	26.2507	8.1000e-003	4.6900e-003	27.8515
Total		**574.3510**	**0.1772**	**0.1027**	**609.3751**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Land Use	Mgal	MT/yr			
General Light Industry	36.138 / 0	162.7139	0.0502	0.0291	172.6363
Single Family Housing	85.5925 / 0	385.3863	0.1189	0.0689	408.8873
Strip Mall	5.83016 / 0	26.2507	8.1000e-003	4.6900e-003	27.8515
Total		**574.3510**	**0.1772**	**0.1027**	**609.3751**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	544.4218	32.1744	0.0000	1,348.7819
Unmitigated	544.4218	32.1744	0.0000	1,348.7819

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	795	161.3778	9.5372	0.0000	399.8067

Single Family Housing	1712	347.5205	20.5379	0.0000	860.9674
Strip Mall	175	35.5234	2.0994	0.0000	88.0078
Total		**544.4218**	**32.1744**	**0.0000**	**1,348.7819**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	795	161.3778	9.5372	0.0000	399.8067
Single Family Housing	1712	347.5205	20.5379	0.0000	860.9674
Strip Mall	175	35.5234	2.0994	0.0000	88.0078
Total		**544.4218**	**32.1744**	**0.0000**	**1,348.781**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Remaining Existing Uses

Los Angeles-South Coast, Summary Report

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	330.03	1000sqft	7.58	330,027.00	0
Single Family Housing	938.00	Dwelling Unit	183.64	1,688,400.00	2583
Strip Mall	159.73	1000sqft	3.67	159,730.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments

Only CalEEMod defaults were used.

Project Characteristics -

Land Use - Based on calculated stats provided.

Construction Phase -

Vehicle Trips - Based on trip generation and VMT data provided by IBI.

Woodstoves - No woodstoves

Energy Use -

Water And Wastewater - see assumptions = 100% treated wastewater.

Solid Waste - See Assumptions

2.0 Peak Daily Emissions

Peak Daily Operational Emissions

Peak Daily Operational Emissions

		Unmitigated						Mitigated					
		ROG	NOX	CO	SO2	PM10	PM2.5	ROG	NOX	CO	SO2	PM10	PM2.5
	Operational Activity	lb/day											
On-Site	Area	270.0499 S	16.6016 S	324.2799 S	0.4709 S	34.5766 S	34.5766 S	270.0499 S	16.6016 S	324.2799 S	0.4709 S	34.5766 S	34.5766 S
On-Site	Energy	1.0970 S	9.4970 S	4.8908 S	0.0598 S	0.7579 S	0.7579 S	1.0970 S	9.4970 S	4.8908 S	0.0598 S	0.7579 S	0.7579 S
Off-Site	Mobile	14.2820 S	78.2746 W	209.0657 S	1.1039 S	117.7589 W	31.8608 W	14.2820 S	78.2746 W	209.0657 S	1.1039 S	117.7589 W	31.8608 W
	Peak Daily Total	285.4289 S	104.3731 W	538.2364 S	1.6346 S	153.0934 W	67.1953 W	285.4289 S	104.3731 W	538.2364 S	1.6346 S	153.0934 W	67.1953 W
	Air District Threshold												
	Exceed Significance?												

3.0 Annual GHG Emissions

Annual GHG

Annual GHG

		Unmitigated				Mitigated			
		CO2	CH4	N2O	CO2e	CO2	CH4	N2O	CO2e
GHG Activity	Year	MT/yr							
Operational	2035	25,294.2777	33.2620	0.1787	26,179.0667	25,294.2777	33.2620	0.1787	26,179.0667
	Total								
	Significance Threshold								
	Exceed Significance?								

Remaining Existing Uses

Los Angeles-South Coast County, Mitigation Report

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.18	0.45		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			

No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			
No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			
No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	50.00
No	Use Low VOC Paint (Residential Exterior)	50.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	100.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

CalEEMod Output – Operation: New Proposed Uses

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New Proposed Uses

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1,335.08	1000sqft	30.65	1,335,075.00	0
General Light Industry	241.92	1000sqft	5.55	241,924.00	0
Enclosed Parking with Elevator	1,000.00	1000sqft	22.96	1,000,000.00	0
Apartments Mid Rise	2,536.00	Dwelling Unit	66.74	2,536,000.00	6982
Congregate Care (Assisted Living)	100.00	Dwelling Unit	6.25	100,000.00	0
Strip Mall	594.56	1000sqft	13.65	594,564.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See assumptions file

Construction Phase -

Vehicle Trips - Trip generation and VMT data provided by IBI. Assumes no trips and VMT for the transitional housing units at the hospital.

Woodstoves - Assumes all MF units include gas fireplaces. Assumes no fireplaces for transitional housing units.

Water And Wastewater - Based on IBI West Carson Environmental Assessment. Assumes 100% treated wastewater.

Solid Waste - See assumptions file. Based on CalRecycle rates.

Energy Mitigation - Assumes new multifamily developments would be 4 stories and higher and comply with the non-residential 2016 Building Energy Efficiency Standards

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	2,155.60	2,536.00
tblFireplaces	NumberGas	85.00	0.00
tblFireplaces	NumberNoFireplace	253.60	0.00
tblFireplaces	NumberNoFireplace	10.00	100.00
tblFireplaces	NumberWood	126.80	0.00
tblFireplaces	NumberWood	5.00	0.00
tblLandUse	BuildingSpaceSquareFeet	1,335,080.00	1,335,075.00
tblLandUse	BuildingSpaceSquareFeet	241,920.00	241,924.00
tblLandUse	BuildingSpaceSquareFeet	594,560.00	594,564.00
tblLandUse	LandUseSquareFeet	1,335,080.00	1,335,075.00
tblLandUse	LandUseSquareFeet	241,920.00	241,924.00
tblLandUse	LandUseSquareFeet	594,560.00	594,564.00
tblLandUse	Population	7,253.00	6,982.00
tblLandUse	Population	286.00	0.00
tblProjectCharacteristics	OperationalYear	2018	2035
tblSolidWaste	SolidWasteGenerationRate	1,166.56	2,458.00
tblSolidWaste	SolidWasteGenerationRate	91.25	97.00
tblSolidWaste	SolidWasteGenerationRate	299.98	583.00
tblSolidWaste	SolidWasteGenerationRate	1,241.62	1,462.00

tblSolidWaste	SolidWasteGenerationRate	624.29	651.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	12.40
tblVehicleTrips	CC_TL	8.40	12.40
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CC_TTP	48.00	100.00
tblVehicleTrips	CC_TTP	64.40	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	12.40
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00

tblVehicleTrips	HW_TL	14.70	12.40
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	6.39	4.44
tblVehicleTrips	ST_TR	2.20	0.00
tblVehicleTrips	ST_TR	1.32	4.65
tblVehicleTrips	ST_TR	2.46	7.36
tblVehicleTrips	ST_TR	42.04	29.57
tblVehicleTrips	SU_TR	5.86	4.44
tblVehicleTrips	SU_TR	2.44	0.00
tblVehicleTrips	SU_TR	0.68	4.65
tblVehicleTrips	SU_TR	1.05	7.36
tblVehicleTrips	SU_TR	20.43	29.57
tblVehicleTrips	WD_TR	6.65	4.44
tblVehicleTrips	WD_TR	2.74	0.00
tblVehicleTrips	WD_TR	6.97	4.65
tblVehicleTrips	WD_TR	11.03	7.36
tblVehicleTrips	WD_TR	44.32	29.57
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00

tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	165,230,608.98	277,692,000.00
tblWater	IndoorWaterUseRate	6,515,402.56	10,950,000.00
tblWater	IndoorWaterUseRate	55,944,000.00	26,490,628.00
tblWater	IndoorWaterUseRate	237,288,772.27	97,460,442.00
tblWater	IndoorWaterUseRate	44,040,558.37	21,701,569.00
tblWater	OutdoorWaterUseRate	104,167,123.05	0.00
tblWater	OutdoorWaterUseRate	4,107,536.40	0.00
tblWater	OutdoorWaterUseRate	145,435,053.97	0.00
tblWater	OutdoorWaterUseRate	26,992,600.29	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	126.80	0.00
tblWoodstoves	NumberCatalytic	5.00	0.00

tblWoodstoves	NumberNoncatalytic	126.80	0.00
tblWoodstoves	NumberNoncatalytic	5.00	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	117.0861	44.5709	234.9321	0.2800		4.6084	4.6084		4.6084	4.6084	0.0000	54,095.8074	54,095.8074	1.4039	0.9846	54,424.3044
Energy	1.6413	14.3241	8.1576	0.0895		1.1340	1.1340		1.1340	1.1340		17,904.9552	17,904.9552	0.3432	0.3283	18,011.3554
Mobile	46.5287	250.7990	681.1082	3.5963	381.8748	1.7649	383.6398	102.1551	1.6401	103.7952		368,891.2469	368,891.2469	13.7400		369,234.7465
Total	**165.2560**	**309.6939**	**924.1979**	**3.9659**	**381.8748**	**7.5073**	**389.3821**	**102.1551**	**7.3824**	**109.5376**	**0.0000**	**440,892.0095**	**440,892.0095**	**15.4870**	**1.3128**	**441,670.4064**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	117.0861	44.5709	234.9321	0.2800		4.6084	4.6084		4.6084	4.6084	0.0000	54,095.8074	54,095.8074	1.4039	0.9846	54,424.3044

Energy	1.5852	13.8320	7.8619	0.0865		1.0952	1.0952		1.0952	1.0952		17,292.6785	17,292.6785	0.3314	0.3170	17,395.4403
Mobile	46.5287	250.7990	681.1082	3.5963	381.8748	1.7649	383.6398	102.1551	1.6401	103.7952		368,891.2469	368,891.2469	13.7400		369,234.7465
Total	**165.1999**	**309.2018**	**923.9022**	**3.9628**	**381.8748**	**7.4685**	**389.3433**	**102.1551**	**7.3437**	**109.4988**	**0.0000**	**440,279.7328**	**440,279.7328**	**15.4753**	**1.3016**	**441,054.4913**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.03**	**0.16**	**0.03**	**0.08**	**0.00**	**0.52**	**0.01**	**0.00**	**0.53**	**0.04**	**0.00**	**0.14**	**0.14**	**0.08**	**0.86**	**0.14**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	46.5287	250.7990	681.1082	3.5963	381.8748	1.7649	383.6398	102.1551	1.6401	103.7952		368,891.2469	368,891.2469	13.7400		369,234.7465
Unmitigated	46.5287	250.7990	681.1082	3.5963	381.8748	1.7649	383.6398	102.1551	1.6401	103.7952		368,891.2469	368,891.2469	13.7400		369,234.7465

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	11,259.84	11,259.84	11259.84	50,822,414	50,822,414

Congregate Care (Assisted Living)	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Light Industry	1,124.93	1,124.93	1124.93	5,077,475	5,077,475
General Office Building	9,826.19	9,826.19	9826.19	44,351,486	44,351,486
Strip Mall	17,581.14	17,581.14	17581.14	79,354,230	79,354,230
Total	39,792.10	39,792.10	39,792.10	179,605,605	179,605,605

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	0.00	0.00	100.00	0.00	0.00	100	0	0
Congregate Care (Assisted Living)	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Light Industry	12.40	0.00	0.00	100.00	0.00	0.00	100	0	0
General Office Building	0.00	12.40	0.00	0.00	100.00	0.00	100	0	0
Strip Mall	0.00	12.40	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
General Light Industry	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Enclosed Parking with Elevator	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Apartments Mid Rise	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Congregate Care (Assisted Living)	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Strip Mall	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.5852	13.8320	7.8619	0.0865		1.0952	1.0952		1.0952	1.0952		17,292.6785	17,292.6785	0.3314	0.3170	17,395.4403
NaturalGas Unmitigated	1.6413	14.3241	8.1576	0.0895		1.1340	1.1340		1.1340	1.1340		17,904.9552	17,904.9552	0.3432	0.3283	18,011.3554

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	97592.6	1.0525	8.9938	3.8272	0.0574		0.7272	0.7272		0.7272	0.7272		11,481.4795	11,481.4795	0.2201	0.2105	11,549.7081
Congregate Care (Assisted Living)	3848.29	0.0415	0.3547	0.1509	2.2600e-003		0.0287	0.0287		0.0287	0.0287		452.7397	452.7397	8.6800e-003	8.3000e-003	455.4301
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	13899	0.1499	1.3627	1.1446	8.1800e-003		0.1036	0.1036		0.1036	0.1036		1,635.1801	1,635.1801	0.0313	0.0300	1,644.8972
General Office Building	33578.1	0.3621	3.2920	2.7653	0.0198		0.2502	0.2502		0.2502	0.2502		3,950.3589	3,950.3589	0.0757	0.0724	3,973.8339
Strip Mall	3274.17	0.0353	0.3210	0.2696	1.9300e-003		0.0244	0.0244		0.0244	0.0244		385.1970	385.1970	7.3800e-003	7.0600e-003	387.4860

Total		**1.6413**	**14.3241**	**8.1576**	**0.0895**		**1.1340**	**1.1340**		**1.1340**	**1.1340**		**17,904.9552**	**17,904.9552**	**0.3432**	**0.3283**	**18,011.3554**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	94.6292	1.0205	8.7207	3.7110	0.0557		0.7051	0.7051		0.7051	0.7051		11,132.8459	11,132.8459	0.2134	0.2041	11,199.0028
Congregate Care (Assisted Living)	3.73143	0.0402	0.3439	0.1463	2.1900e-003		0.0278	0.0278		0.0278	0.0278		438.9923	438.9923	8.4100e-003	8.0500e-003	441.6011
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	13.4314	0.1449	1.3168	1.1061	7.9000e-003		0.1001	0.1001		0.1001	0.1001		1,580.1673	1,580.1673	0.0303	0.0290	1,589.5574
General Office Building	31.9997	0.3451	3.1372	2.6353	0.0188		0.2384	0.2384		0.2384	0.2384		3,764.6748	3,764.6748	0.0722	0.0690	3,787.0464
Strip Mall	3.19599	0.0345	0.3133	0.2632	1.8800e-003		0.0238	0.0238		0.0238	0.0238		375.9983	375.9983	7.2100e-003	6.8900e-003	378.2326
Total		**1.5852**	**13.8320**	**7.8619**	**0.0865**		**1.0952**	**1.0952**		**1.0952**	**1.0952**		**17,292.6785**	**17,292.6785**	**0.3315**	**0.3170**	**17,395.4403**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	117.0861	44.5709	234.9321	0.2800		4.6084	4.6084		4.6084	4.6084	0.0000	54,095.8074	54,095.8074	1.4039	0.9846	54,424.3044
Unmitigated	117.0861	44.5709	234.9321	0.2800		4.6084	4.6084		4.6084	4.6084	0.0000	54,095.8074	54,095.8074	1.4039	0.9846	54,424.3044

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	10.1103					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	95.5440					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.9228	42.0678	17.9012	0.2685		3.4012	3.4012		3.4012	3.4012	0.0000	53,703.5294	53,703.5294	1.0293	0.9846	54,022.6626
Landscaping	6.5090	2.5031	217.0309	0.0115		1.2072	1.2072		1.2072	1.2072		392.2780	392.2780	0.3746		401.6418
Total	**117.0860**	**44.5709**	**234.9321**	**0.2800**		**4.6084**	**4.6084**		**4.6084**	**4.6084**	**0.0000**	**54,095.8074**	**54,095.8074**	**1.4039**	**0.9846**	**54,424.3044**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	10.1103					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	95.5440					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.9228	42.0678	17.9012	0.2685		3.4012	3.4012		3.4012	3.4012	0.0000	53,703.5294	53,703.5294	1.0293	0.9846	54,022.6626
Landscaping	6.5090	2.5031	217.0309	0.0115		1.2072	1.2072		1.2072	1.2072		392.2780	392.2780	0.3746		401.6418
Total	**117.0860**	**44.5709**	**234.9321**	**0.2800**		**4.6084**	**4.6084**		**4.6084**	**4.6084**	**0.0000**	**54,095.8074**	**54,095.8074**	**1.4039**	**0.9846**	**54,424.3044**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

New Proposed Uses

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1,335.08	1000sqft	30.65	1,335,075.00	0
General Light Industry	241.92	1000sqft	5.55	241,924.00	0
Enclosed Parking with Elevator	1,000.00	1000sqft	22.96	1,000,000.00	0
Apartments Mid Rise	2,536.00	Dwelling Unit	66.74	2,536,000.00	6982
Congregate Care (Assisted Living)	100.00	Dwelling Unit	6.25	100,000.00	0
Strip Mall	594.56	1000sqft	13.65	594,564.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See assumptions file

Construction Phase -

Vehicle Trips - Trip generation and VMT data provided by IBI. Assumes no trips and VMT for the transitional housing units at the hospital.

Woodstoves - Assumes all MF units include gas fireplaces. Assumes no fireplaces for transitional housing units.

Water And Wastewater - Based on IBI West Carson Environmental Assessment. Assumes 100% treated wastewater.

Solid Waste - See assumptions file. Based on CalRecycle rates.

Energy Mitigation - Assumes new multifamily developments would be 4 stories and higher and comply with the non-residential 2016 Building Energy Efficiency Standards

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	2,155.60	2,536.00
tblFireplaces	NumberGas	85.00	0.00
tblFireplaces	NumberNoFireplace	253.60	0.00
tblFireplaces	NumberNoFireplace	10.00	100.00
tblFireplaces	NumberWood	126.80	0.00
tblFireplaces	NumberWood	5.00	0.00
tblLandUse	BuildingSpaceSquareFeet	1,335,080.00	1,335,075.00
tblLandUse	BuildingSpaceSquareFeet	241,920.00	241,924.00
tblLandUse	BuildingSpaceSquareFeet	594,560.00	594,564.00
tblLandUse	LandUseSquareFeet	1,335,080.00	1,335,075.00
tblLandUse	LandUseSquareFeet	241,920.00	241,924.00
tblLandUse	LandUseSquareFeet	594,560.00	594,564.00
tblLandUse	Population	7,253.00	6,982.00
tblLandUse	Population	286.00	0.00
tblProjectCharacteristics	OperationalYear	2018	2035
tblSolidWaste	SolidWasteGenerationRate	1,166.56	2,458.00
tblSolidWaste	SolidWasteGenerationRate	91.25	97.00
tblSolidWaste	SolidWasteGenerationRate	299.98	583.00
tblSolidWaste	SolidWasteGenerationRate	1,241.62	1,462.00

tblSolidWaste	SolidWasteGenerationRate	624.29	651.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	12.40
tblVehicleTrips	CC_TL	8.40	12.40
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CC_TTP	48.00	100.00
tblVehicleTrips	CC_TTP	64.40	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	12.40
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00

tblVehicleTrips	HW_TL	14.70	12.40
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	6.39	4.44
tblVehicleTrips	ST_TR	2.20	0.00
tblVehicleTrips	ST_TR	1.32	4.65
tblVehicleTrips	ST_TR	2.46	7.36
tblVehicleTrips	ST_TR	42.04	29.57
tblVehicleTrips	SU_TR	5.86	4.44
tblVehicleTrips	SU_TR	2.44	0.00
tblVehicleTrips	SU_TR	0.68	4.65
tblVehicleTrips	SU_TR	1.05	7.36
tblVehicleTrips	SU_TR	20.43	29.57
tblVehicleTrips	WD_TR	6.65	4.44
tblVehicleTrips	WD_TR	2.74	0.00
tblVehicleTrips	WD_TR	6.97	4.65
tblVehicleTrips	WD_TR	11.03	7.36
tblVehicleTrips	WD_TR	44.32	29.57
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00

tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	165,230,608.98	277,692,000.00
tblWater	IndoorWaterUseRate	6,515,402.56	10,950,000.00
tblWater	IndoorWaterUseRate	55,944,000.00	26,490,628.00
tblWater	IndoorWaterUseRate	237,288,772.27	97,460,442.00
tblWater	IndoorWaterUseRate	44,040,558.37	21,701,569.00
tblWater	OutdoorWaterUseRate	104,167,123.05	0.00
tblWater	OutdoorWaterUseRate	4,107,536.40	0.00
tblWater	OutdoorWaterUseRate	145,435,053.97	0.00
tblWater	OutdoorWaterUseRate	26,992,600.29	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	126.80	0.00
tblWoodstoves	NumberCatalytic	5.00	0.00

tblWoodstoves	NumberNoncatalytic	126.80	0.00
tblWoodstoves	NumberNoncatalytic	5.00	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	117.0861	44.5709	234.9321	0.2800		4.6084	4.6084		4.6084	4.6084	0.0000	54,095.8074	54,095.8074	1.4039	0.9846	54,424.3044
Energy	1.6413	14.3241	8.1576	0.0895		1.1340	1.1340		1.1340	1.1340		17,904.9552	17,904.9552	0.3432	0.3283	18,011.3554
Mobile	45.3669	255.0081	641.8164	3.4340	381.8748	1.7680	383.6428	102.1551	1.6430	103.7982		352,544.5341	352,544.5341	13.7786		352,888.9985
Total	**164.0943**	**313.9031**	**884.9061**	**3.8036**	**381.8748**	**7.5103**	**389.3851**	**102.1551**	**7.3854**	**109.5405**	**0.0000**	**424,545.2967**	**424,545.2967**	**15.5256**	**1.3128**	**425,324.6583**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	117.0861	44.5709	234.9321	0.2800		4.6084	4.6084		4.6084	4.6084	0.0000	54,095.8074	54,095.8074	1.4039	0.9846	54,424.3044

Energy	1.5852	13.8320	7.8619	0.0865		1.0952	1.0952		1.0952	1.0952		17,292.6785	17,292.6785	0.3314	0.3170	17,395.4403
Mobile	45.3669	255.0081	641.8164	3.4340	381.8748	1.7680	383.6428	102.1551	1.6430	103.7982		352,544.5341	352,544.5341	13.7786		352,888.9985
Total	**164.0381**	**313.4109**	**884.6104**	**3.8005**	**381.8748**	**7.4715**	**389.3464**	**102.1551**	**7.3466**	**109.5017**	**0.0000**	**423,933.0200**	**423,933.0200**	**15.5139**	**1.3016**	**424,708.7432**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.03**	**0.16**	**0.03**	**0.08**	**0.00**	**0.52**	**0.01**	**0.00**	**0.53**	**0.04**	**0.00**	**0.14**	**0.14**	**0.08**	**0.86**	**0.14**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	45.3669	255.0081	641.8164	3.4340	381.8748	1.7680	383.6428	102.1551	1.6430	103.7982		352,544.5341	352,544.5341	13.7786		352,888.9985
Unmitigated	45.3669	255.0081	641.8164	3.4340	381.8748	1.7680	383.6428	102.1551	1.6430	103.7982		352,544.5341	352,544.5341	13.7786		352,888.9985

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	11,259.84	11,259.84	11259.84	50,822,414	50,822,414

Congregate Care (Assisted Living)	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Light Industry	1,124.93	1,124.93	1124.93	5,077,475	5,077,475
General Office Building	9,826.19	9,826.19	9826.19	44,351,486	44,351,486
Strip Mall	17,581.14	17,581.14	17581.14	79,354,230	79,354,230
Total	39,792.10	39,792.10	39,792.10	179,605,605	179,605,605

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	0.00	0.00	100.00	0.00	0.00	100	0	0
Congregate Care (Assisted Living)	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Light Industry	12.40	0.00	0.00	100.00	0.00	0.00	100	0	0
General Office Building	0.00	12.40	0.00	0.00	100.00	0.00	100	0	0
Strip Mall	0.00	12.40	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
General Light Industry	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Enclosed Parking with Elevator	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Apartments Mid Rise	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Congregate Care (Assisted Living)	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Strip Mall	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.5852	13.8320	7.8619	0.0865		1.0952	1.0952		1.0952	1.0952		17,292.6785	17,292.6785	0.3314	0.3170	17,395.4403
NaturalGas Unmitigated	1.6413	14.3241	8.1576	0.0895		1.1340	1.1340		1.1340	1.1340		17,904.9552	17,904.9552	0.3432	0.3283	18,011.3554

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	97592.6	1.0525	8.9938	3.8272	0.0574		0.7272	0.7272		0.7272	0.7272		11,481.4795	11,481.4795	0.2201	0.2105	11,549.7081
Congregate Care (Assisted Living)	3848.29	0.0415	0.3547	0.1509	2.2600e-003		0.0287	0.0287		0.0287	0.0287		452.7397	452.7397	8.6800e-003	8.3000e-003	455.4301
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	13899	0.1499	1.3627	1.1446	8.1800e-003		0.1036	0.1036		0.1036	0.1036		1,635.1801	1,635.1801	0.0313	0.0300	1,644.8972
General Office Building	33578.1	0.3621	3.2920	2.7653	0.0198		0.2502	0.2502		0.2502	0.2502		3,950.3589	3,950.3589	0.0757	0.0724	3,973.8339
Strip Mall	3274.17	0.0353	0.3210	0.2696	1.9300e-003		0.0244	0.0244		0.0244	0.0244		385.1970	385.1970	7.3800e-003	7.0600e-003	387.4860

Total		**1.6413**	**14.3241**	**8.1576**	**0.0895**		**1.1340**	**1.1340**		**1.1340**	**1.1340**		**17,904.9552**	**17,904.9552**	**0.3432**	**0.3283**	**18,011.3554**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	94.6292	1.0205	8.7207	3.7110	0.0557		0.7051	0.7051		0.7051	0.7051		11,132.8459	11,132.8459	0.2134	0.2041	11,199.0028
Congregate Care (Assisted Living)	3.73143	0.0402	0.3439	0.1463	2.1900e-003		0.0278	0.0278		0.0278	0.0278		438.9923	438.9923	8.4100e-003	8.0500e-003	441.6011
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	13.4314	0.1449	1.3168	1.1061	7.9000e-003		0.1001	0.1001		0.1001	0.1001		1,580.1673	1,580.1673	0.0303	0.0290	1,589.5574
General Office Building	31.9997	0.3451	3.1372	2.6353	0.0188		0.2384	0.2384		0.2384	0.2384		3,764.6748	3,764.6748	0.0722	0.0690	3,787.0464
Strip Mall	3.19599	0.0345	0.3133	0.2632	1.8800e-003		0.0238	0.0238		0.0238	0.0238		375.9983	375.9983	7.2100e-003	6.8900e-003	378.2326
Total		**1.5852**	**13.8320**	**7.8619**	**0.0865**		**1.0952**	**1.0952**		**1.0952**	**1.0952**		**17,292.6785**	**17,292.6785**	**0.3315**	**0.3170**	**17,395.4403**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	117.0861	44.5709	234.9321	0.2800		4.6084	4.6084		4.6084	4.6084	0.0000	54,095.8074	54,095.8074	1.4039	0.9846	54,424.3044
Unmitigated	117.0861	44.5709	234.9321	0.2800		4.6084	4.6084		4.6084	4.6084	0.0000	54,095.8074	54,095.8074	1.4039	0.9846	54,424.3044

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	10.1103					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	95.5440					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.9228	42.0678	17.9012	0.2685		3.4012	3.4012		3.4012	3.4012	0.0000	53,703.5294	53,703.5294	1.0293	0.9846	54,022.6626
Landscaping	6.5090	2.5031	217.0309	0.0115		1.2072	1.2072		1.2072	1.2072		392.2780	392.2780	0.3746		401.6418
Total	**117.0860**	**44.5709**	**234.9321**	**0.2800**		**4.6084**	**4.6084**		**4.6084**	**4.6084**	**0.0000**	**54,095.8074**	**54,095.8074**	**1.4039**	**0.9846**	**54,424.3044**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	10.1103					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	95.5440					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.9228	42.0678	17.9012	0.2685		3.4012	3.4012		3.4012	3.4012	0.0000	53,703.5294	53,703.5294	1.0293	0.9846	54,022.6626
Landscaping	6.5090	2.5031	217.0309	0.0115		1.2072	1.2072		1.2072	1.2072		392.2780	392.2780	0.3746		401.6418
Total	**117.0860**	**44.5709**	**234.9321**	**0.2800**		**4.6084**	**4.6084**		**4.6084**	**4.6084**	**0.0000**	**54,095.8074**	**54,095.8074**	**1.4039**	**0.9846**	**54,424.3044**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

New Proposed Uses

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1,335.08	1000sqft	30.65	1,335,075.00	0
General Light Industry	241.92	1000sqft	5.55	241,924.00	0
Enclosed Parking with Elevator	1,000.00	1000sqft	22.96	1,000,000.00	0
Apartments Mid Rise	2,536.00	Dwelling Unit	66.74	2,536,000.00	6982
Congregate Care (Assisted Living)	100.00	Dwelling Unit	6.25	100,000.00	0
Strip Mall	594.56	1000sqft	13.65	594,564.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See assumptions file

Construction Phase -

Vehicle Trips - Trip generation and VMT data provided by IBI. Assumes no trips and VMT for the transitional housing units at the hospital.

Woodstoves - Assumes all MF units include gas fireplaces. Assumes no fireplaces for transitional housing units.

Water And Wastewater - Based on IBI West Carson Environmental Assessment. Assumes 100% treated wastewater.

Solid Waste - See assumptions file. Based on CalRecycle rates.

Energy Mitigation - Assumes new multifamily developments would be 4 stories and higher and comply with the non-residential 2016 Building Energy Efficiency Standards

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	2,155.60	2,536.00
tblFireplaces	NumberGas	85.00	0.00
tblFireplaces	NumberNoFireplace	253.60	0.00
tblFireplaces	NumberNoFireplace	10.00	100.00
tblFireplaces	NumberWood	126.80	0.00
tblFireplaces	NumberWood	5.00	0.00
tblLandUse	BuildingSpaceSquareFeet	1,335,080.00	1,335,075.00
tblLandUse	BuildingSpaceSquareFeet	241,920.00	241,924.00
tblLandUse	BuildingSpaceSquareFeet	594,560.00	594,564.00
tblLandUse	LandUseSquareFeet	1,335,080.00	1,335,075.00
tblLandUse	LandUseSquareFeet	241,920.00	241,924.00
tblLandUse	LandUseSquareFeet	594,560.00	594,564.00
tblLandUse	Population	7,253.00	6,982.00
tblLandUse	Population	286.00	0.00
tblProjectCharacteristics	OperationalYear	2018	2035
tblSolidWaste	SolidWasteGenerationRate	1,166.56	2,458.00
tblSolidWaste	SolidWasteGenerationRate	91.25	97.00
tblSolidWaste	SolidWasteGenerationRate	299.98	583.00

tblSolidWaste	SolidWasteGenerationRate	1,241.62	1,462.00
tblSolidWaste	SolidWasteGenerationRate	624.29	651.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	12.40
tblVehicleTrips	CC_TL	8.40	12.40
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CC_TTP	48.00	100.00
tblVehicleTrips	CC_TTP	64.40	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	12.40
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00

tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	12.40
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	6.39	4.44
tblVehicleTrips	ST_TR	2.20	0.00
tblVehicleTrips	ST_TR	1.32	4.65
tblVehicleTrips	ST_TR	2.46	7.36
tblVehicleTrips	ST_TR	42.04	29.57
tblVehicleTrips	SU_TR	5.86	4.44
tblVehicleTrips	SU_TR	2.44	0.00
tblVehicleTrips	SU_TR	0.68	4.65
tblVehicleTrips	SU_TR	1.05	7.36
tblVehicleTrips	SU_TR	20.43	29.57
tblVehicleTrips	WD_TR	6.65	4.44
tblVehicleTrips	WD_TR	2.74	0.00
tblVehicleTrips	WD_TR	6.97	4.65
tblVehicleTrips	WD_TR	11.03	7.36
tblVehicleTrips	WD_TR	44.32	29.57
tblWater	AerobicPercent	87.46	100.00

tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	165,230,608.98	277,692,000.00
tblWater	IndoorWaterUseRate	6,515,402.56	10,950,000.00
tblWater	IndoorWaterUseRate	55,944,000.00	26,490,628.00
tblWater	IndoorWaterUseRate	237,288,772.27	97,460,442.00
tblWater	IndoorWaterUseRate	44,040,558.37	21,701,569.00
tblWater	OutdoorWaterUseRate	104,167,123.05	0.00
tblWater	OutdoorWaterUseRate	4,107,536.40	0.00
tblWater	OutdoorWaterUseRate	145,435,053.97	0.00
tblWater	OutdoorWaterUseRate	26,992,600.29	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	126.80	0.00

tblWoodstoves	NumberCatalytic	5.00	0.00
tblWoodstoves	NumberNoncatalytic	126.80	0.00
tblWoodstoves	NumberNoncatalytic	5.00	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	20.1571	0.8387	27.3526	4.7900e-003		0.1934	0.1934		0.1934	0.1934	0.0000	653.4714	653.4714	0.0542	0.0112	658.1521
Energy	0.2995	2.6142	1.4888	0.0163		0.2070	0.2070		0.2070	0.2070	0.0000	17,649.6900	17,649.6900	0.6631	0.1798	17,719.8429
Mobile	8.1126	47.1720	118.6080	0.6331	68.1594	0.3211	68.4805	18.2629	0.2984	18.5613	0.0000	58,961.5192	58,961.5192	2.2633	0.0000	59,018.1006
Waste						0.0000	0.0000		0.0000	0.0000	1,065.9056	0.0000	1,065.9056	62.9932	0.0000	2,640.7359
Water						0.0000	0.0000		0.0000	0.0000	153.6541	1,801.7884	1,955.4425	0.6033	0.3495	2,074.6860
Total	**28.5691**	**50.6249**	**147.4493**	**0.6542**	**68.1594**	**0.7214**	**68.8808**	**18.2629**	**0.6987**	**18.9616**	**1,219.5597**	**79,066.4689**	**80,286.0286**	**66.5770**	**0.5405**	**82,111.5174**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Area	20.1571	0.8387	27.3526	4.7900e-003		0.1934	0.1934		0.1934	0.1934	0.0000	653.4714	653.4714	0.0542	0.0112	658.1521
Energy	0.2893	2.5243	1.4348	0.0158		0.1999	0.1999		0.1999	0.1999	0.0000	17,336.2295	17,336.2295	0.6524	0.1761	17,405.0213
Mobile	8.1126	47.1720	118.6080	0.6331	68.1594	0.3211	68.4805	18.2629	0.2984	18.5613	0.0000	58,961.5192	58,961.5192	2.2633	0.0000	59,018.1006
Waste						0.0000	0.0000		0.0000	0.0000	1,065.9056	0.0000	1,065.9056	62.9932	0.0000	2,640.7359
Water						0.0000	0.0000		0.0000	0.0000	122.9233	1,441.4307	1,564.3540	0.4826	0.2796	1,659.7488
Total	**28.5589**	**50.5351**	**147.3954**	**0.6537**	**68.1594**	**0.7144**	**68.8738**	**18.2629**	**0.6916**	**18.9545**	**1,188.8289**	**78,392.6508**	**79,581.4797**	**66.4456**	**0.4669**	**81,381.7586**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.04**	**0.18**	**0.04**	**0.09**	**0.00**	**0.98**	**0.01**	**0.00**	**1.01**	**0.04**	**2.52**	**0.85**	**0.88**	**0.20**	**13.61**	**0.89**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	8.1126	47.1720	118.6080	0.6331	68.1594	0.3211	68.4805	18.2629	0.2984	18.5613	0.0000	58,961.5192	58,961.5192	2.2633	0.0000	59,018.1006
Unmitigated	8.1126	47.1720	118.6080	0.6331	68.1594	0.3211	68.4805	18.2629	0.2984	18.5613	0.0000	58,961.5192	58,961.5192	2.2633	0.0000	59,018.1006

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	11,259.84	11,259.84	11259.84	50,822,414	50,822,414
Congregate Care (Assisted Living)	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Light Industry	1,124.93	1,124.93	1124.93	5,077,475	5,077,475
General Office Building	9,826.19	9,826.19	9826.19	44,351,486	44,351,486
Strip Mall	17,581.14	17,581.14	17581.14	79,354,230	79,354,230
Total	39,792.10	39,792.10	39,792.10	179,605,605	179,605,605

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	0.00	0.00	100.00	0.00	0.00	100	0	0
Congregate Care (Assisted Living)	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Light Industry	12.40	0.00	0.00	100.00	0.00	0.00	100	0	0
General Office Building	0.00	12.40	0.00	0.00	100.00	0.00	100	0	0
Strip Mall	0.00	12.40	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
General Light Industry	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Enclosed Parking with Elevator	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Apartments Mid Rise	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Congregate Care (Assisted Living)	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807
Strip Mall	0.539854	0.043743	0.210883	0.115969	0.013375	0.006440	0.022010	0.036531	0.002703	0.001629	0.005324	0.000732	0.000807

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	14,473.2327	14,473.2327	0.5975	0.1236	14,525.0111
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	14,685.3238	14,685.3238	0.6063	0.1254	14,737.8610
NaturalGas Mitigated	0.2893	2.5243	1.4348	0.0158		0.1999	0.1999		0.1999	0.1999	0.0000	2,862.9969	2,862.9969	0.0549	0.0525	2,880.0102
NaturalGas Unmitigated	0.2995	2.6142	1.4888	0.0163		0.2070	0.2070		0.2070	0.2070	0.0000	2,964.3661	2,964.3661	0.0568	0.0544	2,981.9819

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					

Apartments Mid Rise	3.56213e+007	0.1921	1.6414	0.6985	0.0105		0.1327	0.1327		0.1327	0.1327	0.0000	1,900.8877	1,900.8877	0.0364	0.0349	1,912.1837
Congregate Care (Assisted Living)	1.40463e+006	7.5700e-003	0.0647	0.0275	4.1000e-004		5.2300e-003	5.2300e-003		5.2300e-003	5.2300e-003	0.0000	74.9561	74.9561	1.4400e-003	1.3700e-003	75.4016
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	5.07315e+006	0.0274	0.2487	0.2089	1.4900e-003		0.0189	0.0189		0.0189	0.0189	0.0000	270.7224	270.7224	5.1900e-003	4.9600e-003	272.3312
General Office Building	1.2256e+007	0.0661	0.6008	0.5047	3.6000e-003		0.0457	0.0457		0.0457	0.0457	0.0000	654.0262	654.0262	0.0125	0.0120	657.9128
Strip Mall	1.19507e+006	6.4400e-003	0.0586	0.0492	3.5000e-004		4.4500e-003	4.4500e-003		4.4500e-003	4.4500e-003	0.0000	63.7737	63.7737	1.2200e-003	1.1700e-003	64.1527
Total		**0.2995**	**2.6141**	**1.4888**	**0.0163**		**0.2070**	**0.2070**		**0.2070**	**0.2070**	**0.0000**	**2,964.3661**	**2,964.3661**	**0.0568**	**0.0543**	**2,981.9819**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	3.45397e+007	0.1862	1.5915	0.6773	0.0102		0.1287	0.1287		0.1287	0.1287	0.0000	1,843.1675	1,843.1675	0.0353	0.0338	1,854.1205
Congregate Care (Assisted Living)	1.36197e+006	7.3400e-003	0.0628	0.0267	4.0000e-004		5.0700e-003	5.0700e-003		5.0700e-003	5.0700e-003	0.0000	72.6801	72.6801	1.3900e-003	1.3300e-003	73.1120
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	4.90247e+006	0.0264	0.2403	0.2019	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	261.6144	261.6144	5.0100e-003	4.8000e-003	263.1691
General Office Building	1.16799e+007	0.0630	0.5725	0.4809	3.4400e-003		0.0435	0.0435		0.0435	0.0435	0.0000	623.2841	623.2841	0.0120	0.0114	626.9880
Strip Mall	1.16653e+006	6.2900e-003	0.0572	0.0480	3.4000e-004		4.3500e-003	4.3500e-003		4.3500e-003	4.3500e-003	0.0000	62.2507	62.2507	1.1900e-003	1.1400e-003	62.6207
Total		**0.2893**	**2.5243**	**1.4348**	**0.0158**		**0.1999**	**0.1999**		**0.1999**	**0.1999**	**0.0000**	**2,862.9969**	**2,862.9969**	**0.0549**	**0.0525**	**2,880.0102**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.07285e+007	3,418.3291	0.1411	0.0292	3,430.5583
Congregate Care (Assisted Living)	423048	134.7922	5.5600e-003	1.1500e-003	135.2744
Enclosed Parking with Elevator	6.74e+006	2,147.5084	0.0887	0.0183	2,155.1912
General Light Industry	2.08538e+006	664.4483	0.0274	5.6800e-003	666.8254
General Office Building	1.9145e+007	6,099.9994	0.2518	0.0521	6,121.8223
Strip Mall	6.96829e+006	2,220.2465	0.0917	0.0190	2,228.1895
Total		**14,685.3238**	**0.6063**	**0.1254**	**14,737.8610**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.07016e+007	3,409.7648	0.1408	0.0291	3,421.9634
Congregate Care (Assisted Living)	421988	134.4545	5.5500e-003	1.1500e-003	134.9355

Enclosed Parking with Elevator	6.544e+006	2,085.0586	0.0861	0.0178	2,092.5180
General Light Industry	2.0647e+006	657.8578	0.0272	5.6200e-003	660.2113
General Office Building	1.88152e+007	5,994.9296	0.2475	0.0512	6,016.3767
Strip Mall	6.87702e+006	2,191.1673	0.0905	0.0187	2,199.0063
Total		**14,473.2327**	**0.5975**	**0.1236**	**14,525.0111**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	20.1571	0.8387	27.3526	4.7900e-003		0.1934	0.1934		0.1934	0.1934	0.0000	653.4714	653.4714	0.0542	0.0112	658.1521
Unmitigated	20.1571	0.8387	27.3526	4.7900e-003		0.1934	0.1934		0.1934	0.1934	0.0000	653.4714	653.4714	0.0542	0.0112	658.1521

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.8451					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	17.4368					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0615	0.5259	0.2238	3.3600e-003		0.0425	0.0425		0.0425	0.0425	0.0000	608.9878	608.9878	0.0117	0.0112	612.6067
Landscaping	0.8136	0.3129	27.1289	1.4400e-003		0.1509	0.1509		0.1509	0.1509	0.0000	44.4836	44.4836	0.0425	0.0000	45.5454
Total	**20.1571**	**0.8387**	**27.3526**	**4.8000e-003**		**0.1934**	**0.1934**		**0.1934**	**0.1934**	**0.0000**	**653.4714**	**653.4714**	**0.0541**	**0.0112**	**658.1521**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.8451					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	17.4368					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0615	0.5259	0.2238	3.3600e-003		0.0425	0.0425		0.0425	0.0425	0.0000	608.9878	608.9878	0.0117	0.0112	612.6067
Landscaping	0.8136	0.3129	27.1289	1.4400e-003		0.1509	0.1509		0.1509	0.1509	0.0000	44.4836	44.4836	0.0425	0.0000	45.5454
Total	**20.1571**	**0.8387**	**27.3526**	**4.8000e-003**		**0.1934**	**0.1934**		**0.1934**	**0.1934**	**0.0000**	**653.4714**	**653.4714**	**0.0541**	**0.0112**	**658.1521**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1,564.3540	0.4826	0.2796	1,659.7488
Unmitigated	1,955.4425	0.6033	0.3495	2,074.6860

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	277.692 / 0	1,250.3280	0.3857	0.2235	1,326.5733
Congregate Care (Assisted Living)	10.95 / 0	49.3032	0.0152	8.8100e-003	52.3097

Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Light Industry	26.4906 / 0	119.2759	0.0368	0.0213	126.5494
General Office Building	97.4604 / 0	438.8226	0.1354	0.0784	465.5821
Strip Mall	21.7016 / 0	97.7129	0.0301	0.0175	103.6714
Total		**1,955.4425**	**0.6033**	**0.3495**	**2,074.6860**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	222.154 / 0	1,000.2624	0.3086	0.1788	1,061.2587
Congregate Care (Assisted Living)	8.76 / 0	39.4425	0.0122	7.0500e-003	41.8477
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Light Industry	21.1925 / 0	95.4208	0.0294	0.0171	101.2395
General Office Building	77.9684 / 0	351.0581	0.1083	0.0628	372.4657
Strip Mall	17.3613 / 0	78.1703	0.0241	0.0140	82.9371
Total		**1,564.3540**	**0.4826**	**0.2796**	**1,659.7488**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,065.9056	62.9932	0.0000	2,640.7359
Unmitigated	1,065.9056	62.9932	0.0000	2,640.7359

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	2458	498.9518	29.4872	0.0000	1,236.1319
Congregate Care (Assisted Living)	97	19.6901	1.1637	0.0000	48.7815
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	583	118.3437	6.9939	0.0000	293.1916
General Office Building	1462	296.7728	17.5388	0.0000	735.2420

Strip Mall	651	132.1471	7.8097	0.0000	327.3889
Total		**1,065.9056**	**62.9932**	**0.0000**	**2,640.7359**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	2458	498.9518	29.4872	0.0000	1,236.1319
Congregate Care (Assisted Living)	97	19.6901	1.1637	0.0000	48.7815
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	583	118.3437	6.9939	0.0000	293.1916
General Office Building	1462	296.7728	17.5388	0.0000	735.2420
Strip Mall	651	132.1471	7.8097	0.0000	327.3889
Total		**1,065.9056**	**62.9932**	**0.0000**	**2,640.7359**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

New Proposed Uses

Los Angeles-South Coast, Summary Report

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1,335.08	1000sqft	30.65	1,335,075.00	0
General Light Industry	241.92	1000sqft	5.55	241,924.00	0
Enclosed Parking with Elevator	1,000.00	1000sqft	22.96	1,000,000.00	0
Apartments Mid Rise	2,536.00	Dwelling Unit	66.74	2,536,000.00	6982
Congregate Care (Assisted Living)	100.00	Dwelling Unit	6.25	100,000.00	0
Strip Mall	594.56	1000sqft	13.65	594,564.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments

Only CalEEMod defaults were used.

Project Characteristics -

Land Use - See assumptions file

Construction Phase -

Vehicle Trips - Trip generation and VMT data provided by IBI. Assumes no trips and VMT for the transitional housing units at the hospital.

Woodstoves - Assumes all MF units include gas fireplaces. Assumes no fireplaces for transitional housing units.

Water And Wastewater - Based on IBI West Carson Environmental Assessment. Assumes 100% treated wastewater.

Solid Waste - See assumptions file. Based on CalRecycle rates.

Energy Mitigation - Assumes new multifamily developments would be 4 stories and higher and comply with the non-residential 2016 Building Energy Efficiency Standards

Water Mitigation -

2.0 Peak Daily Emissions

Peak Daily Operational Emissions

Peak Daily Operational Emissions

		Unmitigated						Mitigated					
		ROG	NOX	CO	SO2	PM10	PM2.5	ROG	NOX	CO	SO2	PM10	PM2.5
	Operational Activity	lb/day											
On-Site	Area	117.0861 S	44.5709 S	234.9321 S	0.2800 S	4.6084 S	4.6084 S	117.0861 S	44.5709 S	234.9321 S	0.2800 S	4.6084 S	4.6084 S
On-Site	Energy	1.6413 S	14.3241 S	8.1576 S	0.0895 S	1.1340 S	1.1340 S	1.5852 S	13.8320 S	7.8619 S	0.0865 S	1.0952 S	1.0952 S
Off-Site	Mobile	46.5287 S	255.0081 W	681.1082 S	3.5963 S	383.6428 W	103.7982 W	46.5287 S	255.0081 W	681.1082 S	3.5963 S	383.6428 W	103.7982 W
	Peak Daily Total	165.2560 S	313.9031 W	924.1979 S	3.9659 S	389.3851 W	109.5405 W	165.1999 S	313.4109 W	923.9022 S	3.9628 S	389.3464 W	109.5017 W
	Air District Threshold												
	Exceed Significance?												

3.0 Annual GHG Emissions

Annual GHG

Annual GHG

		Unmitigated				Mitigated			
		CO2	CH4	N2O	CO2e	CO2	CH4	N2O	CO2e
GHG Activity	Year	MT/yr							
Operational	2035	80,286.0286	66.5770	0.5405	82,111.5192	79,581.4797	66.4456	0.4669	81,381.7589
	Total								
	Significance Threshold								
	Exceed Significance?								

New Proposed Uses

Los Angeles-South Coast County, Mitigation Report

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.44	1.44	1.44	1.43	1.44
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	3.43	3.44	3.62	3.37	3.42	3.42	0.00	3.42	3.42	3.43	3.40	3.42
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	20.00	20.00	20.00	20.00	20.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.24	0.56		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			

No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			
No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			
No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	50.00
No	Use Low VOC Paint (Residential Exterior)	50.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	100.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	5.00	
No	Install High Efficiency Lighting	0.00	
No	On-site Renewable	0.00	0.00

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy	0.00	0.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
Yes	Install low-flow bathroom faucet	32.00	
Yes	Install low-flow Kitchen faucet	18.00	
Yes	Install low-flow Toilet	20.00	
Yes	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
Yes	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

Appendix E Cultural Resources Study

Appendices

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CULTURAL RESOURCES OVERVIEW AND ASSESSMENT:

THE CITY OF LOS ANGELES, WEST CARSON TRANSIT ORIENTED DISTRICT (TOD) SPECIFIC PLAN PROJECT AREA, LOS ANGELES COUNTY, CALIFORNIA

Prepared for:

PLACEWORKS
Attn: Nicole Morse
3 MacArthur Place, Suite 1100
Santa Ana, California 92707

Prepared by:

McKENNA et al.
6008 Friends Avenue
Whittier, California 90601-3724
(562) 696-3852
jeanette.mckennaetal@gmail.com

Author and principal Investigator: Jeanette A. McKenna, MA/RPA/HonDL

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CULTURAL RESOURCES OVERVIEW AND ASSESSMENT:

THE CITY OF LOS ANGELES, WEST CARSON TRANSIT ORIENTED DISTRICT (TOD) SPECIFIC PLAN PROJECT AREA, LOS ANGELES COUNTY, CALIFORNIA

by,

Jeanette A. McKenna, Principal
McKenna et al., Whittier CA

INTRODUCTION

The Los Angeles County Department of Regional Planning has identified the West Carson Transit Oriented District (TOD) as a "priority policy area" in accordance with the County General Plan Update. The goal of the County and TOD is to encourage transit-oriented development with the specific goal of lessening vehicular traffic and increasing the use of public transportation alternatives. This is a 20 year plan. McKenna et al. (Appendix A) initiated these studies in 2015 and completed this document 2016. This study was completed for compliance with the California Environmental Quality Act, as amended, and in support of an Environmental Impact Report (EIR).

PROJECT DESCRIPTION

As described by the Los Angeles County Department of Regional Planning, the West Carson TOD project is funded through the Los Angeles County Metropolitan Transportation Authority (Metro) Transportation Oriented District Planning Grant Program. The subsequent CEQA document (EIR) will "… evaluate potential environmental impacts associated with full project build-out, as well as the cumulative effects within each area of analysis. The County intends to utilize the CEQA document to streamline and facilitate future infill development and infrastructure project in the West Carson TOD" (RFP 2015).

The purpose of this study is to research and identify any potentially significant cultural resources that may be within the boundaries of the TOD and to present recommendations for the avoidance of any adverse impacts resulting from physical impacts resulting from project-related activities.

PROJECT LOCATION AND SETTING

The West Carson TOD Specific Plan project area is located within the City of Los Angeles, Los Angeles County, California (Figure 1), between the Cities of Carson (east) and Torrance (west), and involves portions of unincorporated Los Angeles County (Figure 1). The emphasis of this study involves an area bounded roughly by Torrance Blvd. (north), 223nd Street (south), 110 Freeway (east), and Normandie Avenue (west; Figure 2). This area is equated with Township 4 South, Range 13 West, and portions of Sections 7 and 16, and Township 4 South, Range 14 West, Sections 12 and 13.

Overall, the project area is roughly rectangular, oriented north/south, and dominated by the presence of the Harbor-UCLA Medical Center and other medical support facilities. There is also a considerable residential community, commercial and industrial properties. There are also educational complexes (e.g. the 223rd Street/Meyler Street and Van Deere Elementary school sites).

Illustrated in Figure 3, the area bisected by the 110 Freeway (north/south) and includes portions of major roadways, including: Torrance Blvd., Carson Street; 223rd Street, Normandie Avenue, and Vermont Avenue. The 110 Freeway is outside the project area (to the east).

Geologically, the West Carson TOD Specific Plan project area is located within the western extent of the Los Angeles Basin. Norris and Webb (1990:56) describe the Basin as consisting of "… thousands of meters of post-Jurassic sediment overlying crystalline basement rocks." Norris and Webb (1990:324-342) also describe the area as being within the Southwestern Block of the Los Angeles Basin, stating:

> "The distinguishing feature of the southwestern block is it basement. Although actually exposed only in the Palos Verdes Hills, it has been encountered in numerous oil wells at depths of 1,500 to 4,250 meters (5,000-14,000 feet) below sea level. The basement rocks belong to the Catalina schist facies of the Franciscan Formation and are chiefly green chlorite and blue glaucophane schists. They have no known base, are always in fault contact with other basement rocks and are of undetermined age."

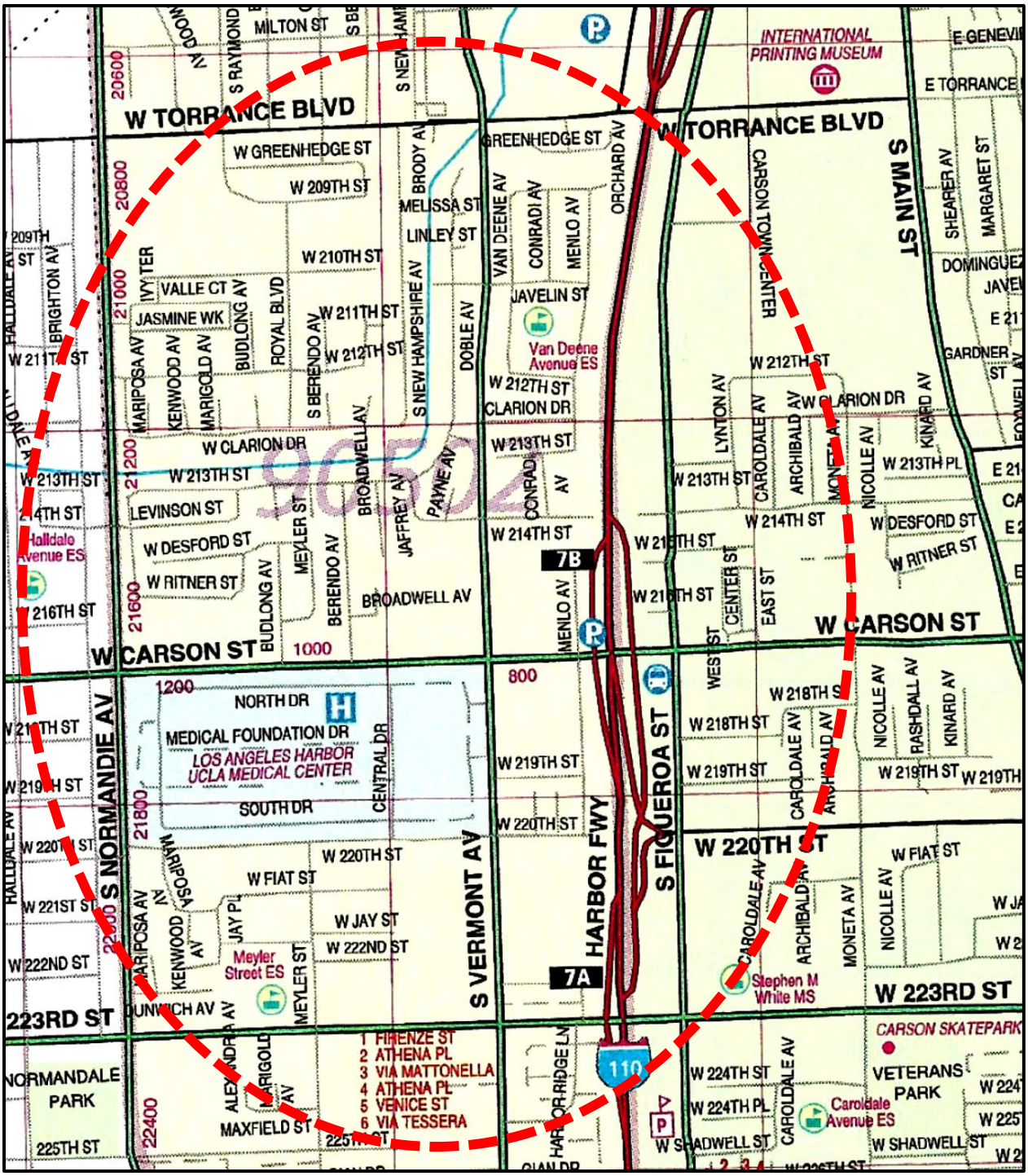

Figure 1. General Location of the Project Area within Los Angeles County, California.

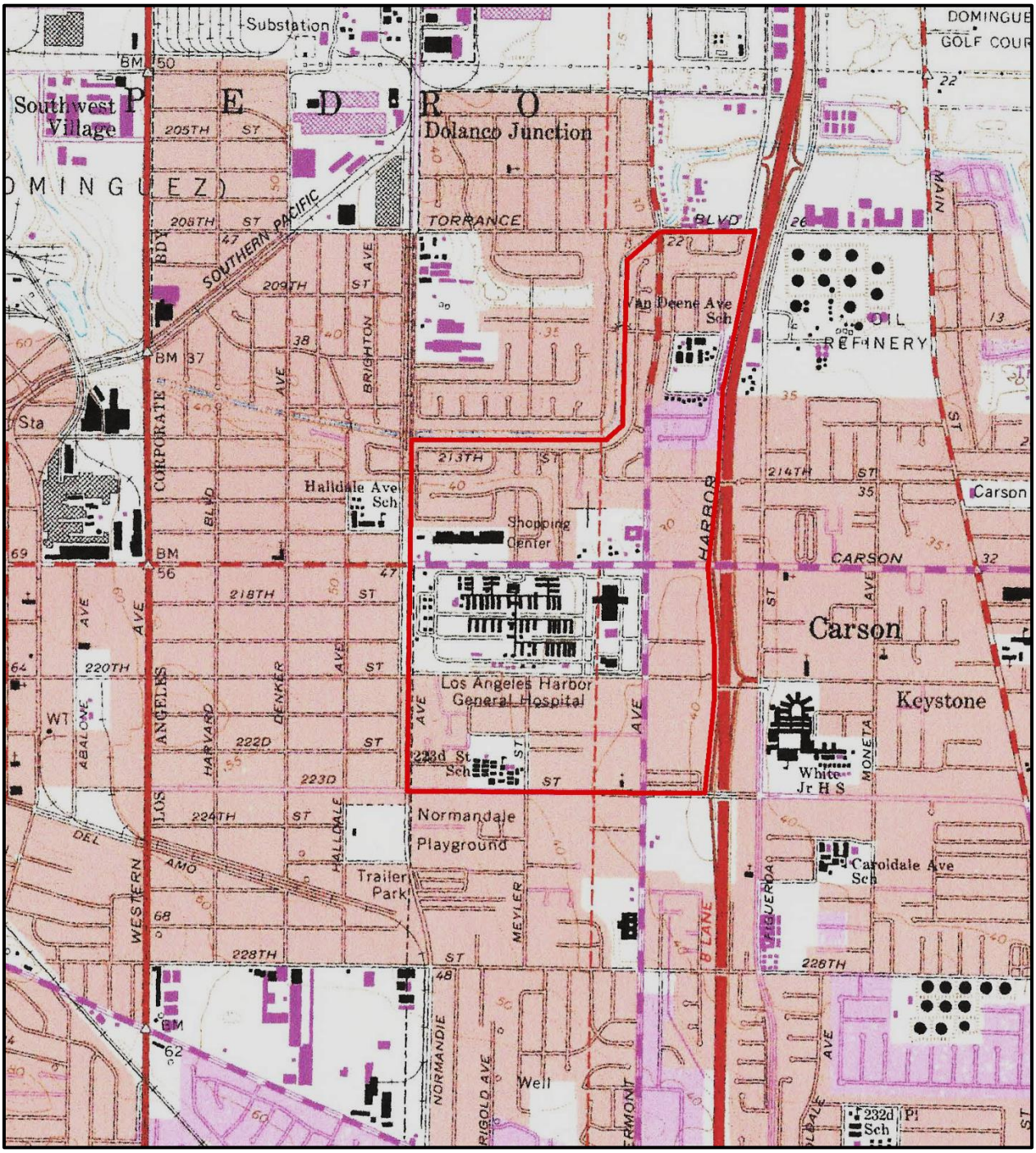

Figure 2. West Carson TOD Specific Plan Project, USGS Torrance Quadrangle, rev. 1981.

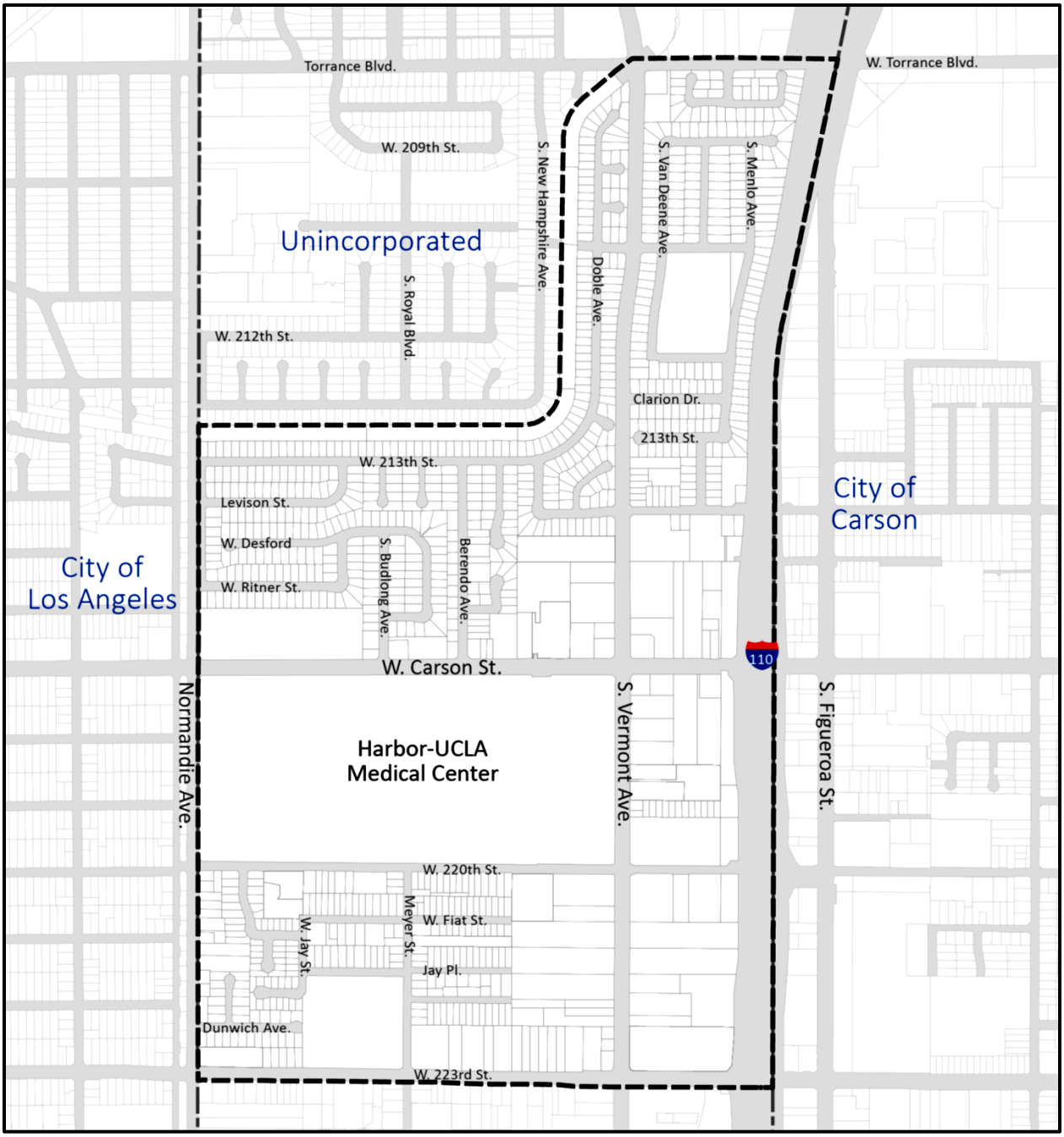

Figure 3. West Carson TOD Specific Plan Boundaries.

Rivers and Streams are part of the subordinate features associated with the Transverse Ranges (and Los Angeles Basin) and, as noted by Norris and Webb (1990:342):

> "Important streams … include the San Gabriel River, which drains the central San Gabriel Mountains. The San Gabriel forks downstream near Duarte into the San Gabriel River proper and the Rio Hondo, which joins the Los Angeles River near Downey, so that the two drainages intermingle. The Los Angeles River reaches the sea near Long Beach and the San Gabriel discharges near Seal Beach."

McLeod (2015) identifies the project area as being comprised of "… surficial deposits … of younger Quaternary Alluvium, derived primarily as alluvial fan deposits from the slightly elevated terrain to the west, but also possibly as fluvial deposits derived from the drainage in the northern portion of the proposed project area …" that flows towards the Dominguez Channel. Older Quaternary deposits underlie the area at various depths. These deeper deposits have been associated with fossil specimens (camel, horse, etc.) at significant depths – up to 35 feet below the current surface. Shallow earthmoving is not expected to impact fossil bearing deposits. McLeod concluded deeper excavations (15-18 feet below the presence surface) and likely to be sensitive for the presence of significant fossil remains. He recommended monitoring and sampling.

The project area is west of the Los Angeles River channel and associated with the Newport-Inglewood Fault. The nature of the loose, sandy deposits of the older and younger Quaternary Alluvium are subject to liquefaction and ground failures (sinking/rising/expanding, etc.), but less likely to result in landslides, given the current terrain. Although the project area is considered to be within an urban setting, there are still some small areas of open space. In its natural setting, the project area is considered a coastal plain/coastal sage scrub biotic environment. At this time, given the extent of late historic and modern improvements, evidence of the native vegetation and coastal sage scrub community are no longer identifiable.

BRIEF CULTURE HISTORY BACKGROUND

- Prehistory -

The project area is well within the present-day Los Angeles Basin and associated with the traditional territory of the prehistoric and protohistoric Native American populations generally referred to as the Gabrieliño/Tongva (McCawley 1996:23; Kroeber 1925:621; and Bean and Smith 1978:538). The Gabrieliño/Tongva are known as a society identified

by Late Prehistoric/Protohistoric ethnographic records and archaeological data identifying Late Prehistoric occupation of Southern California.

Changes identified between the earlier periods and the Late Prehistoric are evident in the archaeological record and in variations seen in technologies, social/community patterns and, in some cases, population estimates. Populations preceding the Gabrieliño/Tongva, though likely directly related to the Gabrieliño, can be archaeologically identified as separate or variant forms of the evolving culture.

Early studies of California prehistory (see Benedict 1924; Bolton 1927; Robinson 1939; and Kroeber 1925) emphasized anthropological/ethnographic studies while more recent investigations have relied on archaeological data (e.g. Drover 1980; Drover, Koerper, and Langenwalter 1983; McKenna 1985 and 1986; Hudson 1969 and 1971; Rice and Cottrell 1976; Wallace 1955; Warren 1968; Greenwood 1978; and Mason et al. 1994). The majority of data currently available to archaeologists can be referenced in publications of the Society for California Archaeology.

The term Gabrieliño is a reference to the direct association with Native American populations under the jurisdiction of the historic Mission San Gabriel de Archangel (located in in San Gabriel). The Mission San Gabriel serviced the entire Los Angeles Basin and into the San Bernardino area. The ethnographic boundaries for the Gabrieliño are presented by Bean and Smith (1978:538) and refined by McCawley (1996) and the present-day City of Los Angeles is somewhat centrally located.

As such, the core of the area of the Los Angeles Basin was the site of the historic City of Los Angeles and the ethnographic village of *Yangna* (Johnston 1962). Following the founding of the Pueblo de Los Angeles, a large Catholic Church (The Church of Our Lady the Queen of the Angels) was constructed to service the small but sedentary population of the pueblo, including Native Americans and early European settlers (primarily Spanish/Mexican, but also many others). Evidence of the prehistoric occupation of the area, including the village of *Yangna*, has been sporadically identified and the native populations became known as Gabrieliños.

The Gabrieliño utilized numerous plants and animals for food, shelter, and medicines. Citing Kroeber (1976:649-650), they used seeds most often, followed by foliage, shoots, fruits, and berries. Mountain shrubs, ash, elder, and willow were used for shelters and tool materials (e.g. bows).

Over twenty plants were used regularly for medicinal purposes. Fauna used as food sources included deer, rabbits, wood rats, squirrels, quail, and ducks. Animals specifically not used were dog, coyote, bear, tree squirrel, pigeon, dove, mud hen, eagle, buzzard, raven, lizards, frogs, and turtles (Kroeber 1976:652).

Along the coast, the Gabrieliño regularly exploited the wetlands and ocean resources. The Gabrieliño developed bow styles, bedrock mortars, portable mortars, pipes, chisels, metates, manos, and various forms of chipped stone tools. Prior to the establishment of the Mission system, populations tended to live in larger villages with a series of *daughter* or *satellite* sites (limited activity areas) with lesser populations. Seasonal migration was practiced for the exploitation of resources and protection from seasonal weather conditions (Scientific Resource Surveys 1979:7). Habitation structures were constructed of branches, grasses, and mud and interior hearths were used for heat. Cooking was generally conducted outdoors with hearths generally used for food preparation.

Archaeological data and correlations with ethnographic data have resulted in the determination of a generalized chronology for prehistoric Southern California. The project area is located within the inland areas of Gabrieliño territory while chronological data has emphasized coastal occupations.

Nonetheless, current archaeological data has indicated that the coastal chronological data derived by Wallace (1955), Warren (1968), and later by Drover and Koerper (1983) can be applied to this region (Mason 1984; McKenna 1986). The coastal chronology generally accepted for Southern California has been as follows:

> Early Man Horizon: Pre-dating 6,000 B.C.; is characterized by the presence of large projectile points and scrapers, suggesting a reliance on hunting rather than gathering;
>
> Milling Stone Horizon: 6,000 to 1,000 B.C.; characterized by the presence of hand stones, milling stones, choppers, and scraper planes; tools associated with seed gathering and shell fish processing with limited hunting activities; evidence of a major shift in the exploitation of natural resources;
>
> Intermediate Horizon: 1,000 B.C to A.D. 750; reflects the transitional period between the Milling Stone and the Late Prehistoric Horizons; little is known of this time period, but evidence suggests interactions with outside groups and a shift in material culture reflecting this contact;
>
> Late Prehistoric Horizon: A.D. 750 to European Contact; characterized by the presence of small projectile points; use of the bow and arrow; steatite containers and trade items, asphaltum; cremations; grave goods; mortars and pestles; and bedrock mortars.

Investigations of sites in the Newport Bay/Irvine area of Orange County (Mason and Peterson 1994), representing “cousins” of the Gabrieliño, yielded significant data resulting

in refinements of the coastal chronological sequences. Mason and Peterson's conclusions were based on the radiocarbon dates from 326 samples representing thirty-one archaeological sites or cultural contexts. Summarizing their results, Mason and Peterson (1994:55) found that the majority of sites were occupied during the Milling Stone (Horizon) period or the Late Prehistoric (Horizon) period "... without much overlap ...". Only four sites yielded results suggesting occupation during more than one cultural period (CA-ORA-64). In a few instances, dates suggested occupation during the Intermediate (Horizon) period.

Mixtures of dates appeared in limited areas and could be directly associated with areas of agricultural activities. The frequency distribution of radiocarbon dates from the Mason and Peterson investigations were grouped in blocks of fifty year intervals and yielded a range from of dates from 200 B.P. (before present) to 9280 B.P. (dates from CA-ORA-246 indicate occupation of the Newport Bay area as early as the Paleo-Coastal period or (Early Man Horizon). Mason and Peterson's conclusions (1994:57) do not necessarily change the basic chronology, but distinguish more individualistic periods of occupation that are not necessarily evident in the analysis of an artifact assemblage. Mason and Peterson's refined chronology is presented in Table 1.

Table 1. Refined Coastal Chronology as Defined by Mason and Peterson (1994).

Cultural Horizons	Defined 1986	Cultural Periods	Redefined 1994	Temporal Correlations
Paleo-Coastal	Pre-6000 B.C.	Paleo-Coastal	Pre-8000 B.P.	Pre-6000 B.C.
Milling Stone	6000 to 1000 B.C.	Milling Stone 1	8000 to 5800 B.P.	6000 to 3800 B.C.
		Milling Stone 2	5800 to 4650 B.P.	3800 to 2650 B.C.
		Milling Stone 3	4650 to 3000 B.P.	2650 to 1000 B.C.
Intermediate	1000 B.C.-A.D. 750	Intermediate	3000 to 1350 B.P.	1000 B.C. to A.D. 650
Late Prehistoric	A.D. 750 to European Contact	Late Prehistoric 1	1350 to 650 B.P.	A.D. 650 to 1350
		Late Prehistoric 2	650 to 200 B.P.	A.D. 1350 to Contact

The Mason and Peterson discussions emphasize that the early definitions of "horizons" were based on artifact assemblages and these correlations have not been altered by the redefined chronology. Through the application of radiocarbon dating and comparative site analyses, studies have resulted in identifying relatively discrete subdivisions within the Milling Stone and Late Prehistoric sites. Variations appear within these two horizons/periods which can be explained by temporally discrete occupations.

Future studies of sites yielding statistically valid artifact assemblages and radiocarbon samples can be conducted to further the understanding of Native American activities throughout Southern California. These studies can also assist in understanding the relative lack of data for the Intermediate Horizon/Period.

- The Historic Period –

The earliest known records of European contact with Southern California Native Americans date to the mid-1500s, representing the early explorations of the Spanish. These explorations resulted in the identification of populations from the ships but did not include direct contact. Personal contact was not made until the 1770s, when Father Garces traversed the Mojave Desert and entered coastal Southern California through the Cajon Pass (Walker 1986).

In the 1770s, the Spanish padres, under the direction of Junipero Serra, began the process of establishing a series of missions throughout Alta California, as California was then known. The project area is within the boundaries of lands historically held by the Mission San Gabriel de Archangel. The Mission continued to hold these large tracts until the Mexican government declared its independence from Spain and issued orders for the secularization of the missions (ca. 1824). By 1833-34, the majority of mission lands were taken from the Catholic Church and granted to individuals who had served as Spanish or Mexican soldiers, settlers, financiers, etc. The Mexican government hoped to initiate a pattern of settlement in Alta California by relocating populations from Mexican settlements to California settlements (Hanna 1951; McWilliams 1973; Dumke 1944; and Scott 1977).

In this case, the study area is within the boundaries of land claimed by the historic Mission San Gabriel de Archangel. Following the Mission Period, lands originally controlled by the Catholic Church (in this case, the Mission San Gabriel de Archangel) were re-issued as “ranchos” and granted to individuals recognized by the Spanish or Mexican governments. Here, the project area has been identified as being located within the boundaries of the Historic Rancho San Pedro (Dominguez).

The Rancho San Pedro was an early rancho granted in ca. 1822 by Governor Sola top Christobal Dominguez, nephew of Juan Jose Dominquez. Prior to this grant, the rancho was actually granted to Juan Jose Dominquez by Spanish Governor Fages during the Spanish Period. It was only the fourth rancho granted under Spanish rule. The U.S Government confirmed this rancho subsequent to the acquisition of California.

Summarizing a brief history of the Rancho San Pedro (Dominguez), Gillingham (1961) reads:

> Juan Jose Dominguez (1736–1809), a Spanish soldier, arrived in San Diego, California, in 1769 with Fernando Rivera y Moncada and served with the Gaspar de Portola, along with Junipero Serra, and traveled to San Juan Capistrano, San Gabriel, and Monterey. In 1784, Dominguez was granted a concession of seventeen Spanish leagues, or 75,000 acres (300 km^2), from the Spanish Empire.

> Domínguez's original grazing permission stretched from present-day Compton to the Palos Verdes Peninsula but did not become a title to land until it was "re-granted" in 1822 in the Mexican era to Juan José's nephew and heir, Cristóbal Domínguez. Cristóbal died soon afterward, but his three sons settled on the ranch, building adobe homes. The following year Manuel Dominquez, eldest son of Cristóbal Domínguez, married María Engracia de Cota and commenced a successful career raising cattle and serving in a variety of elected and appointed offices in Los Angeles.
>
> For many years, a portion of the Rancho San Pedro land grant was contested between the Domínguez and Sepulveda families through various appeals to Spanish Governors and lawsuits from 1817–1883 and was eventually partitioned into seventeen parcels in 1882. The Sepúlveda family was awarded 31,629 acres (128 km^2) known as Rancho de los Palos Verdes that later became the cities of the Palos Verdes Peninsula, as well as portions of Torrance and San Pedro.
>
> With the cession [succession] of California to the United States following the Mexican-American War, the 1848 Treaty of Guadalupe Hidalgo provided that the land grants would be honored. As required by the Land Act of 1851, a claim for Rancho San Pedro was filed with the Public Land Commission in 1852, and a patent for 43,119 acres (170 km^2) was granted to Manuel Domínguez and signed by President James Buchanan on December 18, 1858.
>
> In 1869, Union Army Major General William Starke Rosecrans bought 16,000 acres (65 km^2). The "Rosecrans Rancho" was bordered by what later was Florence Avenue on the north, Redondo Beach Boulevard on the south, Central Avenue on the east, and Arlington Avenue on the west.

Research of the Bureau of Land Management General Land Office Records confirmed the project area is within the Rancho San Perdo (Dominguez, recognized in 1858. This particular area of unincorporated Los Angeles County has been referred to as West Carson, but also associated with nearby Torrance and Dominquez Hills.

Carson

The City of Carson was named for George Henry Carson's son. The City's brief history (http://ci.carson.ca.us) reads:

> Manuel Dominguez & his wife, Maria Engracia Cota, has ten children. Six survived (all daughters) and were raised at the adobe home. They are re-

membered today by the many streets and businesses named after their families. One of the Dominquez daughters, Susana, married a man named Del Amo (a name familiar to anyone in the South Bay because of the giant Del Amo Fashion Center mall in Torrance). Another Dominquez daughter, Delores, took a husband named Watson (known today for the Watson Land Company and Industrial Centers). A third daughter, Maria Victoria, married a successful businessman named George Henry Carson.

George Henry Carson moved into the Rancho's Victorian home next to the adobe home, where they lived until the 20th century dawned. The city of Carson is named after their son, John Manuel Carson, a key figure in the development of the South Bay in the 20th Century, and the head of the Dominquez Water Corporation.

Torrance

Gillinghams's summary of Torrance (1961), in part, reads:

Torrance is a city in the South Bay (southwestern) region of Los Angeles County … Since its incorporation in 1921, Torrance has grown rapidly ... Torrance was originally part of the Tongva Native American homeland for thousands of years. In 1784 the Spanish land grant for Rancho San Pedro … In the early 1900s, real estate developer Jared Sidney Torrance and other investors saw the value of creating a mixed industrial-residential community south of Los Angeles. They purchased part of an old Spanish land grant and hired landscape architect Frederick Law Olmsted, Jr. to design a new planned community. The resulting town was founded in October 1912 and named after Torrance. The city of Torrance was formally incorporated in May 1921, the townsite being bounded by Western Avenue on the east, Del Amo Boulevard on the north, Crenshaw Boulevard on the west, and on the south by Plaza Del Amo east of where it meets Carson Street, and by Carson Street west of where it meets Plaza Del Amo. The first residential avenue created in Torrance was Gramercy and the second avenue was Andreo. Many of the houses on these avenues turned 100 years of age in 2012. Both avenues are located in the area referred to as Old Town Torrance. This section of Torrance is under review to be classified as a historical district … Rapid new growth in Torrance began after World War II as wartime industries transformed into Post-war Aerospace manufacturers and related technology industries. Large housing developments were built in the 1950s and 1960s to accommodate the new population. Torrance

moved on after the closure of some aerospace development and oil refinery plants in the 1990s statewide recession.

Dominguez Hills

Dominguez Hills is a community with the incorporated boundaries of the City if Carson. It stands out as a neighborhood associated with the historic core of the Dominguez rancho and the home of the Dominguez adobe. Today, the area is also associated with California State University, Dominguez Hills.

Historic Subdivisions

A review of County Assessor maps confirmed the project area was covered, in part, in three Assessor Books: 7344, 7345, and 7348. Each of these involved various pages identifying individual properties. Within Book 7344, pages 1 through 13 covered the areas north of 223rd Street, south of Carson Street, and between the 110 Freeway and Normandie Avenue. As such, this Book also addressed the large area associated with Harbor-UCLA Medical Center. Book 7345 covered the area north of Carson Street, south of Javelin Street, and between the 110 Freeway and Normandie. This area was addressed on Assessor pages 1 through 19. Book 7348 covered a relatively small area bounded by Javelin Street to the south, Torrance Blvd. to the north, Vermont Avenue to the west, and the 110 Freeway to the east. Here, pages 1 through 5 were included. Each of the current properties within the project area were based on earlier subdivision maps that were, in some instances, redefined by later subdivisions (Table 2). As listed, it is evident the Rancho San Pedro was still owned, in large part, by the Dominguez family in 1919, when a Superior Court Case (No. 3284) decreed the subdivision of the remaining acreage. In this particular area, the subdivided properties involved the 2463.79 acres of land allotted to Victoria Dominguez de Carson and the 511.65 acres allotted to Ana Josefa Dominguez de Guyer. These tracts were established in 1919 and held as units until after World War II. No subdivision maps were filed between 1923 and 1948, indicating few improvements during the years between World War I and World War II, with a few exceptions (see later discussion on the Harbor-UCLA Medical Center developments).

Assessor Book 7344

The subdivisions associated with Assessor Book 7344 (Figure 4) included two subdivisions within the Victoria Dominguez de Carson property (2463.79 acres). These subdivision date to 1919 and 1920. No further subdivisions pre-date 1956, although improvements existed, specifically within the Area of “Page 1” (Harbor-UCLA Medical Center).

Table 2. Summary of Maps Associated with the Project Area Subdivisions and Development.					
Book	Map	Year	Description	Boundaries	Book-Page
7344	TR 3239	1919	Being a Subdivision of a Portion of the Victoria D. de Carson 2463.79 Acre Allotment in the Partition of the Rancho San Pedro as per Superior Court Case No. 3284, Los Angeles County, California	North by Carson Street, West by Normandie Avenue, South by 228th Street, East by County Street (East of Vermont Avenue)	MB 37-27-28
7344	TR 3612	1920	Being a Subdivision of a Portion of the Victoria Dominguez de Carson 2463.79 Acre Allotment of the Rancho San Pedro, as shown on Map Filed in Case 3284, Superior Court of Los Angeles County, California	North of Ocean Street, East of Normandie Avenue, west of Main Street; South of 212th Street	MB 40-5-6
7344	TR 20226	1956	Being a Subdivision of a Portion of Lot 21 of Tract 3239 as Shown on Map Recorded in Book 37, Pager 27 and 28 of Maps, Records of Los Angeles County, California	North by 220th Street, West by Normandie Avenue, South by 223rd Street, and East by Meyler Street (Meyler Avenue +/-); Involving Developments on Mariposa Avenue	MB 595-50
7344	TR 24886	1959	Being a Subdivision of a Portion of Lots 31 & 32 and Being a Drainage Assessment of a Portion of Lots 33 & 30, Tract No. 3239 as shown on Map Recorded in Book 37, Pages 27 & 28 of Maps, in the Office of the County Recorder of Said County	Normandie Avenue to the West; 223rd Street to the South; Meyler Street to the East; and Jay Street to the North (+/-)	MB 652-38-40
7344	TR 29244	1964	Being a Subdivision of a Portion of Lot 31 of Tract 3239 as Recorded in Book 37, Pages 27 and 28 pf Maps, Records of Los Angeles County, State of California	Normandie Avenue to the West; South of 220th Street; involving Developments on Mariposa Avenue (cul-de-sac)	MB 34-38-39
7344	TR 30582	1969	Being a Subdivision of the East 330 Feet of Lot 22 and Lot 30 of Tract No. 3239 as per Map Filed in Book 37, Pages 27 and 28 of Maps, Records of Los Angeles County, State of California	South by Dunwich Avenue' West of Jay Place; South of Fiat Street; Involving 22nd Street, 221st Street, and Kenwood Avenue Improvements	MB 791-75-76
7344	PM 2012	1971	Being a Subdivision of Lot 22 of Tract No. 3239 per Map Filed in Book 37, Pages 27 and 28 of Maps, Records of Los Angeles County, California	East of Normandie Avenue; West of Mariposa Avenue; between 220th and 221st Streets	PM 31-41
7344	PM 8449	1978	Being a Subdivision of a Portion of Lot 21, of Tract 3239, as per Map Recorded in Book 37, Pages 27 and 28 of Maps in the Office of the County Recorder of the County of Los Angeles	East of Normandie Avenue, South of 220th Street	PM 96-13-14
7344	TR 34265	1979	Being a Subdivision of Lot 18, Tract No. 3239 as per Map Recorded in Book 37, Pages 27 and 28 of Maps, Records of Los Angeles County	North by 220th Street; South by 223 Street; East by Vermont Avenue; West by Meyler Street; including Private Driveways	MB 918-61-63

Table 2. Summary of Maps Associated with the Project Area Subdivisions and Development (Cont'd.).					
Book	Map	Year	Description	Boundaries	Book-Page
7344	TR 31726	1985	Being a Subdivision of a Portion of Lot 36 of Tract No. 3239 as Recorded in Book 37, Pages 27 of Maps, and a Portion of Lot 68 of Tract 3612 as Recorded in Book 40, Pages 5 and 6 of Maps, all Record of Los Angeles County	220th Street to the North; 223rd Street to the South; Vermont Avenue to the West, and The Harbor Freeway to the East	MB 1047-54-55
7344	TR 42773	1986	Being a Subdivision of a Portion of Lot 32, Tract No. 3239, as Shown on Map Recorded in Book 37, Pages 27 and 28, of Maps, in the Office of the Recorder in the County of Los Angeles	223rd Street to the South, Normandie Avenue to the West; Meyler Street to the East; for Condominium Purposes	MB 1083-5354
7344	TR 49098	1992	In Unincorporated Territory of the County of Los Angeles, State of California; Being a Subdivision of a Portion of Lot 24, Tract 3239, per Map Recorded in Book 37, Pages 27 of Maps, Records of Los Angeles County	Meyler Street to the West; Jay Street to the South; Fiat Street to the North; for Condominium Purposes	MB 1188-87-89
7344	TR 51112	1993	Being a Subdivision of a Portion of Lot 7 of Tract No. 3239, as Shown on Map Recorded in Book 37, Pages 27 and 28 of Maps, in the Office of the Recorder in the County of Los Angeles	Carson Street to the North; Vermont Avenue to the West; 220th Street to the South; and the Harbor Freeway to the East	MB 1203-34-35
7344	TR 51517	1995	Being a Subdivision of a Portion of Lot 21 of Tract No. 3239, as per Map Recorded in Book 37, Pages 27 and 28 of Maps, in the Office of the County Recorder of Said County	Normandie Avenue to the West; 220th Street to the North; Meyler Street to the West; Fiat Street to the South; Includes a Private Driveway	MB 1214-90-92
7345	TR 3612	1920	Being a Subdivision of a Portion of the Victoria Dominguez de Carson 2463.79 Acre Allotment of the Rancho San Pedro, as shown on Map Filed in Case 3284, Superior Court of Los Angeles County, California	North of Ocean Street, East of Normandie Avenue, west of Main Street; South of 212th Street	MB 40-5-6
7345	TR 6378	1923	Being a subdivision of a Portion of the 511.65 Acre Tract Allotted to Ana Josefa Dominguez de Guyer, made in Superior Court Case No. 3284, in and for Los Angeles County, California.	Normandie Avenue (west); Main Street (east); south of James Street; and north and south of East Road	MB 68-1
7345	TR 15190	1948	Being a Subdivision of a Portion of Lot 22 of Tract 3612 as Recorded in Book 40, Page 5 of Maps, Records of Los Angeles County, California	East of Vermont Avenue; West of Figueroa Street; South of 214th Street; North of 215th Street	MB 329-12-13
7345	TR 21495	1955	Being a Subdivision of a Portion of the 2463.79 Acre Tract of Land in the Rancho San Pedro allotted to Susana Dominguez as Shown on Map Filed in Case No. 3284 of the Superior Court of the State of California in and for the County of Los Angeles	North of Carson Street; East and West of Budlong Avenue; North and South of Desford Atreet; North and South of 216th Street; East and West of Meyler Street	MB 585-5-6

Table 2. Summary of Maps Associated with the Project Area Subdivisions and Development (Cont'd.).					
Book	Map	Year	Description	Boundaries	Book-Page
7345	TR 24141	1957	Being a subdivision of Lots 13 to 15 inclusive, and Portions of Lost 19 and 20 of Tract No. 6378 as per Map Recorded in Book 68, Pages 1-2 of Maps, Records of Los Angeles County, California	East of Vermont Avenue; north of 212nd Street, west of the 110 Freeway; and south of Torrance Blvd. (not along Torrance Blvd.)	MB 623-40-42
7345	TR 21007	1958	Being a Subdivision of a Portion of Lot 2 of Tract No. 3612 as per Map Recorded in Book 40, Pages 5 and 6 of Maps, Records of Los Angeles County, State of California	South Side of 212th Street; between Van Deene Avenue and Figueroa Street	MB 633-77-78
7345	TR 24363	1958	Being a Subdivision of a Portion of Lot 14 of Tract No. 3612, as per Map Recorded in Book 40, Pages 5-6, of Maps, Records of Los Angeles County, State of California	North of 214th Street; between Vermont Avenue and Figueroa Street – either side of Conradi Avenue	MB 633-80-81
7345	TR 24831	1959	Being a Subdivision of a Portion of the 2463.79 Acre Tract allotted to Victoria Dominguez de Carson by Decree of Partition of a Portion of the Rancho San Pedro, in Case No. 3284 of the Superior Court of the County of Los Angeles, State of California, and a Portion of Tract No. 21495, as per Map Recorded in Book 585/5-6 of Maps, Record of Los Angeles County, State of California	South of 213rd Street from West of Budlong Avenue to East of Broadwell Avenue	MB 645-48-50
7345	TR 24891	1959	Being a Subdivision of a Portion of the 2463.79 Acre Tract allotted to Victoria Dominguez de Carson by Decree of Partition of a Portion of the Rancho San Pedro, in Case No. 3284 of the Superior Court of the County of Los Angeles, State of California	East of Normandie Avenue; from South of Ritner Street to North fo Desford Street; to East side of Marigold Avenue	MB 641-53-55
7345	TR 24892	1959	Being a Subdivision of a Portion of the 2463.79 Acre Tract allotted to Victoria Dominguez de Carson by Decree of Partition of a Portion of the Rancho San Pedro, in Case No. 3284 of the Superior Court of the County of Los Angeles, State of California	East of Normandie Avenue; North and South Sides of Levinson Street (23 parcels)	MB 641-56-57
7345	TR 24893	1959	Being a Subdivision of a Portion of the 2463.79 Acre Tract allotted to Victoria Dominguez de Carson by Decree of Partition of a Portion of the Rancho San Pedro, in Case No. 3284 of the Superior Court of the County of Los Angeles, State of California	East of Normandie Avenue; North and South of Clarion Drive; West of Budlong Avenue	MB 644-46-48

Table 2. Summary of Maps Associated with the Project Area Subdivisions and Development (Cont'd.).					
Book	Map	Year	Description	Boundaries	Book-Page
7345	TR 24894	1959	Being a Subdivision of a Portion of the 2463.79 Acre Tract allotted to Victoria Dominguez de Carson by Decree of Partition of a Portion of the Rancho San Pedro, in Case No. 3284 of the Superior Court of the County of Los Angeles, State of California	North and South Sides of Clarion Drive; East of Budlong Avenue to Lots East of Broadwell Avenue	MB 644-49-50
7345	TR 24895	1959	Being a Subdivision of Lots 62 and 63 of Tract No. 24893 as per Map Recorded in Book 644, Pages 46, 47, and 48 of Maps, and of Lot 57 of Tract No. 24894 as per Map Recorded in Book 644, Pages 49 and 50 of Maps, and of a Portion of the 2463.79 Acre Tract allotted to Victoria Dominguez de Carson by Decree of Partition of a Portion of the Ranch San Pedro in Case No. 3284 of the Superior Court of the County of Los Angeles Records of Los Angeles County	East of Normandie Avenue; North and-South fo 213th Street and the Eastern Extension of Levinson Street (see Tract 24892)	MB 645-27-29
7345	TR 25150	1959	Being a Subdivision of Portions of Lots 1 and 12 of Tract No. 3612 as per Map Recorded in Book 40, Pages 5 and 6 of Maps and Portions of Lots 9, 10 and 11 of Tract No. 6378 as per Map Recorded in Book 68, Pages 1 and 2 of Maps, Records of Los Angeles County, State of California	East and west sides of New Hamp-shire Avenue; between 208th Street and Clarion Drive	MB 650-57-59
7345	TR 25362	1959	Being a subdivision of Lot 13, and Portions of Lots 1, 12 & 24 of Tract No. 3212 as per Map Recorded in Book 40, Pages 5 & 6, and Portions of Lots 9 & 10 of Tract No. 6378, as per Map Recorded in Book 68, Pages 1 & 2 of Maps, Records of Los Angeles County, State of California, and Grant Easement over a Portion of Lot 11, Tract No. 6378 as per Map Recorded in Book 68, Pagers 1 & 2 of Maps of Los Angeles County, California	West of Vermont Avenue; 214th Street to north of Linley Street (south of Tor-rance Blvd.)	MB 650-53-56
7345	TR 30353	1965	A Subdivision of Those Portions of Lots 3 and 10 of Tract No. 3612 as Shown on Map Recorded in Book 40, Pages 5 and 6 of Maps, and Portions of Lots 18 and 18 of Tract No. 6378 as Shown on Map Rec-orded in Bool 68, Pages 1 and 2 of Maps, in the Of-fice of the County Records of Said County	East side of Menlo Avenue between Southern Terminus and Javelin Street	MB 748-61-62

Table 2. Summary of Maps Associated with the Project Area Subdivisions and Development (Cont'd.).					
Book	Map	Year	Description	Boundaries	Book-Page
7345	PM 01495	1970	Being a Division of a Portion of the 2463.79 Acre Tract allotted to Victoria Dominguez de Carson on Decree of Partition of a Portion of the Rancho San Pedro, as Shown on Map Filed in Case No. 3284, Superior Court of Said County	North of Carson Street, East of Berendo Avenue (two small lots)	PM 24-48
7345	TR 31355	1975	Being a Subdivision of a Portion of Lot 2 and Lot 11 of Tract No. 3612, as per Map Recorded in Book 640, Pages 5 & 6 of Maps, Records of Los Angeles County	East of Vermont Avenue; West of Menlo Avenue; from North Side of Clarion Drive to South Side of 213th Street	MB 858-41-42
7345	TR 32978	1977	Being a Subdivision of a Portion of the 2463.79 Acre Tract, allotted to Victoria Dominguez de Carson by Decree of Partition of a Portion of the Rancho San Pedro as Shown on Map Filed in Case No. 3284 of the Superior Court of the State of California for the County of Los Angeles	North of Carson Street; East of Berendo Avenue and both Sides of Broadwell Avenue	MB 874-52-54
7345	TR 32750	1980	Being a Subdivision of a Portion of the 2463.79 Acre Tract allotted to Victoria Dominguez de Carson by Decree of Partition of a Portion of the Rancho San Pedro in Case No. 3284 of Superior Court, Records of Los Angeles County	East of Berendo Avenue; both Sides of Broadwell Avenue	MB 950-31-32
7345	TR 38546	1981	Being a Subdivision of a Portion of Lot 25, Tract No. 3612, as per Map Filed in Book 40, Pages 5 and 6 of Maps, in the Office of the County Recorder of Los Angeles County	North of Carson Street; East of Berendo Avenue (not bordering Berendo Avenue)	MB 983-42-43
7345	TR 43134	1984	Being a Subdivision of a Portion of the 2463.79 Acre Tract allotted to Victoria Dominguez de Carson by Decree of Partition of a Portion of the Rancho San Pedro in Superior Court Case No. 3284 and Lot 1 of Tract No. 32750 as per Map Filed in Book 950, Pages 31 and 32 of Maps, both Records of Los Angeles County	East of Berendo Avenue; North and West Sides of Broadwell Avenue	MB 1037-6566
7345	TR 46525	1990	Being a Subdivision of a Portion fo Lot 24, Tract No. 3612 as per Map Recorded in Book 40, Pages 5 and 6 of Maps, in the Office of the County Recorder of Los Angeles County	East of Vermont Avenue; between Carson Street and 214th Street (not adjacent to Carson Street or 214th Street)	MB 1165-10

Table 2. Summary of Maps Associated with the Project Area Subdivisions and Development (Cont'd.).					
Book	Map	Year	Description	Boundaries	Book-Page
7345	PM 25085	2001	Being a Subdivision of a Portion of the 2463.79 Acre Tract allotted to Victoria Dominguez de Carson by Decree of Partition of a Portion of the Rancho San Pedro in Case No. 3284, of Superior County of Los Angeles County	North of Carson Street; West of Budlong Avenue (two small lots)	PM 304-17-18
7348	TR 6378	1923	Being a subdivision of a Portion of the 511.65 Acre Tract Allotted to Ana Josefa Dominguez de Guyer, made in Superior Court Case No. 3284, in and for Los Angeles County, California.	Normandie Avenue (west); Main Street (east); south of James Street; and north and south of East Road	MB 68-1
7348	TR 24141	1957	Being a subdivision of Lots 13 to 15 inclusive, and Portions of Lost 19 and 20 of Tract No. 6378 as per Map Recorded in Book 68, Pages 1-2 of Maps, Records of Los Angeles County, California	East of Vermont Avenue; north of 212nd Street, west of the 110 Freeway; and south of Torrance Blvd. (not along Torrance Blvd.)	MB 623-40-42
7348	TR 25150	1959	Being a Subdivision of Portions of Lots 1 and 12 of Tract No. 3612 as per Map Recorded in Book 40, Pages 5 and 6 of Maps and Portions of Lots 9, 10 and 11 of Tract No. 6378 as per Map Recorded in Book 68, Pages 1 and 2 of Maps, Records of Los Angeles County, State of California	East and west sides of New Hampshire Avenue; between 208th Street and Clarion Drive	MB 650-57-59
7348	TR 25362	1959	Being a subdivision of Lot 13, and Portions of Lots 1, 12 & 24 of Tract No. 3212 as per Map Recorded in Book 40, Pages 5 & 6, and Portions of Lots 9 & 10 of Tract No. 6378, as per Map Recorded in Book 68, Pages 1 & 2 of Maps, Records of Los Angeles County, State of California, and Grant Easement over a Portion of Lot 11, Tract No. 6378 as per Map Recorded in Book 68, Pagers 1 & 2 of Maps of Los Angeles County, California	West of Vermont Avenue; 214th Street to north of Linley Street (south of Torrance Blvd./208th Street)	MB 650-53-56
7348	TR 25289	1960	Being a Subdivision of Portions of Lots 10 and 11 of Tract No. 6378 as per Map Recorded in Book 68, Pages 1 and 2 of Maps, Records of Los Angeles County, State of California	West of Vermont Avenue; East of New Hampshire Avenue; South of 208th Street; North of Linley Street (208th Street = Torrance Blvd.)	MB 657-12-13
7348	TR 25310	1961	Being a Subdivision of a Portion of Lots 12 & 21, Tract No. 6378 as per Map Recorded in Book 68, Pages 1 and 2 of Maps, Records of Los Angeles County, State of California	South of Torrance Blvd.; between Vermont Avenue and 110 Freeway	MB 669-30-31

Table 2. Summary of Maps Associated with the Project Area Subdivisions and Development (Cont'd.).					
Book	Map	Year	Description	Boundaries	Book-Page
7348	TR 30353	1965	A Subdivision of Those Portions of Lots 3 and 10 of Tract No. 3612 as Shown on Map Recorded in Book 40, Pages 5 and 6 of Maps, and Portions of Lots 18 and 18 of Tract No. 6378 as Shown on Map Recorded in Bool 68, Pages 1 and 2 of Maps, in the Office of the County Records of Said County	East side of Menlo Avenue between Southern Terminus and Javelin Street	MB 748-61-62

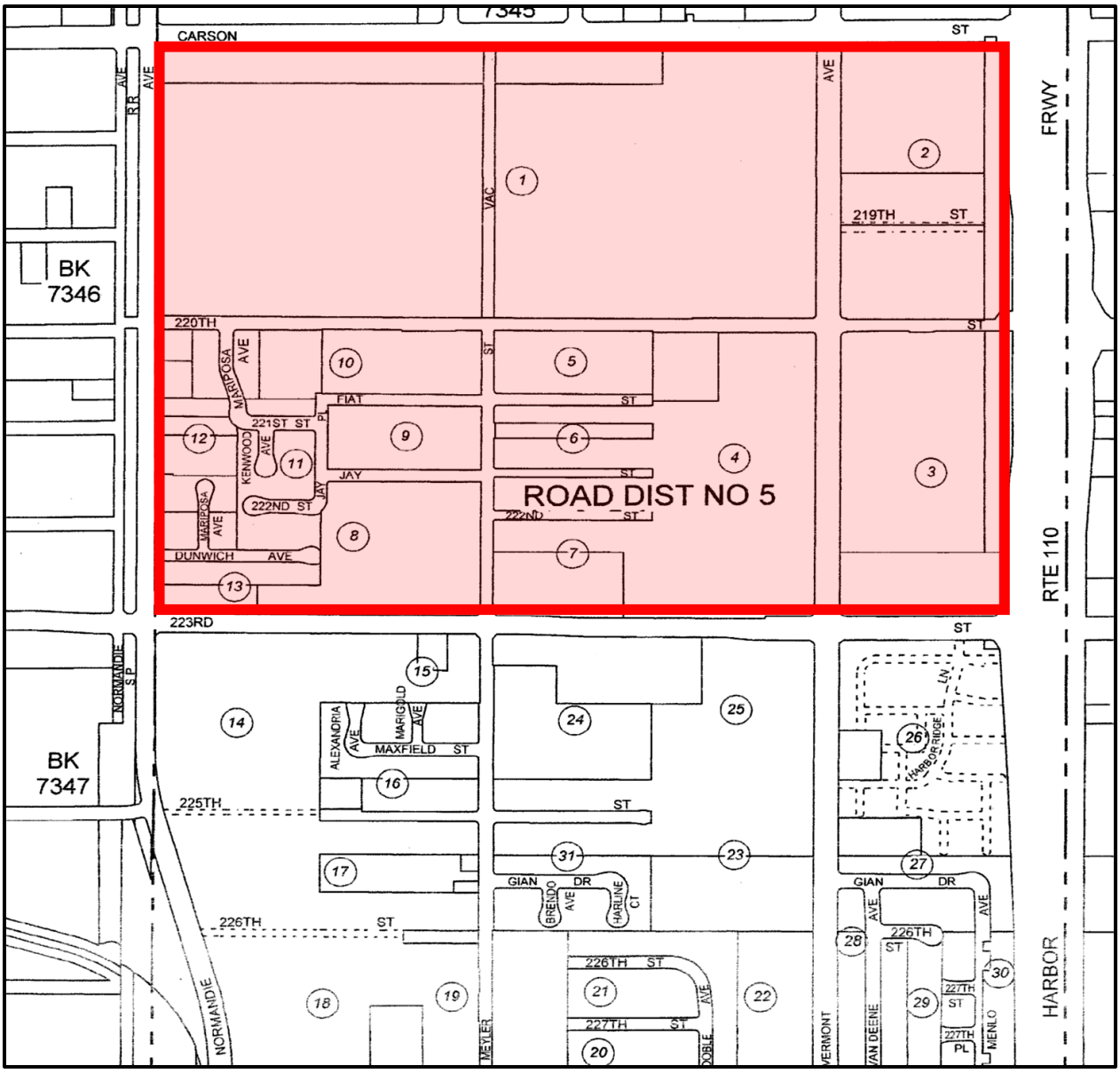

Figure 4. Assessor Index Map, Book 7344, Illustrating Project Area Boundaries.

In reviewing the remaining areas of this portion of the project area, early improvements were identified on 223rd Street, west of Vermont Avenue (1920s MFR improvements); a commercial improvement on 223rd Street, east of Meyler Street (nursery with a 1928 residence); and early developments on 222nd Street and Jay Street, east of Meyler Street. In the case of the Jay Street improvements, these have been tentatively dated to ca. 1908-1915. Other early improvements in this area date to 1922 and 1929. These improvements are all within the 1919 Victoria Dominguez de Carson subdivision.

Properties of concern within this particular portion of the overall project area include:

7344-001-901	Harbor-UCLA Medical Center (72.16 Acres)
7344-004-010	MFR – 958 222nd Street (1921-1923-1927-1952)
7344-007-007	SFR – 1016 Jay Street (1915-1920)
7344-007-008	SFR – 1011 222nd Street (1922-1947)
7344-007-010	SFR – 1015 222nd Street (1908-1929)
7344-007-012	SFR – 1041 222nd Street (1929-1938)
7344-009-020	SFR – 1139 Jay Street (1930-1975)
7344-012-032	SFR – 22042 Normandie Avenue (1926)
7344-013-019	SFR – 1203 223rd Street (and Nursery 1930-1935)

As listed, it is apparent the areas of concern include the Harbor-UCLA Medical Center and properties along 222nd Street and properties in the immediate vicinity of 222nd Street, between Normandie Avenue and Vermont Avenue. The properties clustered on 222nd Street suggest this was the earliest area of recognizable or permitted improvements.

With respect to the Harbor-UCLA Medical Center, it was apparent the core area of the hospital was a post-1960s improvement cluster. However, in the areas to the west and south of the larger hospital complex, earlier buildings were noted and, in conducting research into the origin of these earlier structures, it was confirmed the area was originally developed as a World War II medical facility (Figures 5 and 6).



Figure 5. Military Medical Complex of the 1940s.

As illustrated, the northern boundary is Carson Street, the west is Normandie Avenue, to the south is 222th Street, and to the east is Vermont Avenue.



Figure 6. View of the 1940s Military Medical Complex.

The US Army Corps of Engineers, Los Angeles District (2016) described the facility as follows:

> Between June 1943 and October 1944, the War Department acquired 32 parcels by fee totalling [sic] 77.81 acres. These parcels were either taken by direct purchase or condemnation from private owners. Three additional parcels, totaling [sic] .77 acres, were acquired by permit from the County of Los Angeles for the construction of culverts across what were then county roads. Thus, 78.58 acres was acquired by fee and permit for the Los Angeles Port of Embarkation Station Hospital. The site was also known as Torrance Station Hospital.
>
> The site was an off-post hospital facility of the Los Angeles Port of Embarkation that was used to care for Army personnel and their dependents. Improvements constructed onsite included approximately 80 buildings, utilities, and several precast concrete and steel underground storage tanks.

> The site was declared surplus on 31 March 1946, with custody assumed by the War Assets Administration on 30 September 1946.
>
> Los Angeles County purchased the entire property for the sum of $48,271 on 23 June 1947 by Quitclaim Deed.
>
> The medical buildings became Los Angeles County Harbor General Hospital, and in 1946 the hospital was dedicated to serve the indigent and the emergency medical care needs of the county's exploding postwar population. In 1951, an affiliation between Harbor General Hospital and the newly founded UCLA School of Medicine was realized, predating by several years the opening of the UCLA Medical Center on the Westwood campus. Financed by a $15.4 million bond measure overwhelmingly passed by Los Angeles County voters, construction of a new acute care facility was begun in 1960 and completed in 1963 as a 553-bed hospital that in 1978 was renamed Harbor-UCLA Medical Center. A major addition to the building was completed in 1994. Today, Harbor-UCLA Medical Center serves a catchment area of approximately 2 million citizens and offers a full spectrum of tertiary care in all medical and surgical specialties.

The modern medical complex dominates the eastern portion of the property – necessitating the removal of 1940s-era buildings. The western portion of the property still exhibits numerous structures associated with the 1943-1946 medical facilities, along with some more modern additions and some alterations.

The area still exhibits the general characteristics of the 1940s complex and is representative of a period significant to the War effort and the post-war development of this area of Los Angeles County. Ripton (1973) summarized the modern alterations to the complex:

> Harbor General Hospital’s origins were anything but ayspicious. It started in 1943 as the Torrance Port of Embarkation Station Hospital in a cluster of 77 barracks built by the Army.
>
> Some of the barracks are still in use but ten years ago an $11.6 million, eight-story hospital building was erected and in the next decade will give the hospital some of the best medical facilities in the nation …
>
> After the end of World War II, the coounty acquired the 78 acre site of the former Army hospital, including the barracks and theiur equipment, and converted it into a public hospital.

Based on the research for the area of Assessor Book 7344 (limited to the project area), McKenna et al. concluded the Harbor-UCLA Medical Center exhibits elements of the 1940s military hospital and areas to the south and west of the hospital have show limited evidence of pre-1930s improvements (8 individual properties).

Assessor Book 7345

Assessor Book 7345 covers that portion of the project area bounded by Normandie Avenue (west), the 110 Freeway (east), Carson Street (south) and Javelin Street (north). Nineteen pages are involved (Figure 7). As listed in Table 2, twenty-four subdivision maps cover this area. Of these, two date to 1920 and 1923, including a portion of the Victoria Dominguez de Carson subdivision and a portion of the Ana Josefa Dominguez de Guyer subdivision. No other subdivision appear until after World War II (ca. 1948) and continue until recently (2001) with condominium developments.

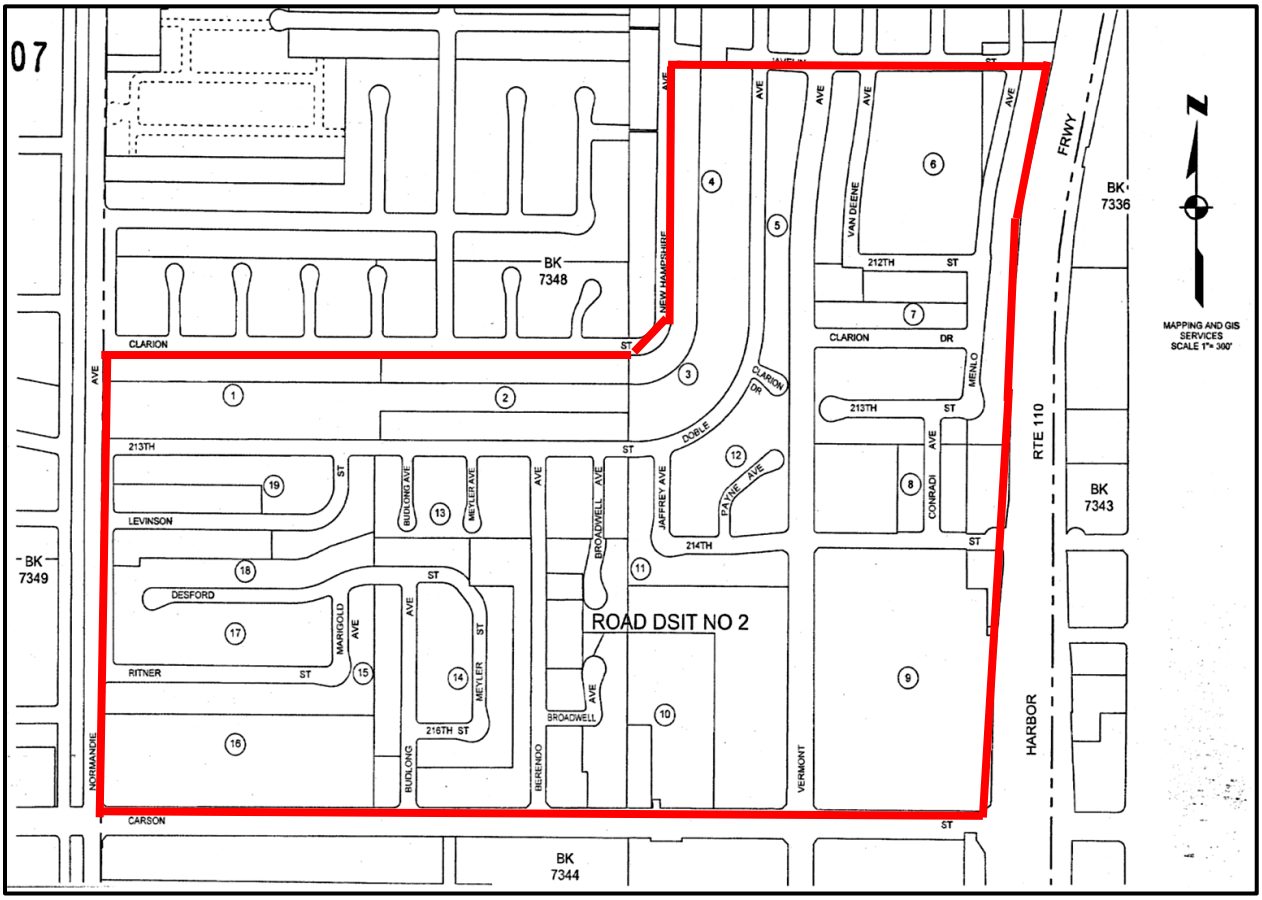

Figure 7. Assessor Index Map for Book 7345, Illustrating Project Area Boundaries.

A review of the properties within this particular area are all post-1948 and, while many could be considered historic (by age; pre-1965), they tend represent early tract home developments dominated by California Ranch style single-family residences. Some of the late 1940s residences resemble cottages or bungalows. Many of the residences reflect their original designs, but others have been significantly altered.

One notable exception is the area on the north side of Carson Street, east of Budlong Avenue (1029 Carson Street; Figure 8) and the few commercial structures to the east of this building (Figure 9).



Figure 8. Commercial Structure at 1029 Carson Street (NE).

These properties are identified by the County Assessor as follows:

7345-010-011	1029 Carson Street	1969 Commercial
7345-010-012	1019 Carson Street	1969 Commercial
7345-010-013	1017 Carson Street	1959 Commercial

Despite these recorded ages, the structures appear to represent earlier development and the dates listed by the Assessor may represent dates of significant alteration. In fact, the

1953 USGS quadrangle for this area illustrated three structures on this corner. The 1952 aerial map illustrates two structures (1017 and 1019 Carson Street. This suggests the building on the corner (1029 Carson Street) may have been moved onto the corner in ca. 1969, resulting in the 1969 reference. Architecturally, this building appears to represent an earlier structure, possible a small gas station. Additions to the north side have almost doubled the size of the building.



Figure 9. Historic Commercial Structures on Carson Street, East of Budlong Avenue (N).

The Van Deene Street elementary School is located at Van Deene and Javelin Streets and is considered a standard 1950s elementary school with the addition of modular units to manage the population of students.

There are no commercial improvements to the west of the Vermont Avenue frontage. The majority of improvements on Vermont Avenue are commercial/industrial sites and many are modern. To the east, between Vermont Avenue and the 110 Freeway, two trailer parks are present, providing low-cost housing.

Overall, this area yielded no significant evidence of historical resources and is considered to be an area of ineligible properties.

Assessor Book 7348

Assessor Book 7348 covers a relatively small area north of Javelin Street, south of Torrance Blvd., east of New Hampshire Avenue, and west of the 110 Freeway (Figure 10).

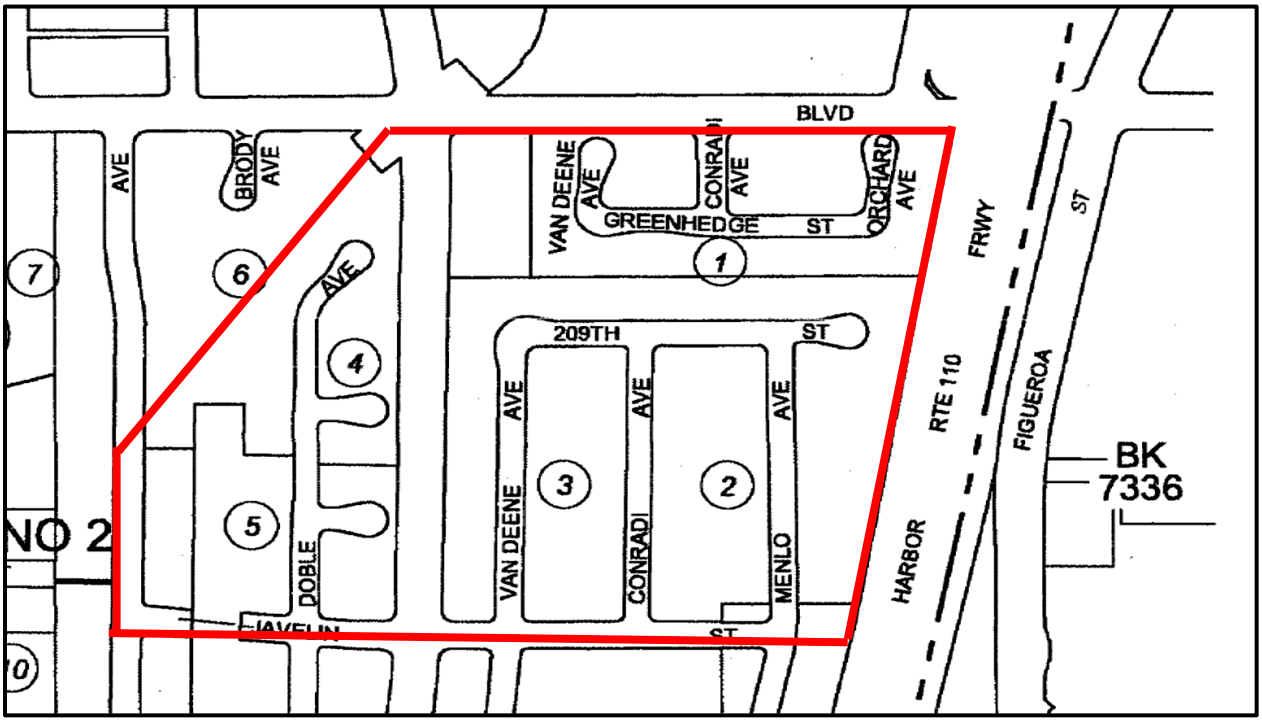

Figure 10. Assessor Index Map for Book 7348, Illustrating Project Area Boundaries.

As in the case of properties to the south (Assessor Book 7348), this area is part of the Ana Josefa Dominguez de Guyer (ca. 1923) with no further subdivisions until 1957, indicating the residential developments in this area post-date 1957. In visually inspecting this area, McKenna et al. confirmed the area is dominated by early tract home development with California Ranch style architectural designs. None of these residences are considered historically significant, although the general developments pre-date 1965. Few structures from Torrance Blvd. Those that do are mostly commercial properties associated with the freeway access ramps (e.g. gas stations). Alpine Village is located north of Torrance Blvd., outside the project area boundaries.

Summary

Subdivision maps indicated the project area was still owned by members of the historic Dominguez family into the 1920s and, more likely, until after World War II, when various

areas were subdivided for residential, commercial, industrial, and educational purposes. The most obviously historic resources in the area are the Harbor-UCLA Medical Center 1940s components, a scatter of residences in the southern portion of the project area, and a few commercial structures on Carson Street. None of these resources will be impacted by the proposed TOD development activities.

METHODOLOGY

To adequately address the Southeast Area Specific Plan project area for CEQA and local compliance, McKenna et al. completed the following tasks:

1. Archaeological Records Search: A standard archaeological records search was completed at the California State University, Fullerton, South Central Coastal Information Center, Fullerton, California. This research was completed by Jeanette A. McKenna, Principal Investigator for McKenna et al., on September 29, 2015 (Appendix B). The research included a review of reports, site forms, maps, listed properties, and other documents pertaining to the project area.

2. Native American Consultation: McKenna et al. contacted the Native American Heritage Commission and inquired into the presence/absence of sacred or religious sites in the vicinity of the study area. The reply from the Commission included a listing of local Native American representatives wishing to be notified of projects within their traditional territories. McKenna et al. sent letters to the identified representatives, requesting comments or concerns for the area (Appendix C). Responses have been incorporated into this technical report.

3. General Historic Land-Use History: To address the general history of the area, McKenna et al. consulted standard references for the development of the West Athens/Westmont area, reviewed historic maps and aerial photographs, and included information referenced in previous studies completed in the vicinity. This data was used to place the project area in a context for preliminary evaluation.

4. Paleontological Overview: McKenna et al. contacted the Natural History Museum of Los Angeles County and obtained a paleontological overview for the southeastern area of Long Beach (Appendix D).

5. Field Reconnaissance Survey: McKenna et al. completed the field reconnaissance survey on August 16, 2016. The survey was completed by Jean-

ette A. McKenna, Principal Investigator, and Ashley Betters (B.A.), Research Assistant. This survey involved a windshield survey of all roadways and neighborhoods within the delineated project boundaries. All street were covered and individual properties were examined for evidence of early construction or improvements. Using research data as a guide, neighborhoods were addressed and, as deemed appropriate, photographed. The field survey was supplemented by a photographic record (Appendix E) and field notes (on file, McKenna et al.).

6. Analysis of Data Compiled: Once research data and field reconnaissance data was compiled, McKenna et al. assessed the project area for the presence of cultural resources and the potential impacts on known or potentially significant cultural resources.

7. Report Preparation: This technical report was prepared in a manner consistent with the data requirements of CEQA, the Office of Historic Preservation, and the County of Los Angeles. All pertinent data has been incorporated into this technical document and for incorporation into future documents.

PREVIOUS RESEARCH

As noted, McKenna et al. completed a standard archaeological records search through the California State University, Fullerton, South Central Coastal Information Center (CSUF-SCCIC). This research was conducted to understand the extent of previous studies and the potential for the area to yield additional evidence of cultural resources.

Due to the irregular shape of the project area, McKenna et al. completed research for the specific project area and a minimum of one/half mile around the peripheries of the project area. This research resulted in the identification of a minimum of 62 cultural resource investigations (Table 3). As noted, the majority of these studies involve small cell tower locations.

One five of the studies were conducted within the boundaries of the current project area, including: LA-00122; LA-03956; LA-5331; LA-09626; and LA-11482. Of these, one was not available, two were cell tower sites; one was the adjacent 110 Freeway study; and one was a general overview addressing known prehistoric sites in the general area.

Overall, the entire project area can be considered un-surveyed prior to this investigation, as the areas addressed actually equate to two cell tower locations, only. The Harbor-UCLA Medical Center has not been subjected to any historic assessments.

Table 3. Cultural Resource Investigations Completed within and Around the Project Area.				
No.	Report No.	Citation	Description	Sites
1	LA-00122	Report Not Available	---	
2	LA-00229	Hector 1976	Main Street Sewer	
3	LA-00660	Desautels 1979	Pollution Control Plant	
4	LA-01016	Schroth 1981	Bus Operations	
5	LA-01373	Dillon 1984	Normandie Avenue	
6	LA-01445	Dillon 1984	190th Street	
7	LA-01467	Dillon 1985	Vermont Avenue	
8	LA-02417	McKenna 1991	South Bay Bank	
9	LA-03128	Uchitel 1994	Frampton Avenue	
10	LA-03583	Buckman 1974	Gazetteer Compilation	Yes
11	LA-03809	Anonymous 1979	Del Amo Boulevard	
12	LA-03810	Anonymous 1978	Del Amo Boulevard	
13	LA-03956	McLean 1998	Cell Tower Site	
14	LA-04758	Duke 1999	Cell Tower Site	
15	LA-04770	Duke 2000	Cell Tower Site	
16	LA-05212	Duke 2001	Cell Tower Site	
17	LA-05331	Romani 1982	Freeway Study	Yes
18	LA-05499	Smith 2000	Freeway Study	
19	LA-05838	Wlodarski 2001	Halldale Avenue	
20	LA-05972	Duke 2002	Cell Tower Site	
21	LA-05987	Duke 2002	Cell Tower Site	
22	LA-05995	Duke 2002	Cell Tower Site	
23	LA-05997	Duke 2002	Cell Tower Site	
24	LA-06191	Duke 2002	Cell Tower Site	
25	LA-06193	Holson 2002	Cell Tower Site	
26	LA-06194	White 2002	Cell Tower Site	
27	LA-06196	McKenna 2002	Cell Tower Site	
28	LA-06201	Foster 2002	182nd Street Bridge	
29	LA-06374	Bonner 2000	Cell Tower Site	
30	LA-06867	Harper 2003	Cell Tower Site	
31	LA-06868	Harper 2003	Cell Tower Site	
32	LA-06872	Bell 2001	Cell Tower Site	
33	LA-06873	Miller 2000	Cell Tower Site	
34	LA-06874	Bell 2001	Cell Tower Site	
35	LA-06875	Bolin 2001	Cell Tower Site	
36	LA-07012	Bonner 2002	Cell Tower Site	
37	LA-07928	Bonner 2006	Cell Tower Site	
38	LA-08176	Billat 2007	Catskill Avenue	Yes
39	LA-09030	Bonner 2006	Cell Tower Site	Yes
40	LA-09345	Bonner 2008	Cell Tower Site	Yes

Table 3. Cultural Resource Investigations Completed within and Around the Project Area (cont'd.).

No.	Report No.	Citation	Description	Sites
41	LA-09626	Bonner 2008	Cell Tower Site	Yes
42	LA-09627	Wlodarski 2008	Cell Tower Site	
43	LA-09628	Bonner 2009	Cell Tower Site	
44	LA-10197	Sriro 2001	Vermont Avenue Ramps	
45	LA-10250	Bonner 2009	Cell Tower Site	
46	LA-10567	Hogan et al. 2005	West Basin MWD Harbor	
47	LA-10727	Bonner 2010	Cell Tower Site	
48	LA-11069	Metzler 2009	Cell Tower Site	
49	LA-11074	Supernowicz 2009	Cell Tower Site	Yes
50	LA-11089	White 2009	Cell Tower Site	
51	LA-11101	Johnson 2010	Cell Tower Site	Yes
52	LA-11150	Maxwell 2003	West Basin MWD Harbor	Yes
53	LA-11227	Hudson2010	Cell Tower Site	
54	LA-11482	Racer (N.d.)	Campsites in Harbor Dist.	Yes
55	LA-11513	Meyer 2011	Carson High School	
56	LA-11635	Bonner 2011	Cell Tower Site	
57	LA-11660	Luftus 2011	Cell Tower Site	
58	LA-12028	Bonner 2012	Cell Tower Site	Yes
59	LA-12440	Bonner 2013	Cell Tower Site	Yes
60	LA-12441	Fulton 2013	Cell Tower Site	
61	LA-12653	Brunzell 2014	Cell Tower Site	
62	LA-12800	Anderson & Gonzalez 2014	Public Works Project	Yes
63				

Prehistoric Archaeological Resources

In his overview for the Harbor District, Racer reported the presence of two prehistoric archaeological sites: CA-LAN-88 and CA-LAN-106. Neither is within the boundaries of the current project area.

CA-LAN-88 (Racer 1939) is described as a cluster of "… small sites around the orders of Lagunas de los Dominguez … south of Gardena." The sites were difficult to identify and Racer reported few artifacts. He suggested additional sites were present in the immediate area.

CA-LAN-106 (Racer 1939) was described as a shell midden site with some flaked stone tools. Again, neither is within the project area and neither location will be disturbed by any activities conducted within the West Carson TOD project area.

Paleontological Overview

A paleontological overview for the study area was prepared by McLeod of the Natural History Museum of Los Angeles County (2015). McLeod identified the project area as consisting primarily of younger Quaternary alluvium deposits that have not yielded evidence of significant fossil specimens. He added, however, the area is underlain by older Quaternary deposits that have been known to yield evidence of camel and horse fossils. Other specimens located further north have included mammoth, squirrel, horse, antelope, pond turtle, puffin, turkey, ground sloth, dire wolf, rabbit, deer mouse, pocket gopher, deer, and bison. McLeod suggested shallow excavations would not be likely to yield fossils, but deeper excavations may. Therefore, should any project related activities involve impacts to the older Quaternary deposits, the excavations should be "closely monitored to quickly and professionally collect any specimens without impeding construction."

Summary

Previous research confirmed to completion of at least 64 studies within or adjacent to the study area. However, it is emphasized these studies were limited, for the most part, to small areas associated with the establishment of cell tower sites. The greater majority of the project area was developed prior to any requirements for cultural resources investigations (CEQA) and, therefore, very little of the study area has been formally investigated or evaluated for significant cultural resources. No resources have yet to be recorded within the project area. Known resources for the general area (2) are well outside the boundaries of the project area and, therefore, are of no immediate concern.

The project area is moderately sensitive for buried archaeological resources and deeply buried paleontological resources. The area is more sensitive for the presence of historic built environments (standing structures) that predate 1965. In this case, the majority of the post-World War II improvements are residential properties, commercial and industrial properties, and some public buildings (e.g. schools and the hospital complex).

McKenna et al. has identified a number of structures that have the potential to be historically significant, including 8 pre-1930 residential properties, 3 commercial buildings on Carson Street, and the World War II medical complex on the site of the Harbor-UCLA Medical Center. The proposed project will not immediately impact these properties. However, should any project-related activities involve these properties, a formal assessment of the resources will be required. The properties in question include:

7344-001-901	Harbor-UCLA Medical Center (72.16 Acres)
7344-004-010	MFR – 958 222nd Street (1921-1923-1927-1952)

7344-007-007	SFR – 1016 Jay Street (1915-1920)
7344-007-008	SFR – 1011 222nd Street (1922-1947)
7344-007-010	SFR – 1015 222nd Street (1908-1929)
7344-007-012	SFR – 1041 222nd Street (1929-1938)
7344-009-020	SFR – 1139 Jay Street (1930-1975)
7344-012-032	SFR – 22042 Normandie Avenue (1926)
7344-013-019	SFR – 1203 223rd Street (and Nursery 1930-1935)
7345-010-011	Commercial - 1029 Carson Street (1969)*
7345-010-012	Commercial - 1019 Carson Street (1969)*
7345-010-013	Commercial - 1017 Carson Street (1959)*

(* = dates are problematic)

RESULTS OF THE INVESTIGATIONS

The cultural resources investigations for the West Carson TOD Specific Plan project area resulted in a conclusion the area is moderately sensitive for paleontological resources and moderately sensitive for the presence of historic period cultural resources (built environments). There was also evidence of redevelopment in some area, raising the potential for historic archaeological resources – primarily in the area within the Harbor-UCLA Medical Center and along 223rd Street. Although there was no research documentation nor physical evidence of prehistoric archaeological resources, the project area should be considered relatively sensitive for prehistoric archaeological resources.

Paleontological Resources

McLeod (2015) determined the project area was moderately sensitive for paleontological resources, based on findings in the general vicinity and the nature of the soils within the project area. The younger Quaternary deposits (shallow) will not require any monitoring, but is any activities require deeper excavations that will impact the older Quaternary alluvium, which is associated with fossil specimens, McLeod has recommended paleontological monitoring and sampling. McKenna et al. concurs with this finding, but understands the project, as currently defined, is unlikely to impact older Quaternary deposits and, therefore, monitoring would be unlikely. If needed, the paleontological monitoring program should follow the standards and protocols of the Natural History Museum of Los Angeles County.

Native American Consultation

McKenna et al. contacted the Native American Heritage Commission with respect to sacred or religious sites within or near the project area. The Commission had no records of any such resources. A list of local Native American representatives was provided by the

Commission and McKenna et al. sent letters to these representatives (Appendix C), requesting any pertinent information or issues they wanted addressed in this study. McKenna et al. received telephonic one response – Anthony Morales, Chair of the San Gabriel Band of Gabrielino/Tongva Mission Indians. Mr. Morales called McKenna et al. and the project was discussed. Although Mr. Morales had no specific information pertaining to the project area, he requested he be kept informed and permitted to comment on any resources that may be identified at a later date.

Historic-Period Cultural Resources

No evidence of historic archaeological resources was identified during the recent reconnaissance survey. These negative findings are based primarily on the fact that this project area is located in an urban setting with little to no available native soils for visual inspection. Nonetheless, there is always a potential for buried prehistoric resources and, therefore, the overall area is considered to have a relative level of sensitivity.

With respect to the built environment, the project area is associated with relatively early rancho-period ownership and use, as well as some early subdivisions and development. With the exception of the modern improvements – commercial and residential – the project area can be associated with the establishment of roadways, the Harbor-UCLA Medical Center (and its associated with the earlier Embarkation Hospital complex), and a relatively few pre-1930 residential improvements. The majority of the project area improvements data after World War II, with residential developments being dominated by later 1940s to 1960s single family residences. More recently, some areas have been developed or redeveloped as apartment or condominium complexes. These post-World War II improvements are not considered historically significant.

All major road alignments within the project area should be considered historic (by age). Each, however, has been significantly improved via width, pavement, infrastructure, etc., obliterating the original alignments. This is particularly seen along Vermont Avenue, Normandie Avenue, Torrance Blvd., Carson Street, and 223rd Street. Secondary streets extend from Torrance Avenue (originally 208th Street) to 223rd Street, with some additional north/south cross streets. The names of some streets have been changed over the years, but the actual alignments appear to be original. There have been some lot line adjustments, but the greater majority of the properties reflect their original dimensions and improvements.

Modern improvements, such as the 110 Freeway and the Harbor-UCLA Medical Center's expansions, have resulted in the removal of some earlier structures and interrupted some road alignments. No historic resources have been reported within the project area prior to this investigation.

RECOMMENDATIONS

McKenna et al. presents the following recommendations, based on the results of the overview study and the proposed implementation of the West Carson TOD Specific Plan:

1. The project area is relatively sensitive for paleontological resources and, therefore, any proposed project requiring excavations should include a requirement for paleontological monitoring in areas where older Quaternary alluvium is identified. In general, any excavations exceeding five feet or more below the current ground surfaces should be assessed for monitoring activities. The approach to the paleontological monitoring should follow the standard protocols of the Natural History Museum of Los Angeles County.

2. The project area is considered relatively sensitive for the presence of prehistoric archaeological resources, despite negative findings. McKenna et al. recommends any project-related earthmoving in areas not previously improved be monitored for prehistoric archaeological resources. In addition, McKenna et al. makes the following recommendations with respect to improved properties:

    - A Phase I cultural resources investigation compliant with current standards and guidelines for any properties not previously improved (e.g. open space or native soils);

    - Detailed project-specific consultation with Native American representatives (AB-52 and/or SB-18, depending on the project), as applicable;

    - Preparation of the California State Department of Parks and Recreation DPR-523 resource forms, as applicable

3. Projects involving significant alterations (e.g. demolition of structures or removal of pavements) to properties with built environments (e.g. roads, residential and/or commercial properties) should be fully documented (including DPR-523 forms) and assessed in accordance with current guidelines and criteria for evaluation. Recommendations for preservation should be considered, if applicable.

4. If, at any time, evidence of human remains is uncovered, the County Coroner must be notified immediately and permitted to examine the find in situ. I f the remains are of Native American origin, the Native American Heritage

Commission will be contacted and the Most Likely Descendent (MLD) will be identified. In consultation with the Lead Agency, Archaeological Consultant, and MLD, the disposition of the remains will be determined. If the remains are archaeological, but not identified as Native American, the Consulting Archaeologist will oversee the removal and analysis of the remains. Reinternment will be the responsibility of the Lead Agency and/or Project Proponent. All project-specific areas should include a condition for archaeological monitoring. If the remains are deemed forensic, the County Coroner will oversee the removal of the remains and the County will complete the analysis and reinternment, as applicable.

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This document was prepared by Jeanette A. McKenna, Principal Investigator for McKenna et al. Any changes to this document will require the written authorization of the author.

Jeanette A. McKenna — Aug. 28, 2016

Jeanette A. McKenna, McKenna et al., Whittier, CA — Date

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APPENDIX A:

Professional Qualifications

JEANETTE A. McKENNA

Owner and Principal Investigator
McKenna et al., Whittier CA

Ms. McKenna specializes in the discipline of Cultural Resource Management: prehistoric archaeology, historic archaeology, historic architecture, and history. She holds a Master's Degree in Anthropology/Archaeology and was recently awarded an Honorary Doctorate of Letters (HonDL) by the International Biographical Centre of Cambridge, England. She is a past member of the Board of Directors for the Society of Professional Archaeologists (SOPA 1993-97) and was certified by the Society to conduct both prehistoric and historic archaeological studies. Ms. McKenna is also recognized by the California Office of Historic Preservation as qualified to complete historic architectural studies. Ms. McKenna was on the Board of Directors for SOPA when the Society established the Registry of Professional Archaeologists (RPA) and has been a Registered Professional Archaeologist since 1998. Ms. McKenna has over 39 years of professional experience as an archaeologist/cultural resource manager and has participated on over 1700 projects of various sizes and complexities. The majority of her work has been conducted as a Field Director, Project Manager, and/or Principal Investigator throughout California and the Greater Southwest.

TECHNICAL CAPABILITIES

- Vast experience in the greater Southwest, Great Basin, and Southern California regions. Familiar with the full range of cultural resource investigations and has completed projects within the public and private sectors, including environmental management firms, planning and engineering firms, and State and federal agencies.
- Active in the discipline of Cultural Resource Management since 1976; over 39 years of professional experience in Southern California, Arizona, and Nevada.
- Particular interest in the desert regions of California and Arizona, with specializations in the Protohistoric and Historic Contact Periods.
- Considerable experience in dealing with prehistoric cultural remains and working directly with Native American groups in archaeological training programs (Arizona State University; the Southern California Indian Center, Garden Grove).

EDUCATION AND AFFILIATIONS

B.A., Anthropology, 1977, CSU Fullerton
M.A., Anthropology, 1982, CSU Fullerton
HonDL, 2015, Int. Biog. Centre, Cambridge
Lambda Alpha Lambda Honors Society
Post Graduate Studies, Arizona St. Univ., 1982-85
Post Graduate Studies, UC Riverside, 1991-92
Certification Program: CEQA, Land Use and Environmental Planning, UC Riverside, 1997-98
Society of Professional Archaeologists (SOPA)
Certification: Field/ Prehistoric Archaeology and Historical Archaeology (1984 to Present)
Registry of Professional Archaeologists (RPA)
Board of Directors, Society of Professional Archaeologists 1993-1997 (American Society of Conservation Archaeologists Representative)
BLM California Permit (renewable)
BLM Arizona State Permit (renewable)
Riverside County Registration No. 161
Arizona State Antiquities Permit (renewable)
Curation, San Bernardino Co. Museum
Curation, Arizona State University

SELECTED PROJECT EXPERIENCE

- Historic Architectural Studies for Renovation and Restoration, the Greek Theatre, Los Angeles CA
- Evaluation of Cultural Resources: Burbank and West Hollywood Redevelopment Project Areas, Los Angeles County, CA
- Historic Property Survey for the City of Whittier, Los Angeles County, CA
- Archaeological Investigations and Resource Evaluations for the Proposed Cajon Pipeline, San Bernardino and Los Angeles Counties, CA
- Archaeological Class I Investigations, Proposed Mojave Pipeline, San Bernardino County, CA
- Cultural Resources Investigations (Phases I, II, III, and Mitigation Monitoring) for the RIX/SARI Projects, Santa Ana Watershed Project Authority (SAWPA), San Bernardino and Riverside Counties, CA
- Phase I, II, and III Archaeological Investigations for the County Sanitation Districts of Los Angeles County, Puente Hills Landfill Solid Waste Management Facility Expansion Project, Whittier, CA
- Archaeological Mitigation Program, Phoenix Indian School Track Site Project. Arizona State University Office of Cultural Resource Management and the Bureau of Indian Affairs, Phoenix, AZ
- Archaeological and Testing Program for the Hidden Valley Golf Course and Van Buren Golf Course Properties, Riverside County, CA
- Cultural Resources Overview Studies for the Annexation of Unincorporated County Lands to the City of Ontario, CA
- Historic Property Survey Reports: Warner Bros. Main Lot Ranch Lot Properties, Burbank, CA
- Historic Archaeological Investigations for L.A. County Sheriff's Facility, Lancaster, CA.

APPENDIX B:

Archaeological Records Search

Report List

West Carson T.O.D.

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-00088		1973	Carrico, Richard L.	Archaeological Survey of the Proposed Castaic Development Site		
LA-00106		1976	Singer, Clay A.	Archaeological Resource Assessment of Tentative Tract No. 32616, Westlake Village South Ranch, Los Angeles County, California	University of California, Los Angeles Archaeological Survey	
LA-00122				VOIDED		
LA-00229		1976	Hector, Susan M.	Letter Report on the Archaeological Survey of a Los Angeles County Sanitation District Project Engineer Report for Main Street Relief Trunk Sewer Section 1	University of California, Los Angeles Archaeological Survey	
LA-00660		1979	Desautels, Roger J.	Archaeological/historical Field Test Report on the Proposed Joint Water Pollution Control Plant Expansion Located in the Wilmington Area of Los Angeles County	Scientific Resource Surveys, Inc.	
LA-01016		1981	Schroth, Adella	Archaeological Resources Assessment of Replacement Bus Operations and Maintenance Facility for Division 18 in the City of Carson, California	Archaeological Resource Management Corp.	
LA-01373		1984	Dillon, Brian D.	Archaeological Survey and Impact Assessment of a 6.6 Acre Parcel at 190st Street and Pacific Gateway Drive-normandie Ave., Los Angeles		
LA-01445		1984	Dillon, Brian D.	An Archaeological Survey and Impact Assessment of 9.99 Acre Parcel at 190th Street and the Harbor Freeway, City of Los Angeles, California		
LA-01467		1985	Dillon, Brian D.	An Archaeological Survey and Impact Assessment of a 5.2 Acre Parcel at 19800 South Vermont Avenue in the City of Los Angeles, California		
LA-02417		1991	McKenna, Jeanette A.	Phase I Cultural Resource Investigations of the South Bay Bank Property, City of Torrence, Los Angeles County California.		
LA-03128		1994	Uchitel, Sandra	Archaeological Investigations at 24600 Frampton Avenue, Harbor City, California.	Ancient Enterprises, Inc.	

Report List

West Carson T.O.D.

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-03583		1974	Bucknam, Bonnie M.	The Los Angeles Basin and Vicinity: a Gazetteer and Compilation of Archaeological Site Information	Archaeological Research, Inc.	19-000001, 19-000002, 19-000003, 19-000004, 19-000005, 19-000007, 19-000009, 19-000010, 19-000011, 19-000012, 19-000013, 19-000015, 19-000016, 19-000017, 19-000018, 19-000019, 19-000023, 19-000024, 19-000027, 19-000028, 19-000029, 19-000030, 19-000031, 19-000033, 19-000037, 19-000038, 19-000039, 19-000040, 19-000044, 19-000045, 19-000046, 19-000047, 19-000048, 19-000049, 19-000050, 19-000051, 19-000052, 19-000053, 19-000054, 19-000055, 19-000056, 19-000057, 19-000058, 19-000059, 19-000060, 19-000061, 19-000062, 19-000063, 19-000064, 19-000065, 19-000066, 19-000067, 19-000068, 19-000069, 19-000070, 19-000071, 19-000072, 19-000073, 19-000074, 19-000078, 19-000080, 19-000088, 19-000090, 19-000091, 19-000092, 19-000094, 19-000096, 19-000097, 19-000098, 19-000099, 19-000100, 19-000101, 19-000102, 19-000103, 19-000104, 19-000105, 19-000106, 19-000107, 19-000108, 19-000109, 19-000110, 19-000112, 19-000113, 19-000114, 19-000115, 19-000116, 19-000117, 19-000118, 19-000119, 19-000120, 19-000121, 19-000122, 19-000123, 19-000124, 19-000125, 19-000126, 19-000127, 19-000131, 19-000133, 19-000134, 19-000135, 19-000136, 19-000137, 19-000138, 19-000139, 19-000140, 19-000141, 19-000142, 19-000143, 19-000144, 19-000145, 19-000146, 19-000147, 19-000148, 19-000149, 19-000150, 19-000151, 19-000152, 19-000153, 19-000154, 19-000155, 19-000156, 19-000159, 19-000161, 19-000162, 19-000170, 19-000171, 19-000172, 19-000174, 19-000175, 19-000178, 19-000179, 19-000180, 19-000181, 19-000182, 19-000183, 19-000184, 19-000185,

Report List

West Carson T.O.D.

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
						19-000187, 19-000189, 19-000190, 19-000191, 19-000193, 19-000194, 19-000195, 19-000196, 19-000197, 19-000198, 19-000199, 19-000200, 19-000201, 19-000202, 19-000203, 19-000204, 19-000205, 19-000206, 19-000207, 19-000210, 19-000211, 19-000212, 19-000213, 19-000214, 19-000215, 19-000216, 19-000217, 19-000219, 19-000220, 19-000222, 19-000224, 19-000225, 19-000226, 19-000227, 19-000229, 19-000231, 19-000232, 19-000233, 19-000234, 19-000235, 19-000236, 19-000245, 19-000255, 19-000263, 19-000264, 19-000265, 19-000266, 19-000267, 19-000268, 19-000269, 19-000270, 19-000271, 19-000272, 19-000273, 19-000274, 19-000275, 19-000276, 19-000277, 19-000278, 19-000279, 19-000280, 19-000281, 19-000282, 19-000283, 19-000284, 19-000285, 19-000286, 19-000287, 19-000288, 19-000289, 19-000291, 19-000292, 19-000303, 19-000306, 19-000307, 19-000308, 19-000309, 19-000310, 19-000311, 19-000316, 19-000317, 19-000319, 19-000322, 19-000330, 19-000331, 19-000332, 19-000333, 19-000335, 19-000340, 19-000341, 19-000344, 19-000350, 19-000352, 19-000353, 19-000354, 19-000356, 19-000382, 19-000383, 19-000385, 19-000386, 19-000387, 19-000388, 19-000389, 19-000390, 19-000398, 19-000400, 19-000401, 19-000403, 19-000404, 19-000406, 19-000415, 19-000423, 19-000424, 19-000425, 19-000448, 19-000454, 19-000468, 19-000469, 19-000470, 19-000472, 19-000478, 19-000483, 19-000484, 19-000494, 19-000495, 19-000496, 19-000497, 19-000499, 19-000500, 19-000501, 19-000505, 19-000506, 19-000512, 19-000513, 19-000514, 19-000515, 19-000516, 19-000517,

Report List

West Carson T.O.D.

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
						19-000519, 19-000520, 19-000523, 19-000525, 19-000526, 19-000527, 19-000528, 19-167019, 19-179270
LA-03809		1979	Anonymous	Historic Property Survey, Del Amo Blvd.- figueroa St. to Avalon Blvd.	Caltrans	
LA-03810		1978	Anonymous	Historic Property Survey, Del Amo Blvd.- normandie Ave to Harbor Freeway	Caltrans	
LA-03956		1998	McLean, Deborah K.	Archaeological Assessment for Pacific Bell Mobile Services Telecommunications Facility La 193-04, 22108 South Vermont Avenue, City of Torrance, County of Los Angeles, California	LSA Associates, Inc.	
LA-04758		1999	Duke, Curt	Cultural Resource Assessment for Pacific Bell Mobile Services Facility La 564-02, County of Los Angeles, California	LSA Associates, Inc.	
LA-04759		1999	Duke, Curt	Cultural Resource Assessment for At&t Wireless Services Facility R124.1, County Or Orange, California	LSA Associates, Inc.	
LA-04770		2000	Duke, Curt	Cultural Resource Assessment for Pacific Bell Mobile Services Facility La 441-13, County of Los Angeles, California	LSA Associates, Inc.	
LA-05212		2001	Duke, Curt	Cultural Resource Assessment: Cingular Wireless Facility No. 072-03 Los Angeles, Ca	LSA Associates, Inc.	
LA-05331		1982	Romani, John F.	Archaeological Survey Report for the 07-la-110 Harbor Freeway Transitway Corridor Project	Caltrans District 7	19-000119, 19-000146, 19-000151
LA-05499		2000	Smith, Philomene C.	Negative Archaeological Survey Report: to Cold Plane the Existing Pavement on Route 405 and Overlay With 30mm of Rubberized Asphalt Concrete at Selected On/off-ramps From Vermont Ave. to Manchester Blvd.	Caltrans District 7	
LA-05838		2001	Wlodarski, Robert J.	A Phase I Archaeological Study for 22536 Halldale Avenue City of Los Angeles, Los Angeles County, California	Historical, Environmental, Archaeological, Research, Team	
LA-05972		2002	Duke, Curt	Cultural Resource Assessment at & T Wireless Services Facility No. 05205a Los Angeles County, California	LSA Associates, Inc.	
LA-05987		2002	Duke, Curt	Cultural Resource Assessment at & T Wireless Services Facility No. 05204a	LSA Associates, Inc.	

Report List

West Carson T.O.D.

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-05995		2002	Duke, Curt	Cultural Resource Assessment at & T Wireless Services Facility No. 05226a Los Angeles County, California	LSA Associates, Inc.	
LA-05997		2002	Duke, Curt	Cultural Resource Assessment at & T Wireless Services Facility No. La 441-17 Los Angeles County, California	LSA Associates, Inc.	
LA-06191		2002	Duke, Curt	Cultural Resource Assessment at & T Wireless Services Facility No. 05201 B Los Angeles County, California	LSA Associates, Inc.	
LA-06193		2002	Holson, John	Archaeological Survey and Record Search for Ospc-0036, La/torrance, Torrance and Los Angeles, Los Angeles County (800-39)	Pacific Legacy, Inc.	
LA-06194		2002	White, Laura S.	Records Search Results for the Carson Town Center Project Eda Grant, City of Carson, Los Angeles County, California	Archaeological Associates, Ltd.	
LA-06196		2002	McKenna, Jeanette A.	Cultural Resource Assessment/evaluation for Nextel Communications Site CA-7803e, Los Angeles, Los Angeles County, California	McKenna et al.	
LA-06201		2002	Foster, John M.	Highway Project for Bridge Improvement Program-182nd Street Bridge Over the Dominquez Channel in the City of Los Angeles	Caltrans District 7	
LA-06374		2000	Bonner, Wayne H.	Records Search Results for Sprint Pcs Facility La38xc745a (sce Carson Site), Located at 24000 Broad Street, Carson in Los Angeles County, California	Michael Brandman Associates	
LA-06867		2003	Harper, Caprice D.	Cultural Resource Assessment Cingular Wireless Facility No. Sm 216-03 Carson, Los Angeles County, California	LSA Associates, Inc.	
LA-06868		2003	Harper, Caprice D.	Cultural Resource Assessment Cingular Wireless Facility No. Sm 472-04 Torrance, Los Angeles County, California	LSA Associates, Inc.	
LA-06872		2001	Bell, Heather	Nepa Screening for Wireless Telecommunication Site-gramercy, 2334 Plaza Del Amo, Torrance, Los Angeles County, California	Clayton Group Services, Inc.	
LA-06873		2000	Miller, Wendy A.	Harbor Lake 004706 Telecommunication Site at 24180 South Vermont Avenue, Harbor City, Los Angeles County, California	Phase I Environmental Services, Inc.	

Report List

West Carson T.O.D.

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-06874		2001	Bell, Heather	Nepa Screening for Wireless Telecommunication Site-magellan, 736 West Del Amo Boulevard, Torrance, Los Angeles County, California	Clayton Group Services, Inc.	
LA-06875		2001	Bolin, David P.	Proposed At&t Wireless Telecommunication Equipment Installation 1601 West 190th Street, Gardena, California 90248 Site Id Number:c796-405 Western Avenue, Geotrans Project Number:l260-680	GeoTrans, Inc.	
LA-07012		2002	Bonner, Wayne H.	Records Search Resoults for Cingular Wireless Site Sm-216-01 (the All in One Parties Site) Located at 22225 S. Main St., Carson, Los Angeles County, California	W. H. Bonner Associates	
LA-07928		2006	Bonner, Wayne H.	Cultural Resources Records Search Results and Site Visit for T-mobile Candidate La03472e (merchants of Golf), 1402 West 24th Street, Harbor City, Los Angeles County, California	Michael Brandman Associates	
LA-08176		2007	Billat, Lorna	Scott Park/la-0538a, 23410 Catskill Avenue, Carson, Los Angeles County, Ca 90745	EarthTouch Inc.	19-000098
LA-08813		2007	Bonner, Wayne H. and Kathleen A. Crawford	Cultural Resources Records Search and Site Visit Results for T-mobile Candidate le04861e (nouri Rugs), 634 East Colorado Boulevard, Pasadena, Los Angeles County, California	Michael Brandman Associates	
LA-09030		2006	Bonner, Wayne H.	Cultural Resources Records Search Results and Site Visit for T-mobile Candidate La03553d (carson Bible Church), 23601 Main Street, Carson, Los Angeles County, California	Michael Brandman Associates	19-000098
LA-09345		2008	Bonner, Wayne H.	Cultural Resources Records Search and Site Visit Results for Royal Street Communications, LLC Candidate LA2836C (Carson Park), 21440 Main Street, Carson, Los Angeles County, California	Michael Brandman Associates	19-000106
LA-09626		2008	Bonner, Wayne H.	Cultural Resources Records Search and Site Visit Results for T-Mobile USA Candidate LA33310B (Pico Normandie), 20900 Normandie Ave., Torrance, Los Angeles County, California.	Michael Brandman Associates	19-000122

Report List

West Carson T.O.D.

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-09627		2008	Wlodarski, Robert J.	Proposed Bechtel Wireless Telecommunications Site OC0195 (C & H Printing), Located at 6046 Lincoln Avenue, Cypress, Califnoria 90630	Cellular Archaeological Resource Evaluations	
LA-09628		2009	Bonner, Wayne	Cultural Resources Records Search and Site Visit Results for T-Mobile USA Candidate LA33311A (Food 4 Less), 851 Sepulveda Boulevard, Torrance, Los Angeles County, California.	Michael Brandman Associates	
LA-10197		2001	Sriro, Adam	Negative Archaeological Survey Report: Erosion Control Measures at Various Locations Between La Cienega and Vermont on/off ramps on LA405.	Caltrans Distict 7	
LA-10250		2009	Bonner, Wayne H.	Cultural Resources Records Search and Site Visit Results for T-Mobile USA Candidate LA33769B (Ranch Fish Market), 117 East 223rd Street, Carson, Los Angeles County, California	Michael Brandman Associates	
LA-10567		2005	Hogan, Michael, Bai "Tom" Tang, Josh Smallwood, Laura Hensley Shaker, and Casey Tibbitt	Identification and Evaluation of Historic Properties - West Basin Municipal Water District Harbor- South Bay Water Recycling Project Proposed Project Laterals	CRM Tech	
LA-10727		2010	Bonner, Wayne	Cultural Resources Records Search and Site Visit Results for T-Mobile USA Candidate LA33769-C (Ranch Fish Market), 117 East 223rd Street, Carson, Los Angeles County, California	Michael Brandman Associates	
LA-11069		2009	Metzler, Valerie	Harbour Lake/ 300589, 24180 South Vermont, Harbor City, CA 90710	Rescom Environmental Corp.	
LA-11074		2009	Supernowicz, Dana	Cultural Resources Study of the Salvation Rock Project, AT&T Mobility Site No. LA103, 24100 Avalon Boulevard, Carson, Los Angeles, California, 907453	Historic Resource Associates	19-189426
LA-11089		2009	White, Laura	Cultural Resources Records Search and Site Visit Results for T-Mobile USA Facility LA33768A (GSI Arlington) In the City of Torrance, Los Angeles County, California	Archaeological Associates	

Report List

West Carson T.O.D.

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-11101		2010	Johnson, Brent	Cultural Resources Records Search and Site Visit for T-Mobile USA Inc. LA23222A/Riostone, 21130 S. Main Street, Carson, Los Angeles County, California 90746	Heritage Preservation Consultants	19-000106
LA-11150		2003	Maxwell, Pamela	West Basin Municipal Water District Harbor/ South Bay Water Recycling Project	U.S. Army Corps of Engineers	19-000094, 19-000098, 19-000103, 19-000140, 19-000276, 19-000277, 19-000278, 19-000279, 19-000280, 19-000281, 19-000282, 19-000389, 19-000390, 19-000709, 19-000794, 19-000822, 19-000844, 19-000845, 19-000847, 19-000848, 19-000999, 19-001735
LA-11227		2010	Hudson, Jonathan	Torrance Hospital, 1808 Abalone Avenue, Torrance, Los Angeles County, CA 90501	IVI Telecom	
LA-11482			Racer, F.H.	Camp Sites in Harbor District		19-000057, 19-000060, 19-000088, 19-000091, 19-000094, 19-000096, 19-000097, 19-000098, 19-000099, 19-000100, 19-000101, 19-000103, 19-000104, 19-000105, 19-000106, 19-000107, 19-000138, 19-000276, 19-000279, 19-000285, 19-000288
LA-11513		2011	Meyer, Donna	City of Carson Seismic Retrofit of Carson Senior High School. HMGP 1731-71-54, Finding of No Historic Properties	FEMA	
LA-11635		2011	Bonner, Wayne	Cultural Resources Records Search and Site Visit Results for AT&T Mobility, LLC Candidate LA0152-01, USID 25673 (Hanjin Worldwide Express), 20435 South Western Avenue, Torrance, Los Angeles County, California	Environmental Assessment Specialists	
LA-11660		2011	Loftus, Shannon	Cultural Resource Records Search and Site Survey, AT&T Site LA0556-01, Strip Center Carson, 22829 Figueroa Street, Carson, Los Angeles County, California 90745	ACE Environmental	
LA-12028		2012	Bonner, Wayne	Cultural Resources Records Search and Site Visit Results for T-Mobile West, LLC Candidate LA02441A (LA441 Roca de Salvacion B), 24100 Avalon Boulevard, Carson, Los Angeles County, California	MBA	19-189426

Report List

West Carson T.O.D.

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-12440		2013	Bonner, Wayne	Cultural Resources Records Search and Site Visit Results for AT&T Mobility, LLC Candidate LA0573 (NOLA Substation) 125 Griffith Street, Carson, Los Angeles County, California	EAS	19-000088
LA-12441		2013	Fulton, Phil	Cultural Resource Assessment Class III Inventory Verizon Wireless Services 235th Street Facility, City of Torrance, Los Angeles County, California	LSA	
LA-12653		2014	Brunzell, Dave	Cultural Resources Assessment of the VzT CDC Project, City of Torrance, Los Angeles County, California (BCR Consulting Project No. TRF1424)	BCR Consulting	
LA-12800		2014	Anderson, Katherine and Gonzalez, Matthew	Los Angeles Department of Public Works Stairway and Walkway Lighting Unit 7 Project (W.O. L1350078) City of Los Angeles, California, Historic and Archaeological Resources Survey and Evaluation	ESA	19-190943, 19-190944, 19-190945, 19-190946, 19-190947, 19-190948, 19-190949

APPENDIX C:

Native American Consultation

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 FAX

November 24, 2015

Jeanette McKenna
McKenna et al.
6008 Friends Avenue
Whittier, CA 90601-3724

Sent by Email: Jeanette.mckennaetal@gmail.com
Number of Pages: 3

RE: West Carson TOD Specific Plan, Torrance USGS Quadrangle, Los Angeles County

Dear Ms. McKenna:

Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the above referenced project. Government Code §65352.3 requires local governments to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of protecting, and/or mitigating impacts to tribal cultural resources in creating or amending general plans, including specific plans. As of July 1, 2015, Public Resources Code Sections 21080.1, 21080.3.1 and 21080.3.2 require public agencies to consult with California Native American tribes identified by the NAHC for the purpose mitigating impacts to tribal cultural resources under the California Environmental Quality Act (CEQA). In accordance with Public Resources Code Section 21080.1(d):

> Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The law does not preclude agencies from initiating consultation with the tribes that are culturally and traditionally affiliated with their jurisdictions. The NAHC believes that in fact that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law.

In accordance with Public Resources Code Section 21080.1(d), formal notification must include a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation. The NAHC believes that agencies should also include with their notification letters information regarding any cultural resources assessment that has been completed on the APE, such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

   - A listing of any and all known cultural resources have already been recorded on or adjacent to the APE;
   - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
   - If the probability is low, moderate, or high that cultural resources are located in the APE.

- Whether the records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the potential APE; and

- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

   - Any report that may contain site forms, site significance, and suggested mitigation measurers.

     All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure in accordance with Government Code Section 6254.10.

3. The results of any Sacred Lands File (SLF) check conducted through Native American Heritage Commission. A SLF search was completed with negative results.

4. Any ethnographic studies conducted for any area including all or part of the potential APE; and

5. Any geotechnical reports regarding all or part of the potential APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS is not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the case that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information.

If you have any questions, please contact me at my email address: rw_nahc@pacbell.net.

Sincerely,

Rob Wood
Associate Environmental Planner

Native American Heritage Commission
Tribal Consultation List
Los Angeles County
November 24, 2015

Soboba Band of Mission Indians
Rosemary Morillo, Chairperson; Attn: Carrie Garcia
P.O. Box 487 Luiseno
San Jacinto , CA 92581 Cahuilla
carrieg@soboba-nsn.gov
(951) 654-2765

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393
Covina , CA 91723
gabrielenoindians@yahoo.com Gabrielino
(626) 926-4131

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693 Gabrielino Tongva
San Gabriel , CA 91778
GTTribalcouncil@aol.com
(626) 483-3564 Cell

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231 Gabrielino Tongva
Los Angeles , CA 90012
sgoad@gabrielino-tongva.com
(951) 807-0479

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Tribal Chair/Cultural Resources
P.O. Box 490 Gabrielino Tongva
Bellflower , CA 90707
gtongva@verizon.net
(562) 761-6417 Voice/Fax

Gabrielino-Tongva Tribe
Linda Candelaria, Co-Chairperson
1999 Avenue of the Stars, Suite 1100
Los Angeles , CA 90067
Gabrielino
(626) 676-1184 Cell

This list is current only as of the date of this document.
Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable only for consultation with Native American tribes under Government Code Sections 65352.3, 65362.4 et seq. and Public Resources Code Sections 21080.3.1 for the proposed West Carson TOD Specific Plan, Torrance USGS Quadrangle, Los Angeles County.

McKenna et al.

History/Archaeology/Architectural History/Ethnography/Paleontology

Jeanette A. McKenna, MA, HonDL
Reg. Professional Archaeologist
Owner and Principal Investigator

November 30, 2015

Soboba Band of Mission Indians
Attn: Rosemary Morillo, Chairperson
P.O. Box 487
San Jacinto, California 92581

RE: West Carson Transit Oriented District Specific Plan.

Ms. Morillo:

McKenna et al. is initiating the cultural resources overview studies for the West Carson Transit District Specific Plan project area in Los Angeles County, California. The specific boundaries have yet to be fully defined, but are well within the research area illustrated on the attached graphics. Essentially, the area involves portions of Township 4 South, Range 13 West, Sectional 7 and 18, and Township 4 South, Range 14 West, Sections 12 and 13. The project area is also designed to involve areas west of the Harbor Freeway, as centered within the overall research area (north of 226th Street and east of Normandie Avenue.

This area is densely developed with residential, commercial, industrial, and public services (e.g. hospitals and schools). The proposed study will address the traffic and transit needs of the surrounding community and to develop a plan to encourage the use of public transportation. No demolition of structures or excavations are currently proposed, but areas of cultural sensitivity will be identified, should such activities be needed in the future (e.g. installing infrastructure or replacing existing facilities).

Please review the attached graphics and inform me of any concerns, issues, or comments you may have with respect to this undertaking.

Sincerely,

Jeanette A. McKenna, Principal
McKenna et al.

6008 Friends Avenue, Whittier, California 90601-3724 or 1941 E. Pegasus Drive, Tempe, Arizona 85283
(562) 696-3852 (CA Office and FAX) (480) 664-0682 (AZ Office and FAX)
Email = jeanette.mckennaetal@gmail.com

McKenna et al.

History/Archaeology/Architectural History/Ethnography/Paleontology

Jeanette A. McKenna, MA, HonDL
Reg. Professional Archaeologist
Owner and Principal Investigator

November 30, 2015

Gabrielino/Tongva San Gabriel Band of Mission Indians
Attn: Anthony Morales, Chairperson
P.O. Box 693
San Gabriel, California 91778

RE: West Carson Transit Oriented District Specific Plan.

Mr. Morales:

McKenna et al. is initiating the cultural resources overview studies for the West Carson Transit District Specific Plan project area in Los Angeles County, California. The specific boundaries have yet to be fully defined, but are well within the research area illustrated on the attached graphics. Essentially, the area involves portions of Township 4 South, Range 13 West, Sectional 7 and 18, and Township 4 South, Range 14 West, Sections 12 and 13. The project area is also designed to involve areas west of the Harbor Freeway, as centered within the overall research area (north of 226th Street and east of Normandie Avenue.

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Jeanette A. McKenna, MA, HonDL
Reg. Professional Archaeologist
Owner and Principal Investigator

November 30, 2015

Gabrielino/Tongva Nation
Attn: Sandonne Goad, Chairperson
106 ½ Judge John Aiso Street
Los Angeles, California 90012

RE: West Carson Transit Oriented District Specific Plan.

Ms. Goad:

McKenna et al. is initiating the cultural resources overview studies for the West Carson Transit District Specific Plan project area in Los Angeles County, California. The specific boundaries have yet to be fully defined, but are well within the research area illustrated on the attached graphics. Essentially, the area involves portions of Township 4 South, Range 13 West, Sectional 7 and 18, and Township 4 South, Range 14 West, Sections 12 and 13. The project area is also designed to involve areas west of the Harbor Freeway, as centered within the overall research area (north of 226th Street and east of Normandie Avenue.

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History/Archaeology/Architectural History/Ethnography/Paleontology

Jeanette A. McKenna, MA, HonDL
Reg. Professional Archaeologist
Owner and Principal Investigator

November 30, 2015

Gabrielino/Tongva Indians of California Tribal Council
Attn: Robert Dorame, Tribal Chair/Cultural Resources
P.O. Box 490
Bellflower, California 90707

RE: West Carson Transit Oriented District Specific Plan.

Mr, Dorame:

McKenna et al. is initiating the cultural resources overview studies for the West Carson Transit District Specific Plan project area in Los Angeles County, California. The specific boundaries have yet to be fully defined, but are well within the research area illustrated on the attached graphics. Essentially, the area involves portions of Township 4 South, Range 13 West, Sectional 7 and 18, and Township 4 South, Range 14 West, Sections 12 and 13. The project area is also designed to involve areas west of the Harbor Freeway, as centered within the overall research area (north of 226th Street and east of Normandie Avenue.

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Jeanette A. McKenna, MA, HonDL
Reg. Professional Archaeologist
Owner and Principal Investigator

November 30, 2015

Gabrielino/Tongva Tribe
Attn: Linda Candelaria, Co-Chairperson
1999 Avenue of the Stars, Suite 1100
Los Angeles, California 90067

RE: West Carson Transit Oriented District Specific Plan.

Ms. Candelaria:

McKenna et al. is initiating the cultural resources overview studies for the West Carson Transit District Specific Plan project area in Los Angeles County, California. The specific boundaries have yet to be fully defined, but are well within the research area illustrated on the attached graphics. Essentially, the area involves portions of Township 4 South, Range 13 West, Sectional 7 and 18, and Township 4 South, Range 14 West, Sections 12 and 13. The project area is also designed to involve areas west of the Harbor Freeway, as centered within the overall research area (north of 226th Street and east of Normandie Avenue.

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McKenna et al.

History/Archaeology/Architectural History/Ethnography/Paleontology

Jeanette A. McKenna, MA, HonDL
Reg. Professional Archaeologist
Owner and Principal Investigator

November 30, 2015

Gabrielino Band of Mission Indians – Kizi Nation
Attn: Andrew Salas, Chairperson
P.O. Box 393
Covina, California 91723

RE: West Carson Transit Oriented District Specific Plan.

Mr. Salas:

McKenna et al. is initiating the cultural resources overview studies for the West Carson Transit District Specific Plan project area in Los Angeles County, California. The specific boundaries have yet to be fully defined, but are well within the research area illustrated on the attached graphics. Essentially, the area involves portions of Township 4 South, Range 13 West, Sectional 7 and 18, and Township 4 South, Range 14 West, Sections 12 and 13. The project area is also designed to involve areas west of the Harbor Freeway, as centered within the overall research area (north of 226th Street and east of Normandie Avenue.

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Email = jeanette.mckennaetal@gmail.com

APPENDIX D:

Paleontological Overview

Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007

tel 213.763.DINO
www.nhm.org

NATURAL HISTORY MUSEUM
LOS ANGELES COUNTY

Vertebrate Paleontology Section
Telephone: (213) 763-3325
Fax: (213) 746-7431
e-mail: smcleod@nhm.org

22 December 2015

McKenna et al.
6008 Friends Avenue
Whittier, California 90601-3724

Attn: Jeanette A. McKenna

re: Paleontological resources for the proposed traffic / transit study area Project, Job # 1740, in the City of Carson, Los Angeles County, project area

Dear Jeanette:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for the proposed traffic / transit study area Project, Job # 1740, in the City of Carson, Los Angeles County, project area as outlined on the portion of the Torrance USGS topographic quadrangle map that you sent to me on 3 December 2015. We have no vertebrate fossil localities that lie directly within the proposed project area, but we do have localities nearby the same sedimentary deposits as occur subsurface in the proposed project area.

Surficial deposits in the entire proposed project area consist of younger Quaternary Alluvium, derived primarily as alluvial fan deposits from the slightly elevated terrain to the west, but also possibly as fluvial deposits derived from the drainage in the northern portion of the proposed project area that flows into the Dominguez Channel to the east. These deposits typically do not contain significant vertebrate fossils, at least in the uppermost layers, but they are underlain by older Quaternary deposits at varying depths throughout the area, and these latter deposits have produced numerous vertebrate fossil localities. Our closest vertebrate fossil locality from these deposits is LACM 3823, just east of south of the proposed project area east of the Harbor Freeway (I-110) and south of Sepulveda Boulevard near the intersection with Figueroa Street, that produced a specimen of fossil camel, *Camelops*, at 12 to 14 feet below street level. Our next closest vertebrate fossil locality from these older Quaternary deposits is LACM

Inspiring wonder, discovery and responsibility for our natural and cultural worlds.

1839, southwest of the proposed project area near the intersection of Crenshaw Boulevard and 236th Street, that produced a fossil specimen of horse, *Equus*, at a depth of about 35 feet below the surface.

Grading or shallow excavations in the uppermost few feet of the younger Quaternary Alluvium deposits in the proposed project area are not likely to uncover significant fossil vertebrate remains. Deeper excavations in the proposed project area that extend down into older Quaternary deposits, however, may well encounter significant vertebrate fossils. Any substantial excavations in the proposed project area below the uppermost layers, therefore, should be closely monitored to quickly and professionally collect any specimens without impeding development. Also, sediment samples should be collected and processed to determine the small fossil potential in the proposed project area. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,

Samuel A. McLeod

Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosure: invoice

APPENDIX E:

Photographic Record

State of California
DEPARTMENT OF PARKS AND RECREATION

PHOTOGRAPHIC RECORD

Primary #
HRI #
Trinomial

Page 1 of 8 ***Resource Name or # (assigned by recorder) Job 1740 – W. Carson TOD, LA Co., CA**
Camera Format: Digital **Year 2016**
Film Type and Speed: **Lens Size:** **Negatives Kept At: McKenna et al., Whittier, CA**

Month	Day	Time	Frame	Description	View	Acc. #
8	16	9 AM	1	Overview of Torrance Blvd. from Vermont Ave.	E	975
8	16	9 AM	2	Overview of Vermont Avenue from Torrance Blvd.	S	976
8	16	9 AM	3	Overview of Vermont Avenue from Javelin Street	N	977
8	16	9 AM	4	Overview of Javelin Street from Vermont Avenue	W	978
8	16	9 AM	5	Overview of Dobie Avenue from Javelin Street	N	979
8	16	9 AM	6	Overview of Dobie Avenue from Javelin Street	S	980
8	16	9 AM	7	Residence at 20930 Dobie Avenue	NE	981
8	16	9 AM	8	Overview of Linley Street from Dobie Avenue	E	982
8	16	9 AM	9	Overview of Melissa Street from Dobie Avenue	E	983
8	16	9 AM	10	Residence at 20830 Dobie Avenue	E	984
8	16	9 AM	11	Northern Extent of Dobie Avenue	NNE	985
8	16	9 AM	12	Overview of Javelin Street from Vermont Avenue	E	986
8	16	9 AM	13	Overview of Vermont Avenue from Javelin Street	S	987
8	16	9 AM	14	Overview of Van Deene Avenue from Javelin Street	N	988
8	16	9 AM	15	Overview of Van Deene Avenue from Javelin Street	S	989
8	16	9 AM	16	Residence at 20913 Van Deene Avenue	NW	990
8	16	9 AM	17	Overview of Conradi Avenue from 209th Street	S	991
8	16	9 AM	18	Overview of Menlo Avenue from 209th Street	S	992
8	16	9 AM	19	Overview of 209th Street from Menlo Avenue	E	993
8	16	9 AM	20	Residence at 20956 Menlo Avenue	E	994
8	16	9 AM	21	Overview of Javelin Street from Menlo Avenue	W	995
8	16	9 AM	22	Overview of Menlo Avenue from Javelin Street	S	996
8	16	9 AM	23	Overview of Conradi Avenue from Torrance Blvd.	S	997
8	16	9 AM	24	Overview of Greenhedge Street from Conradi Avenue	E	998

State of California
DEPARTMENT OF PARKS AND RECREATION

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Page 2 of 8 ***Resource Name or # (assigned by recorder) Job 1740 – W. Carson TOD, LA Co., CA**
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Month	Day	Time	Frame	Description	View	Acc. #
8	16	9 AM	25	Overview of Greenhedge Street from Conradi Avenue	W	999
8	16	10 AM	26	Overview of Van Deene Ave. from Greenhedge Street	N	1000
8	16	10 AM	27	Overview of Orchard Avenue from Greenhedge Street	N	1001
8	16	10 AM	28	Overview of Dobie Avenue from Clarion Drive	N	1002
8	16	10 AM	29	Overview of Dobie Avenue from Clarion Drive	S	1003
8	16	10 AM	30	Overview of Clarion Drive from Dobie Avenue	E	1004
8	16	10 AM	31	Overview of Dobie Avenue from Jeffrey Avenue	NNE	1005
8	16	10 AM	32	Overview of Dobie Avenue from 213th Street	SSW	1006
8	16	10 AM	33	Overview of Jeffrey Avenue from 213th Street	S	1007
8	16	10 AM	34	Overview of Broadwell Avenue from 213th Street	S	1008
8	16	10 AM	35	Overview of Berendo Avenue from 213th Street	S	1009
8	16	10 AM	36	Overview of Meyler Avenue from 213th Street	S	1010
8	16	10 AM	37	Overview of Budlong Avenue from 213th Street	S	1011
8	16	10 AM	38	Overview of Levinson Avenue from 213th Street	S	1012
8	16	10 AM	39	Overview of 213th St. from Normandie Ave.	E	1013
8	16	10 AM	40	Frontage of Normandie Avenue from 213th Street	S	1014
8	16	10 AM	41	Overview of Normandie Avenue from 213th Street	N	1015
8	16	10 AM	42	Overview of Normandie Avenue from 213th Street	S	1016
8	16	10 AM	43	Overview of Levinson Street from Normandie Avenue	E	1017
8	16	10 AM	44	Overview of Ritner Street from Normandie Avenue	E	1018
8	16	10 AM	45	Residence at 1249 Ritner Street	N	1019
8	16	10 AM	46	Overview of Marigold Avenue from Ritner Street	N	1020
8	16	10 AM	47	Overview of Danford Street from Marigold Avenue	W	1021
8	16	10 AM	48	Overview of Danford Street from Marigold Avenue	E	1022

State of California
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Month	Day	Time	Frame	Description	View	Acc. #
8	16	10 AM	49	Overview of Marigold Avenue from Danford Street	S	1023
8	16	10 AM	50	Danford St. from West Terminus near Normandie Ave.	E	1024
8	16	10 AM	51	Overview of Budlong Avenue from Danford Street	S	1025
8	16	10 AM	52	Overview of Danford St./Meyler Ave. at Budlong Ave.	E	1026
8	16	10 AM	53	Meyler Street Extension East of Budlong Avenue	S	1027
8	16	10 AM	54	Overview of Meyler Street from 216th Street	N	1028
8	16	10 AM	55	Overview of Meyler Street from 216th Street	S	1029
8	16	10 AM	56	Overview of Budlong Avenue from 216th Street	N	1030
8	16	10 AM	57	Overview of Budlong Avenue from 216th Street	S	1031
8	16	10 AM	58	Overview of 216th Street from Budlong Avenue	E	1032
8	16	10 AM	59	Overview of Budlong Avenue from Carson Street	N	1033
8	16	10 AM	60	NE Corner of Budlong Avenue and Carson Street	SE	1034
8	16	10 AM	61	Business at 1029 Carson Street (at Budlong Avenue)	NE	1035
8	16	10 AM	62	Business at 1029 Carson Street (at Budlong Avenue)	SW	1036
8	16	10 AM	63	Business at 1029 Carson Street (at Budlong Avenue)	SE	1037
8	16	10 AM	64	Overview of Broadwell Street from Berendo Avenue	E	1038
8	16	10 AM	65	Overview of Berendo Avenue from Broadwell Street	N	1039
8	16	10 AM	66	Overview of Berendo Avenue from Broadwell Street	S	1040
8	16	10 AM	67	Residence at 21602 Berendo Avenue	E	1041
8	16	10 AM	68	Residence at 21519 Berendo Avenue	W	1042
8	16	10 AM	69	Residence at 21423 Berendo Avenue	W	1043
8	16	10 AM	70	Southern Terminus of Broadwell Avenue	S	1044
8	16	10 AM	71	Overview of Jeffrey Avenue at 214th Street	N	1045
8	16	10 AM	72	Overview of 214th Street from Jeffrey Avenue	E	1046

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Month	Day	Time	Frame	Description	View	Acc. #
8	16	10 AM	73	Overview of Payne Avenue from 214th Street	N	1047
8	16	10 AM	74	Overview of Vermont Avenue from 214th Street	N	1048
8	16	10 AM	75	Overview of Vermont Avenue from 214th Street	S	1049
8	16	10 AM	76	Overview of Vermont Avenue from 214th Street	S	1050
8	16	10 AM	77	Overview of 214th Street from Vermont Avenue	E	1051
8	16	10 AM	78	Imperial Apartments at 734-740 W. 214th Street	ESE	1052
8	16	10 AM	79	Overview of Conradi Avenue from 214th Street	N	1053
8	16	10 AM	80	Eastern Terminus of 214th Street	E	1054
8	16	10 AM	81	Pedestrian Bridge over 110 Freeway from 214th Street	E	1055
8	16	10 AM	82	Overview of 213th Street from Conradi Avenue	W	1056
8	16	10 AM	83	Overview of 213th Street from Conradi Avenue	E	1057
8	16	10 AM	84	Overview of Conradi Avenue from 213th Street	S	1058
8	16	10 AM	85	Overview of Menlo Avenue from 213th Street	N	1059
8	16	10 AM	86	Overview of Clarion Drive from Menlo Avenue	W	1060
8	16	10 AM	87	Overview of 212th Street from Menlo Avenue	W	1061
8	16	10 AM	88	Overview of Menlo Avenue from 212th Street	N	1062
8	16	10 AM	89	Overview of 212th Street from Van Deere Avenue	E	1063
8	16	10 AM	90	Overview of Van Deene Avenue from 212th Street	N	1064
8	16	10 AM	91	NE Corner of Carson Street at Vermont Avenue	SE	1065
8	16	10 AM	92	NE Corner of Carson Street at Vermont Avenue	E	1066
8	16	10 AM	93	NE Corner of Carson Street at Vermont Avenue	N	1067
8	16	10 AM	94	Condos at 21415-21501 Vermont Avenue	WNW	1068
8	16	11 AM	95	Overview of North Side of Carson Street from Freeway	NW	1069
8	16	11 AM	96	Overview of North Side of Carson Street from Freeway	NW	1070

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Month	Day	Time	Frame	Description	View	Acc. #
8	16	11 AM	97	Overview of Park-N-Ride at Carson St. and 110 Fwy.	N	1971
8	16	11 AM	98	Light & Salt Presbyterian Church from Park-N-Ride	WNW	1072
8	16	11 AM	99	East Side of imperial Apartments from Park-N-Ride	W	1073
8	16	11 AM	100	Harbor Cove Apartments on Carson Street	N	1074
8	16	11 AM	101	Harbor Cove Apartments On Carson Street (Signage)	NE	1075
8	16	11 AM	102	Commercial Development on Carson Street	NNW	1076
8	16	11 AM	103	Commercial Development on Carson Street	W	1077
8	16	11 AM	104	North Side of Carson Street, East of Berendo Avenue	NNE	1078
8	16	11 AM	105	North Side of Carson Street, East of Berendo Avenue	NNE	1079
8	16	11 AM	106	Signage at the UCLA Harbor Hospital Complex	NW	1080
8	16	11 AM	107	Overview of Main Hospital Complex	SW	1081
8	16	11 AM	108	Overview of Main Hospital Complex	SE	1082
8	16	11 AM	109	Original 1960s Hospital Core	SE	1083
8	16	11 AM	110	Modern Entrance to Hospital	S	1084
8	16	11 AM	111	Medical Foundation Building	SW	1085
8	16	11 AM	112	Building N6, UCLA Harbor Complex	W	1086
8	16	11 AM	113	Building N17, UCLA Harbor Complex	SW	1087
8	16	11 AM	114	Building N28, UCLA Harbor Complex	S	1088
8	16	11 AM	115	Building 14, UCLA Harbor Complex	SW	1089
8	16	11 AM	116	St. John's Cardio Research Facility	ESE	1090
8	16	11 AM	117	Covered Walkways on WWII Building	SE	1091
8	16	11 AM	118	Covered Walkways on WWII Building	SW	1092
8	16	11 AM	119	Overview of Vermont Avenue from 220th Street	N	1094
8	16	11 AM	120	Overview of Vermont Avenue from 220th Street	S	1095

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Page 6 of 8 ***Resource Name or # (assigned by recorder) Job 1740 – W. Carson TOD, LA Co., CA**
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Film Type and Speed: **Lens Size:** **Negatives Kept At: McKenna et al., Whittier, CA**

Month	Day	Time	Frame	Description	View	Acc. #
8	16	11 AM	121	Overview of 220th Street from Vermont Avenue	E	1096
8	16	11 AM	122	Overview of 220th Street from Vermont Avenue	W	1097
8	16	11 AM	123	Trailer Park on North Side of 220th Street	N	1098
8	16	11 AM	124	Trailer Park on North Side of 220th Street	N	1099
8	16	11 AM	125	Trailer Park at 715 220th Street	NNE	1100
8	16	1 PM	126	Overview of Normandie Avenue from 223th Street	N	1101
8	16	1 PM	127	Overview of Normandie Avenue from 223rd Street	S	1102
8	16	1 PM	128	Overview of 223rd Street from Normandie Avenue	E	1103
8	16	1 PM	129	Condo Complex at 1249 223rd Street	NE	1104
8	16	1 PM	130	Meyler Street Elementary School, 1123 223rd Street	NNE	1105
8	16	1 PM	131	Modern Church at Meyler Street and 223rd Street	NE	1106
8	16	1 PM	132	Nursery and Residence at 1123 223rd Street	N	1107
8	16	1 PM	133	Nursery at 1123 223rd Street	N	1108
8	16	1 PM	134	Spanish Style Residence West of 959 223rd Street	N	1109
8	16	1 PM	135	Residence at 959 223rd Street	NNE	1110
8	16	1 PM	136	Commercial Building at 951 223rd Street	N	1111
8	16	1 PM	137	939 223rd Street	N	1112
8	16	1 PM	138	935/935 ½/937 223rd Street	N	1113
8	16	1 PM	139	Church at 925 223rd Street	N	1114
8	16	1 PM	140	Vet Clinic at 913 223rd Street (at Vermont Avenue)	N	1115
8	16	1 PM	141	Industrial Complex At 22122 Vermont Avenue	E	1116
8	16	1 PM	142	Industrial Complex at 22133 Vermont Avenue	W	1117
8	16	1 PM	143	Overview of Vermont Avenue from 220th Street	N	1118
8	16	1 PM	144	Overview of Vermont Avenue from 220th Street	S	1119

State of California
DEPARTMENT OF PARKS AND RECREATION

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Page 7 of 8 ***Resource Name or # (assigned by recorder) Job 1740 – W. Carson TOD, LA Co., CA**
Camera Format: Digital **Year 2016**
Film Type and Speed: **Lens Size:** **Negatives Kept At: McKenna et al., Whittier, CA**

Month	Day	Time	Frame	Description	View	Acc. #
8	16	1 PM	145	Overview of 826 220th Street	S	1120
8	16	1 PM	146	Harbor Ornamental on 220th Street	SSE	1121
8	16	1 PM	147	Rent-A-Garage at 722 220th Street	S	1122
8	16	1 PM	148	Apartments at 22003 Vermont Avenue (at 220th Street)	SW	1123
8	16	1 PM	149	Harbor Knolls at 946 220th Street	SSW	1124
8	16	1 PM	150	Harbor Knolls Signage at 946 220th Street	SSW	1125
8	16	1 PM	151	Residence at 1032 220th Street	S	1126
8	16	1 PM	152	Overview of 220th Street from Meyler Street	W	1127
8	16	1 PM	153	Overview of 220th Street from Meyler Street	E	1128
8	16	1 PM	154	Overview of Meyler Street from 220th Street	S	1129
8	16	1 PM	155	Modern Hospital Complex on 220th Street	NW	1130
8	16	1 PM	156	Storm Drain Signage on 220th Street	NW	1131
8	16	1 PM	157	Residence at 1158 220th Street	S	1132
8	16	1 PM	158	Condos at 1200 220th Street	SW	1133
8	16	1 PM	159	Overview of 220th Street from Mariposa Avenue	W	1134
8	16	1 PM	160	Overview of 220th Street from Mariposa Avenue	E	1135
8	16	1 PM	161	Overview of Mariposa Avenue from 220th Street	S	1136
8	16	1 PM	162	Overview of 221st Street from Mariposa Avenue	E	1137
8	16	1 PM	163	Overview of Kenwood Avenue from 221st Street	S	1138
8	16	1 PM	164	Overview of Jay Place from 221st Street	S	1139
8	16	1 PM	165	Overview of Jay Place from 221st Street	N	1140
8	16	1 PM	166	Overview of 221st Street from Jay Place	W	1141
8	16	1 PM	167	Residence at 22116 Jay Place	E	1142
8	16	1 PM	168	Overview of Jay Street from Jay Place/Meyler Street	E	1143

State of California
DEPARTMENT OF PARKS AND RECREATION

PHOTOGRAPHIC RECORD

Primary #
HRI #
Trinomial

Page 8 of 8 ***Resource Name or # (assigned by recorder) Job 1740 – W. Carson TOD, LA Co., CA**
Camera Format: Digital **Year 2016**
Film Type and Speed: **Lens Size:** **Negatives Kept At: McKenna et al., Whittier, CA**

Month	Day	Time	Frame	Description	View	Acc. #
8	16	1 PM	169	Mayler St. Elem. School from Jay Street/Jay Place	SE	1144
8	16	1 PM	170	Overview of 222nd Street from Jay Street	W	1145
8	16	1 PM	171	Residence at 1143 Jay Street	N	1146
8	16	1 PM	172	Residence at 1135 Jay Street	N	1147
8	16	1 PM	173	Adobe Residence at 1116 Fiat Street	S	1148
8	16	1 PM	174	Residence at 1143 Fiat Street	N	1149
8	16	1 PM	175	Residence at 22032 Meyler Street	ESE	1150
8	16	2 PM	176	View of Carson Street Nursery from Rear Parking Lot	SE	1151
8	16	2 PM	177	View of Carson Street Nursery from Rear Parking Lot	SE	1152
8	16	2 PM	178	Residence at 958 222nd Street	ESE	1153
8	16	2 PM	179	Eastern Terminus of Jay Street	E	1154
8	16	2 PM	180	Overview of Jay Street from Eastern Terminus	W	1155
8	16	2 PM	181	Alley at Condos at 238 Meyler Street	E	1156
8	16	2 PM	182	Residence at 1061 Fiat Street (w/rock wall)	N	1157
8	16	2 PM	183	Vermont Care Center at 22035 Vermont Avenue	W	1158
8	16	2 PM	184	Commercial Complex at 22107 Vermont Avenue	SW	1159
8	16	2 PM	185	Commercial Complex at 22109 Vermont Avenue	SW	1160

APPENDIX F:

Supplemental Research Data

OFFICE OF THE ASSESSOR
COUNTY OF LOS ANGELES
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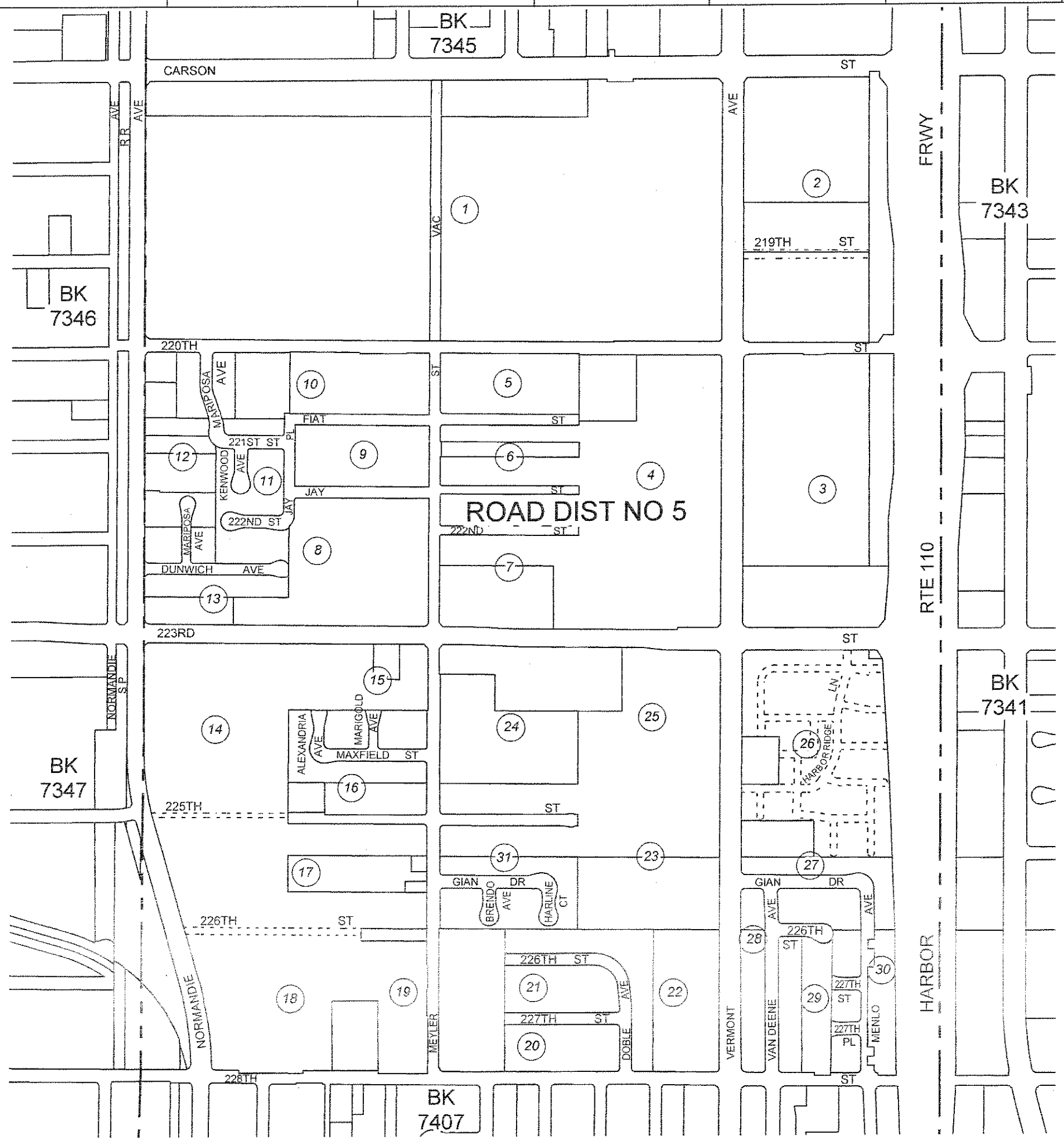
REVISED:
20010911
2006060210

INDEX 7344

2007

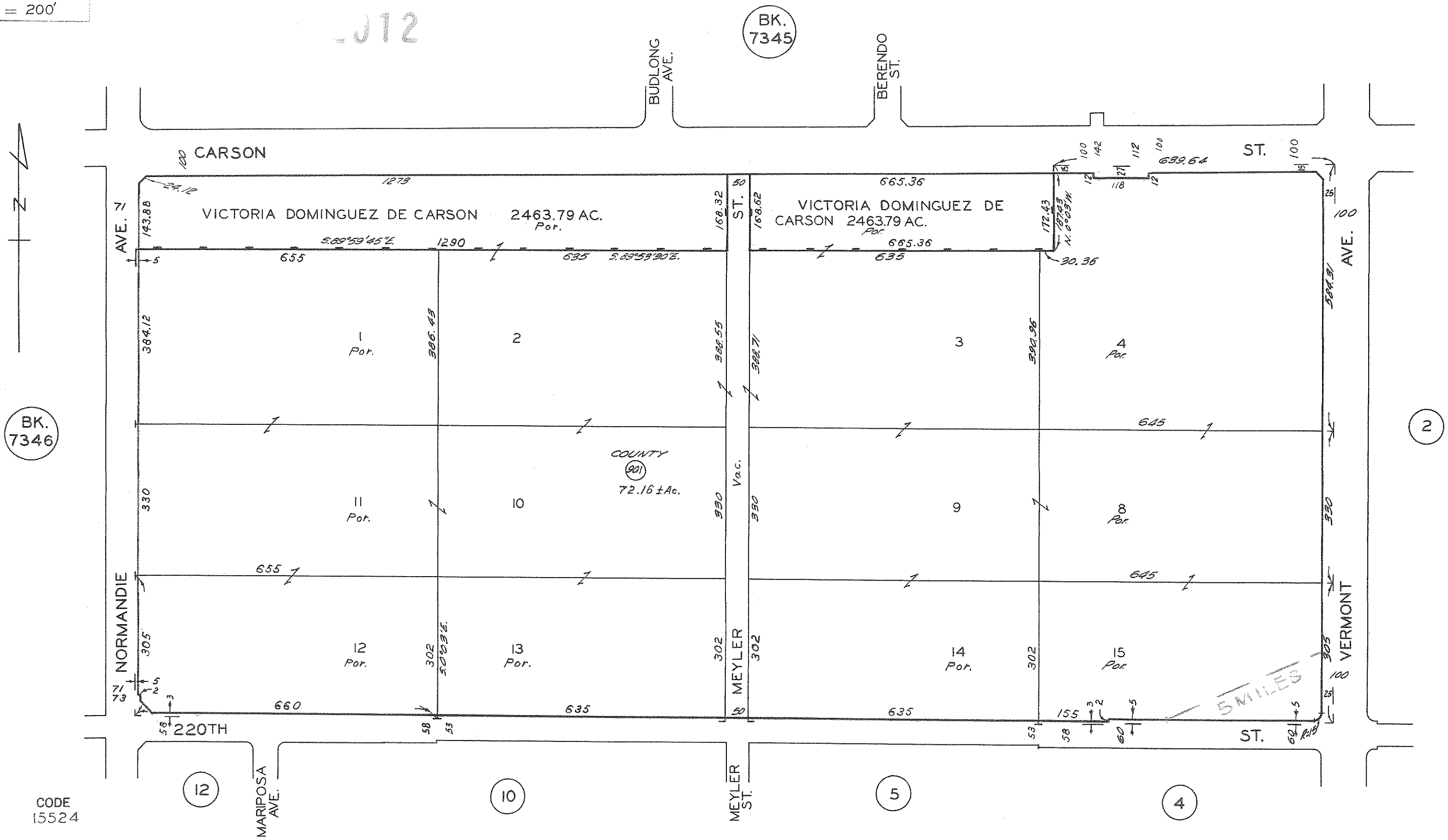


MAPPING AND GIS SERVICES
SCALE 1"= 500'

7344 | 1

SCALE 1" = 200'

20011010200200 1-22
20120313-151



CODE
15524

PART OF THE RANCHO SAN PEDRO WHICH WAS ALLOTTED
TO MANUEL DOMINGUEZ S.C.C. 3284, C.F. 145

TRACT NO. 3239 M.B. 37-27-28

FOR PREV. ASSM'T SEE:
7342-17

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

E-93

7344 | 2 SHEET 1

SCALE 1" = 100'

BK. 7343

2007

HARBOR FREEWAY APPROACHES

F.M. 20031

FRWY.

9-30-64
12-19-64
2-23-65
8-13-65
670308
9402011000200 1-27
9409280300800 1-27
9701170400400 1-14
9806041000100 1-14

REVISE
1-27-60
4-11-60
4-10-61
8-27-62
3-9-6
8-31-6
9-30-64
68072430
690103
690930423
691229
700119609
711221
760823
790329
790402228
20070205

ST.

N.59°40'20"E. 45.45

N.38°38'17"W. 56.47

N.0°34'52"W. 525.67

N.6°50'41"W. 210.61

N.0°07'29"W. 133.92

N.89°48'40"W. 41.19

N.35°26'16"E 42.80

270

45

111

75

100

40 Por.

41 Por. (3) 1.37± Ac. =59,660±□'

330

48 Por. 0.52± Ac. =22,650±□'

330

(1) 49 Por. 0.73± Ac. =31,840±□'

305

N.0°03'W. 425.13

50

(10) 0.47± Ac.

(11) 65,920±□'

P.M. 12-76

6 Por.

(9) 85,960±□'

572.40

145.20

MODULE III

MODULE I

SHEET 4

SHEET 2

SHEET 3

SHEET 5

2 MODULE III

Pvt. Drwy.

15,930±□' 5,620±□' Pvt. Drwy. 10,310±□'

234.11

234.69

109.63

109.62

139.53

82.51

116

93

1.62

(27) (26) (25) (24) (23) (22) (21) 7 Por. (20) (19) (18) (17) (16)

ST.

575

(28) 4.02± Ac.

16 Por.

551

3

(4) (6) (7) (8)

5 Por.

S.89°43'E. 275

S. line of N. 1 Ac. of Lot 5

N. line of S. 2 Ac. of Lot 5

275

(5) 16,110±□'

108

24.08

113.20

145.20

289.95

289.43

340.36

339.69

117.61

(14) (15)

104.54

35

40

83

281

29.74

R=15

CARSON

100

584.66

100

VERMONT AVE.

100

220TH

CODE 1519

TRACT NO. 3612 M.B. 40-5-6

(1)

TRACT NO. 3239 M.B. 37-27-28

CONDOMINIUM TRACT NO. 51112 M.B. 1203-34-35

FOR PREV. ASSM'T. SEE: 7342-16

ASSESSOR'S MAP COUNTY OF LOS ANGELES, CALIF.

E-94

7344	3 SHEET 1	P. A. 7342 - 28	TRA 1519	REVISED 861110-87 89052294003001	20120829050060001-26				SEARCH NO		OFFICE OF THE ASSESSOR COUNTY OF LOS ANGELES COPYRIGHT © 2002

2013

MAPPING AND GIS SERVICES
SCALE 1" = 100'

BK 7341

HARBOR

RTE 110

FRWY

FREEWAY APPROACHES

S 0°02'59"E

S 6°26'01"W 116.64

ST

TRACT 57 POR (13) M B 40

58 POR - NO 5

67 POR - 3612 6

TRACT (1)

NO 3239

2.25±AC (7)

C-TRACT NO 31726

ST

PG 2

E-96

17 POR (2)

26 POR (14)

2.58±AC (94)

27 POR

SHEETS 2&3
1
4.17 AC
0.53 * DRWY
3.64 AC

PVT DRWY

(16) 1.92±AC

(8) (9) (10)

220TH

M B 37 - 27 - 28

M B 1047 - 54 - 55

223RD

PG 26

VERMONT AVE

PG 4

7344	4 SHEET 1	P. A. 7342 - 27	TRA 1519	REVISED: 720107616 730329209	730816608 780915305 790628404	2015062402003001-14			SEARCH NO		OFFICE OF THE ASSESSOR COUNTY OF LOS ANGELES COPYRIGHT © 2002

MAPPING AND GIS SERVICES
SCALE 1 " = 100 '

PG 3

THE ASSESSMENT OF UNITS IN THE FOLLOWING AIRSPACE PLANS, INCLUDES ALL RIGHTS AND INTERESTS IN THE COMMON AREAS AS SET FORTH IN DEEDS OF RECORD. EACH PLAN DEPICTS APPROXIMATE DIMENSIONS FROM WHICH AREAS ARE COMPUTED. AREAS ARE FOR CORRESPONDING ELEMENTS ONLY.

AIRSPACE PLAN REFERENCE	COMMON AREA				SUBDIVISION OF AIRSPACE SHEET(S)
	TRACT NO	BLK	LOTS	TYPE	
#1221536 12-5-80	34265	-	1	CONDO	2 & 3

2016

VERMONT AVE

TRACT NO 34265

C-TRACT NO 34265
1
SHEETS 2 & 3
1.76±AC
0.41± " DRWY
1.35±AC

M B 918 - 61 - 63

PVT DRWY

220TH ST

223RD ST

FIAT ST

JAY ST

22ND ST

DRAINAGE EASE

PG 1
PG 5
PG 6
PG 7
PG 25

DATE PRINTED: 6/23/2015 10:46:44 AM
DATE SAVED: 6/23/2015 10:46:41 AM

7344 | 5

SCALE 1" = 60'

1-27-60
4-14-61
8-23-61
10-10-61
10-27-61
11-8-61
11-30-61
9-12-62
3-9-64
660913
691229
850612616-85
88032406002001

220TH ST.

S 89° 43' E.

MEYLER ST.

FIAT ST.

5 MILES

19 Por.

TRACT NO. 3239

M.B. 37-27-28

CODE
1519

FOR PREV. ASSM'T. SEE:
7342 - 23

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

E-97

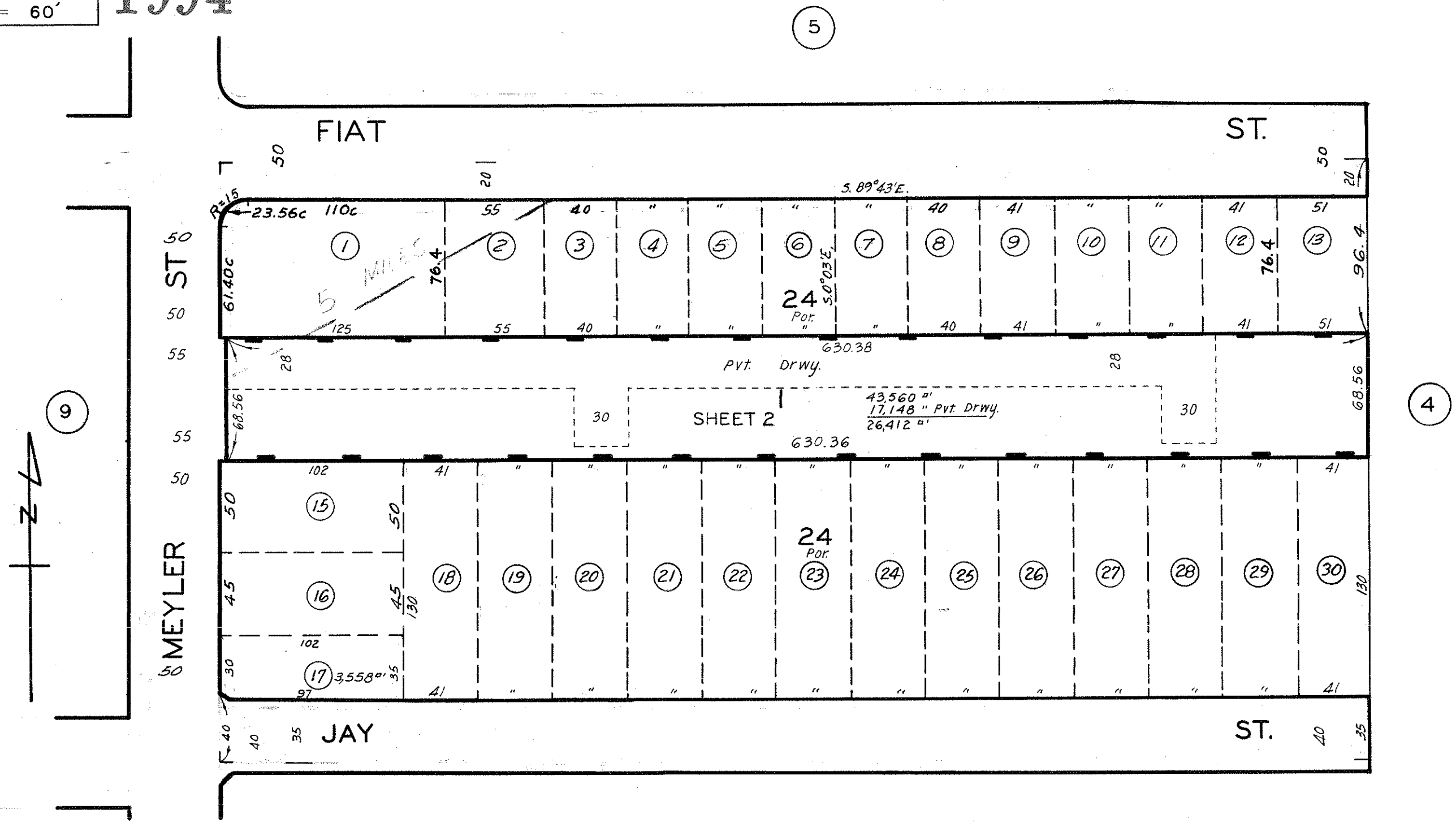
7344 | 6 SHEET 1

SCALE 1" = 60'

1994

6-29-65
691229
92061107006001-14
9308099300001-14

Revised
11-16-59
4-14-61
8-23-61
1-28-63
12-17-63 E
3-9-64



CODE
1519

TRACT NO. 3239

M.B 37-27-28

CONDOMINIUM

TRACT NO. 49098

M.B. 1188-87-89

FOR PREV. ASSM'T. SEE:
7342-24

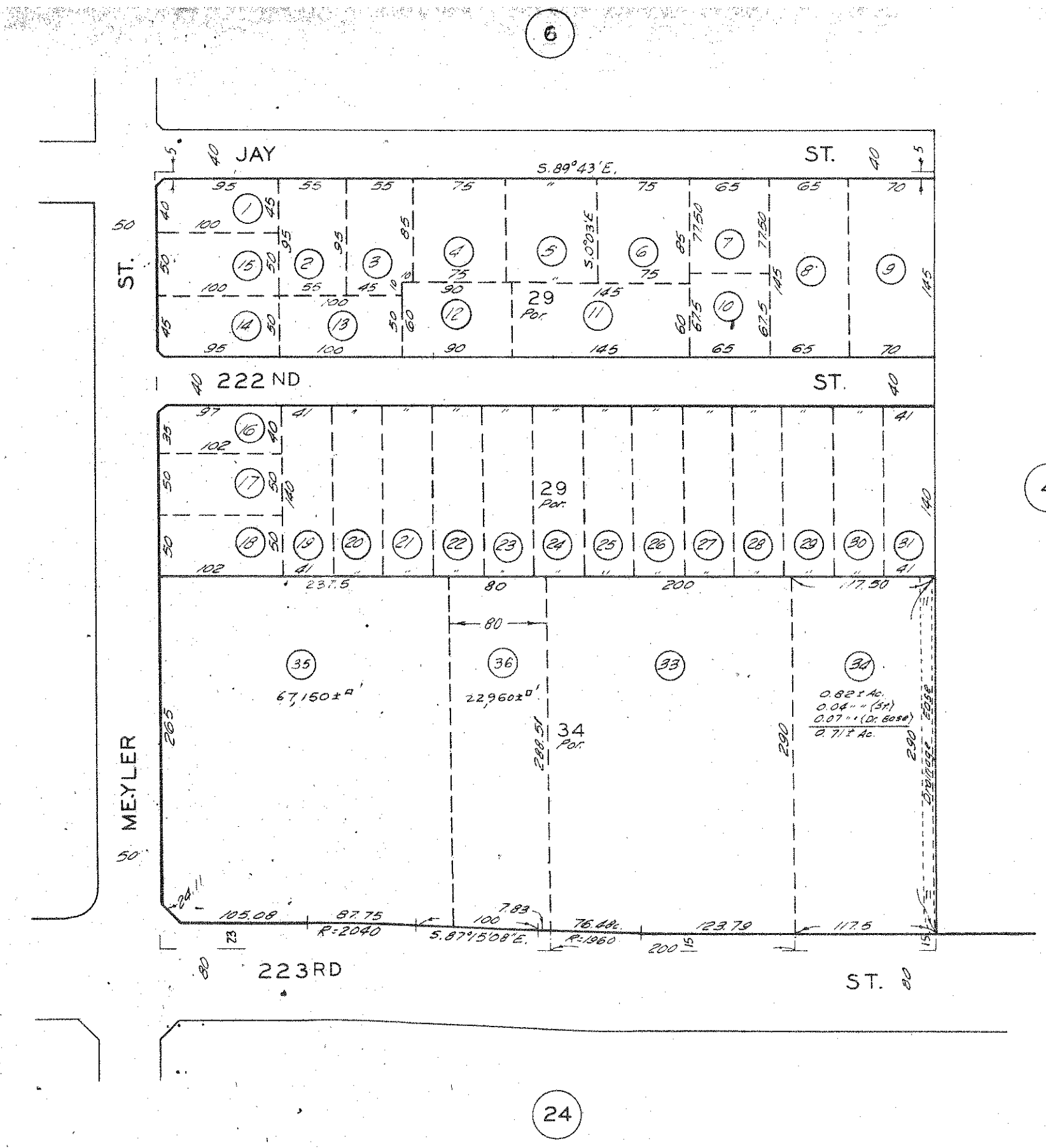
ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

E-98

7344 | 7

SCALE 1" = 100'

1975



CODE
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FOR PREV. ASSM'T SEE:
7342-25 & 26

TRACT NO. 3239 M.B. 37-27-28

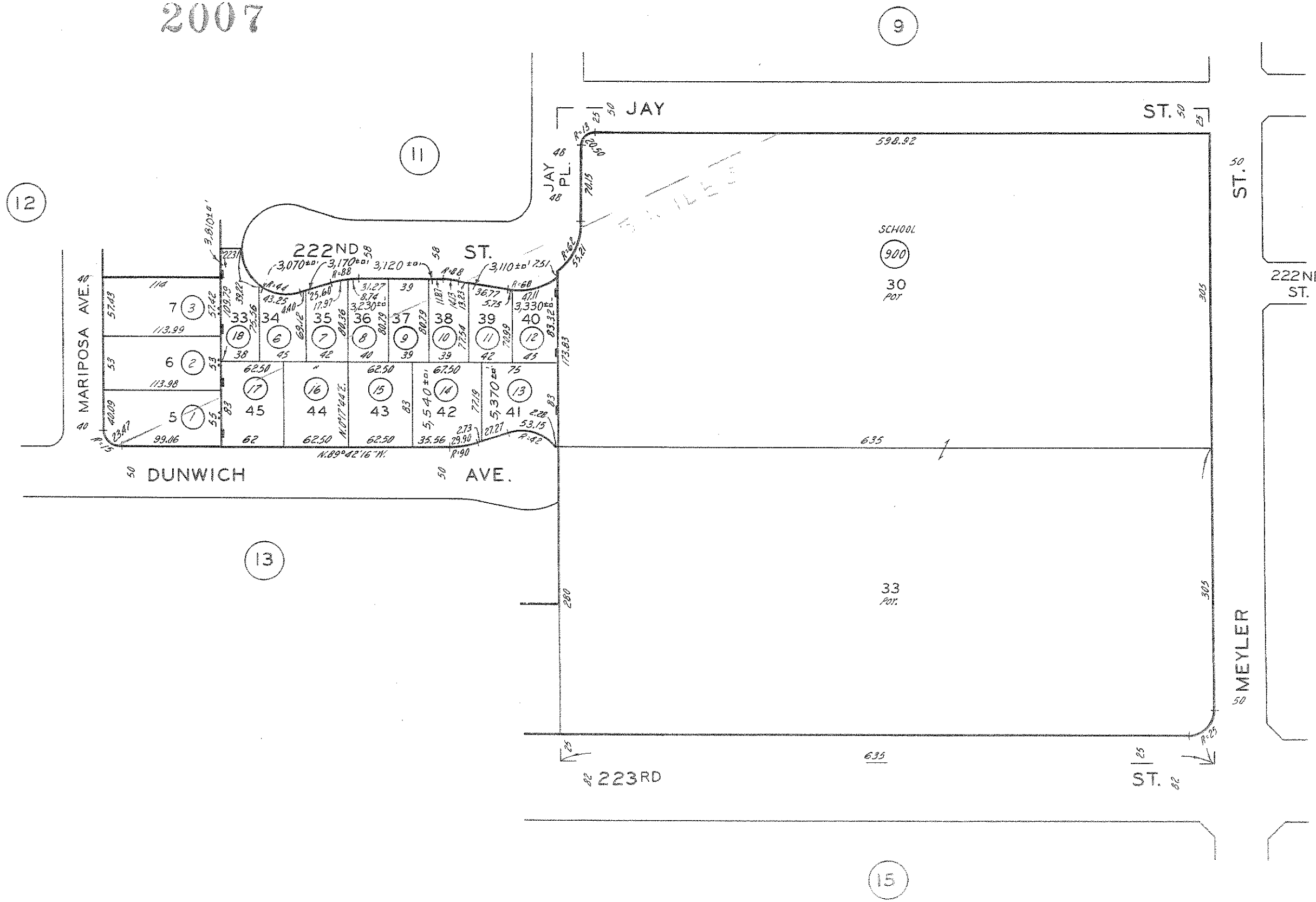
ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

7344 | 8

SCALE 1" = 100'

691114605
691229
3702241000900I-14
20070205

2007



CODE

1519

TRACT NO. 3239 M. B. 37 - 28 - 29

TRACT NO. 24886 M. B. 652 - 88 - 90

TRACT NO. 30582 M. B. 791 - 75 - 76

FOR PREV. ASSM'T SEE:
7342 - 21

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

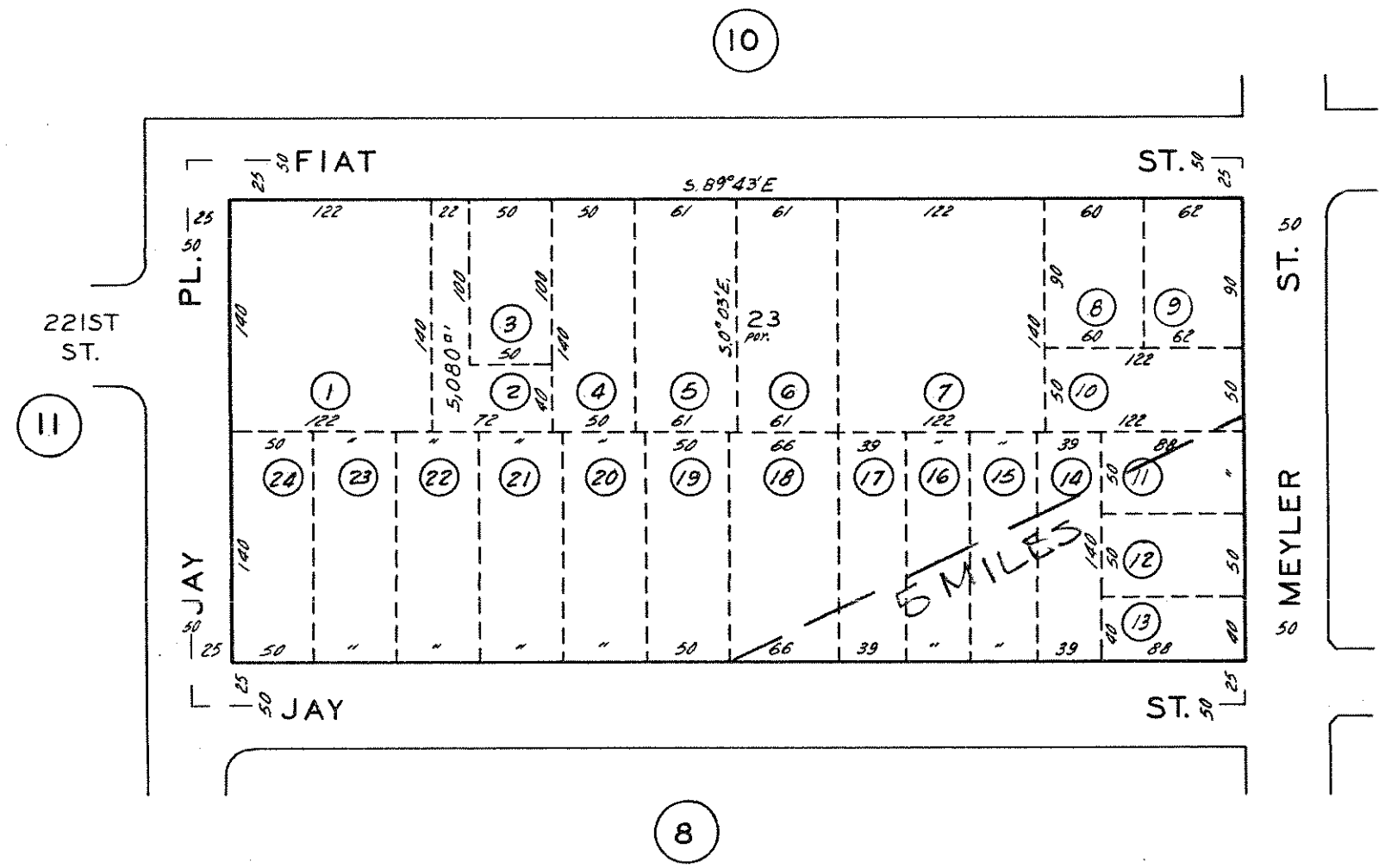
E-100

7344 | 9

SCALE 1" = 100'

691114005
691229





E-101

CODE
1519

FOR PREV. ASSM'T SEE:
7342 - 22

TRACT NO. 3239 M. B. 37 - 27 - 28

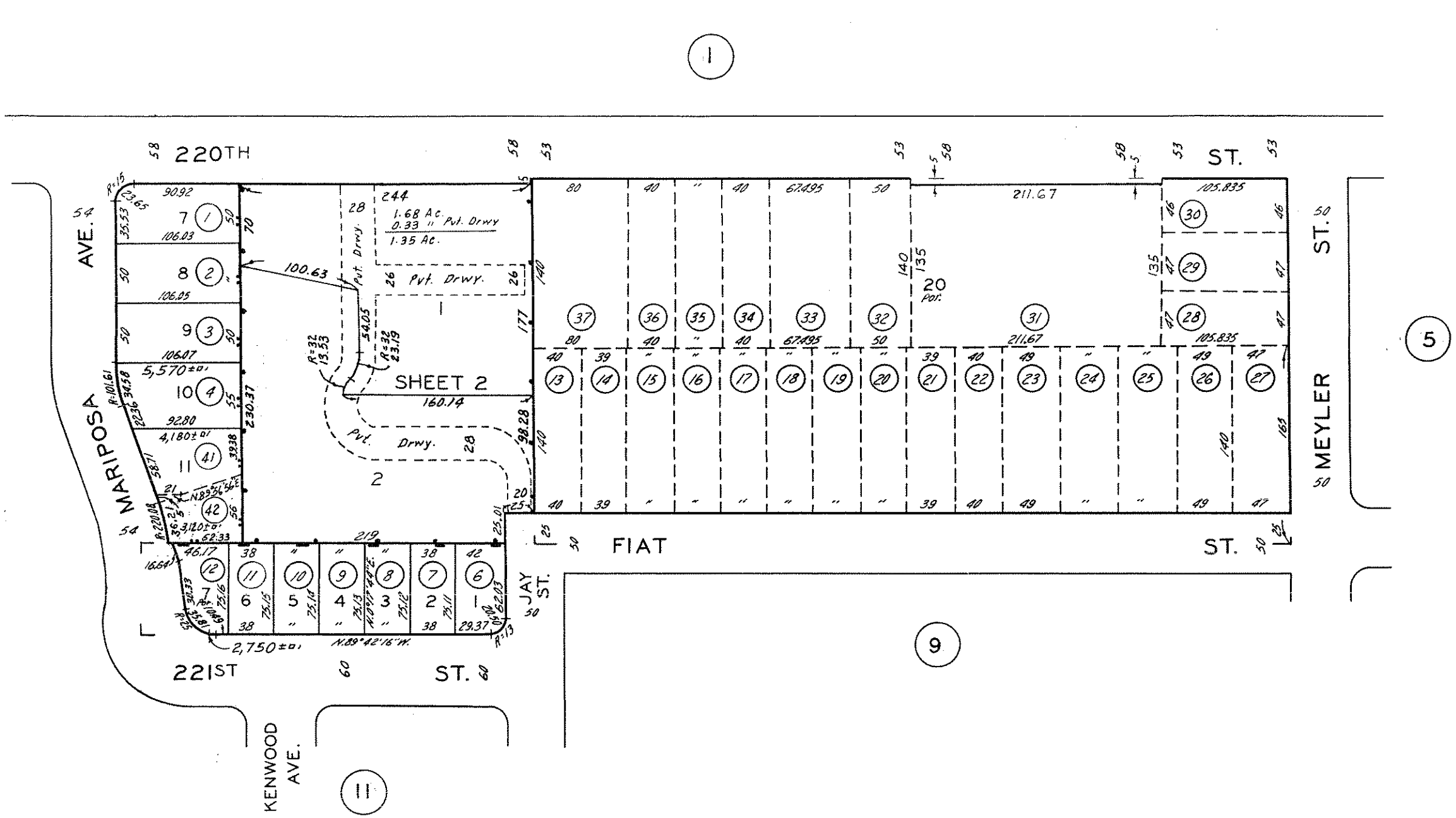
ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

7344 | 10 SHEET 1

SCALE 1" = 100'

1997

691114603
691229
700114
720107617
750508307
770325804
841205808-8
960124020020001-14
960430050001001-14
960430050001002-14



E-102

CODE
1519

CONDOMINIUM
TRACT NO. 51517 M.B. 1214-90-92
TRACT NO. 3239 M. B. 37-27-28
TRACT NO. 20226 M. B. 595-50
TRACT NO. 30582 M. B. 791-75-76

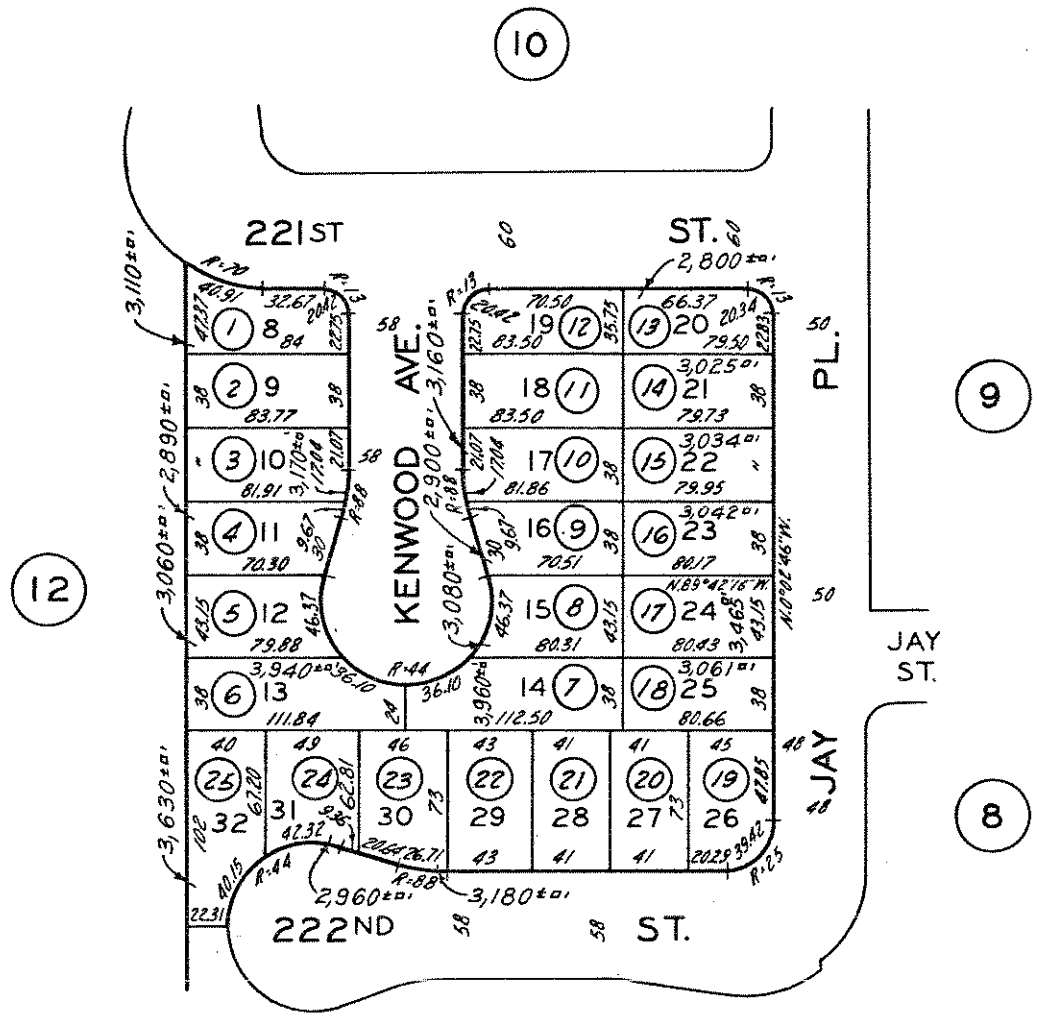
FOR PREV. ASSM'T SEE:
7342 - 18

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

7344 | 11

SCALE 1" = 100'

6911146004
691229
720107



8

CODE
1519

FOR PREV. ASSM'T SEE:
7342 - 19

TRACT NO. 30582 M. B. 791-75-76

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

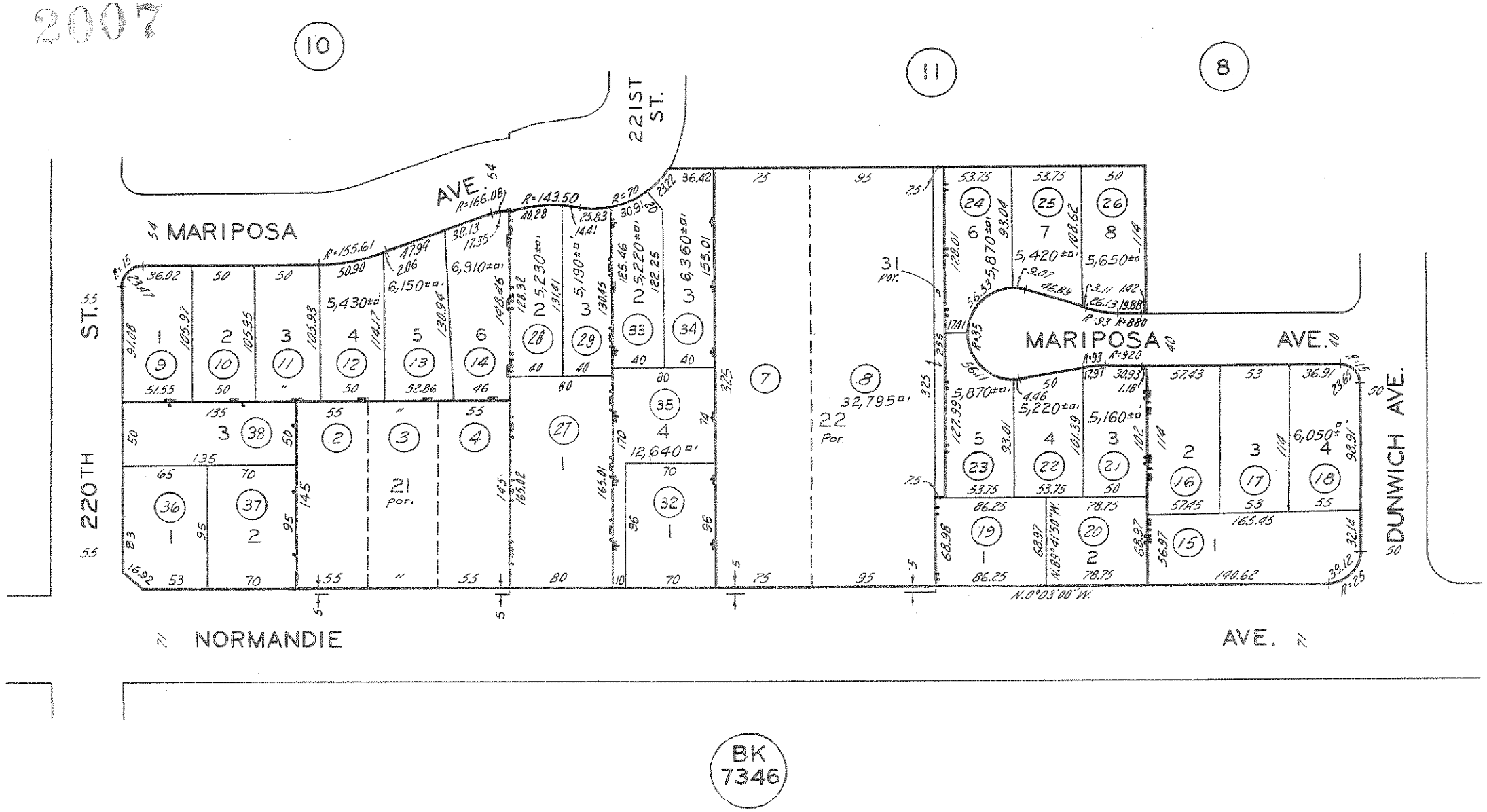
E-103

7344 | 12

SCALE 1" = 100'

691114606
691229
710928404
711116102
720107618
720815409
721006
730209406
781025505
20070205

2007



CODE

1519

FOR PREV. ASSM'T SEE:
7342 - 20

TRACT NO. 3239 M. B. 37-27-28
TRACT NO. 20226 M. B. 595 - 50
TRACT NO. 24886 M. B. 652-88-90
TRACT NO. 29244 M. B. 734-38-39
PARCEL MAP P. M. 31 - 41

PARCEL MAP P.M. 35 - 6
PARCEL MAP P.M. 96-13-14

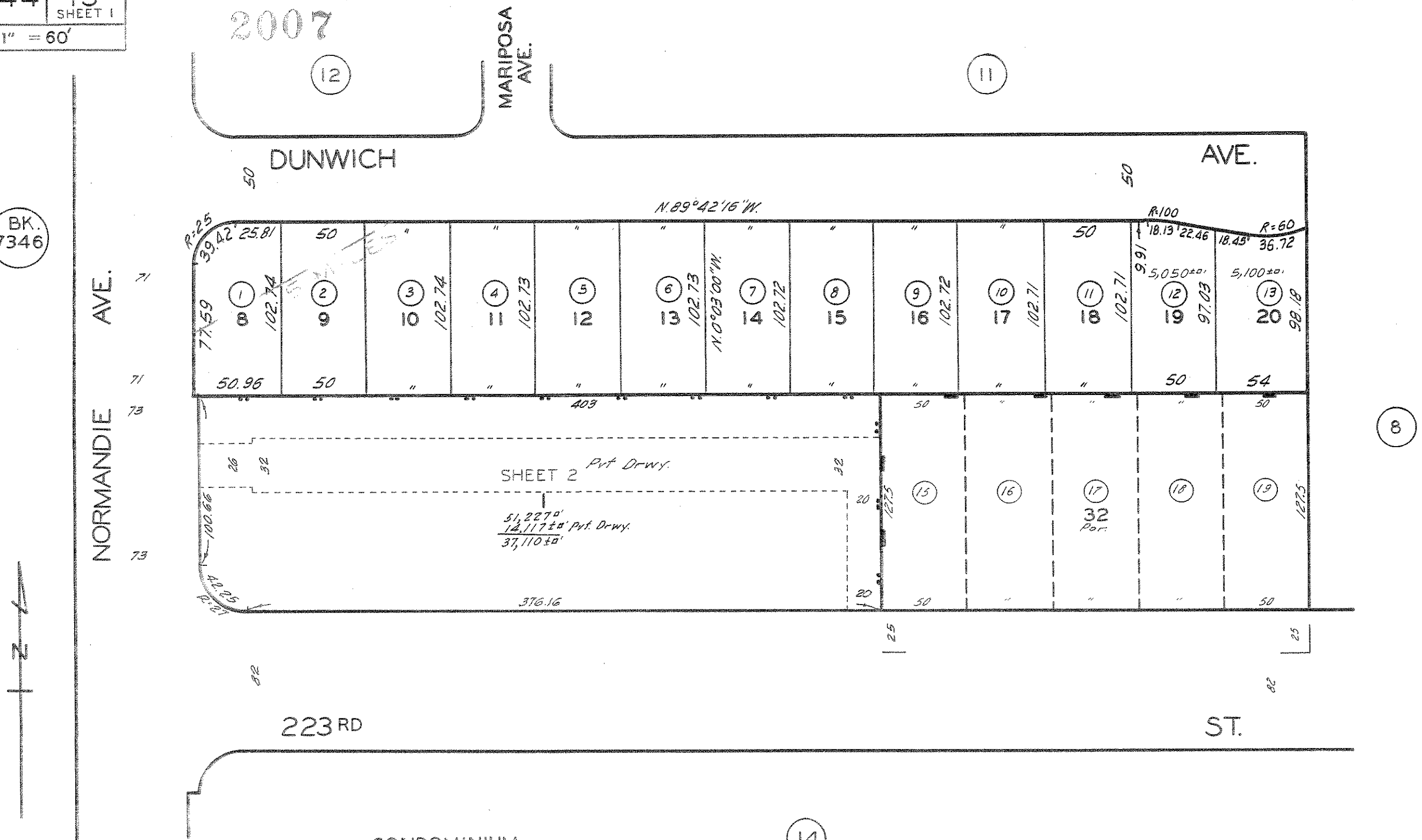
ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

7344 | 13 SHEET 1

SCALE 1" = 60'

2007

REVISED
1-17-6
1-9-6
690103
691114606
691229
87051501006001
87120905005001
20070205



CONDOMINIUM

TRACT NO. 42773

M.B. 1083-53-54

TRACT NO. 24886

M.B. 652-88-90

TRACT NO. 3239

M.B. 37-27-28

CODE

1519

FOR PREV. ASSM'T. SEE:
7342-45

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

E-105

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COUNTY OF LOS ANGELES
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REVISED:
20011017

INDEX 7345

2007

E-106

BK 7348

BK 7349

BK 7336

BK 7343

BK 7344

ROAD DSIT NO 2

CLARION ST

NEW HAMPSHIRE AVE

JAVELIN AVE

VAN DEENE AVE

212TH ST

CLARION DR

MENLO AVE

213TH ST

CONRADI AVE

FRWY

RTE 110

HARBOR

DOBLE AVE

CLARION DR

LEVINSON ST

BUDLONG AVE

MEYLER AVE

JAFFREY AVE

PAYNE AVE

214TH ST

DESFORD ST

MARIGOLD AVE

RITNER ST

216TH ST

BROADWELL AVE

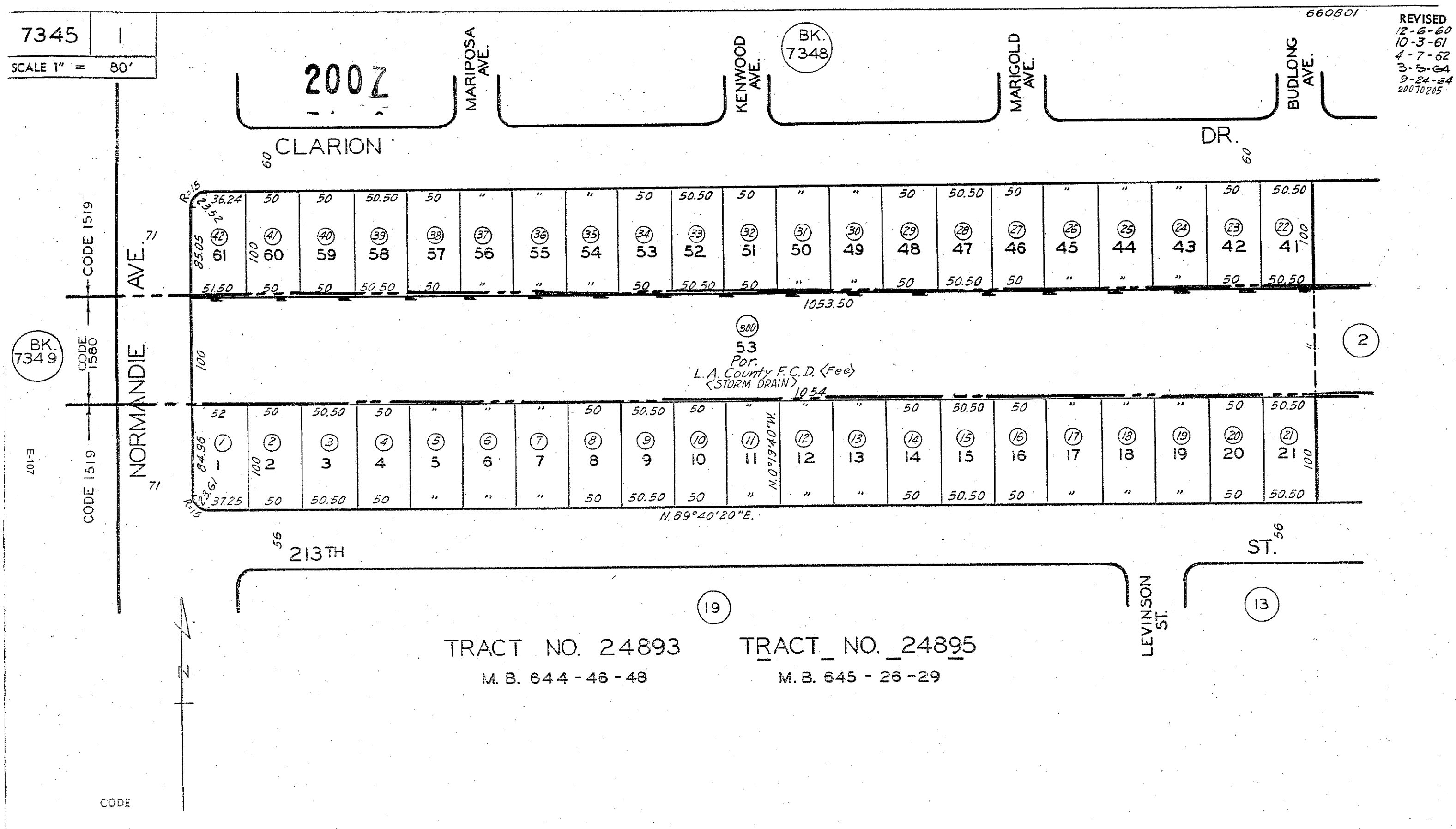
NORMANDIE AVE

BERENDO AVE

VERMONT ST

CARSON ST

MAPPING AND GIS
SERVICES
SCALE 1"= 300'


7345 | 1
SCALE 1" = 80'
660801
REVISED
12-6-60
10-3-61
4-7-62
3-5-64
9-24-64
20070205
200Z
MARIPOSA AVE.
KENWOOD AVE.
BK. 7348
MARIGOLD AVE.
BUDLONG AVE.
CLARION
DR.
NORMANDIE AVE.
CODE 1519
CODE 1580
BK. 7349
1053.50
53
Por.
L.A. County F.C.D. <Fee>
<STORM DRAIN>
1054
N.0°19'40"W.
N.89°40'20"E.
213TH
ST.
LEVINSON ST.
TRACT NO. 24893
M.B. 644-46-48
TRACT NO. 24895
M.B. 645-26-29
CODE
1519
1580
FOR PREV. ASSM'T. SEE:
7340 - 35
ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

E-107

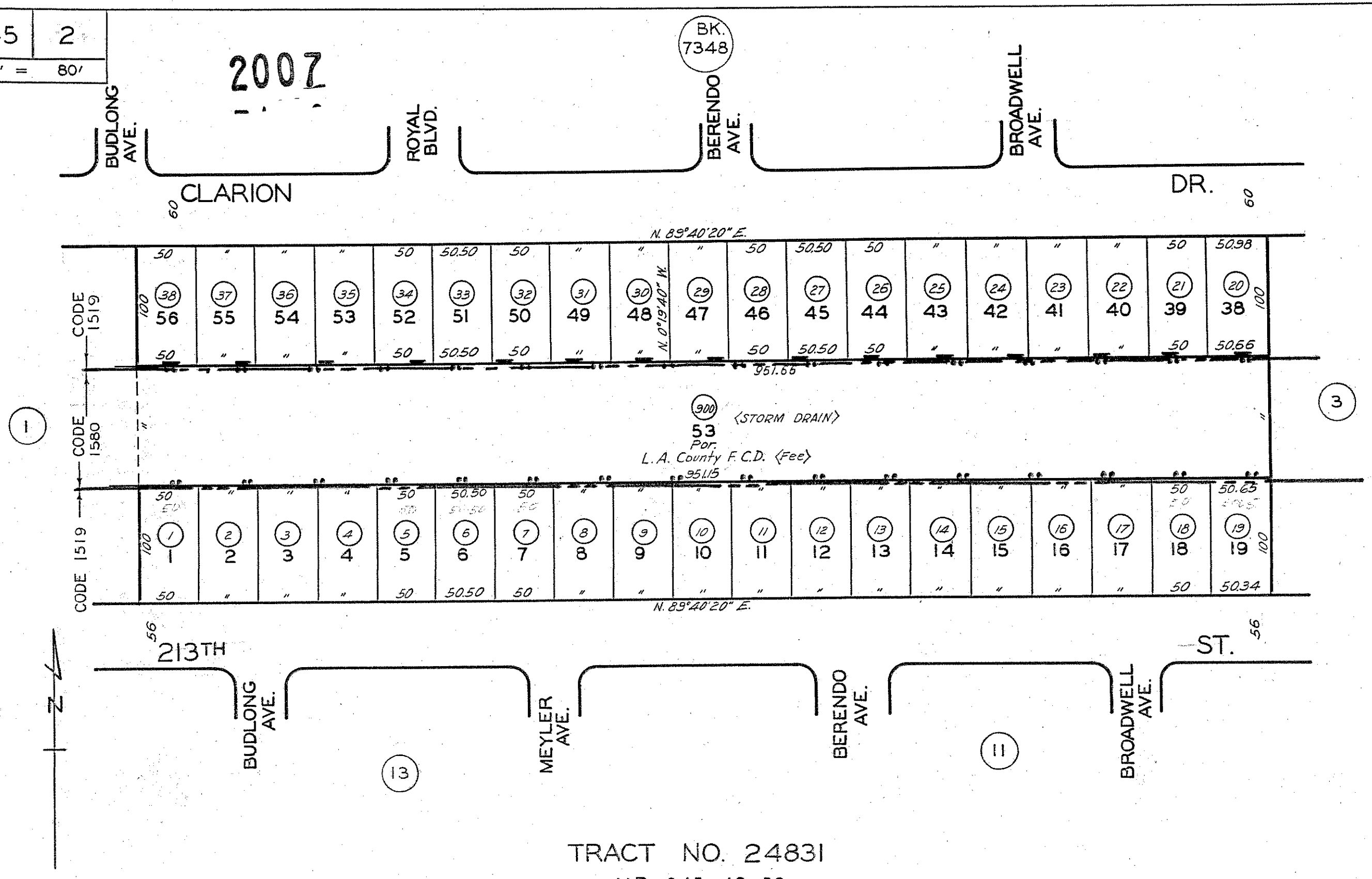
7345 | 2

SCALE 1" = 80'

2007

660801

REVISED
12-6-60
10-3-61
4-7-62
3-5-64
9-24-64
20070205



TRACT NO. 24831

M.B. 645-48-50

CODE

1519

1580

TRACT NO. 24894

M.B. 644-49-50

TRACT NO. 24895

M.B. 645-26-29

FOR PREV. ASSM'T. SEE:
7340 - 34

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

E-108

7345	3
CALE 1" =	80'

REVISED
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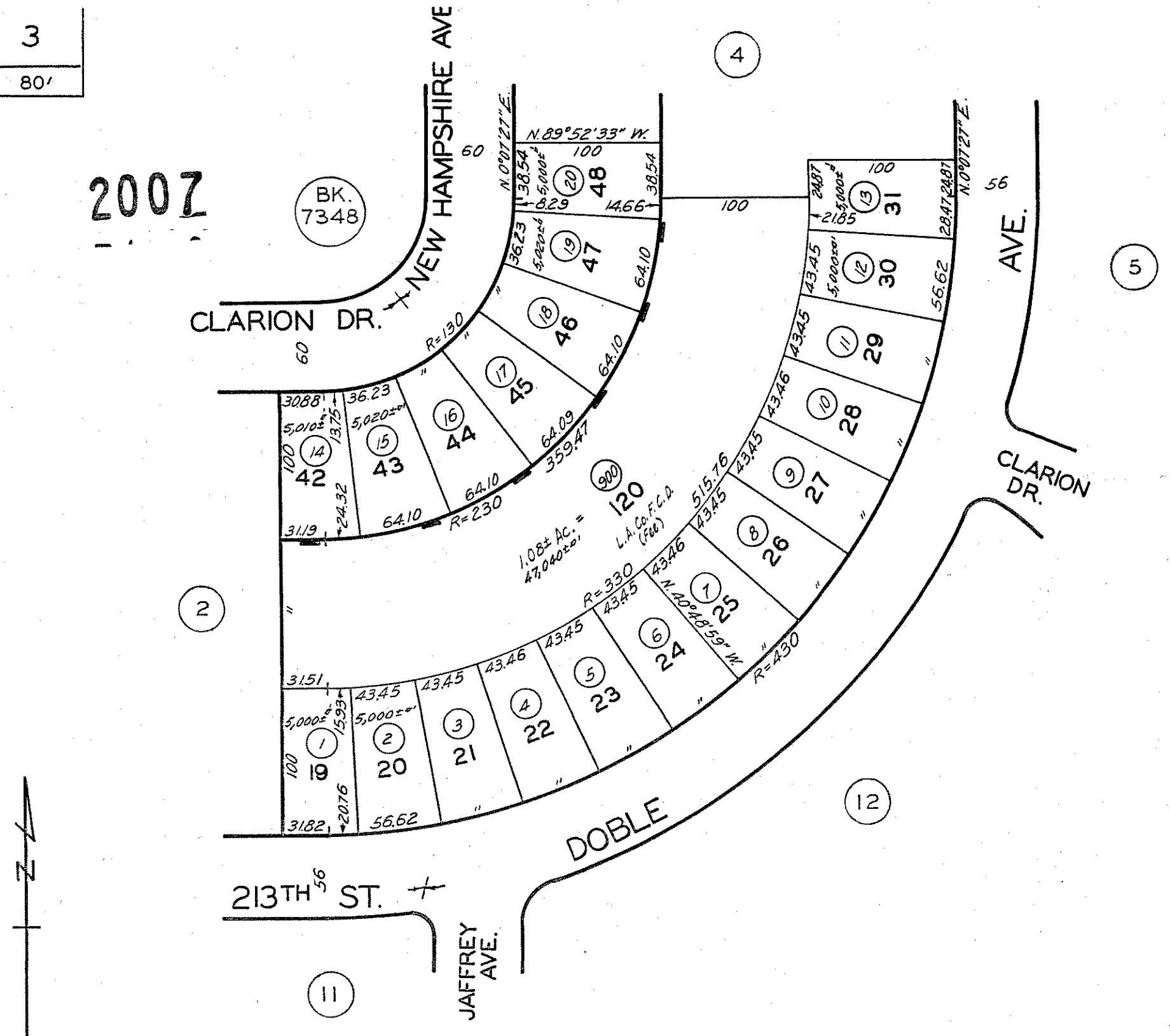
10-3-61
680620
20070205

2007



CODE
1519

TRACT NO. 25150
M.B. 650-57-59

TRACT NO. 25362
M.B. 650-53-56

FOR PREV. ASSM'T. SEE:
7340 - 33

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

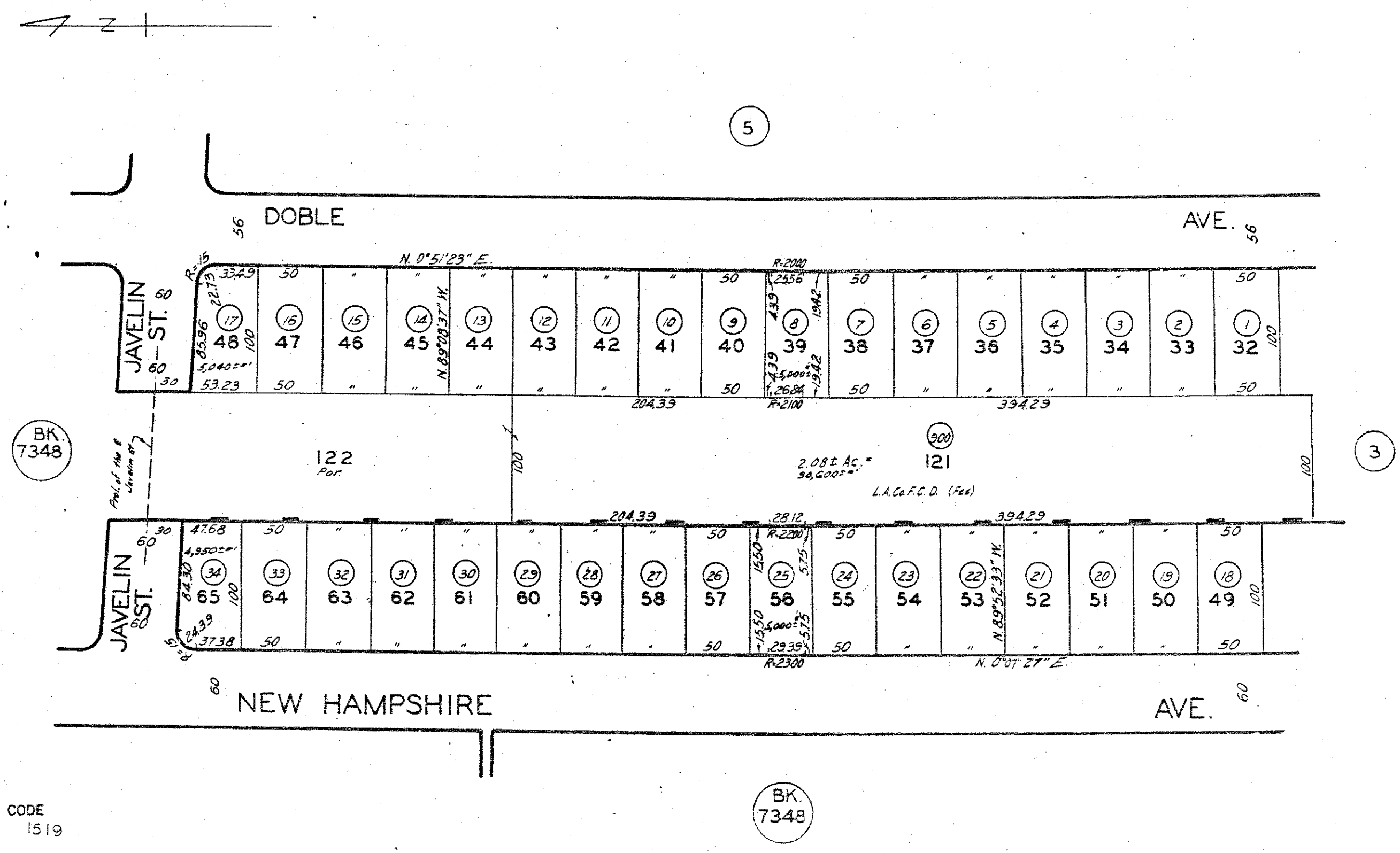
E-109

7345 | 4

SCALE 1" = 80'

2007

20070205



CODE
1519

TRACT NO. 25362 M.B. 650-53-56

TRACT NO. 25150 M.B. 650-57-59

FOR PREV. ASSM'T SEE:
7340-31 & 32

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

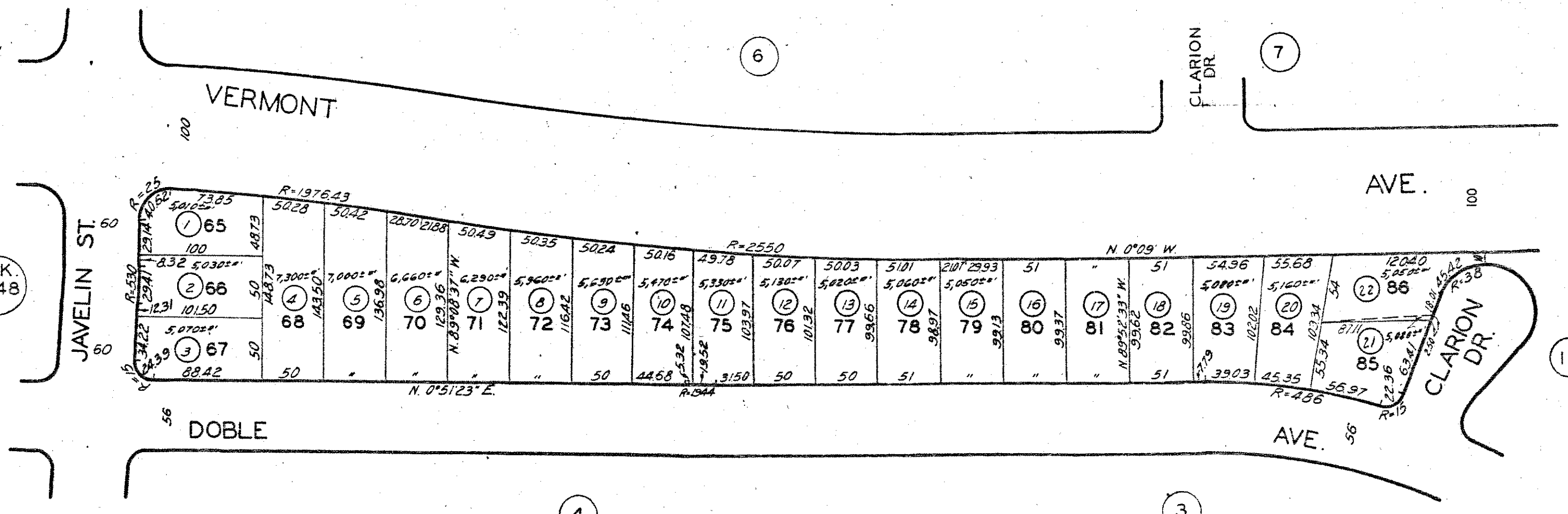
E-110

7345	5
SCALE 1" =	80'

20070205

2007





CODE
1519

TRACT NO. 25362 M.B. 650-53-56

FOR PREV. ASSM'T SEE:
7340 - 29

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

7345 | 6

SCALE 1" = 100'

12-2-65
12-28-65
2-8-66
660922
20070205

REVISED
690107

2007

BK. 7348

CONRADI AVE.

JAVELIN

ST.

AVE. 100

AVE. 58

AVE. 54

FRWY.

N.89°25'12"E. 385.92

S.0°34'15"E. 96.88 From NW. Cor. Lot 18 Tr. No. 6378

N.0°34'15"W. 266.12

N.12°57'05"E. 363.70

S.5°32'39"W. 127.98

R=2076.43
R=2181.43
R=2239.43
264.55
R=2287
344.48
R=2345
R=2450
R=479.22

0.48±Ac. = 20,910±sq.ft.
& 0.06±Ac. (St.)
0.42±Ac. = 18,300±sq.ft.

6-13-62 #5352

1234.18 R26

R=200 R=280.41

1	5,530±sq.ft.	53.88	105	51.47	55.03	59.50	6,390±sq.ft.	62.17	3	3	
2	5,910±sq.ft.	57.49	2	2			5,540±sq.ft.	53.88	4	4	
5	5,910±sq.ft.	57.49	5	5			6,390±sq.ft.	62.17	6	6	
7	5,540±sq.ft.	53.88	7	7			5,860±sq.ft.	2667 28.16	8	8	
9	5,460±sq.ft.	50.71	9	9			5,880±sq.ft.	54.58	10	10	
11	5,460±sq.ft.	50.72	105	11	53.28	57.34	5,460±sq.ft.	38.69 3736	12	12	65.90 6,970±sq.ft.

2	5,610±sq.ft.	48.29	13	2			109.14				
3	5,270±sq.ft.	37.46	14	3			104.59				
4			15	4			104.44				
5			16	5			104.57				
6			17	6			104.70				
7			18	7			104.84				
8			19	8			104.97				
9			20	9			105.10				
10	5,260±sq.ft.	197.30	21	10			105.23				
11	5,140±sq.ft.	35.67	22	11			105.07				
12	5,260±sq.ft.	11.69 38.32	23	12			105.11				
13			24	13			105.26				
14	5,260±sq.ft.	43.36	25	14			105.31				
15	5,130±sq.ft.	22.30	26	15			105.25				
							99.79				

SCHOOL (900) 6.52 ± Ac.

95 Por

18 For SCHOOL (901)

17 Por

VERMONT

VAN DEENE

MENLO

HARBOR

212TH ST.

E.M. 20031

BK. 7336

5

7

E-112

CODE
1519

TRACT NO. 6378 M.B. 68-1-2
TRACT NO. 24141 M.B. 623-40-42
TRACT NO. 30353 M.B. 748-61-62

FOR PREV. ASSM'T. SEE:
7340 - 28

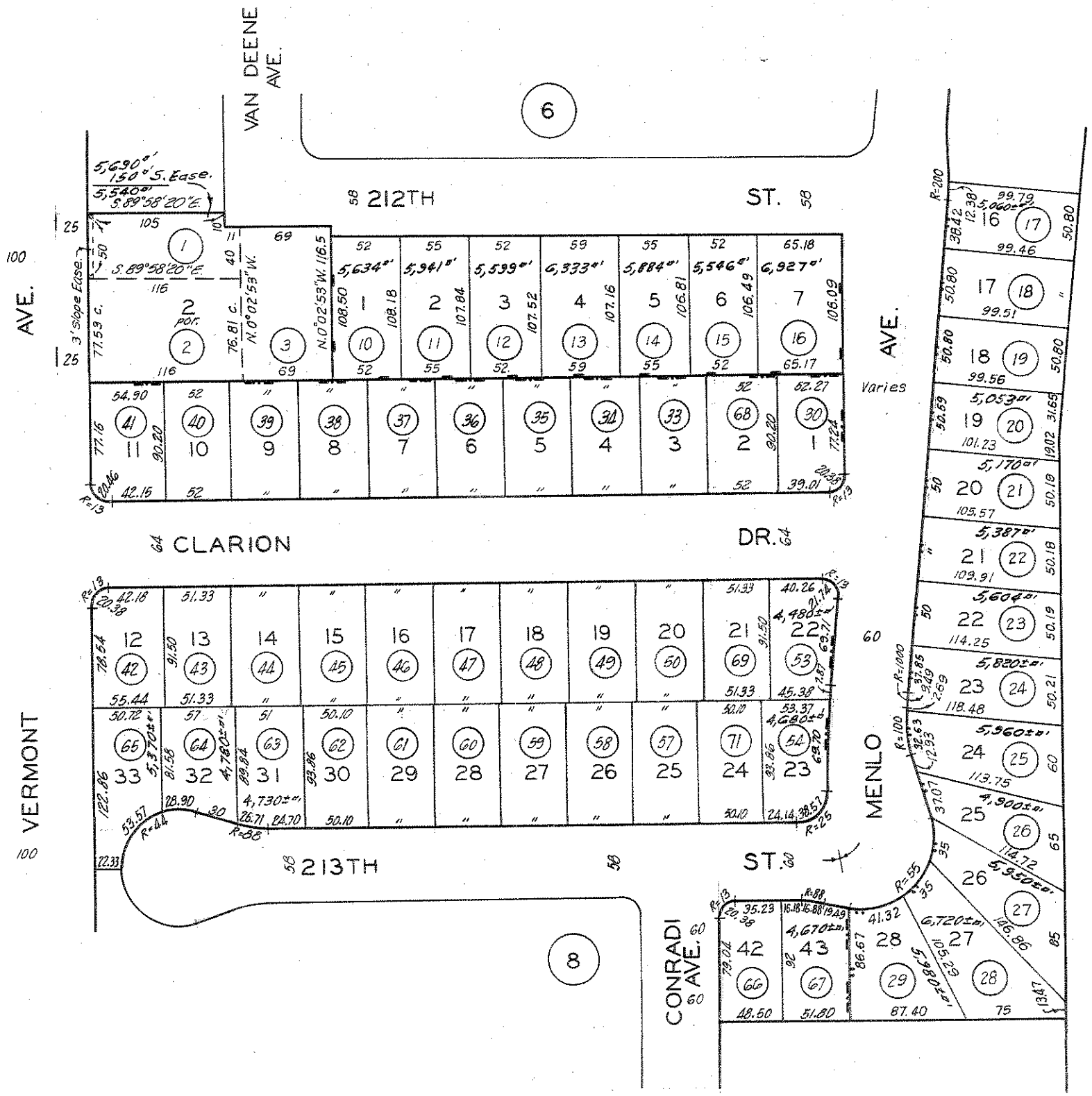
ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

7345	7

SCALE 1" = 100'

2007

751223001
930901090020001-14
*940110400030001-14)
* 940228
20070205
20070305500010001-14



E-113

CODE

1519

TRACT NO. 3612 M. B. 40-5-6

TRACT NO. 21007 M. B. 633-77-78

TRACT NO. 30353 M. B. 748-61-62

TRACT NO 31355 M. B. 858-41-42

FOR PREV. ASSM'T SEE:
7342-11 & 12

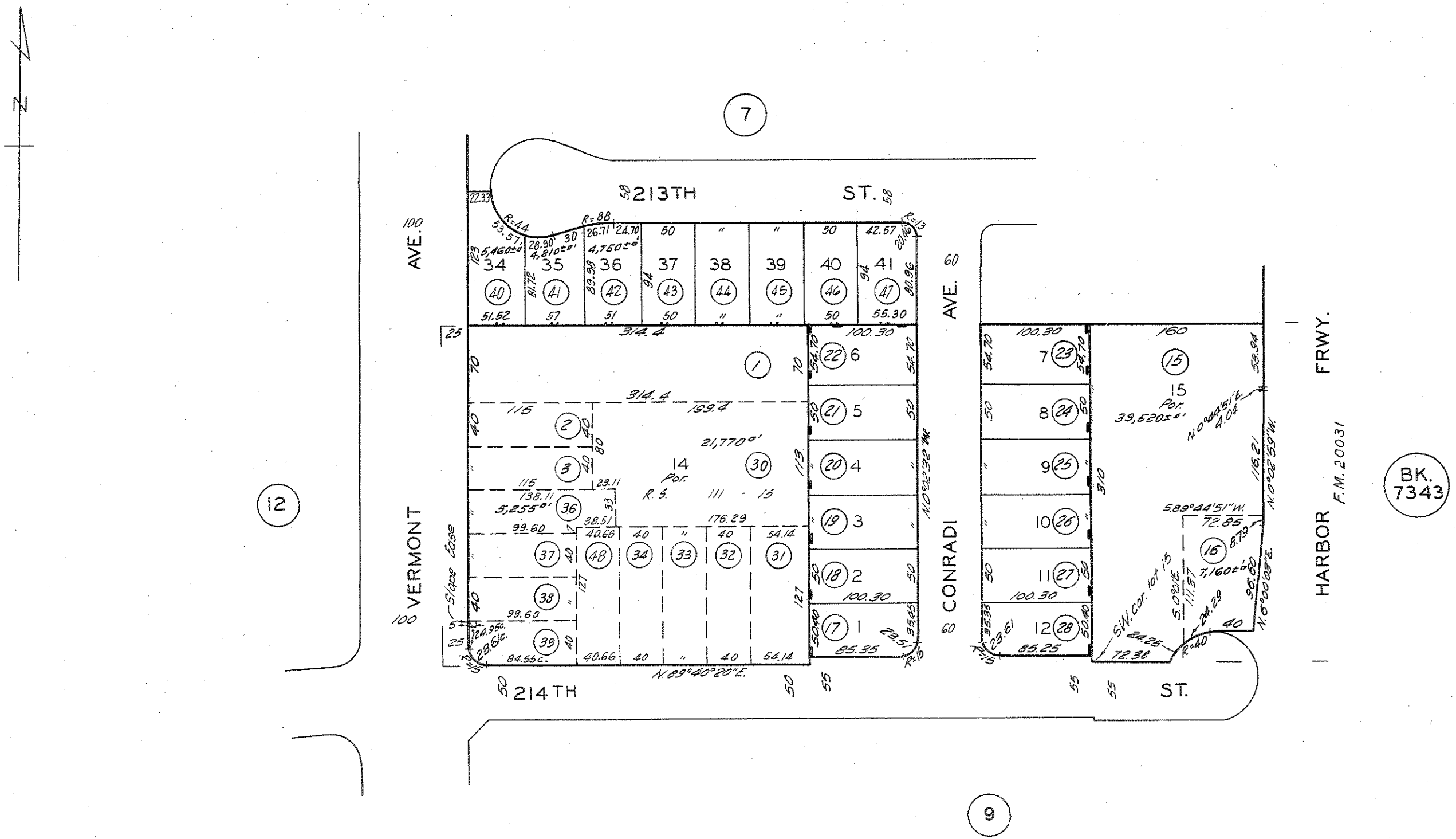
ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

7345 | 8

SCALE 1" = 100'

2007

740626306
751223001
790921107
20070205



CODE

1519

TRACT NO. 3612 M.B. 40-5-6

FOR PREV. ASSM'T SEE:
7342 - 12 & 13
7345-7

TRACT NO. 24363 M.B. 633-80-81

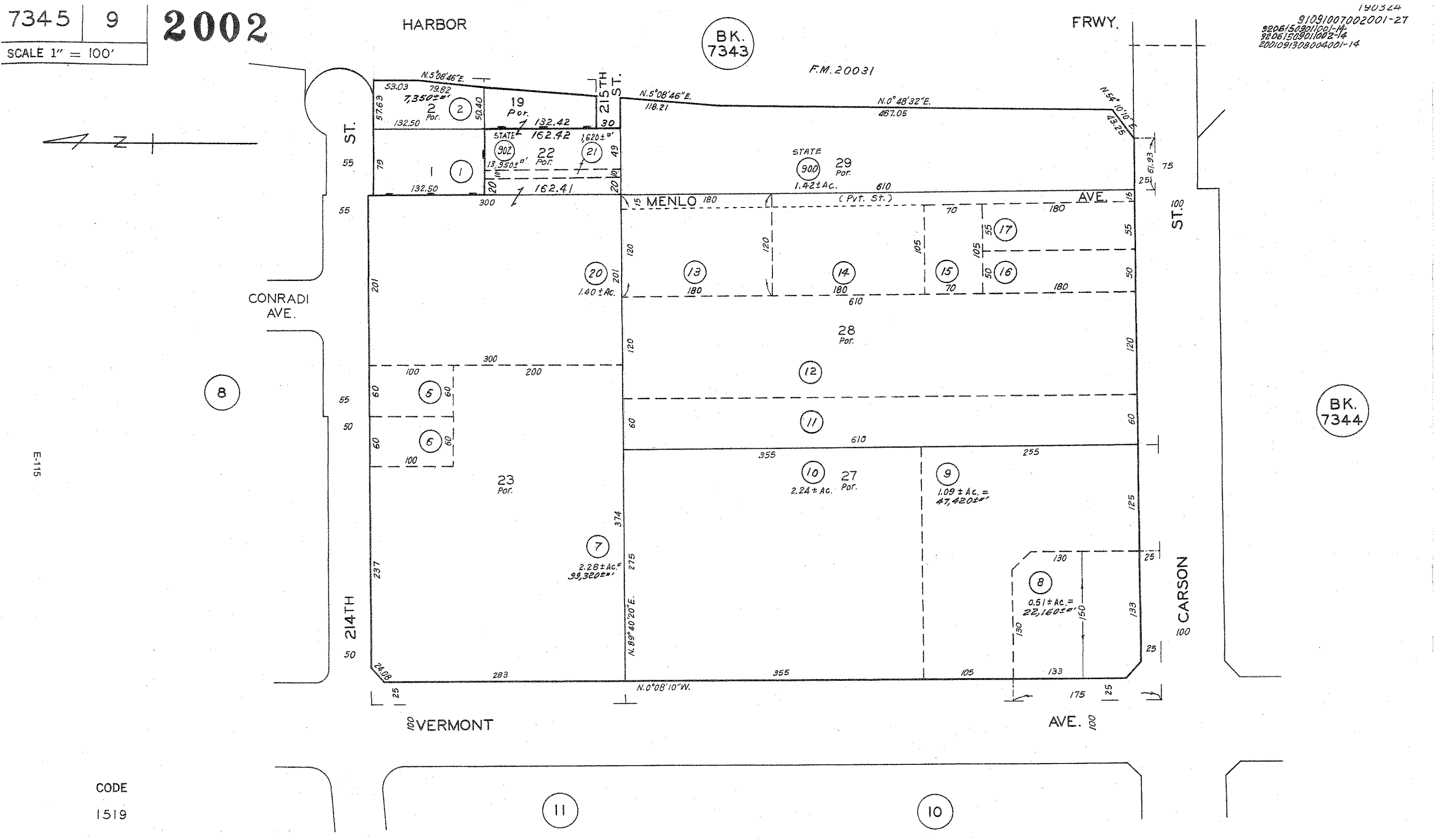
TRACT NO. 31355 M.B. 858-41-42

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

E-114

7345 | 9 | **2002**

SCALE 1" = 100'



CODE

1519

TRACT NO. 3612 M. B. 40-5-6

TRACT NO. 15190 M.B. 329-12-13

FOR PREV. ASSM'T SEE:
7342-14 & 15

All Acreages on this page are net.

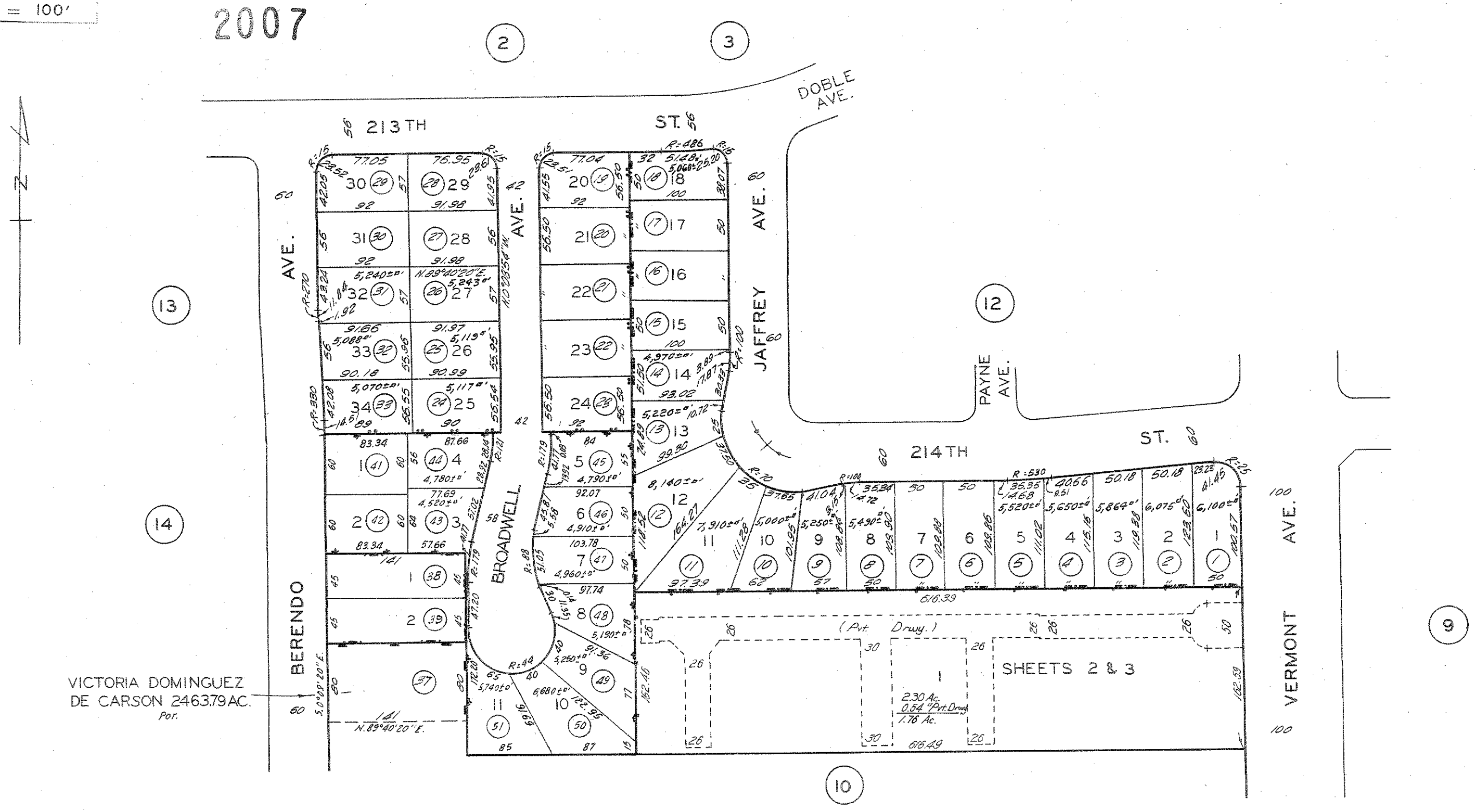
ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

E-115

7345 | 11 SHEET 1

SCALE 1" = 100'

2007



PART OF THE RANCHO SAN PEDRO WHICH WAS ALLOTTED TO MANUEL DOMINGUEZ S.C.C. 3284, C.F. 145

PARCEL MAP P.M. 24-48

CONDOMINIUM TRACT NO. 46525 M.B. 1165-9-10

CODE

1519

TRACT NO. 24831 M.B. 645-48-50

TRACT NO. 25362 M.B. 650-53-56

TRACT NO. 32978 M.B. 874-52-54

FOR PREV. ASSM'T SEL.
7342-2, 3, 10 & 40
7345-10

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

E-116

7345 | 12

SCALE 1" = 60'

REVISED
8-3-60
1-20-61
12-22-61
20070205

2007

TRACT NO. 25362
M.B. 650-53-56

CODE
1519

FOR PREV. ASSM'T. SEE:
7342-39

E-117

DOBLE AVE.

CLARION DR.

213TH ST.

JAFFREY AVE.

PAYNE AVE.

VERMONT AVE.

214TH ST.

N. 89°41'59" E.

N. 0°09' W.

N. 0°08'54" E.

1	87	2	88
3	89	4	90
5	91	6	92
7	93	8	94
9	95	10	96
11	97	12	98
13	99	14	100
15	101	16	102
17	103	18	104
19	105	20	106
21	107	22	108
23	109	24	110
25	111	26	112
27	113	28	114
29	115	30	116
31	117	32	118
33	119		

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

7345 | 13

SCALE 1" = 80'

9-30-64
1-20-65
691229
710927

REVISED
3-10-60
8-3-60
1-17-62
4-11-62
1-20-64
3-9-64
6-29-64
9-8-64
9-30-64
20070205

213TH ST

2007

LEVINSON ST.

BUDLONG AVE.

MEYLER AVE.

BERENDO AVE.

DESFORD ST.

MEYLER ST.

BUDLONG AVE.

MARIGOLD AVE.

N. 89°40'20" E.

N. 0°09'20" W.

S. 89°40'20" W. 442.23' from N.W. Cor. Lot 24, Tr. 3612

N.E. COR. LOT 19, TR. NO. 21495

VICTORIA DOMINGUEZ DE CARSON
2463.79 AC.
Por.

TRACT NO. 24895
M.B. 645-26-29

TRACT NO. 21495
M.B. 585-5-6

TRACT NO. 24831
M.B. 645-48-50

TRACT NO. 24891
M.B. 641-53-55

CODE

15 19

PART OF THE RANCHO SAN PEDRO
WHICH WAS ALLOTTED TO MANUEL DOMINGUEZ
S.C.C. 3284
C.F. 145

FOR PREV. ASSM'T. SEE:
7342 - 3 & 8

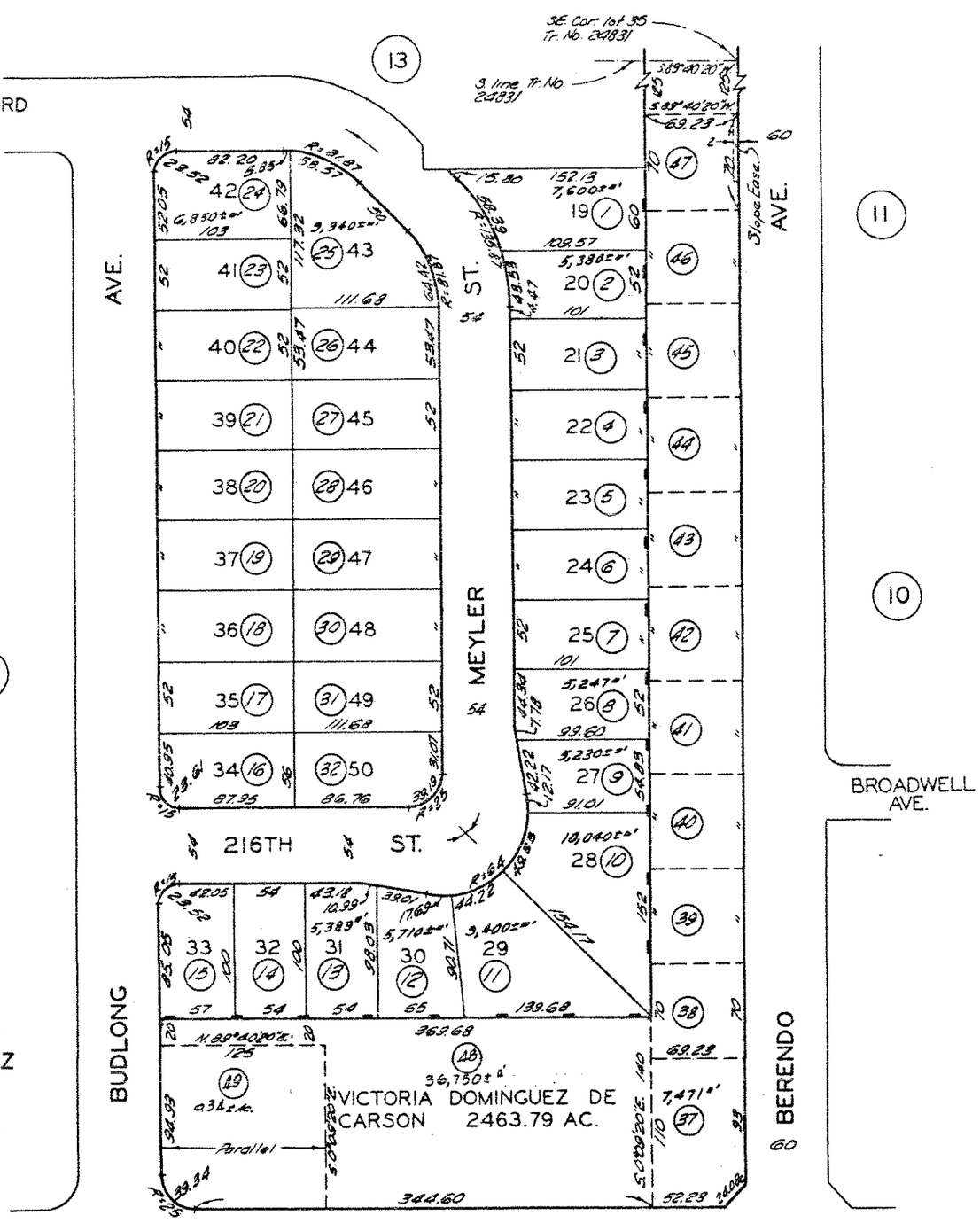
ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

E-118

7345 | 14

SCALE 1" = 100'

790324
790326205



PART OF THE RANCHO SAN PEDRO WHICH WAS ALLOTTED TO MANUEL DOMINGUEZ S.C.C. 3284, C.F. 145

TRACT NO. 21495 M.B. 585-5-6

CODE

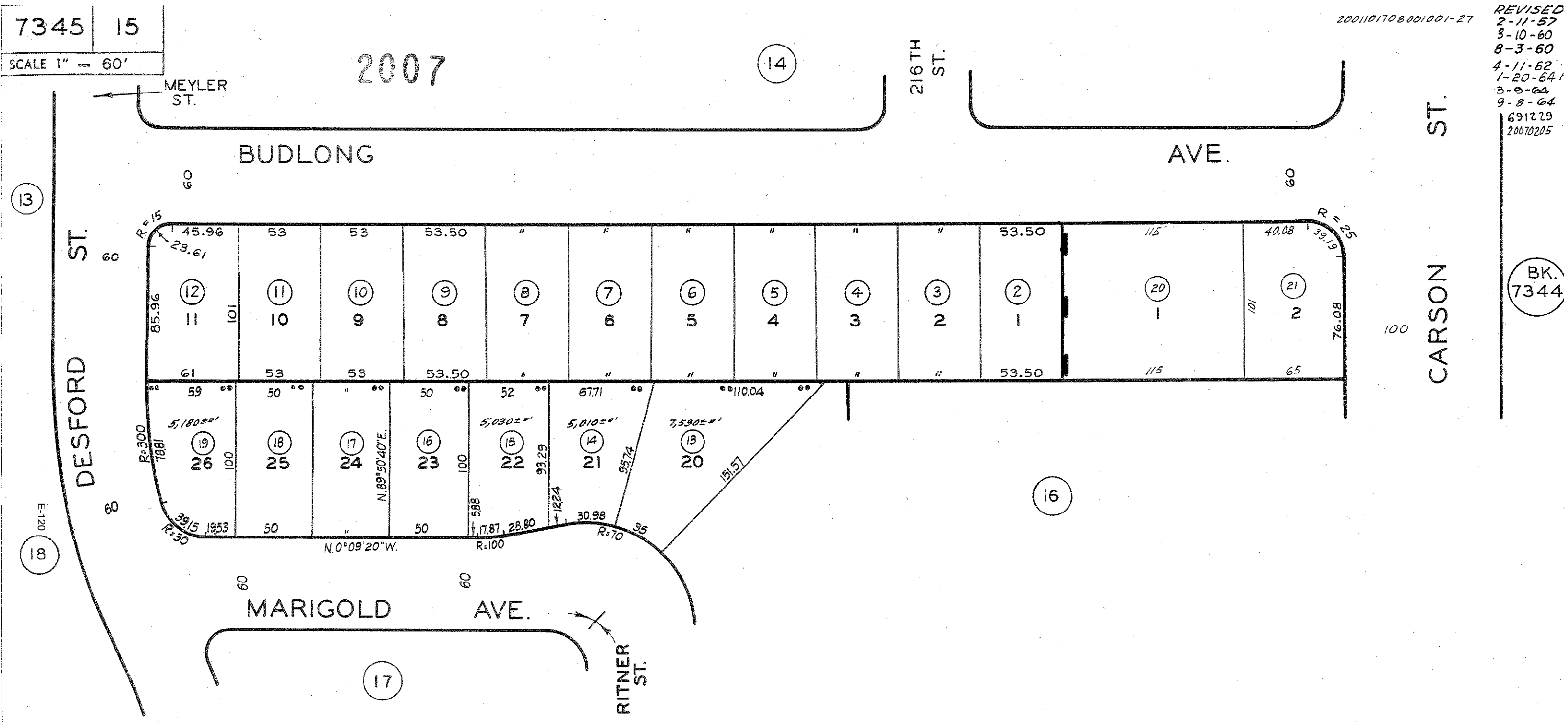
1519

FOR PREV. ASSM'T SEE:
7342 - 3 TO 7

E-119

BK. 7344

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.



TRACT NO. 21495
M.B. 585-5-6

PARCEL MAP
P.M. 304-17-18

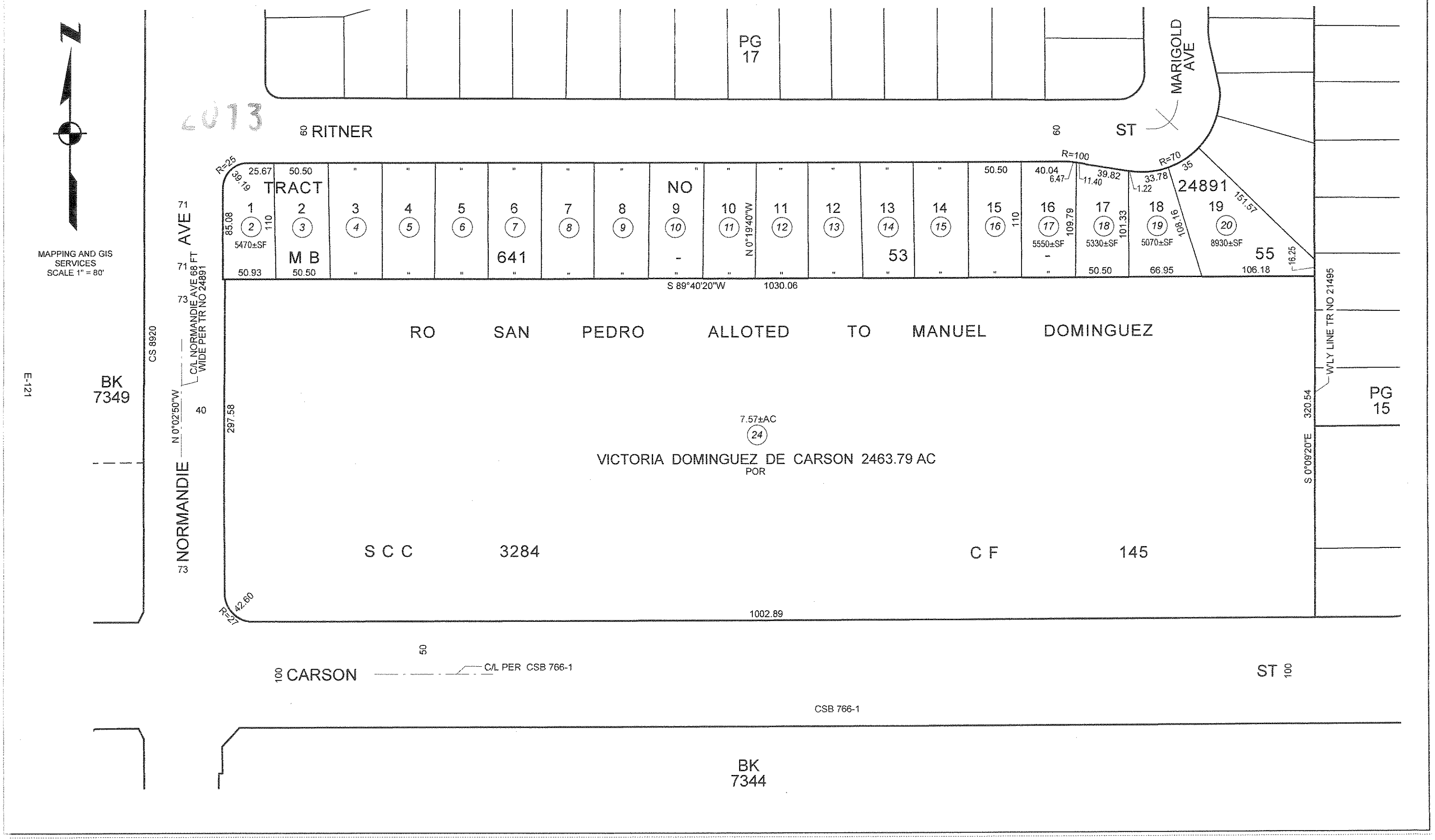
TRACT NO. 24891
M.B. 641-53-55

CODE
1519

FOR PREV. ASSM'T. SEE:
7342-9

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

7345	16 SHEET	P. A. 7342 - 1	TRA 1519	REVISED 20070205 2009111605005001-28	2012101606002001-28				SEARCH NO		OFFICE OF THE ASSESSOR COUNTY OF LOS ANGELES COPYRIGHT © 2002

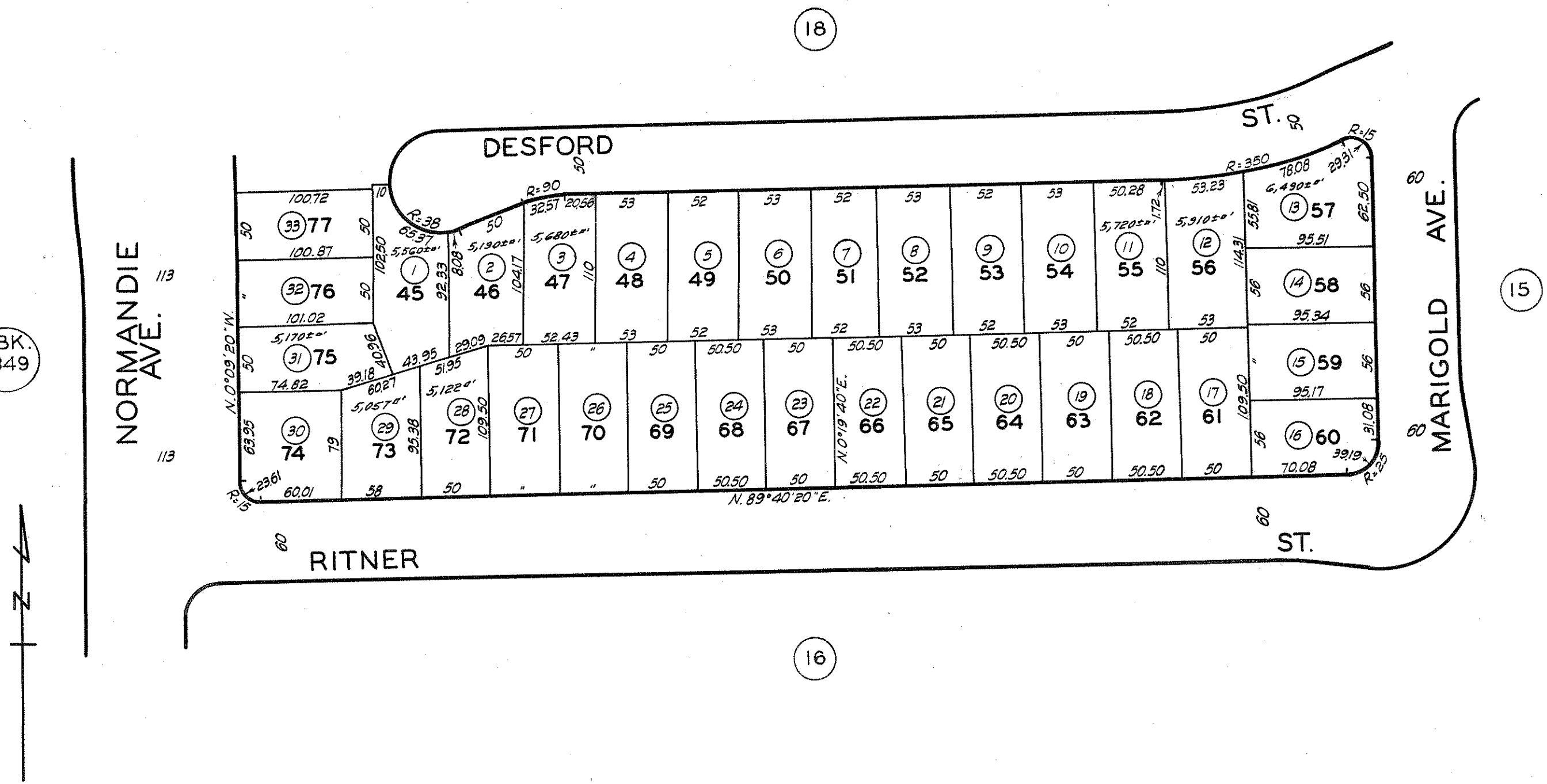


7345	17

SCALE 1" = 80'

REVISED
8-3-60
4-11-62
9-8-64
20070205

2007



N

E-122

CODE
1519

TRACT NO. 24891

M.B. 641-53-55

FOR PREV. ASSM'T. SEE:
7342-43

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

7345	18

SCALE 1" = 80'

REVISED
8-3-60
1-17-62
4-11-62
9-8-64
20070205

2007

(19)

LEVINSON ST.

N. 89°40'20" E.

N. 0°19'40" W.

NORMANDIE AVE.

(13)

BK. 7349

(17)

DESFORD

MARIGOLD AVE.

N

TRACT NO. 24892
M.B. 641-56-57

TRACT NO. 24895
M.B. 645-26-29

TRACT NO. 24891
M.B. 641-53-55

CODE
1519

FOR PREV. ASSM'T. SEE:
7342-42

E-123

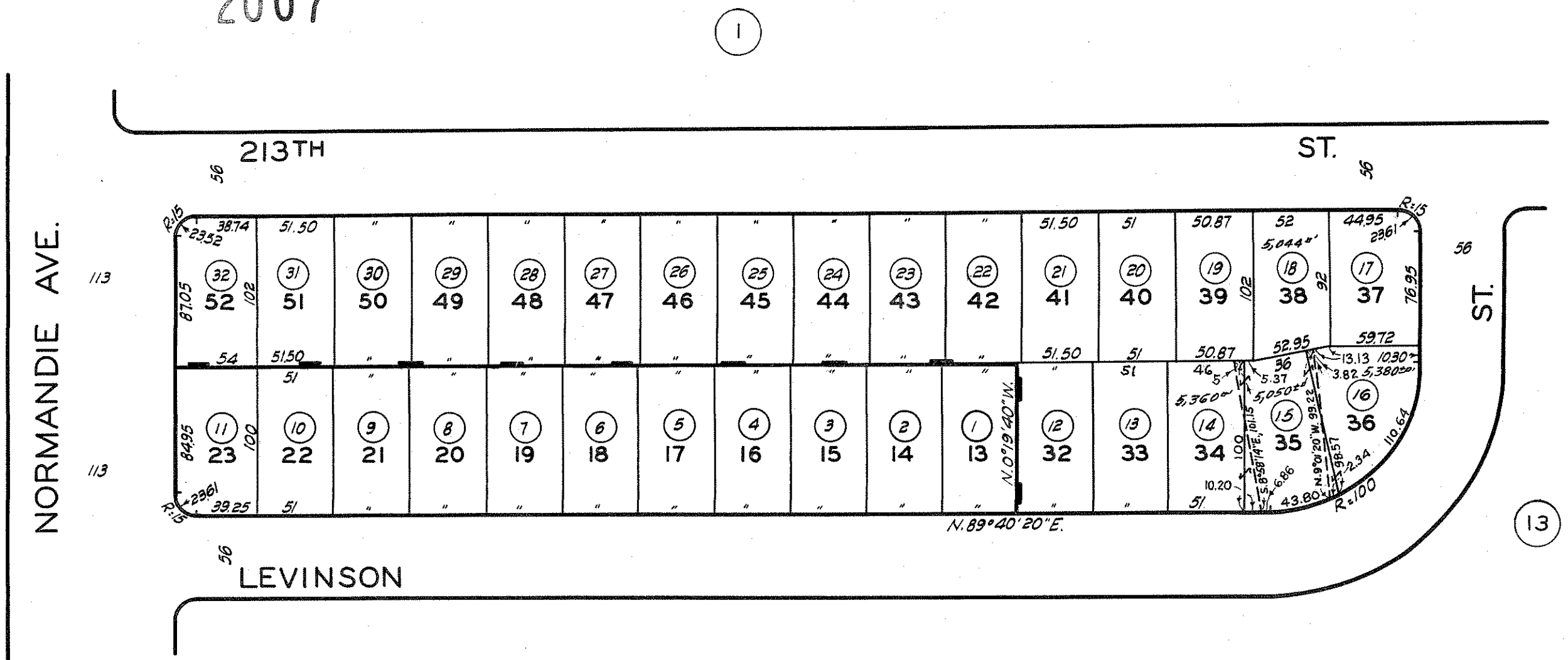
ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

7345 | 19

SCALE 1" = 80'

2007

REVISED
8-3-60
8-18-60
1-17-62
20070205



E-124

N

CODE
1519

TRACT NO. 24892
M.B. 641 - 56 - 57

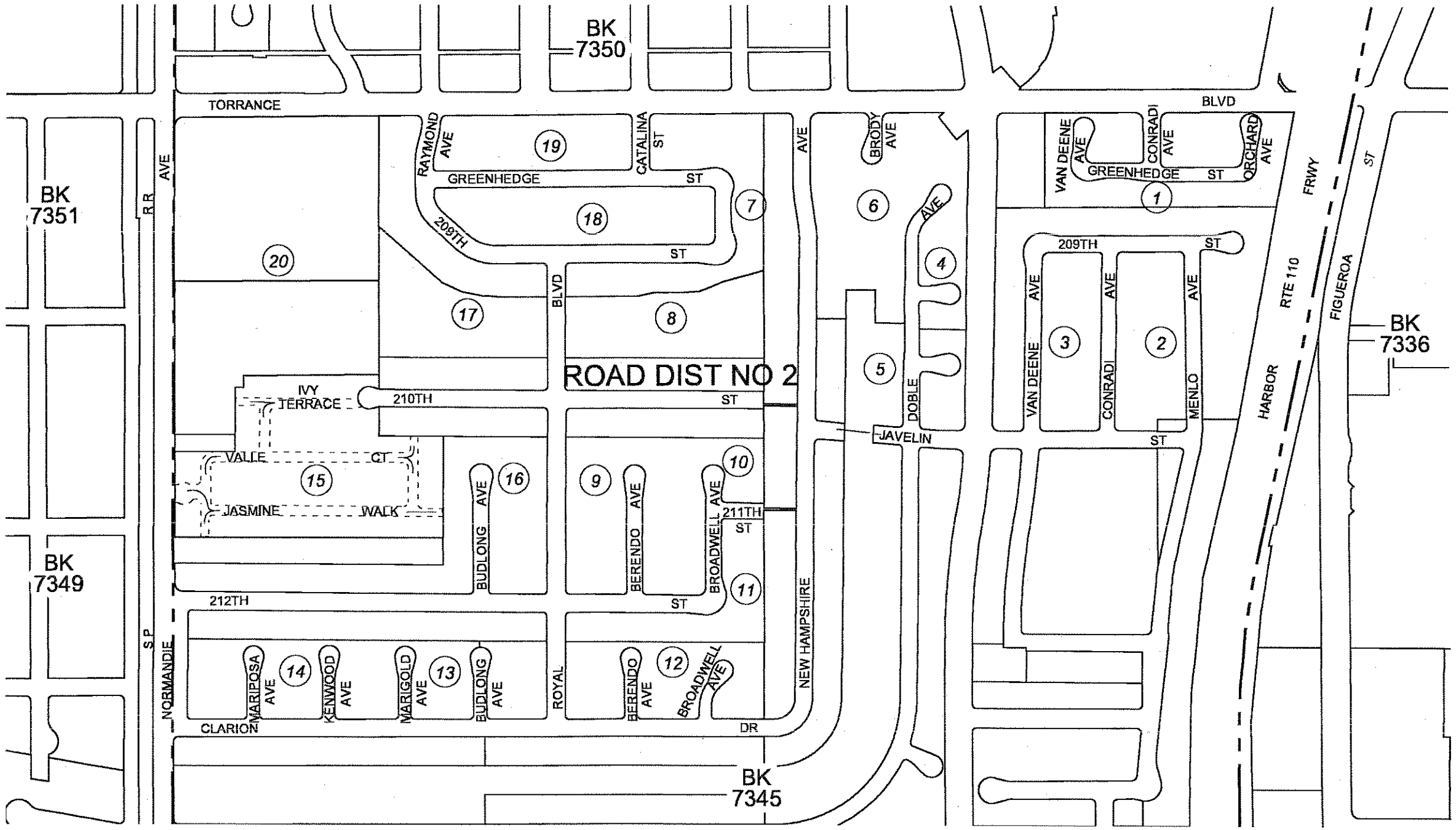
TRACT NO. 24895
M.B. 645 - 26 - 29

FOR PREV. ASSM'T. SEE:
7342 - 41

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

OFFICE OF THE ASSESSOR COUNTY OF LOS ANGELES COPYRIGHT © 2002	REVISED: 750506 2004062802							INDEX	7348	

2005



N

MAPPING AND GIS
SERVICES
SCALE 1"=400'

E-125

7348 | 1

SCALE 1" = 80'

2007

BK. 7350

REVISED
5-27-63
2-8-66
8-11-61
12-29-61
8-31-62
1-2-63
3-5-64

691023
20070221

TORRANCE BLVD.

HAMILTON AVE.

FRWY.

F.M. 20031

BK. 7336

VERMONT AVE.

E-126

4

N. 89°25'24" E.

VAN DEENE AVE.

CONRADI AVE.

ORCHARD AVE.

GREENHEDGE ST.

See Detail

HARBOR

209TH ST.

MENLO AVE.

1 0.46± Ac. =20,040±o'

2 0.79± Ac. =34,410±o'

12 Por.

3 1 5,790±o'

4 2

5 3 5,010±o'

6 4 4,990±o'

7 5 8,050±o'

8 6 7,390±o'

9 7 5,130±o'

10 8 5,040±o'

11 9 5,050±o'

12 10 5,020±o'

13 11 6,080±o'

14 12

15 13

16 14

17 15

18 16 5,080±o'

19 17 5,730±o'

20 18 5,140±o'

21 19 5,110±o'

22 20 5,050±o'

23 21 5,000±o'

24 22 5,660±o'

25 23 7,000±o'

26 24 5,620±o'

27 25 4,920±o'

28 26

29 27

30 28

31 29

32 30

33 31

34 32

35 33

36 34

37 35 5,130±o'

38 36 5,720±o'

39 37 5,860±o'

40 25 8,490±o'

41 26 5,800±o'

42 27 5,388 o'

43 28

44 29

45 30

46 31

47 32

48 33

49 34

50 35

51 36 5,540±o'

52 37 5,490±o'

53 38 7,850±o'

54 39 8,340±o'

DETAIL NO SCALE

S. 32° 20' 25" E. 58.75±

S. 34° 07' 39" E. 104.12

59.50

CODE 1519

TRACT NO. 6378
M.B. 68-1-2

TRACT NO. 24141
M.B. 623-40-42

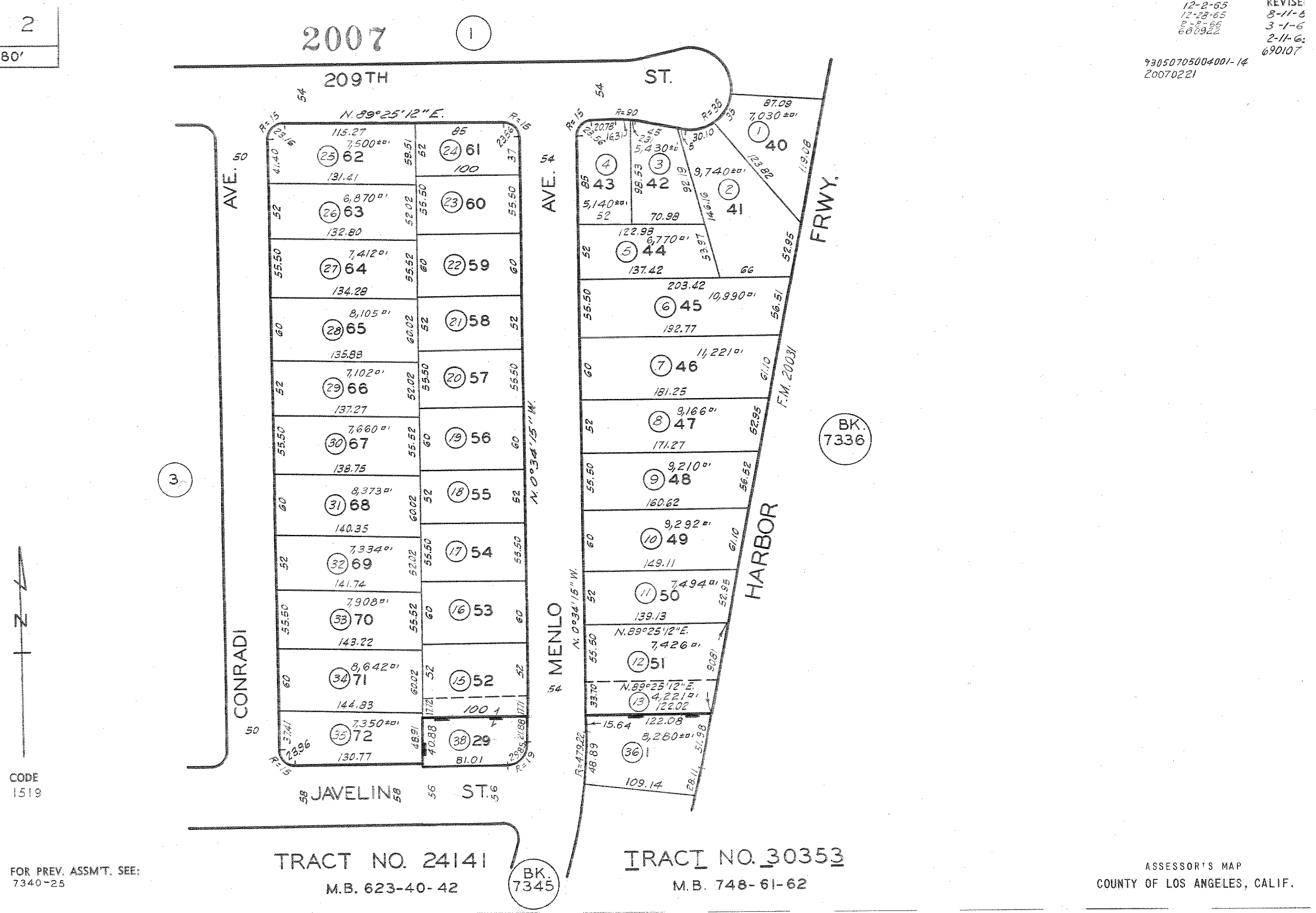
TRACT NO. 25310
M.B. 669-30-31

FOR PREV. ASSM'T. SEE:
7340-23

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

7348 | 2

SCALE 1" = 80'



12-2-65
12-28-65
2-8-66
660922

REVISED
8-11-6
3-1-6
2-11-6
690107

93050705004001-14
20070221

E-127

FOR PREV. ASSM'T. SEE:
7340-25

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

7348	3

SCALE 1" = 80'

2-8-66
REVISE
8-11-6
2-11-6
20070221

TRACT NO. 24141
M.B. 623-40-42

E-128

CODE
1519

FOR PREV. ASSM'T. SEE:
7340 - 26

BK. 7345

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

7348	4
SCALE 1" =	80

2007

20070221

N

VERMONT AVE.

TORRANCE BLVD.

DOBLE AVE.

JAVELIN ST.

MELISSA ST.

LINLEY ST.

BK. 7345

E-129

CODE
1519

TRACT NO. 25362 — M.B. 650-53-56
TRACT NO. 25289 — M.B. 657-12-13

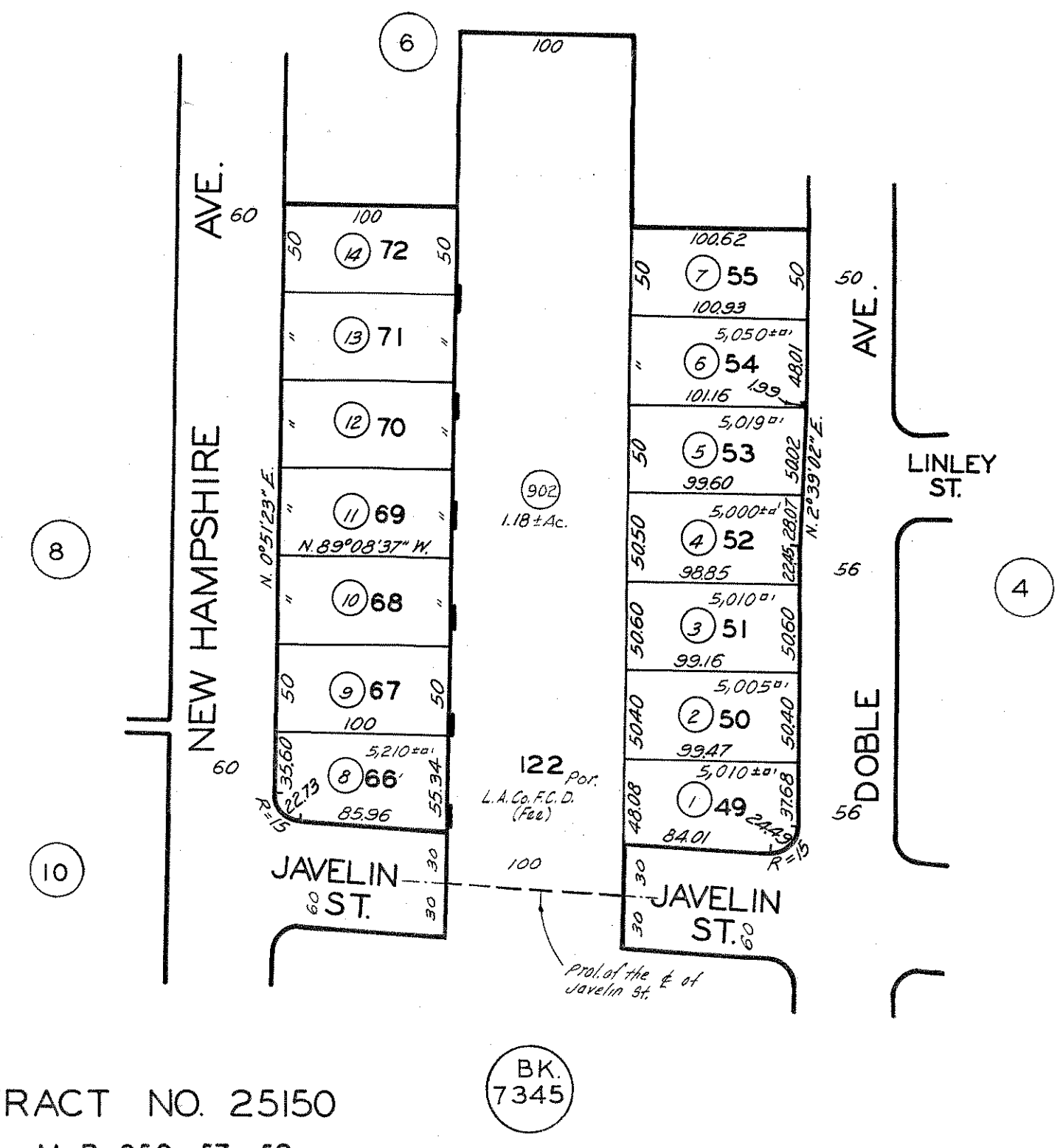
FOR PREV. ASSM'T SEE:
7340 - 30

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

7348	5
CALE 1" =	80'

2007

REVISED
11-25-60
12-6-60
10-3-61
4-7-62
9-24-64
680620
20070221
20070319520010 01-14



BK. 7345

TRACT NO. 25150
M. B. 650 - 57 - 59

TRACT NO. 25362
M.B. 650 - 53 - 56

CODE
1519

FOR PREV. ASSM'T. SEE:
7340 - 31

E-130

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

BOOK 31 PAGE 41

SCALE: 1"=50'

SHEET 1 OF 1 SHEET

PARCEL MAP NO. 2012

IN UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES,
STATE OF CALIFORNIA

BEING A DIVISION OF A PORTION OF LOT 22 OF TRACT Nº 3239 PER MAP FILED IN BOOK 37 PAGES 27 AND 28 OF MAPS, RECORDS OF LOS ANGELES COUNTY, CALIFORNIA

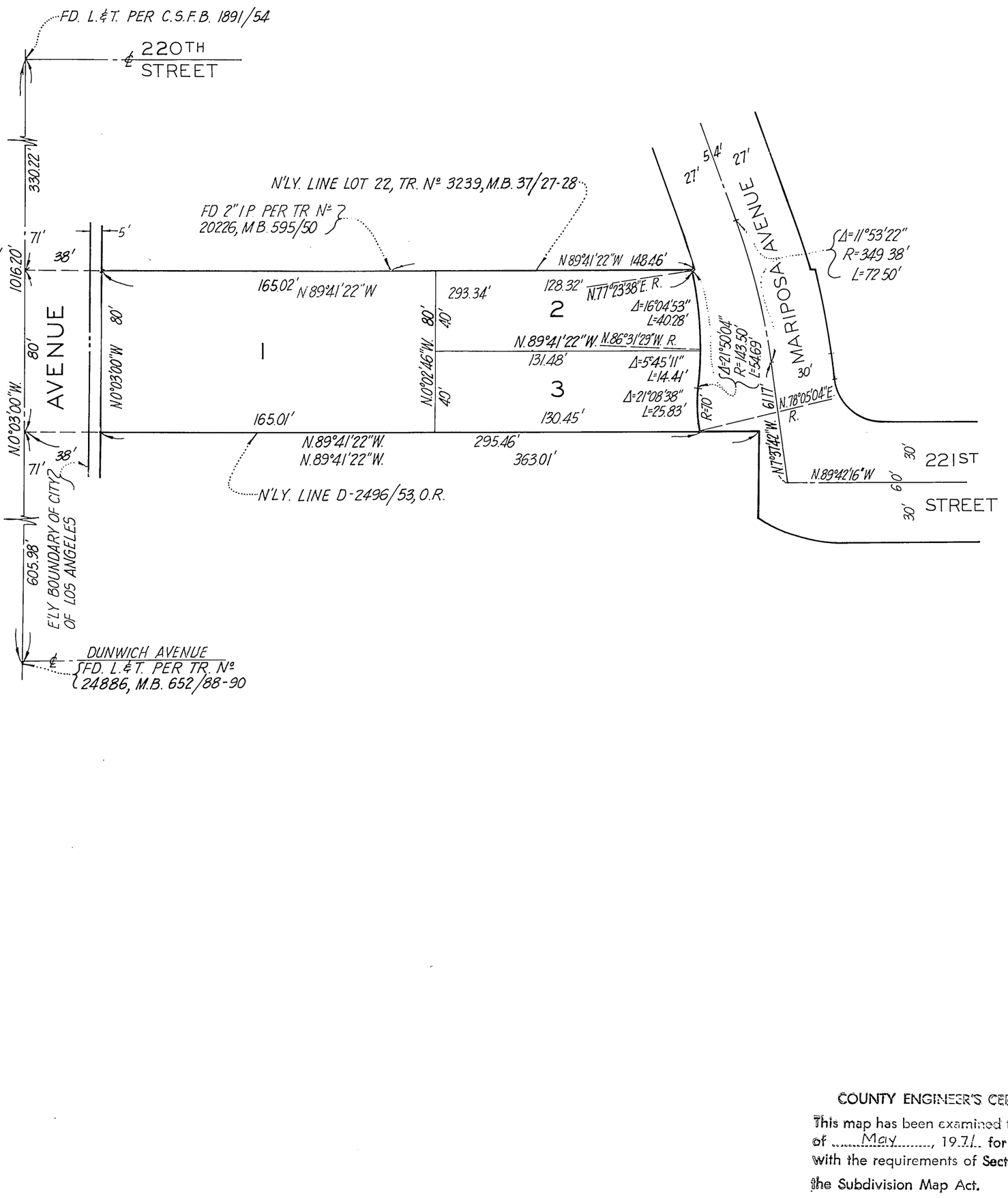
FILED
AT REQUEST OF
Russell Anderson
MAY 10, 1971
50 MIN. PAST 3 PM
IN BOOK 31
AT PAGE 41
OF PARCEL MAPS
LOS ANGELES COUNTY, CALIF.
COUNTY RECORDER
BY _____ Deputy
$ 5.00

NOTE: RECORD DATA IS FROM TRACT Nº 30582, M.B. 791/75-76 & TRACT Nº 29244, M.B. 734/38-39 & TR. Nº 24886, M.B. 652/88-90.

ENGINEERS CERTIFICATE

THIS MAP WAS PREPARED BY ME OR UNDER MY DIRECTION AND WAS COMPILED FROM RECORD DATA IN CONFORMANCE WITH THE REQUIREMENTS OF THE SUBDIVISION MAP ACT AT THE REQUEST OF MR. & MRS. RUSSELL ANDERSON ON NOVEMBER 23, 1970. I HEREBY CERTIFY THAT IT CONFORMS TO THE APPROVED TENTATIVE MAP AND THE CONDITIONS OF APPROVAL THEREOF; THAT ALL PROVISIONS OF APPLICABLE STATE LAW AND LOCAL ORDINANCES HAVE BEEN COMPLIED WITH

JACK H EDWARDS R.C.E. 11302
J H EDWARDS CO



COUNTY ENGINEER'S CERTIFICATE

This map has been examined this 10th day of May, 19 71 for conformance with the requirements of Section 11575 of the Subdivision Map Act.

Harvey T. Brandt
COUNTY ENGINEER
By Paul P. Shipley
Deputy

3141

3:50

SHEET 1 OF 1 SHEET

SCALE: 1" = 40'

PARCEL MAP Nº 2654

IN THE CITY OF WEST COVINA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, BEING A DIVISION OF LOTS 22, 23, 27, 30, 31, AND 32 OF TRACT NO. 30398, AS PER MAP FILED IN MAP BOOK 805 PAGES 48, 49 AND 50, RECORDS OF LOS ANGELES COUNTY, CALIFORNIA.

SURVEYOR'S CERTIFICATE:

THIS MAP WAS PREPARED BY ME OR UNDER MY DIRECTION AND WAS COMPILED FROM RECORD DATA IN CONFORMANCE WITH THE REQUIREMENTS OF THE SUBDIVISION MAP ACT AT THE REQUEST OF DONALD L. BREN COMPANY IN JANUARY 1972. I HEREBY CERTIFY THAT IT CONFORMS TO THE APPROVED TENTATIVE MAP AND THE CONDITIONS OF APPROVAL THEREOF; THAT ALL PROVISIONS OF APPLICABLE STATE LAW AND LOCAL ORDINANCES HAVE BEEN COMPLIED WITH.

Frank W Richardson

FRANK W. RICHARDSON L.S. 2921

CITY ENGINEER'S CERTIFICATE:

THIS MAP HAS BEEN EXAMINED THIS 1st DAY OF Feb., 1972 FOR CONFORMANCE WITH THE REQUIREMENTS OF SECTION 11575 OF THE SUBDIVISION MAP ACT.

John P. Liquitt

CITY ENGINEER

NOTE:

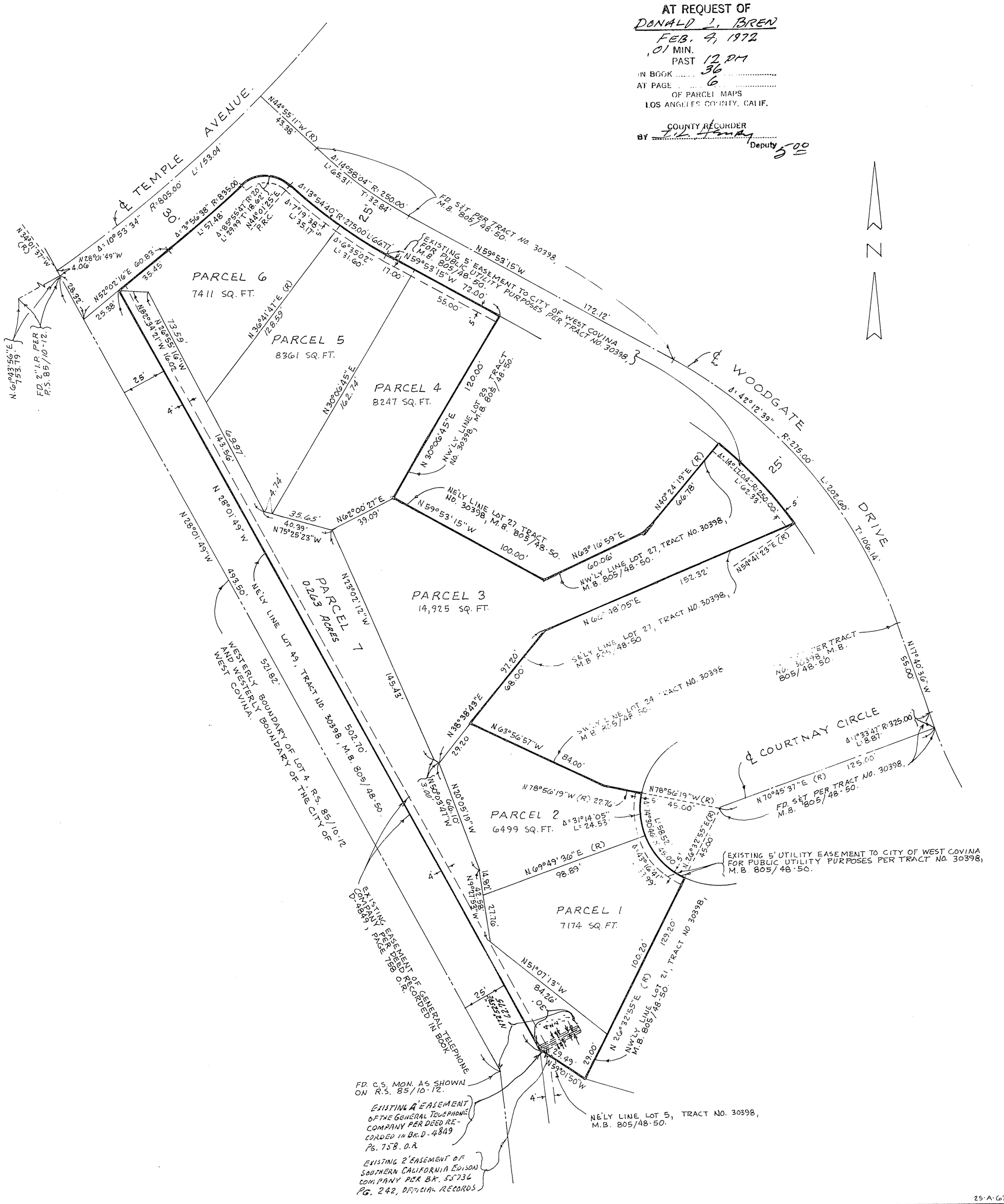
RECORD DATA WAS TAKEN FROM TRACT NO. 30398, M.B. 805/48-50, RECORDS OF LOS ANGELES COUNTY, CALIFORNIA.

BASIS OF BEARINGS:

N 28°01'49" W FOR THE NORTHEASTERLY LINE OF LOT 49, TRACT NO. 30398, M.B. 805/48-50, RECORDS OF LOS ANGELES COUNTY, CALIFORNIA.

FILED
AT REQUEST OF
DONALD L. BREN
FEB. 4, 1972
,01 MIN.
PAST 12 PM
IN BOOK 36
AT PAGE 6
OF PARCEL MAPS
LOS ANGELES COUNTY, CALIF.

COUNTY RECORDER
BY T. L. Hanby
Deputy
5.00



MAP 96 113

BOOK 96 PAGE 13

PARCEL MAP NO. 8449

SHEET 1 OF 2 SHEETS

78- 609978

IN UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

BEING A SUBDIVISION OF A PORTION OF LOT 21, OF TRACT NO. 3239, AS PER MAP RECORDED IN BOOK 37, PAGES 27 AND 28 OF MAPS IN THE OFFICE OF THE COUNTY RECORDER OF THE COUNTY OF LOS ANGELES

FILED
AT REQUEST OF
LAWSON PEDIGO
JUNE 6, 1978
1 MIN PAST 4PM
IN BOOK 96
AT PAGE 13
OF PARCEL MAPS
LOS ANGELES COUNTY, CALIF.
Registrar-Recorder
BY John Dacia
Deputy
#700

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF OR ARE INTERESTED IN THE LANDS INCLUDED WITHIN THE SUBDIVISION SHOWN ON THIS MAP WITHIN THE DISTINCTIVE BORDER LINES, AND WE CONSENT TO THE PREPARATION AND FILING OF SAID MAP AND SUBDIVISION, AND AS A DEDICATION TO PUBLIC USE, WHILE ALL OF NORMANDIE AVENUE WITHIN OR ADJACENT TO THIS SUBDIVISION REMAINS A PUBLIC STREET, WE HEREBY ABANDON ALL RIGHTS OF DIRECT VEHICULAR INGRESS AND EGRESS FROM ABUTTING PARCEL 1 TO THE SAID STREET. IF ANY PORTION OF SAID STREETS WITHIN OR ADJACENT TO THIS SUBDIVISION IS VACATED, SUCH VACATION TERMINATES THE ABOVE DEDICATION AS TO THE PART VACATED.

Lawson L. Pedigo
LAWSON L. PEDIGO (OWNER)

THIS MAP WAS PREPARED BY ME OR UNDER MY DIRECTION AND WAS COMPILED FROM RECORD DATA IN CONFORMANCE WITH THE REQUIREMENTS OF THE SUBDIVISION MAP ACT AT THE REQUEST OF LAWSON PEDIGO ON 9-30-77. I HEREBY STATE THAT THE PARCEL MAP PROCEDURES OF THE LOCAL AGENCY HAVE BEEN COMPLIED WITH AND THAT THIS PARCEL MAP CONFORMS TO THE APPROVED TENTATIVE MAP AND THE CONDITIONS OF APPROVAL THEREOF WHICH WERE REQUIRED TO BE FULFILLED PRIOR TO THE FILING OF THE PARCEL MAP.

Martin M Denn
MARTIN M. DENN R. C. E. 7081

RECORD DATA IS FROM TRACT NO. 3239 M.B. 37-27/28

FOR PIPELINE PURPOSES

THE SIGNATURES OF DOMINGUEZ WATER COMPANY A BLANKET EASEMENT HOLDER, AS DISCLOSED BY DEED RECORDED IN BOOK 1515 PAGE 265 OF OFFICIAL RECORDS OF LOS ANGELES COUNTY, TITLE INSURANCE AND TRUST COMPANY A BLANKET EASEMENT HOLDER, AS DISCLOSED BY DEED RECORDED IN BOOK 7424 PAGE 256 OF OFFICIAL RECORDS OF LOS ANGELES COUNTY, AND SOUTHERN CALIFORNIA EDISON COMPANY A CORPORATION A PUBLIC UTILITIES EASEMENT HOLDER AS DISCLOSED BY DEED RECORDED IN BOOK 51921 PAGE 1 OF OFFICIAL RECORDS OF LOS ANGELES COUNTY HAVE BEEN OMITTED UNDER THE PROVISIONS OF SECTION 66436, SUBSECTION (E)(1) OF THE SUBDIVISION MAP ACT, THEIR INTEREST IS SUCH THAT IT CANNOT RIPEN INTO A FEE TITLE AND SAID SIGNATURES ARE NOT REQUIRED BY THE LOCAL AGENCY.

FOR PUBLIC UTILITY PURPOSES

● ● ● INDICATES THE BOUNDARY OF THE LAND BEING SUBDIVIDED BY THIS MAP

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS
ON THIS 2nd DAY OF March, 1978 BEFORE ME the undersigned A NOTARY PUBLIC IN AND FOR SAID STATE, PERSONALLY APPEARED LAWSON L. PEDIGO KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME.

OFFICIAL SEAL
CAROLYN E. WISE
NOTARY PUBLIC - CALIFORNIA
LOS ANGELES COUNTY
My Commission Expires Jan 7, 1979

Carolyn E Wise
NOTARY PUBLIC

CERTIFICATE OF ACCEPTANCE

THIS IS TO CERTIFY THAT THE INTEREST IN REAL PROPERTY CONVEYED BY THE WITHIN DEDICATION OR GRANT TO THE COUNTY OF LOS ANGELES, A GOVERNMENTAL AGENCY, IS HEREBY ACCEPTED UNDER AUTHORITY OF A RESOLUTION ADOPTED BY THE BOARD OF SUPERVISORS OF SAID COUNTY ON JULY 27, 1965 AND THE GRANTEE CONSENTS TO THE RECORDATION THEREOF BY ITS AUTHORIZED OFFICER.

DATE: June 6, 1978
BY: George J. Franceschini
GEORGE J. FRANCESCHINI
ASSISTANT CHIEF DEPUTY

COUNTY ENGINEER'S CERTIFICATE

THIS MAP CONFORMS WITH THE REQUIREMENTS OF THE SUBDIVISION MAP ACT AND LOCAL ORDINANCE.

DATE: JUN 6 1978
COUNTY ENGINEER
BY: Edwin M. Saiki
DEPUTY

28B1

10/14

SCALE: 1" = 40'

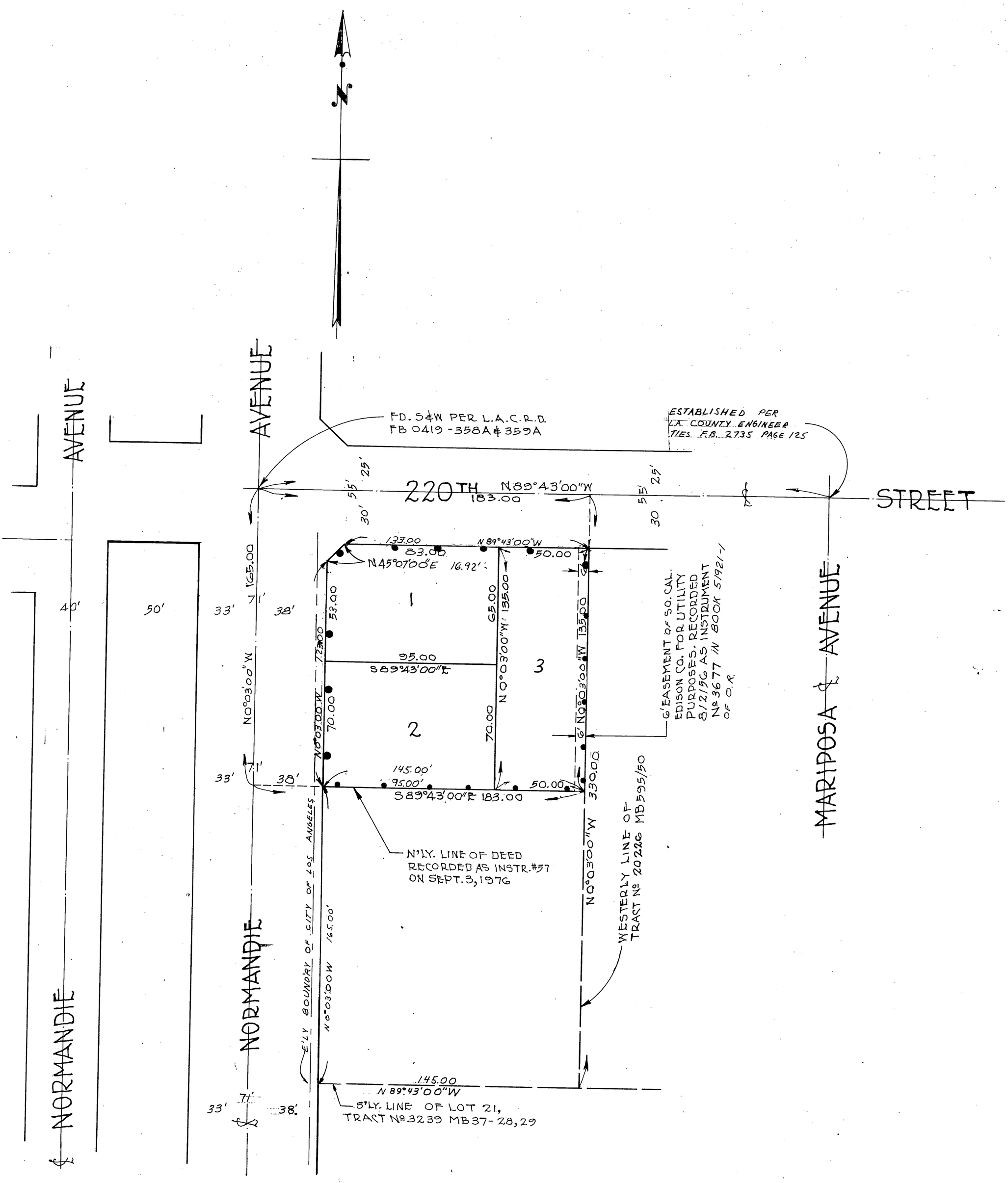
BOOK 96 PAGE 14

SHEET 2 OF 2 SHEETS

PARCEL MAP NO. 8449

IN UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

FILED WITH LOS ANGELES COUNTY RECORDER
JUN 6 1978



REF: 13,777

owner
JUN 3 1919
35 11 AM
37 27
Maps

E.E. Sallady
S-00

June 3 1919

TRACT No 3239

Sheet 1

Being a subdivision of a portion of the Victoria D. de Carson 2463.79 Acre allotment in the partition of the Rancho San Pedro as per Superior Court Case No 3284 Los Angeles County, California.

Scale: 1 in. = 300 ft.

Note The basis of bearings on this map is S0°-03'E, the bearing of Normandie Ave as per Tract No 3308, M.B. 36-32.

found 2" pipe
589°-53'-30"E Old fence line
N.W. Cor 2463.79 Ac allotment of Victoria D. de Carson S.C. Case 3284
S0°-03'E 2166.18
Set 2x2
See Sheet 2.
Carson St. N89°-46'-45"E Found 3x3
N.E. Cor. Lot 118 Blk 2 Tract No 3308 MB 36-32
Found 2" pipe
1175.38
Set 2" pipe
Carson Street
1295'
Not a part of this Tract
South line Deed 6195-228, 589°-53'-30"E 1295
N89°-46'-45"E 1289.64
665.36'
639.64'
Lot A 639.64
Lot B 300'
Set 2" pipe
Found 2x2
See Sheet 2
Set 2x2
Found 2" pipe
Main St
Found 3" pipe N.W. Cor Lot 1144 Tract No 2982 M.B. 35-31
Set 2" pipe
589°-53'-30"E 665.36
793.32
798.62
787.43
192.43
50°-03'E
30.36
Avenue
218th St
219th St
220th St
221st St
222nd St
223rd St
Normandie
S0°-03'E
N89°-43'W
Amelia Street
Wilmington Street
Not a part of this Tract
2853.81
P.E. Ry
City of Los Angeles
Boundary
East
1490.30
S0°-03'E
Meyler
Vermont Avenue
4560.13
S0°-03'E
Set 2" pipe
Found 2x2
Set 2" pipe
230.89
111.38
S.E. Cor Lot 1 Tract No 2253 MB 21-163
N.W. Cor Lot 1 Tract No 1818 MB 23-39
Found 2x2 Log
Tomlinson P.E. Road
Ocean 228TH E. 71-74 N89°-43'W 2398.32 Street ST.
N.W. Cor Lot 4 E.N. McDonald's Sub. M.R. 52-3
19.8

TRACT No 3239

Sheet 2

I, T.P. Cooper, hereby certify that I am a Civil Engineer, and that this map consisting of 2 sheets correctly represents a survey made under my supervision March 1919, and all of the monuments shown hereon actually exist and their positions are correctly shown.

T.P. Cooper

Subscribed and sworn to before me this 3rd day of May 1919

F.H. Greene

Notary Public in and for
County of Los Angeles
State of California

We [illegible] hereby certify that [illegible] of the land included within the subdivision shown on this map within the colored border line, and [illegible] whose consent is necessary to pass a clear title to said land, consent to the making of said map and subdivision and the dedication for public use the Streets and Avenues as shown on said map.

Carson Estate Company
by J M Carson President
by [illegible] Secretary

Security Trust & Savings Bank
by W H Holliman Vice-President
by [illegible] Assistant Secretary

Title Insurance and Trust Company
by William H. Allen Jr. President
by W B Brown Asst Secretary

Los Angeles Trust & Savings Bank
by [illegible] President
by [illegible] Secretary

[illegible]

Katie E. Carson

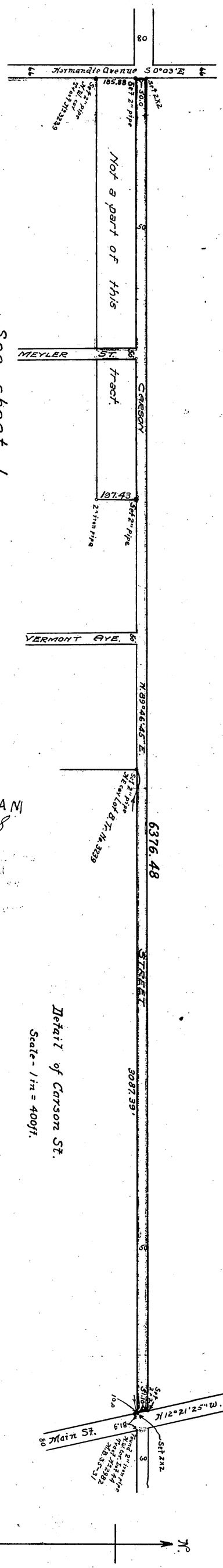
owner
JUN 3 1919
35 11 AM
37 28
Maps

E E Sallady

2 May 19
Eltinge

[illegible] to Inst 2
[illegible]

June 5, 1919



Detail of Carson St.
Scale - 1 in = 400ft.

STATE OF CALIFORNIA } ss
COUNTY OF LOS ANGELES }

On this 12th day of May one thousand nine hundred and nineteen before me F. E. [illegible] a Notary Public in and for Los Angeles County, State of California residing therein duly commissioned and sworn, personally appeared J.M. Carson and Katie E. Carson known to me to be the person s whose name s are subscribed to the within instrument, and acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate above written.

[illegible] LOS ANGELES COUNTY, STATE OF CALIFORNIA

STATE OF CALIFORNIA }
COUNTY OF LOS ANGELES }

On this 3rd day of May one thousand nine hundred and Nineteen before me F.H. Greene a Notary Public in and for the County of Los Angeles, State of California, residing therein duly commissioned and sworn, personally appeared William H. Allen Jr. known to me to be the President and W. B. Brown known to me to be the Asst Secretary of the Title Insurance and Trust Company the Corporation that executed the within instrument, known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate above written.

F.H. Greene
NOTARY PUBLIC in and for LOS ANGELES COUNTY, STATE OF CALIFORNIA

STATE OF CALIFORNIA }
COUNTY OF LOS ANGELES }

On this 12th day of May one thousand nine hundred and nineteen before me Mary I. South a Notary Public in and for said County of Los Angeles, State of California, residing therein, duly commissioned and sworn, personally appeared W. H. Holliman known to me to be the Vice President and F. H. Griffin known to me to be the Asst Secretary of the Security Trust & Savings Bank the Corporation that executed the within instrument, known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate above written.

Mary I. South
NOTARY PUBLIC in and for LOS ANGELES COUNTY, STATE OF CALIFORNIA

STATE OF CALIFORNIA }
COUNTY OF LOS ANGELES }

On this 2nd day of [illegible] one thousand nine hundred and [illegible] before me [illegible] a Notary Public in and for said County of Los Angeles, State of California, residing therein, duly commissioned and sworn personally appeared [illegible] known to me to be the President, and [illegible] known to me to be the Secretary of [illegible] the Corporation that executed the within instrument known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate above written.

[illegible]
NOTARY PUBLIC in and for LOS ANGELES COUNTY, STATE OF CALIFORNIA

2nd [illegible]
[illegible]
L. C. Kinsel
Cashier
Los Angeles Trust & Savings Bank
[illegible] known to me to be the person who executed the within instrument on behalf of the corporation therein named and acknowledged to me that such corporation executed the same.
IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year in this certificate above written.
[illegible]
NOTARY PUBLIC in and for LOS ANGELES COUNTY, STATE OF CALIFORNIA

Tract No. 3612

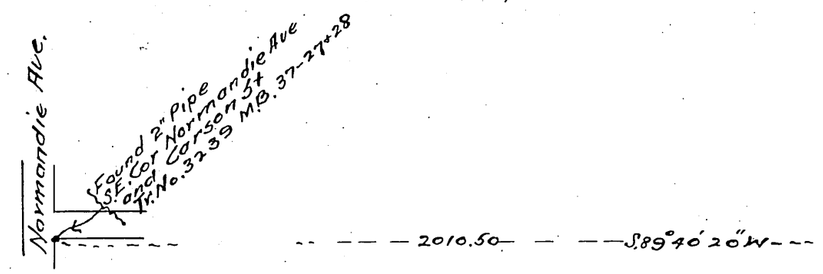
SHEET 1

BEING A SUBDIVISION OF A PORTION OF
THE
VICTORIA DOMINGUEZ de CARSON 2463.79 ACRE ALLOTMENT
IN THE
RANCHO SAN PEDRO
as shown on map filed in case No 3284 Superior Court of
Los Angeles County, California.

Scale 1"= 300 ft.

Feby. 11th 1920. Fremont Ackerman CE.

Basis of bearings on this map is taken from the bearing N12°38'W. on Main St. as per map of Tr. No. 2982 M.B. 35-31.



I, Fremont Ackerman hereby certify that I am a Civil Engineer, and that this map, consisting of 2 sheets, correctly represents a survey made under my supervision from Dec. 19th 19 to Feby 26th 1920 and that all of the monuments, shown hereon, actually exist and their positions are correctly shown.

Fremont Ackerman

Subscribed and sworn to before me this 26th day of Feb. 1920.

F.H. Greene
Notary Public in and for Los Angeles Co. State of Cal.

Owners Certificate

We hereby certify that we are the owners of, or interested in, the land included within the subdivision shown on the annexed map, and that we are the only persons whose consent is necessary to pass a clear title to said land, and we consent to the making of said map and subdivision as shown within the colored border lines, and hereby dedicate to the public use all Streets and Avenues shown on said Map within said subdivision.

Title Insurance and Trust Company.
By O.F. Brant Pres.
By O.P. Clark Secy.

State of California } S.S.
County of Los Angeles }

On this 1st day of Mar. in the year one thousand nine hundred and twenty before F.H. Greene Notary Public in and for said County of Los Angeles, State of California, residing therein, duly commissioned and sworn, personally appeared, O.F. Brant known to me to be the Vice President and O.P. Clark known to me to be the Secretary of the Title Insurance and Trust Company the corporation that executed the within instrument and known to me to be the persons whose names are subscribed thereto and acknowledged to me that such corporation executed the same.

In Witness Where of, I have unto set my hand and affixed my official Seal the day and year in this Certificate first Above Written.

F.H. Greene
Notary Public in and for Los Angeles Co. State of Cal.

Mar. 1, 1920

H. M. Jones

MAR 1 1920
44 MIN PAST 11 A.M.
40
5
Maps

J. B. Roberts, Deputy
5.00

Tract No 3612.
Tract No 3612.

McClellan

Mar. 1, 1920

M. M. Beatty

Tract No. 3612

SHEET 2

Title Insurance and Trust Company-Owner.

MAR 1 1920
44 MIN. PAST 11 A.M.
40
&
Maps

Free

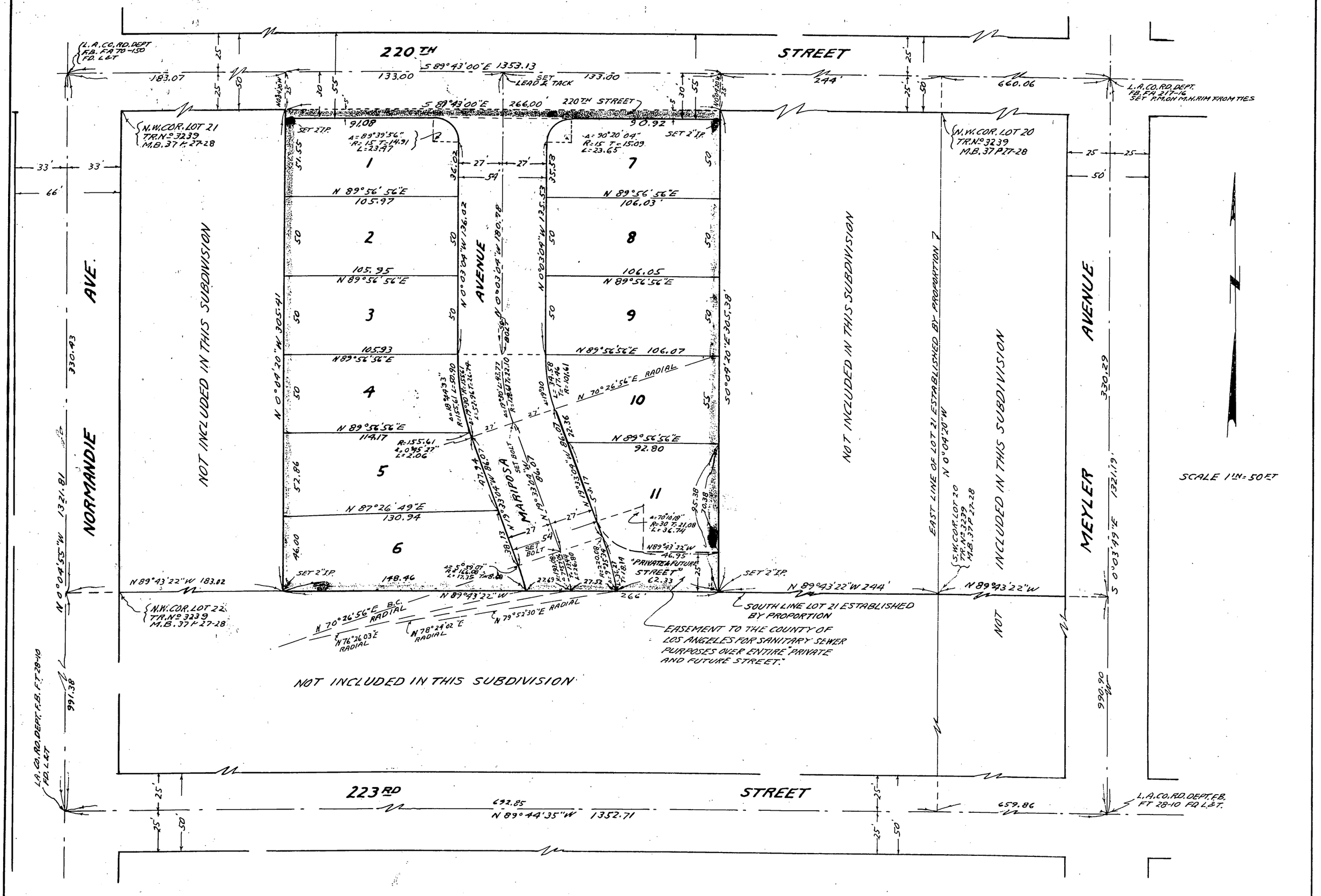
595-50

SHEET 1 OF 1 SHEET

TRACT Nº 20226

LOCATED IN UNINCORPORATED TERRITORY IN LOS ANGELES COUNTY STATE OF CALIFORNIA
CONSISTING OF ONE SHEET

BEING A SUBDIVISION OF A PORTION OF LOT 21 OF TRACT Nº 3239 AS SHOWN ON MAP RECORDED IN BOOK 37 PAGES 27&28 OF MAPS, RECORDS OF LOS ANGELES COUNTY, CALIFORNIA.



BEARINGS SHOWN ON THIS MAP ARE BASED ON THE BEARING OF 220TH STREET, SHOWN AS AMELIA STREET, N 89°43'W, AS SHOWN ON MAP OF TRACT Nº 3239 M.B. 37 P. 27-28.

MONUMENTS SET CONSIST OF 2" IRON PIPE 30" LONG WITH PLUG AND L.S. TAG 1339. SET FLUSH.

I, R. V. PEARSALL HEREBY CERTIFY THAT I AM A LICENSED SURVEYOR OF THE STATE OF CALIFORNIA: THAT THIS MAP CONSISTING OF ONE SHEET, CORRECTLY REPRESENTS A TRUE AND COMPLETE SURVEY MADE UNDER MY SUPERVISION IN NOVEMBER 1955; THAT THE MONUMENTS OF THE CHARACTER AND LOCATIONS SHOWN HEREON ARE IN PLACE OR WILL BE IN PLACE NOT LATER THAN DECEMBER 1956; THAT SAID MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE READILY RETRACED AND THAT THE NOTES TO ALL CENTER LINE MONUMENTS SHOWN HEREON AS SET BY ME WILL BE ON FILE IN THE OFFICE OF THE COUNTY ENGINEER NOT LATER THAN DECEMBER 1956.

R. V. Pearsall
L.S. 1339

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF OR ARE INTERESTED IN THE LANDS INCLUDED WITHIN THE SUBDIVISION SHOWN ON THIS MAP WITHIN THE COLORED BORDER LINES, AND WE CONSENT TO THE PREPARATION AND RECORDATION OF SAID MAP AND SUBDIVISION AND HEREBY DEDICATE TO THE PUBLIC USE THE STREET AND AVENUE SHOWN SAID MAP WITHIN THE COLORED BORDER LINE, AND ALSO GRANT TO THE COUNTY OF LOS ANGELES THE EASEMENT FOR SANITARY SEWER PURPOSES SO DESIGNATED ON SAID MAP AND ALL USES INCIDENT THERETO, INCLUDING THE RIGHT TO MAKE CONNECTIONS THEREWITH FROM ANY ADJOINING PROPERTIES. WE FURTHER CERTIFY THAT EXCEPT AS SHOWN ON A COPY OF THIS MAP ON FILE IN THE OFFICE OF THE COUNTY ROAD COMMISSIONER, WE KNOW OF NO EASEMENT OR STRUCTURE EXISTING WITHIN THE EASEMENTS HEREBY OFFERED FOR DEDICATION TO THE PUBLIC OTHER THAN PUBLICLY OWNED WATER LINES, SEWERS, OR STORM DRAINS; THAT WE WILL GRANT NO RIGHT OR INTEREST WITHIN THE BOUNDARIES OF SAID EASEMENTS OFFERED TO THE PUBLIC, EXCEPT WHERE SUCH RIGHT OR INTEREST IS EXPRESSLY MADE SUBJECT TO SAID EASEMENTS. WE HEREBY OFFER TO THE PUBLIC USE THE PRIVATE AND FUTURE STREET SHOWN ON SAID MAP WHICH SHALL HAVE CEASED TO REMAIN CLOSED OR POSTED AND SHALL HAVE BEEN OPENED TO THE PUBLIC TRAVEL FOR A PERIOD OF THREE MONTHS OR MORE, OR WHICH THE GOVERNING BODY SHALL DETERMINE TO BE NECESSARY FOR PUBLIC USE, SUCH OFFER TO REMAIN OPEN UNDER PROVISIONS OF SECTION 11616 OF THE SUBDIVISION MAP ACT.

Joseph C. Spurgeon
Beatrice T. Spurgeon

STATE OF CALIFORNIA } SS
COUNTY OF LOS ANGELES }

ON THIS 6th DAY OF FEBRUARY 1956, BEFORE ME H.O. CARRIERE, A NOTARY PUBLIC IN AND FOR SAID COUNTY, PERSONALLY APPEARED JOSEPH C. SPURGEON AND BEATRICE T SPURGEON KNOWN TO ME TO BE THE PERSONS WHOSE NAMES ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT THEY EXECUTED THE SAME.

Harold O. Carriere
NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE
MY COMMISSION EXPIRES SEPTEMBER 27, 1958

STATE OF CALIFORNIA } SS
COUNTY OF LOS ANGELES }

ON THIS 26th DAY OF JANUARY 1956 BEFORE ME MARION G. PERRIGO A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, PERSONALLY APPEARED J. P BRADLEY KNOWN TO ME TO BE PRESIDENT AND FLORENCE SHEAFOR KNOWN TO ME TO BE SECRETARY OF THE DOMINGUEZ WATER CORPORATION, THE CORPORATION THAT EXECUTED THE WITHIN INSTRUMENT, AND KNOWN TO ME TO BE THE PERSONS WHO EXECUTED THE WITHIN INSTRUMENT ON BEHALF OF DOMINGUEZ WATER CORPORATION AND ACKNOWLEDGED TO ME THAT SUCH CORPORATION EXECUTED THE SAME.
WITNESS MY HAND AND SEAL.

Marion G. Perrigo
NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE.
MY COMMISSION EXPIRES JUNE 17, 1959

DOMINGUEZ WATER CORPORATION HEREBY CERTIFIES THAT IT IS INTERESTED IN THE LAND INCLUDED WITHIN THE SUBDIVISION SHOWN ON THE ANNEXED MAP BY VIRTUE OF EASEMENTS GRANTED TO IT BY DEED RECORDED IN BOOK 39383, PAGE 236 OF OFFICIAL RECORDS OF LOS ANGELES COUNTY AND BY DEED TO DOMINGUEZ WATER COMPANY, ITS PREDECESSOR IN INTEREST, RECORDED IN BOOK 1515, PAGE 265 OFFICIAL RECORDS, COUNTY OF LOS ANGELES, AND SAID DOMINGUEZ WATER CORPORATION HEREBY CONSENTS TO THE MAKING AND RECORDATION OF SAID MAP AND SUBDIVISION AS SHOWN WITHIN THE COLORED BORDER LINES AND HEREBY DEDICATES TO THE PUBLIC ITS SAID EASEMENTS WITHIN THE STREET, AVENUE AND PRIVATE AND FUTURE STREET SHOWN ON SAID MAP WITHIN SAID SUBDIVISION, EXCEPT SAID DOMINGUEZ WATER CORPORATION RETAINS SUCH OF SAID EASEMENTS AS ARE NECESSARY FOR LAYING, MAINTAINING, OPERATING, REPAIRING AND REPLACING THE WATER MAINS, WATER PIPES AND WATER SERVICE CONNECTIONS OF SAID DOMINGUEZ WATER CORPORATION AND OR MAKING EXTENSIONS THERTO; PROVIDED, HOWEVER THAT THE EASEMENTS HEREBY RETAINED BY SAID DOMINGUEZ WATER CORPORATION ARE SUBORDINATE TO THE EASEMENTS FOR STREET, AVENUE AND PRIVATE AND FUTURE STREET AS OFFERED FOR DEDICATION AS SHOWN ON SAID MAP; THAT THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA HAS GRANTED TO SAID DOMINGUEZ WATER CORPORATION A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO SERVE AND DISTRIBUTE WATER FOR DOMESTIC PURPOSES TO THE LAND INCLUDED WITHIN SAID SUBDIVISION; THAT THE SUBDIVIDER HAS FILED WITH DOMINGUEZ WATER CORPORATION AN APPLICATION FOR A WATER MAIN EXTENSION TO SERVE THE LAND WITHIN SAID SUBDIVISION AND HAS AGREED TO DEPOSIT WITH DOMINGUEZ WATER CORPORATION, PURSUANT TO RULE AND REGULATION Nº 20 OF THE TARIFF OF SAID DOMINGUEZ WATER CORPORATION, THE ESTIMATED COST OF CONSTRUCTING A WATER DISTRIBUTION SYSTEM TO SERVE THE LAND WITHIN SAID SUBDIVISION WITH STANDARDS OF DOMINGUEZ WATER CORPORATION, AND WHEN COMPLETED DOMINGUEZ WATER CORPORATION WILL SERVE AND DISTRIBUTE WATER TO ALL PARCELS OF LAND WITHIN SAID SUBDIVISION, PURSUANT TO ITS TARIFF ON FILE WITH SAID PUBLIC UTILITIES COMMISSION. SAID DOMINGUEZ WATER CORPORATION FURTHER CERTIFIES THAT, EXCEPT AS SHOWN ON COPY OF SAID MAP ON FILE IN THE OFFICE OF THE COUNTY ROAD COMMISSIONER, IT KNOWS OF NO EASEMENTS OR STRUCTURE EXISTING WITHIN THE EASEMENTS HEREBY OFFERED FOR DEDICATION TO THE PUBLIC OTHER THAN WATER MAINS OWNED BY SAID DOMINGUEZ WATER CORPORATION AND PUBLICLY OWNED SEWERS AND STORM DRAINS; THAT SAID DOMINGUEZ WATER CORPORATION WILL GRANT NO RIGHT OR INTEREST WITHIN THE BOUNDARIES OF SAID EASEMENTS OFFERED TO THE PUBLIC EXCEPT WHERE SUCH RIGHT OR INTEREST IS EXPRESSLY MADE SUBJECT TO SAID EASEMENTS

DOMINGUEZ WATER CORPORATION
J. P. Bradley, PRESIDENT
Florence Sheafor SECRETARY

In re Acceptance of Highways, Public Ways, etc., In Tract Nº 20226

On motion approved by the Board of Supervisors, it is ordered that the map of Tract Nº 20226 be and the same is hereby approved; that the bond filed in the office of this Board as security for the payment of taxes and special assessments collected as taxes be and the same is also hereby approved in the sum of $ 200.00 which is hereby fixed as the required amount of said bond, and that all streets, highways, other public ways and easements shown upon said map and therein offered for dedication be and the same are hereby accepted on behalf of the public.

Also the "Private and Future Street" shown on said map and herein offered for dedication is hereby rejected under provisions of Section 11616 of the Subdivision Map Act.

The Clerk of this Board is directed to endorse on the face of said map a copy of this order authenticated by the seal of the Board of Supervisors.

I hereby certify that the foregoing order was adopted by the Board of Supervisors at a meeting of said Board held April 24, 1956

Harold J. Ostly, County Clerk and Ex-officio Clerk of the Board of Supervisors of the County of Los Angeles, State of California.

By Daisy Rotmon Deputy

I hereby certify that I have examined this map; that it conforms substantially to the tentative map and all approved alterations thereof; that all provisions of applicable State law and local subdivision ordinances have been complied with; and that I am satisfied that this map is technically correct.

Dated: April 25, 1956

JOHN A. LAMBIE
COUNTY ENGINEER
By Paul R. Tourtelot Deputy

April 25 1956
46 3 PM.
595
50

D Walters
5.00

Sheet 1 of 3 Sheets

TRACT NO. 24886

IN UNINCORPORATED TERRITORY OF LOS ANGELES COUNTY
CALIFORNIA

FEB. 17, 1960
4b 3 P.M.
652
88

Being a Subdivision of a Portion of Lots 31 & 32 and Being a Drainage Easement of a Portion of Lots 33 & 30, Tract Nº 3239 as shown on Map recorded in Book 37 Page 27 & 28 of Maps, In the Office of the County Recorder of said County.

June, 1959 — Western Engineering And Construction Company — Scale: 1"=50'

$9.00

We hereby certify that we are the owners of or are interested in the lands included within the subdivision shown on this map within the colored border lines, and we consent to the preparation and recordation of said map and subdivision and hereby dedicate to the public use all streets, highways and other public ways shown on said map and also grant to the County of Los Angeles the easement for drainage purposes so designated on said map and all uses incident thereto, including the right to make connections therewith from any adjoining properties.
We futher certify that, except as shown ona copy of this map on file in the office of the County Road Commissioner, we know of no easement or structure existing within the easements hereby offered for dedications to the public, other than publicly owned water lines, sewers, or storm drains; that we will grant no right or interest within the boundaries of said easements offered to the public, except where such right or interest is expressly made subject to the said easements.

HIGHGRADE LTD. (Limited Partnership) BY HIGHGRADE BUILDERS INC. (General Partner)
President Everett Lowell
Secretary Gertrude Smith

~~We hereby grant and dedicate to the County of Los Angeles for public use all sanitary sewers and appurtenant structures within (and without) said subdivision constructed as part of the improvement thereof.~~

As a dedication to public use, while all of Normandie Avenue within this subdivision remains a public highway for such time only, we hereby abandon all easements of vehicular ingress and egress to the said Normandie Avenue so that owners of lots abutting this highway during such time will have no rights of vehicular access whatever in the highway as such except the general easement of travel which belongs to the whole public. If any change of alignment orwidth of such highway results in the vacation of any part thereof within this subdivision, such vacation terminates the above dedication as to the part vacated.

State of California } SS
County of Los Angeles }

On this 30th day of June 1959 before me, RAYMOND J. ARNEY JR. a Notary Public in and for said County and State, personally appeared EVERETT LOWELL, known to me to be the President, and GERTRUDE SMITH known to me to be the Secretary of HIGHGRADE BUILDERS INC., the Corporation that executed the within Instrument, known to me to be the persons who executed the within Instrument on behalf of said Corporation, said corporation being known to me to be the general partner of HIGHGRADE LTD., the partnership that executed the within instrument, and acknowledged to me that such corporation executed the same as such partner and that such partnership executed the same.

WITNESS my hand and official seal.

Raymond J. Arney Jr.
Raymond J. Arney, Jr.
My Commission Expires June 2, 1963
Notary Public in and for said County and State.

I hereby certify that I am a Licensed Surveyor of the State of California; that this map, consisting of 2 sheets, correctly represents a true and complete survey made under my supervision in June, 1959 that the monuments of the character and location shown hereon will be in place within twenty-four months from recording date of this map; that said monuments are sufficient to enable the survey to be readily retraced and that tie notes to all center line monuments shown hereon as set by me will be on file in the office of the County Engineer within twenty-four months from recording date shown hereon.

Thurston A. Shurn, Jr.
Licensed Land Surveyor Nº 2877

Record References for certain easements rights of Dominguez Water Corporation are OR 1907 - Page 309, OR 3020 - Page 133 and OR 1515 - Page 265, OR 2815 page 269, OR 1812 page 374, OR 2425 page 384

We, DOMINGUEZ WATER CORPORATION, having a record title interest in the land subdivided on the annexed map, certify as follows: We intend to serve water within said area as well as other areas within Los Angeles County. We hereby consent to the making and recordation of said map and subdivision as shown within the colored boundary lines thereof. We hereby dedicate to the public use, for street or highway purposes, our said record title interest within the streets, avenues, cul-de-sacs, and drives shown on said map within said subdivision, except that in making such offer of dedication we retain and reserve forever in us and for the benefit of our successors and assigns: every incident of ownership; all interest in the soil, and our said rights for all purposes necessary to exercise freely, from time to time and forever, any and all of our said recorded title interests now or hereafter at any time existing within the areas so offered for dedication; provided, however, that the said rights hereby so retained and reserved by us are subordinate to the said easement for street or highway purposes herein offered for dedication. In this connection the Public Utilities Commission of the State of California has granted to us a Certificate of Public Convenience and Necessity to serve and distribute water for domestic, irrigation and fire-fighting purposes to the lands included within the boundaries of said subdivision as well as to other lands within Los Angeles County. The subdivider hereof has filed with us an application for a water main extention to serve the land within said subdivision and has agreed to deposit with us, pursuant to rule and regulation Nº 20 of our Tariff, the estimated cost of constructing a water distribution system to serve the land within said subdivision pursuant to our standards and when completed we, at all times now and hereafter intending to do so, will serve and distribute water to all parcels of land within said subdivision pursuant to our tariff now or hereafter on file with the Public Utilities Commission. We will grant no right or interest within the boundary of the said areas herein offered for dedication, except where such right or interest is expressly made subject to said public use herein offered for dedication.

DOMINGUEZ WATER CORPORATION

By J.V. Carson
J.V. CARSON, Executive Vice President
By Carol Stovall
CAROL STOVALL, Assistant Secretary

State of California } S.S.
County of Los Angeles }

On this 30th day of DECEMBER 1959 before me ALEXANDER LAWRENCE a Notary Public in and for said County and State, personally appeared J.V. CARSON known to me to be the Executive Vice-President, and CAROL STOVALL known to me to be the assistant secretary of the DOMINGUEZ WATER CORPORATION, the corporation that executed the the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation herein named and acknowledged to me that such corporation executed the same as easement holder.

WITNESS my hand and official seal

Alexander Lawrence
ALEXANDER LAWRENCE Notary Public in and for said County and State
My Commission Expires July 10, 1961

Pg. 2

TRACT NO 24886

IN UNINCORPORATED TERRITORY OF LOS ANGELES COUNTY
CALIFORNIA

RECORDED
FEB. 17, 1960
46 3 P.M.
652
89

We hereby certify that we are the owners of or are interested in the land included within the subdivision shown on the annexed map and we consent to the preparation and recordation of said map and subdivision as shown within the colored border lines, and pursuant to the provisions of Sections 16251 to 16255 inclusive of the Education Code of the State of California we hereby dedicate to the public use the drainage easement as shown on said map within said subdivision.

and also grant to the County of Los Angeles the easement for drainage purposes so designated on said map and all uses incident thereto, including the right to make connections therewith from any adjoining properties

LOS ANGELES CITY SCHOOL DISTRICT OF
LOS ANGELES COUNTY

BY: THE BOARD OF EDUCATION OF THE CITY OF LOS ANGELES

H C Willett
PRESIDENT

Arol Burns
DIRECTOR OF REAL ESTATE

State of California } SS
County of Los Angeles }

On this 2nd day of February 1960, before me Robert F. Burgan a Notary Public in and for said County and State, personally appeared H. C. Willett known to me to be the President and Arol Burns, known to me to be the Director of Real Estate of THE BOARD OF EDUCATION OF THE CITY OF LOS ANGELES, for the LOS ANGELES CITY SCHOOL DISTRICT OF LOS ANGELES COUNTY, the District that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the District therein named and acknowledged to me that such District executed the same

Robert F. Burgan
NOTARY PUBLIC Robert F. Burgan

My Commission Expires June 17, 1961

In re Acceptance of Highways, Public Ways, etc., in Tract No. 24886 } On motion approved by the Board of Supervisors It is ordered that the map of Tract No. 24886 be and the same is hereby approved; and that all streets, highways, other public ways, and easements shown upon said map and the same offered for dedication be and the same are hereby accepted on behalf of the public. Also the offer of dedication for abandonment of ingress and egress is hereby accepted.

The Clerk of this Board is directed to endorse on the face of said map a copy of this order authenticated by the seal of the Board of Supervisors.

I hereby certify that the foregoing order was adopted by the Board of Supervisors at a meeting of said Board held February 16, 1960

Gordon T. Nesvig, Clerk of the Board of Supervisors of the County of Los Angeles, State of California

By Evelyn Fodor Deputy

I hereby certify that I have examined this map, that it conforms substantially to the tentative map and all approved alterations thereof; that all provisions of applicable State laws and local subdivision ordinances have been complied with; and that I am satisfied that this map is technically correct.

Dated: 2-17-60

JOHN A. LAMBIE
COUNTY ENGINEER
By Nathaniel P. Dulaney Deputy

Sheet 3 of 3 Sheets

TRACT NO. 24886

IN UNINCORPORATED TERRITORY OF LOS ANGELES COUNTY, CALIFORNIA

Being a Subdivision of a Portion of Lots 31 & 32 and Being a Drainage Easement of a Portion of Lots 33 & 30, Tract Nº 3239 as shown on Map recorded in Book 37 Page 27 & 28 of Maps, In the Office of the County Recorder of said County

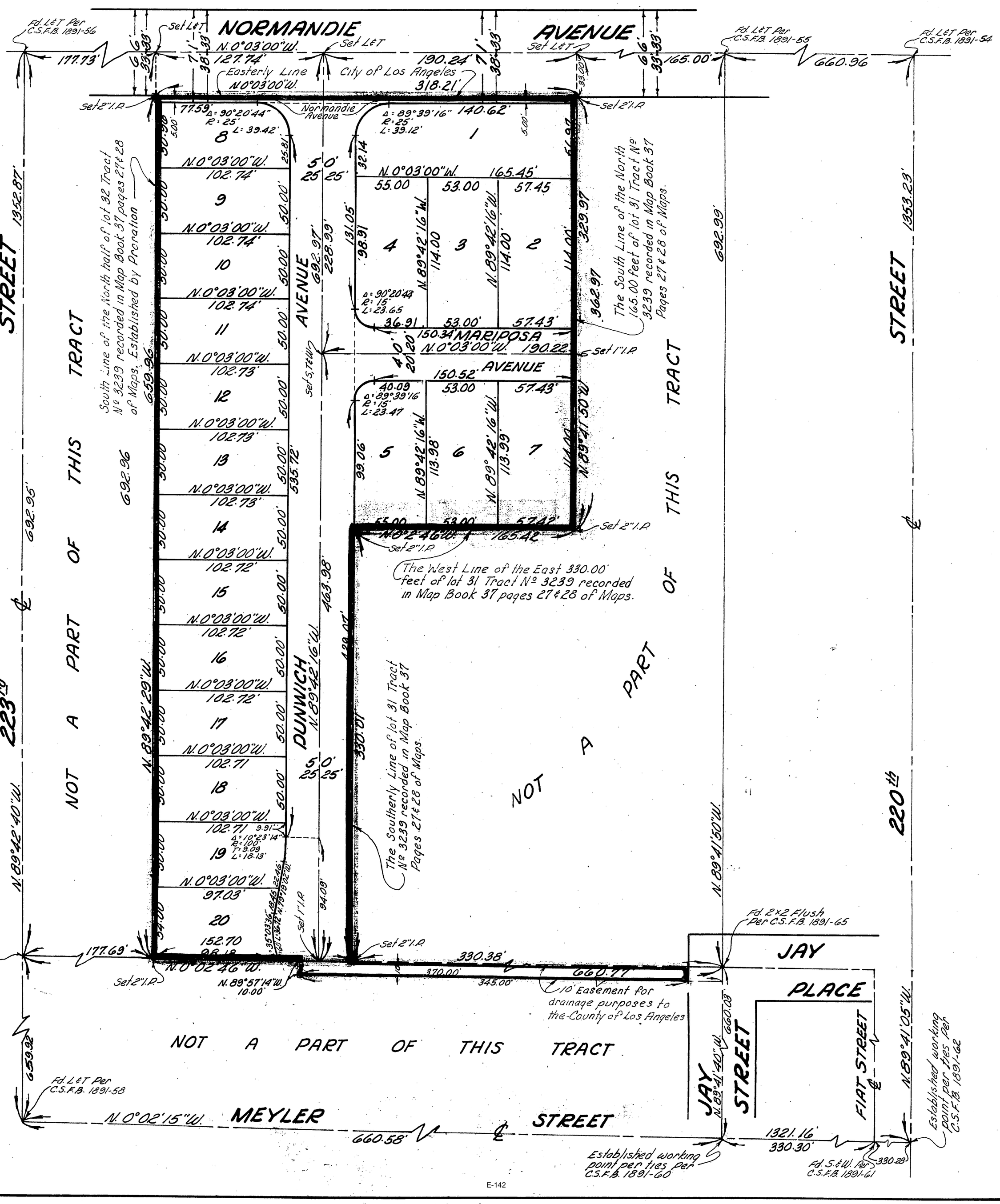
PG.3
RECORDED
FEB. 17, 1960
46 3 P.M.
652
90

June, 1959

Western Engineering And Construction Company

Scale: 1"=50'

Basis of Bearings:
The bearing of N. 0°03'00"W. as shown on the center line of Normandie Avenue between 220th Street and 223rd Street as shown on Tract 3239 as recorded in Book 37 Page 27 & 28 was used as the basis of bearing on this map.



TRACT Nº 29244

IN UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES

BEING A SUBDIVISION OF A PORTION OF LOT 31 OF TRACT Nº 3239
AS RECORDED IN BOOK 37 PAGES 27 AND 28 OF MAPS, RECORDS OF
LOS ANGELES COUNTY, STATE OF CALIFORNIA

E. L. PEARSON & ASSOCIATES

We hereby certify that we are the owners of or are interested in the lands included within the subdivision shown on this map within the colored border lines, and we consent to the preparation and recordation of said map and subdivision and hereby dedicate to the public use all streets, highways and other public ways shown on said map and also grant to the County of Los Angeles, the easements for sanitary sewer purposes so designated on said map and all uses incident thereto, including the right to make connections therewith from any adjoining properties.

As a dedication to public use, while all of Normandie Avenue within this subdivision remains a public highway for such time only, we hereby abandon all easements of vehicular ingress and egress to the said Normandie Avenue so that the owner of lot 1 abutting this highway during such time will have no rights of vehicular access whatever in the highway as such except within the Northerly 10 feet of said lot, except for the general easement of travel which belongs to the whole public. If any change of alignment or width of such highway results in the vacation of any part thereof within this subdivision, such vacation terminates the above dedication as to the part vacated.

We further certify that, except as shown on a copy of this map on file in the office of the County Road Commissioner, we know of no easement or structure existing within the easements hereby offered for dedication to the public, other than publicly owned water lines, sewers or storm drains; that we will grant no right or interest within the boundaries of said easements offered to the public, except where such right or interest is expressly made subject to the said easements.

Frank G. Caminiti

Frank G. Caminiti

Katherine E. Caminiti

Katherine E. Caminiti

BRENTWOOD INVESTMENT CORPORATION
A CORPORATION
Trustee under deed of trust recorded in book T-4037
page 240 of Official Records.

Fred Moldenhauer
Vice President

Freida Jones
Assistant Secretary

State of California } S.S.
County of Los Angeles }

On this 21st day of December, 1964 before me the undersigned a Notary Public in and for said County and State personally appeared Fred Moldenhauer known to me to be the Vice President, and Freida Jones known to me to be the Ass't Secretary of BRENTWOOD INVESTMENT CORPORATION, a corporation, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the Corporation therein named, and acknowledged to me that such Corporation executed the same, as trustee.

Betty M. Thoonsen
NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE
MY COMMISSION EXPIRES 9-1-65

DOMINGUEZ WATER CORPORATION
a corporation

Successor to Dominguez Water Company, a corporation, owner of a blanket easement by deed recorded in book 1515 page 265, of Official Records, and present owner of the blanket easement by deed recorded in book 1907 page 309 of Official Records.

We, Dominguez Water Corporation, having a record title interest in the land subdivided on the annexed map, certify as follows; we intend to serve water within said area as well as other areas within Los Angeles County. We hereby consent to the making and recordation of said map and subdivision as shown within the colored boundary lines thereof. We hereby dedicate to the public use for street or highway purposes, our said record title interest within the streets, avenues, and drives shown on said map within said subdivision, except that in making such offer of dedication we retain and reserve forever in us and for the benefit of our successors and assigns: every incident of ownership, all interest in the soil, and our said rights for all purposes necessary to exercise freely, from time to time and forever, any and all of our said record title interest now or hereafter at any time existing within the areas so offered for dedication; provided, however, that the said rights hereby so retained and reserved by us are subordinate to the said easement for street or highway purposes herein offered for dedication. In this connection the Public Utilities Commission of the State of California has granted us a certificate of Public Convenience and Necessity to serve and distribute water for domestic irrigation and fire fighting purposes to the lands included within the boundaries of said subdivision as well as to other lands within Los Angeles County. The subdivider thereof has filed with us an application for a water main extension to serve the land within said subdivision and has agreed to deposit with us, pursuant to rule and regulation Nº 15 of our Tariff, the estimated cost of constructing a water distribution system to serve the land within said subdivision pursuant to our standards and when completed we, at all times now and hereafter intending to do so, will serve and distribute water to all parcels of land within said subdivision pursuant to our tariff now or hereafter on file with said Public Utilities Commission. We will grant no right or interest within the boundary of the said areas herein offered for dedication, except where such right or interest is expressly made subject to said public use herein offered for dedication.

Gerald W. Peasley Vice President

Alexander Lawrence Secretary

Owners of an easement for road purposes reserved and granted by deeds recorded in book 1968 pages 318 and 319 of Official Records have been omitted as necessary parties to sign the map under provisions of Section 11587(b) of the Subdivision Map Act since it is impractical to determine the present ownership thereof.

I hereby certify that I am a Registered Civil Engineer of the State of California; that this map, consisting of 2 sheets, correctly represents a true and complete survey made under my supervision in February 1964, that the monuments of the character and locations shown hereon are in place or will be in place within twenty-four months from recording date of this map, that said monuments are sufficient to enable the survey to be readily retraced and that tie notes to all centerline monuments shown hereon as set by me will be on file in the office of the County Engineer within twenty four months from recording date shown hereon.

Edward L. Pearson R.C.E. 9[illegible]
Edward L. Pearson R.C.E.

State of California } S.S.
County of Los Angeles }

On this 20th day of April, 1964, before me, the undersigned, a Notary Public in and for said County and State, personally appeared Frank G. Caminiti and Katherine E. Caminiti, known to me to be the persons whose names are subscribed to the within instrument and acknowledged to me that they executed the same.

David G. Gilbert
David G. Gilbert
Notary Public in and for said County and State
My commission expires April 29, 1967

RECORDED
AT REQUEST OF OWNER
DEC. 29, 1964
20 MIN. PAST 4 P.M.
BOOK 734
PAGE 38
OFFICIAL RECORDS
IN RECORDS OF SAID COUNTY
MAY 5
COUNTY RECORDER
BY [illegible]

$7.00

I hereby certify that I have examined the within map, that the subdivision is substantially the same as it appeared on the tentative map and any approved alterations thereof, that all provisions of Ordinance No. 1593 (Subdivision Ordinance) applicable at the time of approval of the tentative map have been complied with, and that this map is technically correct.

Dated December 29, 1964

JOHN A. LAISBIE
COUNTY ENGINEER
By Ralph L. Kennedy Deputy

State of California } S.S.
County of Los Angeles }

On this 22 day of April, 1964, before me, the undersigned, a Notary Public in and for said County and State, personally appeared Gerald W. Peasley, known to me to be the Vice President, and Alexander Lawrence, known to me to be the Secretary of DOMINGUEZ WATER CORPORATION, the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged to me that said corporation executed the same.

Shirley A. Furtsch
Shirley A. Furtsch
Notary Public in and for said County and State
My commission expires July 10, 1967

IN RE TRACT NO. 29244
OF TRACT NO. 29244
ALL STREETS, HIGHWAYS AND OTHER [illegible]
MENTS SHOWN ON SAID MAP AND
BE AND THE SAME ARE HEREBY ACCEPTED FOR THE
PUBLIC.
THAT THE OFFER OF DEDICATION FOR ABANDONMENT OF THE RIGHTS OF INGRESS AND EGRESS BE AND THE SAME IS HEREBY ACCEPTED ON BEHALF OF THE PUBLIC.

I HEREBY CERTIFY THAT [illegible]
ADOPTED BY THE BOARD OF [illegible]
HELD December 22, 1964

GORDON T. NESVIG, CLERK OF THE BOARD OF SUPERVISORS
OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA.
BY Frances T. Keesling DEPUTY

SCALE: 1" = 40'

SHEET 2 OF 2 SHEETS

TRACT Nº 29244

IN UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES

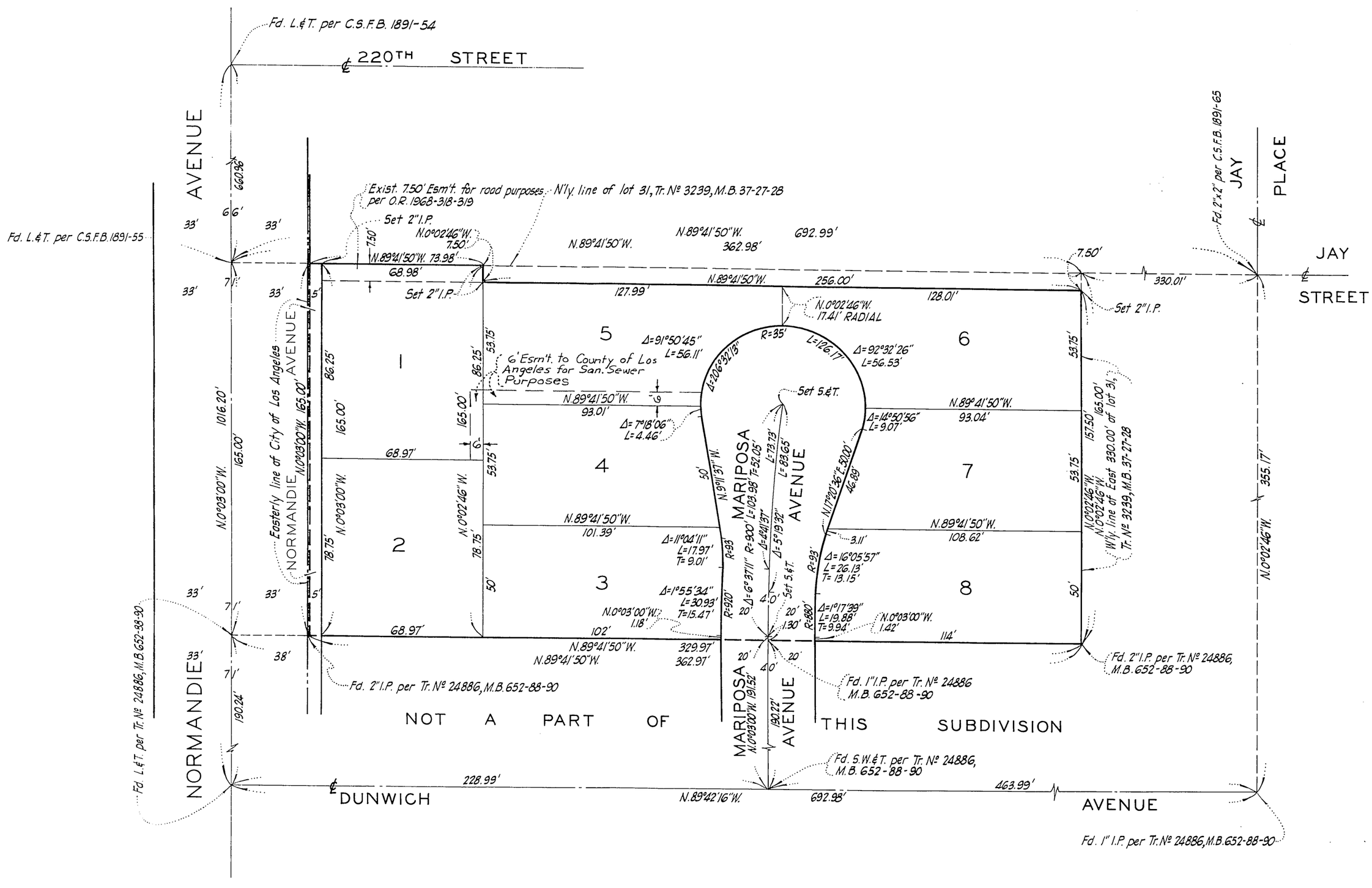
E. L. PEARSON & ASSOCIATES

BASIS OF BEARINGS
THE BEARING OF N.0°03'00"W. ON THE CENTERLINE OF NORMANDIE AVENUE AS SHOWN ON TRACT Nº 24886. M.B. 652-88-90 WAS USED AS THE BASIS OF BEARINGS FOR THIS MAP.

MONUMENTS
ALL 2" IRON PIPES SHOWN AS SET ARE 12" BELOW GROUND SURFACE, FILLED WITH CONCRETE, AND BEAR A METAL TAG STAMPED "R.C.E. 9783."

PG. 2

RECORDED
AT REQUEST OF
DEC. 29, 1964
20 MIN. PAST 4 P.M.
BOOK 734
AT PAGE 39
OF OFFICIAL RECORDS
LOS ANGELES COUNTY, CALIF.
RAY E. LEE
COUNTY RECORDER
Deputy



791/75 $5.00

BOOK 791 PAGE 75

SHEET 1 OF 2 SHEETS

TRACT NO. 30582

IN UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES

BEING A SUBDIVISION OF THE EAST 330 FEET OF LOT 22 AND LOT 30 OF TRACT Nº 3239 AS PER MAP FILED IN BOOK 37 PAGES 27 AND 28 OF MAPS, RECORDS OF LOS ANGELES COUNTY, STATE OF CALIFORNIA.

FILED
AT REQUEST OF OWNER
OCT. 21, 1969
3 MIN. PAST 4 P.M.
IN BOOK 791
AT PAGE 75
OF MAP RECORDS
LOS ANGELES COUNTY, CALIF.
RAY E. LEE
COUNTY RECORDER
BY ..... Deputy
$7.00

—LANCO—
LAND CONSULTANTS AND CIVIL ENGINEERS

We hereby certify that we are the owners of or are interested in the lands included within the subdivision shown on this map within the colored border lines, and we consent to the preparation and recordation of said map and subdivision, and hereby dedicate to the public use the streets, highways and other public ways shown on said map.

We further certify that, except as shown on a copy of this map on file in the office of the County Road Commissioner, we know of no easement or structure existing within the easements hereby offered for dedication to the public, other than publicly owned water lines, sewers or storm drains; that we will grant no right or interest within the boundaries of said easements offered to the public, except where such right or interest is expressly made subject to the said easements.

KENLAND DEVELOPMENT CO. INC., a corporation

By ..... KENNETH BATTRAM, President

By ..... BENJAMIN F. MOLINA, Secretary

PURSUANT TO THE PROVISIONS OF SECTION 16251 TO 16255, INCLUSIVE OF THE EDUCATION CODE OF THE STATE OF CALIFORNIA, WE HEREBY DEDICATE TO PUBLIC USE EASEMENTS FOR STREET PURPOSES AS SHOWN ON SAID MAP WITHIN SAID SUBDIVISION

LOS ANGELES UNIFIED SCHOOL DISTRICT OF LOS ANGELES COUNTY BY THE BOARD OF EDUCATION OF THE CITY OF LOS ANGELES

Arthur F. Gardner
PRESIDENT PRO-TEM

Milo M. Watt
DIRECTOR OF REAL ESTATE

WE HEREBY OFFER TO THE PUBLIC USE THE PRIVATE AND FUTURE STREET SHOWN ON SAID MAP WHICH HAVE CEASED TO REMAIN CLOSED OR POSTED AND SHALL HAVE BEEN OPENED TO THE PUBLIC TRAVEL FOR A PERIOD OF THREE MONTHS OR MORE, OR WHICH THE GOVERNING BODY SHALL DETERMINE TO BE NECESSARY FOR PUBLIC USE, SUCH OFFER TO REMAIN OPEN UNDER THE PROVISIONS OF SECTION 11616 OF THE SUBDIVISION MAP ACT.

The County of Los Angeles is holder of easement by dedication upon the map of Tract Nº 24886 recorded in Book 652, Page 88-90 of maps.

NOTE:
A soils report dated August 26, 1966, was prepared by Gerald Gorian R.C.E. 14698

DOMINGUEZ WATER CORPORATION, a public utility, has a record title interest in the land subdivided, and dedicated on this map. It intends to serve water therein. By these presents; it intends to, and does only: (a) consent to making and recordation of said map and subdivision as shown within the exterior boundary lines thereof; (b) offer for dedication those parcels of land shown thereon for street or highway purposes, retaining and reserving, however, now and hereafter, to itself, its successors and assigns, unsubordinated in any way to any easement offered herein for dedication for street or highway purposes, its ownership in and rights to use, and exercise to their fullest extent: (1) any and all of its water transmission and distribution facilities now or hereafter located or relocated, on, upon, under and through such land being subdivided or dedicated, as well as (2) each, all and every of its prior-to-dedication rights therein, including, but not limited to its rights, as a successor and assign, under the Partition Decree in Case Nº 3284, Superior Court of Los Angeles County, California, recorded in Book 2911, page 1, et seq., of Deeds, Records of Los Angeles County, and (3) all of its other rights of any kind whatsoever, now or hereafter existing thereon and therein, and howsoever created.

DOMINGUEZ WATER CORPORATION

By ..... Secretary

By ..... President

The interest of DOMINGUEZ WATER CORPORATION, a corporation, is as Blanket Easement Holder reserved by deeds recorded in Book 1515, page 265, Book 2105, page 124, Book 1907, page 309, Book 2815, page 269, all of Official Records.

I hereby certify that I am a Registered Civil Engineer of the State of California; that this map consisting of 2 sheets correctly represents a true and complete survey made under my supervision in April 1969 that the monuments of the character and locations shown hereon are in place or will be in place within twenty-four months from filing date of this map; that said monuments are sufficient to enable the survey to be readily retraced and that tie notes to all centerline monuments shown hereon as set by me will be on file in the office of the County Engineer within twenty-four months from filing date shown hereon.

Clark M. Leonard
CLARK M. LEONARD R.C.E. 13167

State of California } S.S.
County of Los Angeles }

On this 25TH day of Sept., 1969, before me, the undersigned, a Notary Public in and for said County and State, personally appeared KENNETH BATTRAM, known to me to be the President and BENJAMIN F. MOLINA, known to me to be the Secretary KENLAND DEVELOPMENT CO. INC., a corporation, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged that said corporation executed the same.

Louise Garland
Notary Public in and for said County and State
My commission expires 9-9-1973

State of California } S.S.
County of Los Angeles }

On this 25TH day of SEPT., 1969, before, the unsigned, a Notary Public in and for said County and State, personally appeared ARTHUR F. GARDNER, known to me to be the President Pro-tem, and MILO M. WATT known to me to be the DIRECTOR OF REAL ESTATE OF THE BOARD OF EDUCATION of the City of Los Angeles for the LOS ANGELES UNIFIED SCHOOL DISTRICT OF LOS ANGELES COUNTY, executed the within instrument on behalf of the district herein named and acknowledged to me that such district executed the same.

Louise Garland
Notary Public in and for said County and State

and known to me to be the persons who

IN RE TRACT NO. 30582
IT IS ORDERED THAT THE MAP OF TRACT NO. 30582 IS HEREBY APPROVED; THAT THE BOND IN THE AMOUNT OF $2,625.00 FILED WITH THIS BOARD TO INSURE PAYMENT OF TAXES AND SPECIAL ASSESSMENTS COLLECTED AS TAXES BE APPROVED; THAT ALL STEETS, HIGHWAYS AND OTHER PUBLIC WAYS AND EASEMENTS SHOWN ON SAID MAP AND OFFERED FOR DEDICATION BE AND THE SAME ARE HEREBY ACCEPTED ON BEHALF OF THE PUBLIC.

That the "Private and Future Street" shown on said map and herein offered for dedication be and the same is hereby rejected.

I HEREBY CERTIFY THAT THE FOREGOING ORDER WAS ADOPTED BY THE BOARD OF SUPERVISORS AT A MEETING HELD 10-7-69

JAMES S. MIZE, EXECUTIVE OFFICER -
CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

BY ..... DEPUTY

I hereby certify that I have examined this map, that it conforms substantially to the tentative map and all approved alterations thereof; that all provisions of applicable State law and local subdivision ordinances have been complied with; and that I am satisfied that this map is technically correct.

Dated: October 21, 1969

JOHN A. LAMBIE
COUNTY ENGINEER
By ..... Deputy

State of California } S.S.
County of Los Angeles }

On this 25TH day of SEPT., 1969, before me, the undersigned, a Notary Public in and for said County and State, personally appeared C.M. BREWER, known to me to be the President and ALEX LAWRENCE, known to me to be the Secretary of DOMINGUEZ WATER CORPORATION, a corporation, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged that said corporation executed the same.

Louise Garland
Notary Public in and for said County and State

SCALE: 1"=50'

TRACT NO. 30582

FILED WITH LOS ANGELES COUNTY RECORDER, RAY E. LEE
OCT 21 1969

IN UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES

—LANCO—

LAND CONSULTANTS AND CIVIL ENGINEERS

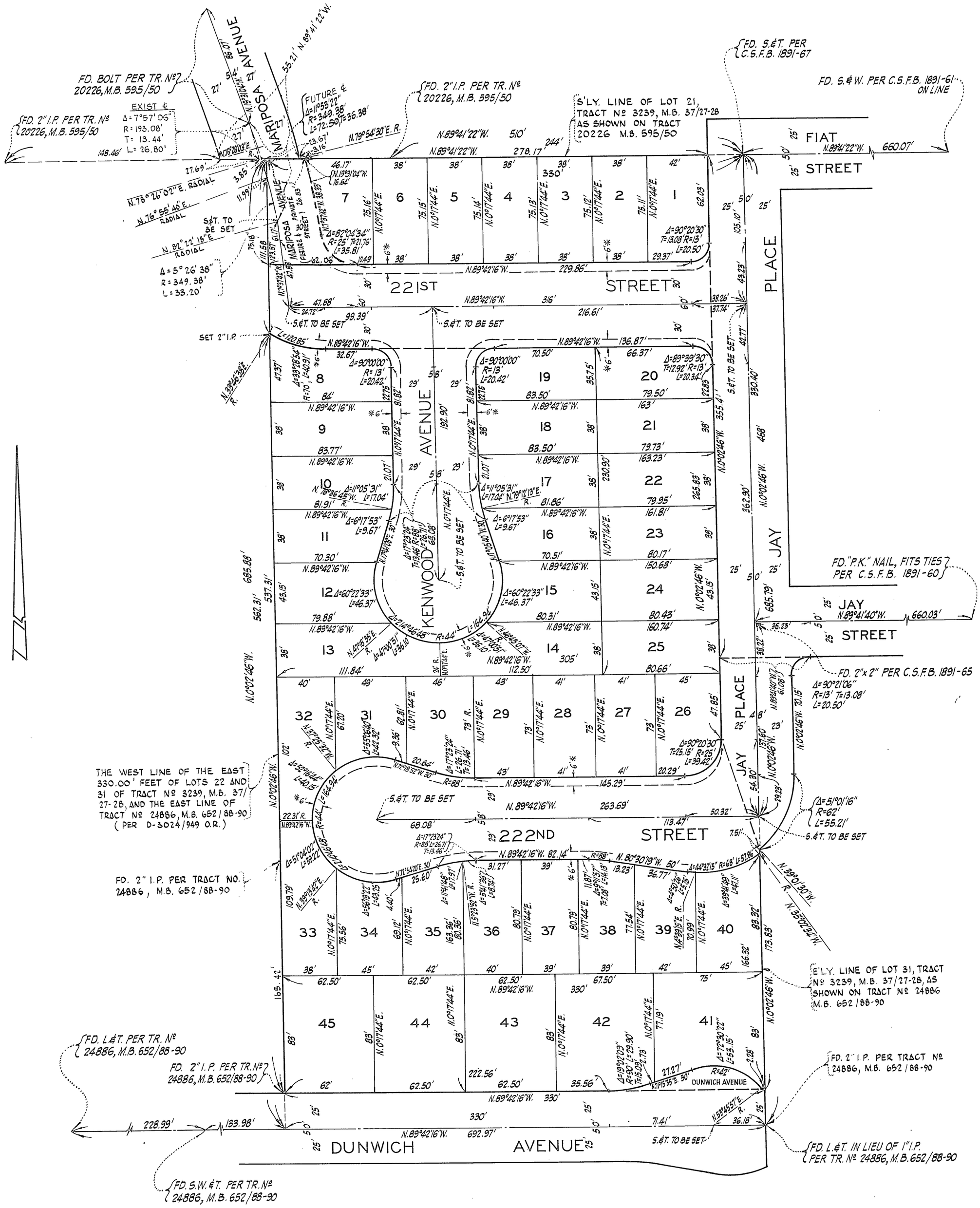
MONUMENTS

ALL 2" IRON PIPES SHOWN AS SET ARE 12" BELOW GROUND SURFACE, FILLED WITH CONCRETE AND BEAR A METAL TAG STAMPED "R.C.E. 13167

BASIS OF BEARINGS

THE BEARING N.89°42'16"W. AS SHOWN ON THE CENTERLINE OF DUNWICH AVENUE PER TRACT Nº 24886, M.B. 652/88-90 WAS TAKEN AS THE BASIS OF BEARINGS FOR THIS MAP.

* DASHED LINES WITHIN STREET RIGHT-OF-WAY LINES INDICATE PROPERTY LINES FOR THE PURPOSE OF COMPUTING REQUIRED AREA AND BUILDING SETBACKS AS PROVIDED IN ORDINANCE Nº 1494, LOS ANGELES COUNTY, ONLY AND ARE NOT FOR THE PURPOSE OF CONVEYING.



BOOK 918 PAGE 61

SHEET 1 OF 3 SHEETS

TRACT NO. 34265

IN UNINCORPORATED TERRITORY OF
THE COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

BEING A SUBDIVISION OF A PORTION OF LOT 18, TRACT NO. 3239 PER MAP RECORDED IN BOOK 37, PAGES 27 AND 28 OF MAPS, RECORDS OF LOS ANGELES COUNTY

FOR CONDOMINIUM PURPOSES

79- 624714
79-624714

FILED
AT REQUEST OF OWNER
JUN 8, 1979
MIN 1 PAST 4PM
IN BOOK 918
AT PAGE 61
OF MAP RECORDS
LOS ANGELES COUNTY, CALIF.
Registrar-Recorder
BY _____ Deputy
900

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF OR ARE INTERESTED IN THE LANDS INCLUDED WITHIN THE SUBDIVISION SHOWN ON THIS MAP WITHIN THE DISTINCTIVE BORDER LINES, AND WE CONSENT TO THE PREPARATION AND FILING OF SAID MAP AND SUBDIVISION. ~~WE HEREBY DEDICATE TO THE PUBLIC USE ALL STREETS, HIGHWAYS, AND OTHER PUBLIC WAYS SHOWN ON SAID MAP.~~ AS A DEDICATION TO PUBLIC USE, WHILE ALL OF 220TH STREET WITHIN OR ADJACENT TO THIS SUBDIVISION REMAINS A PUBLIC STREET, WE HEREBY ABANDON ALL RIGHTS, EXCEPT FOR TWO DRIVEWAY OPENINGS FOR LOT 1, OF DIRECT (VEHICULAR) INGRESS AND EGRESS TO THE SAID STREET. IF ANY PORTION OF SAID STREET WITHIN OR ADJACENT TO THIS SUBDIVISION IS VACATED, SUCH VACATION TERMINATES THE ABOVE DEDICATION AS TO THE PART VACATED.
AND ALSO DEDICATE TO THE COUNTY OF LOS ANGELES THE EASEMENT FOR SANITARY SEWER PURPOSES SO DESIGNATED ON SAID MAP AND ALL USES INCIDENT THERETO, INCLUDING THE RIGHT TO MAKE CONNECTIONS THEREWITH FROM ANY ADJOINING PROPERTIES. ~~WE FURTHER CERTIFY THAT WE KNOW OF NO EASEMENT OR STRUCTURE EXISTING WITHIN THE EASEMENTS HEREIN OFFERED FOR DEDICATION TO THE PUBLIC, OTHER THAN PUBLICLY OWNED WATER LINES, SEWERS, OR STORM DRAINS, THAT WE WILL GRANT NO RIGHT OR INTEREST WITHIN THE BOUNDARIES OF SAID EASEMENTS OFFERED TO THE PUBLIC, EXCEPT WHERE SUCH RIGHT OR INTEREST IS EXPRESSLY MADE SUBJECT TO THE SAID EASEMENTS.~~

VINCENT GRANT, INC., A CALIFORNIA CORPORATION, OWNER

Vincent Grant
PRESIDENT

Mary H. Grant
SECRETARY

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS

ON THIS 22 DAY OF SEPTEMBER, 1978 BEFORE ME BONNIE L. PEACOCK, A NOTARY PUBLIC IN AND FOR SAID STATE, PERSONALLY APPEARED _____ VINCENT GRANT KNOWN TO ME TO BE THE _____ PRESIDENT AND MAY H. GRANT KNOWN TO ME TO BE THE _____ SECRETARY OF VINCENT GRANT INC., THE CORPORATION THAT EXECUTED THE WITHIN INSTRUMENT AND KNOWN TO ME TO BE THE PERSONS WHO EXECUTED THE WITHIN INSTRUMENT ON BEHALF OF THE CORPORATION HEREIN NAMED AND ACKNOWLEDGED TO ME THAT SUCH CORPORATION EXECUTED THE SAME.

Bonnie L. Peacock

OFFICIAL SEAL
BONNIE L. PEACOCK
Notary Public - California
LOS ANGELES COUNTY
My Commission Expires August 27, 1981

NOTE: A SOIL REPORT WAS PREPARED ON JULY 29, 1977 BY DALE E. GOSS R.C.E. NO. 12037

NOTE: THE COUNTY OF LOS ANGELES IS THE OWNER OF AN EASEMENT FOR DRAINAGE PURPOSES PER DEED RECORDED IN BOOK D-1331 PAGE 665 OFFICIAL RECORDS, RECORDS OF LOS ANGELES COUNTY.

THE SIGNATURES OF DOMINGUEZ WATER CORPORATION, A CORPORATION SUCCESSOR IN INTEREST TO DOMINGUEZ WATER COMPANY, DISTRIBUTION FACILITY EASEMENT HOLDER, AS DISCLOSED BY DEED RECORDED IN BOOK 1515 PAGE 265 OF OFFICIAL RECORDS, RECORDS OF LOS ANGELES COUNTY, HAVE BEEN OMITTED UNDER THE PROVISIONS OF SECTION 66436, SUBSECTION (c)(1) OF THE SUBDIVISION MAP ACT, THEIR INTEREST IS SUCH THAT IT CANNOT RIPEN INTO A FEE TITLE AND SAID SIGNATURES ARE NOT REQUIRED BY THE LOCAL AGENCY. SAID EASEMENT IS BLANKET IN NATURE.

~~THE SIGNATURES OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION, ELECTRIC LINE EASEMENT HOLDER, AS DISCLOSED BY DEED RECORDED IN BOOK D-2830 PAGE 548 OF OFFICIAL RECORDS, OF LOS ANGELES COUNTY, HAVE BEEN OMITTED UNDER THE PROVISIONS OF SECTION 66436, SUBSECTION (c) (1) OF THE SUBDIVISION MAP ACT, THEIR INTEREST IS SUCH THAT IT CANNOT RIPEN INTO A FEE TITLE AND SAID SIGNATURES ARE NOT REQUIRED BY THE LOCAL AGENCY.~~

28A 1

I HEREBY CERTIFY THAT I AM A REGISTERED CIVIL ENGINEER OF THE STATE OF CALIFORNIA; THAT THIS FINAL MAP, CONSISTING OF 3 SHEETS, IS A TRUE AND COMPLETE SURVEY AS SHOWN, AND WAS MADE BY ME OR UNDER MY DIRECTION FEBRUARY 1978; THAT THE MONUMENTS OF THE CHARACTER AND LOCATIONS SHOWN HEREON ARE IN PLACE; THAT SAID MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED AND THAT TIE NOTES TO CENTERLINE MONUMENTS SHOWN AS "SET" ARE ON FILE IN COUNTY ENGINEER FIELD BOOK NO. 4048 PAGE 34 & 35.

Edward L. Pearson
EDWARD L. PEARSON
R.C.E. NO. 9783

THIS TRACT IS APPROVED AS A CONDOMINIUM PROJECT WHEREBY THE OWNERS OF THE UNITS OF AIR SPACE WILL HOLD AN UNDIVIDED INTEREST IN THE COMMON AREAS WHICH WILL IN TURN PROVIDE THE NECESSARY ACCESS AND UTILITY EASEMENTS FOR THE UNITS.

IN RE TRACT NO. 34265 IT IS ORDERED THAT THE MAP OF TRACT NO. 34265 IS HEREBY APPROVED; AND THAT THE BOND IN THE AMOUNT OF $ 2500.00 FILED WITH THE BOARD TO INSURE PAYMENT OF TAXES AND SPECIAL ASSESSMENT COLLECTED AS TAXES BE APPROVED.

THAT ALL [illegible] AND EASEMENTS SHOWN ON SAID MAP AND OFFERED FOR DEDICATION BE AND THE SAME ARE HEREBY ACCEPTED ON BEHALF OF THE PUBLIC.

THAT THE OFFER OF DEDICATION FOR ABANDONMENT OF THE RIGHTS OF INGRESS AND EGRESS BE AND THE SAME IS HEREBY ACCEPTED ON BEHALF OF THE PUBLIC.

I HEREBY CERTIFY THAT THE FOREGOING ORDER WAS ADOPTED BY THE BOARD OF SUPERVISORS AT A MEETING HELD JUN 5 1979

JAMES S. MIZE, EXECUTIVE OFFICER-
CLERK OF THE BOARD OF SUPERVISORS
OF THE COUNTY OF LOS ANGELES,
STATE OF CALIFORNIA
BY Darlene Hudson DEPUTY

I HEREBY CERTIFY THAT ALL CERTIFICATES HAVE BEEN FILED AND DEPOSITS HAVE BEEN MADE THAT ARE REQUIRED UNDER THE PROVISIONS OF SECTIONS 66492 AND 66493 OF THE SUBDIVISION MAP ACT.

JAMES S. MIZE, EXECUTIVE OFFICER - CLERK
OF THE BOARD OF SUPERVISORS OF THE COUNTY
OF LOS ANGELES, STATE OF CALIFORNIA
BY Darlene Hudson DEPUTY

I HEREBY CERTIFY THAT I HAVE EXAMINED THIS MAP, THAT IT CONFORMS SUBSTANTIALLY TO THE TENTATIVE MAP AND ALL APPROVED ALTERATIONS THEREOF; THAT ALL PROVISIONS OF STATE LAW AND LOCAL SUBDIVISION ORDINANCES APPLICABLE AT THE TIME OF APPROVAL OF THE TENTATIVE MAP HAVE BEEN COMPLIED WITH; AND THAT I AM SATISFIED THAT THIS MAP IS TECHNICALLY CORRECT.

DATED: JUN 5 1979 BY Frank Olson COUNTY ENGINEER
Deputy

BOOK 918 PAGE 62

SCALE 1"= 40'

SHEET 2 OF 3 SHEETS

TRACT No. 34265

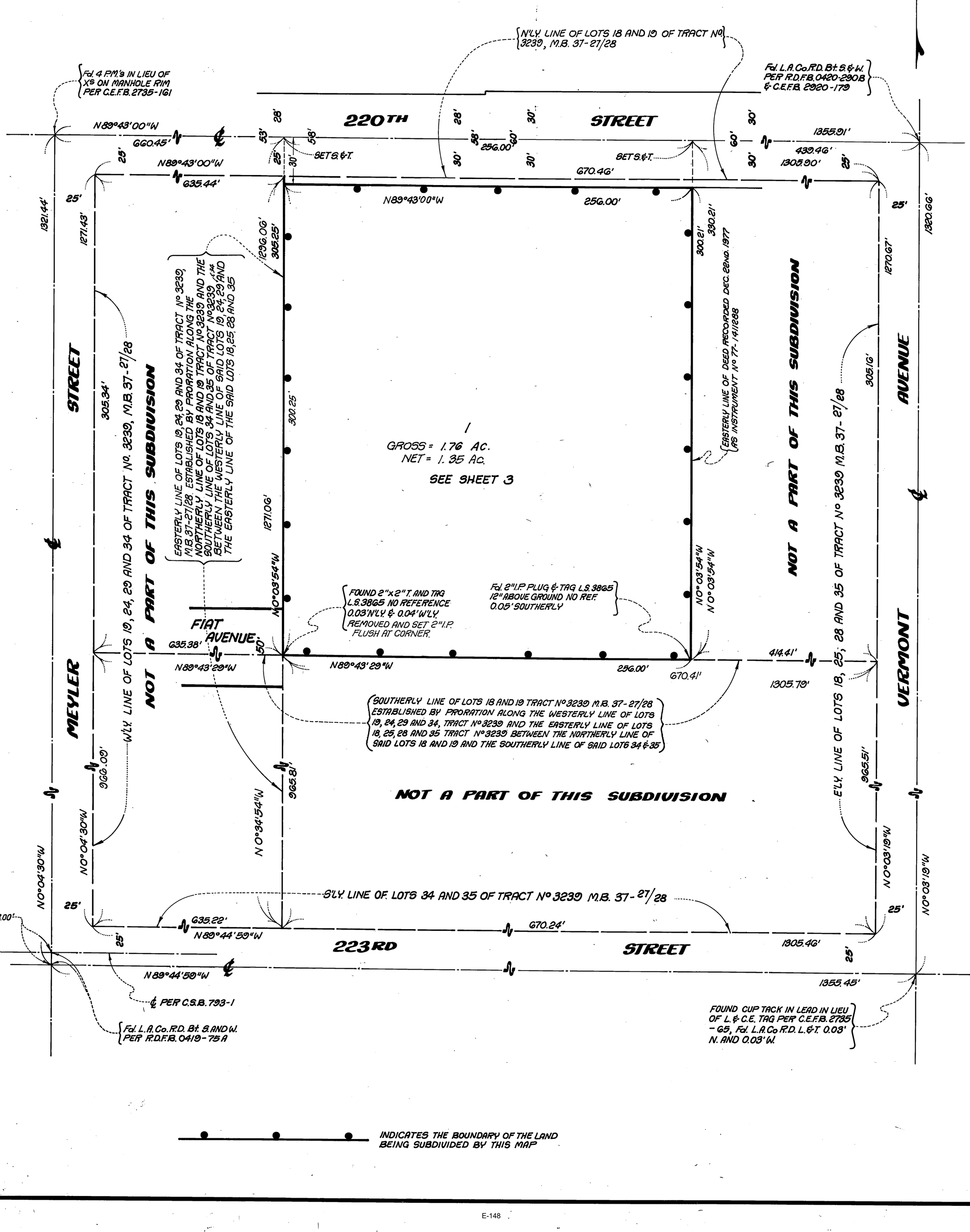
IN UNINCORPORATED TERRITORY OF
THE COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

FILED WITH LOS ANGELES
COUNTY RECORDER
JUN 8 1979

FOR CONDOMINIUM PURPOSES

BASIS OF BEARINGS

THE BEARING N89°43'00"W OF THE SOUTHERLY LINE OF 220TH STREET SHOWN AS AMELIA STREET ON THE MAP OF TRACT No 3239, RECORDED IN BOOK 37, PAGES 27 AND 28 OF MAPS, RECORDS OF LOS ANGELES COUNTY, WAS TAKEN AS THE BASIS OF BEARINGS FOR THIS MAP



INDICATES THE BOUNDARY OF THE LAND BEING SUBDIVIDED BY THIS MAP

BOOK 918 PAGE 63

SHEET 3 OF 3 SHEETS

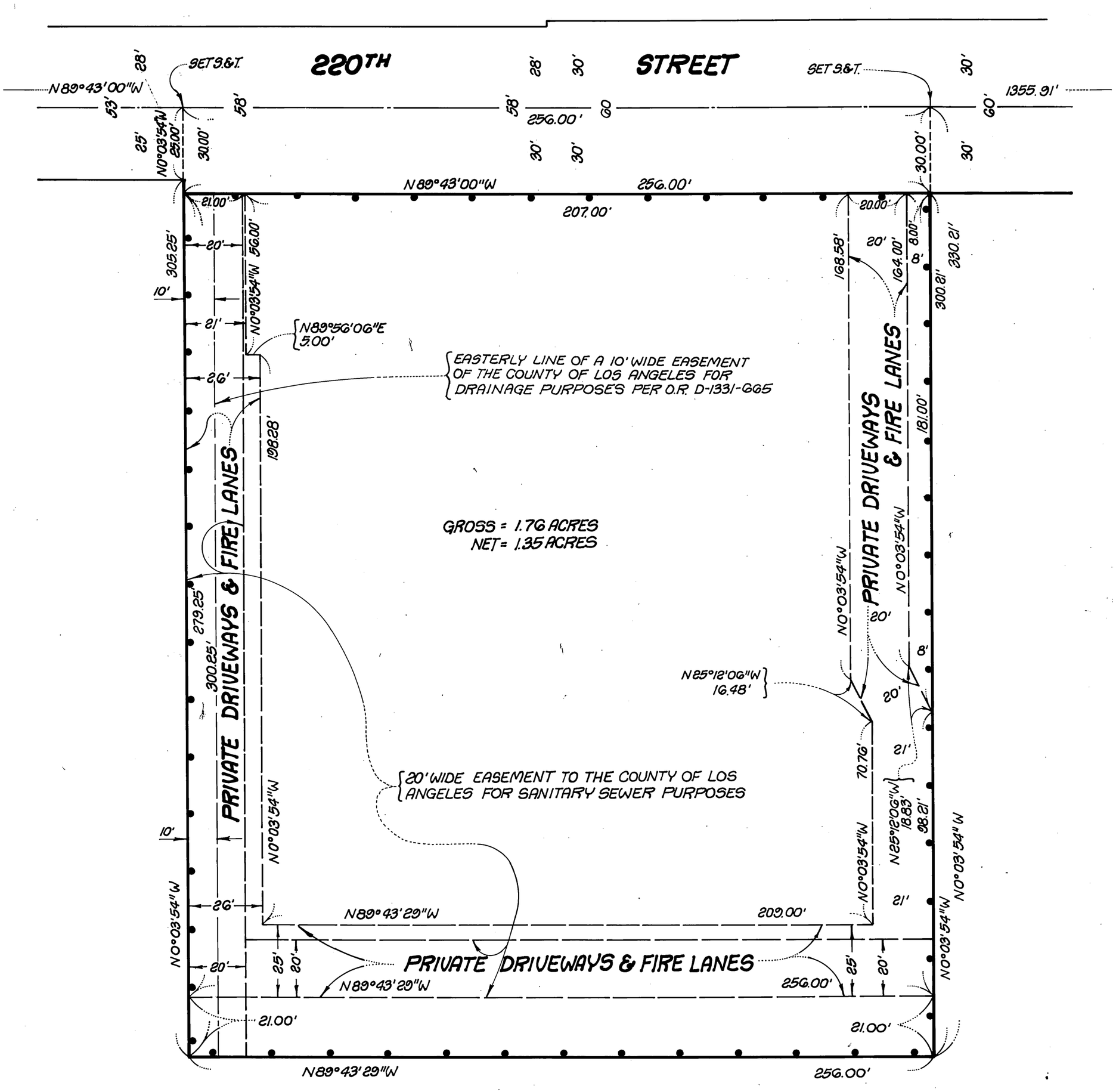
SCALE 1"= 30'

TRACT NO. 34265

IN UNINCORPORATED TERRITORY OF
THE COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

FOR CONDOMINIUM PURPOSES

FILED WITH LOS ANGELES
COUNTY RECORDER
JUN 8 1979



INDICATES THE BOUNDARY OF THE LAND BEING SUBDIVIDED BY THIS MAP.

1047 / 54

BOOK 1047 PAGE 54

SHEET 1 OF 2 SHEETS

TRACT NO. 31726

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

BEING A SUBDIVISION OF A PORTION OF LOT 36 OF TRACT NO. 3239 AS RECORDED IN BOOK 37 PAGES 27 AND 28 OF MAPS, AND A PORTION OF LOT 68 OF TRACT 3612 AS RECORDED IN BOOK 40 PAGES 5 AND 6 OF MAPS, ALL RECORD OF LOS ANGELES COUNTY.

FOR CONDOMINIUM PURPOSES

——LANCO——

LAND CONSULTANTS AND CIVIL ENGINEERS

FILED
AT REQUEST OF OWNER
FEB 28 1985
01 MIN PAST 2 P.M.
IN BOOK 1047
AT PAGE 54
OF MAPS
LOS ANGELES COUNTY, CA.
RECORDER
BY Carla Rodriguez Deputy
FEE $ 8.00

85 229681
85 229691

WAD 1 GRANT

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF OR ARE INTERESTED IN THE LANDS INCLUDED WITHIN THE SUBDIVISION SHOWN ON THIS MAP WITHIN THE DISTINCTIVE BORDER LINES, AND WE CONSENT TO THE PREPARATION AND FILING OF SAID MAP AND SUBDIVISION.
WE ALSO DEDICATE TO THE COUNTY OF LOS ANGELES THE EASEMENT FOR SANITARY SEWER PURPOSES SO DESIGNATED ON SAID MAP AND ALL USES INCIDENT THERETO, INCLUDING THE RIGHT TO MAKE CONNECTIONS THEREWITH FROM ANY ADJOINING PROPERTIES.
AS A DEDICATION TO PUBLIC USE, WHILE ALL OF VERMONT AVENUE AND 223RD STREET WITHIN OR ADJACENT TO THIS SUBDIVISION REMAIN PUBLIC STREETS, WE HEREBY ABANDON ALL RIGHTS, EXCEPT FOR 1 DRIVEWAY OPENING FOR LOT 1 TO VERMONT AVENUE OF DIRECT VEHICULAR INGRESS AND EGRESS TO THE SAID STREETS. IF ANY PORTION OF SAID STREETS WITHIN OR ADJACENT TO THIS SUBDIVISION ARE VACATED, SUCH VACATION TERMINATES THE ABOVE DEDICATION AS TO THE PART VACATED.
WE HEREBY DEDICATE TO THE PUBLIC USE ALL STREETS, HIGHWAYS, AND OTHER PUBLIC WAYS SHOWN ON SAID MAP.
WE FURTHER CERTIFY THAT WE KNOW OF NO EASEMENT OR STRUCTURE EXISTING WITHIN THE EASEMENTS HEREIN OFFERED FOR DEDICATION TO THE PUBLIC, OTHER THAN PUBLICLY OWNED WATER LINES, SEWERS, OR STORM DRAINS, THAT WE WILL GRANT NO RIGHT OR INTEREST WITHIN THE BOUNDARIES OF SAID EASEMENTS OFFERED TO THE PUBLIC, EXCEPT WHERE SUCH RIGHT OR INTEREST IS EXPRESSLY MADE SUBJECT TO THE SAID EASEMENTS.

DEVELOPERS II CORP., A CORPORATION
(OWNER)

Robert Collins — ROBERT COLLINS, SECRETARY

Francis P. Torino — FRANCIS P. TORINO, PRESIDENT

I HEREBY CERTIFY THAT ALL CERTIFICATES HAVE BEEN FILED AND DEPOSITS HAVE BEEN MADE THAT ARE REQUIRED UNDER THE PROVISIONS OF SECTIONS 66492 AND 66493 OF THE SUBDIVISION MAP ACT.

EXECUTIVE OFFICER-CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA
BY William J. Stromayer DEPUTY

THE SIGNATURES OF DOMINGUEZ WATER CORPORATION, A CORPORATION SUCCESSOR IN INTEREST TO DOMINGUEZ WATER COMPANY, A CORPORATION BLANKET EASEMENT HOLDER BY DEED RECORDED IN BOOK 1515 PAGE 265 AND THE SIGNATURES OF METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA EASEMENT HOLDER BY DEED RECORDED IN BOOK 15658 PAGE 228 AND DOMINGUEZ WATER CORPORATION, A CORPORATION SUCCESSOR TO TITLE INSURANCE AND TRUST COMPANY, A CORPORATION, BLANKET EASEMENT HOLDER BY DEEDS RECORDED IN BOOK 2636 PAGE 251 AND IN BOOK 4446 PAGE 302, ALL OF OFFICIAL RECORDS OF LOS ANGELES COUNTY, HAVE BEEN OMITTED UNDER THE PROVISIONS OF SECTION 66436, SUBSECTION (c)(1) OF THE SUBDIVISION MAP ACT, THEIR INTEREST IS SUCH THAT IT CANNOT RIPEN INTO FEE TITLE AND SAID SIGNATURES ARE NOT REQUIRED BY LOCAL AGENCY SAID BLANKET EASEMENTS ARE FOR WATER PIPE PURPOSES.

THE SIGNATURES OF CLARENCE W. HARDY, ETUX., BY RESERVATION IN DEED RECORDED OCTOBER 21, 1957 IN BOOK 55894 PAGE 208, OF OFFICIAL RECORDS; VICTOR BROWN, ETUX., BY RESERVATION IN DEED RECORDED AUGUST 7, 1959, AS INSTRUMENT No. 1949; METHA RILEY AND J. LEONARD BELL, AS CO-EXECUTORS, BY RESERVATION IN DEED RECORDED APRIL 6, 1979, AS INSTRUMENT No. 79-375316; ROSHEL, A PARTNERSHIP, BY RESERVATION IN DEED RECORDED MAY 17, 1979, AS INSTRUMENT No. 79-533129; AND SHELDON APPEL COMPANY, A PARTNERSHIP, BY RESERVATION IN DEEDS RECORDED AUGUST 21, 1980, AS INSTRUMENT No. 80-808137 AND 80-808138, AND/OR THEIR SUCCESSORS IN INTEREST, IF ANY, OWNERS OF CERTAIN OIL, GAS, MINERALS AND OTHER HYDROCARBONS SUBSTANCES HAVE BEEN OMITTED AS NECESSARY PARTIES TO SIGN THE MAP UNDER THE PROVISIONS OF SECTION 66436 SUBSECTION (c)(3) OF THE SUBDIVISION MAP ACT. ALL OF THE ABOVE MENTIONED DOCUMENTS BEING RECORDS OF LOS ANGELES COUNTY.

I HEREBY CERTIFY THAT I AM A REGISTERED CIVIL ENGINEER OF THE STATE OF CALIFORNIA; THAT THIS FINAL MAP, CONSISTING OF 2 SHEETS, IS A TRUE AND COMPLETE SURVEY AS SHOWN, AND WAS MADE BY ME OR UNDER MY DIRECTION IN MAY 1984; THAT THE MONUMENTS OF THE CHARACTER AND LOCATIONS SHOWN HEREON ARE IN PLACE; THAT SAID MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

C M Leonard
CLARK M. LEONARD R.C.E. 13167

BASIS OF BEARINGS:
THE BEARING SHOWN HEREON ARE BASED ON THE BEARING N89°59'30"E OF THE CENTERLINE OF 223rd STREET AS SHOWN ON TRACT No. 34176 M.B. 911/72-77.

NOTE: ALL 2" PIPES SHOWN AS "SET" ARE SET 6" DEEP.

STATE OF CALIFORNIA } S.S.
COUNTY OF LOS ANGELES }
ON THIS 5th DAY OF December, 1984, BEFORE ME, THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR SAID STATE, PERSONALLY APPEARED Francis P. Torino PERSONALLY KNOWN TO ME OR PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON WHO EXECUTED THE WITHIN INSTRUMENT AS THE — PRESIDENT AND Robert Collins PERSONALLY KNOWN TO ME OR PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON WHO EXECUTED THE WITHIN INSTRUMENT AS THE — SECRETARY OF THE CORPORATION THAT EXECUTED THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT SUCH CORPORATION EXECUTED THE WITHIN INSTRUMENT PURSUANT TO ITS BY-LAWS OR A RESOLUTION OF ITS BOARD OF DIRECTORS.
WITNESS MY HAND AND OFFICIAL SEAL.

OFFICIAL SEAL
VELMA C. BOWMAN
NOTARY PUBLIC — CALIFORNIA
LOS ANGELES COUNTY
My Comm. Expires May 29, 1986

Velma C. Bowman
NOTARY PUBLIC

THIS TRACT IS APPROVED AS A CONDOMINIUM PROJECT FOR 76 UNITS WHEREBY THE OWNERS OF THE UNITS OF AIR SPACE WILL HOLD AN UNDIVIDED INTEREST IN THE COMMON AREAS WHICH WILL, IN TURN, PROVIDE THE NECESSARY ACCESS AND UTILITY EASEMENTS FOR THE UNITS.

PURSUANT TO SECTION 66499.20 1/2 OF THE SUBDIVISION MAP ACT, THE FILING OF THIS TRACT MAP CONSTITUTES ABANDONMENT OF THOSE STREETS ACQUIRED BY THE COUNTY OF LOS ANGELES BY DOCUMENT RECORDED IN BOOK D 2465 PAGE 486 OFFICIAL RECORDS OF LOS ANGELES COUNTY, NOT SHOWN ON THIS MAP.

IN RE TRACT NO. 31726 IT IS ORDERED THAT THE MAP OF TRACT NO. 31726 IS HEREBY APPROVED.

THIS IS TO CERTIFY THAT THE INTEREST IN REAL PROPERTY CONVEYED BY THE WITHIN DEDICATION OR GRANT TO THE COUNTY OF LOS ANGELES, A GOVERNMENTAL AGENCY, IS HEREBY ACCEPTED AND THE GRANTEE CONSENTS TO THE RECORDATION THEREOF BY ITS AUTHORIZED OFFICER.

I HEREBY CERTIFY THAT THE FOREGOING ORDER WAS ADOPTED BY THE BOARD OF SUPERVISORS AT A MEETING HELD
FEB 26 1985

EXECUTIVE OFFICER-
CLERK OF THE BOARD OF SUPERVISORS
OF THE COUNTY OF LOS ANGELES
STATE OF CALIFORNIA
BY William J. Stromayer DEPUTY

I HEREBY CERTIFY THAT I HAVE EXAMINED THIS MAP THAT IT CONFORMS SUBSTANTIALLY TO THE TENTATIVE MAP AND ALL APPROVED ALTERATIONS THEREOF; THAT ALL PROVISIONS OF STATE LAW AND LOCAL SUBDIVISION ORDINANCES APPLICABLE AT THE TIME OF APPROVAL OF THE TENTATIVE MAP HAVE BEEN COMPLIED WITH; AND THAT I AM SATISFIED THAT THIS MAP IS TECHNICALLY CORRECT.

COUNTY ENGINEER
DATE FEB 26 1985
BY Lubo Hydeshein DEPUTY

039-197

1047 / 55

BOOK 1047 PAGE 55

SCALE: 1" = 50'

TRACT NO. 31726

SHEET 2 OF 2 SHEETS

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

FOR CONDOMINIUM PURPOSES

LANCO

LAND CONSULTANTS AND CIVIL ENGINEERS

FILED WITH LOS ANGELES
FEB 28 1985

℄ FIGUEROA STREET

FD. SW & T "R.C.E. 24027" IN LIEU OF L.A. CITY ENGR. STD. SURV. MON. IN H.H. PER L.A. CO. ENGR. FB. 2735/61.

FD. L & C.E. TAG PER L.A. Co. ENGR. FB. 2735/61.

FD. L & T PER RD. F.B. 0420/143

N0°19'11"W - 1320.22'

391.52' 132.73' 795.97'

25'

N0°19'11"W - 1270.22'

965.17' 305.05'

FD. SW & T PER L.A.Co. ENGR. FB. 2735/224

204.17'

661.06'

336.80'

S'LY LINE OF LOT 67 TRACT No. 3612 M.B. 40/5-6 ESTABLISHED BY PRORATION PER SAID TRACT.

NOT A PART OF THIS SUBDIVISION

HARBOR FREEWAY

N89°59'25"W

636.05' N89°59'25"W - 636.20'

N'LY LINE OF LOT 57 TRACT No. 3612 M.B. 40/5-6

E'LY LINE OF TRACT No. 3239 M.B. 37/27-28 AND W'LY LINE OF TRACT No. 3612 M.B. 40/5-6

E'LY LINE LOTS 57, 58, 67 & 68 TRACT No. 3612 M.B. 40/5-6

N89°59'43"W - 635.88'

550.08'

660.82'

N89°59'49"W

S'LY LINE OF LOT 68 TRACT No. 3612 M.B. 40/5-6

FD. L & T IN CONC. CURB PER L.A. CO. F.B. 2735/224

SET 2" I.P.

N0°09'34"W 40.18'

W'LY LINE OF D2452/742 O.R. ESTABLISHED AT RECORD ANGLES AND DISTANCES PER SAID DEED.

N4°14'45"E - 200.64'

N89°59'55"E - 20.80'

N0°00'05"W 26.00'

N4°14'45"E - 124.00'

30' PRIVATE DRIVEWAY AND FIRE LANE

N85°45'15"W 30.00'

N4°14'45"E - 117.76'

N38°11'22"E 49.61'

FD. S & W "LS 3582" & "CE 16296" PER RDFB 0420/290 C AT ℄ PT. IN ℄ 220th STREET. ACCEPTED ℄ PT. AS BEING ON E. LINE OF TRACT No. 3239 M.B. 37/27-28 AS SHOWN ON L.A Co. ENGR. FB 2735/224

120.09'

N'LY LINE OF TRACT No. 3239 M.B. 37/27-28 AND W'LY LINE OF TRACT No. 3612 M.B. 40/5-6

SEE DETAIL "B"

NOT A PART OF THIS SUBDIVISION

965.23'

280.07'

N0°19'49"W - 1320.30'

SET N & TAG IN CONC. WALL P.T.

E'LY LINE OF TRACT No. 3239 PER PRORATION

PRIVATE DRIVEWAY AND FIRE LANE

N6°11'00"W - 110.00'

N28°49'00"E 6.00'

10' WIDE EASEMENT OF METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA FOR WATER LINE PURPOSES PER 15658/228 O.R.

S'LY LINE OF LOT 36 TRACT No. 3239 M.B. 37/27-28

599.35'

S'LY LINE OF LOT 68 TRACT No. 3612 M.B. 40/5-6

SEE DETAIL "C"

FD. S & W AT ℄ PT. PER RD. F.B. 0420/711 PT. ACCEPTED AS BEING ON E. LINE OF TRACT № 3239 M.B. 37/28-29 AS SHOWN ON TRACT № 34176 M.B. 911/72-77. FD. C. NAIL 0.08' S'LY. NO REF.

℄ 220TH STREET

N89°58'45"W 623.98'

N89°59'25"W - 120.09'

661.06'

N0°19'49"W 25.00'

N89°58'45"W - 598.84'

N'LY LINE OF LOT 17 TRACT No. 3239 M.B. 37/27-28

0.15'

320.30' 965.23'

DETAIL "B"
NO SCALE

℄ 220TH STREET

N89°58'45"W - 623.98'

N89°58'45"W - 598.84'

N'LY LINE OF LOT 17 TRACT No. 3239 M.B. 37/27-28

N89°59'55"E - 574.27'

N89°59'55"E - 523.65'

N89°59'55"E - 624.27'

N89°59'55"E - 468.05'

S'LY LINE OF LOT No. 27 TRACT No. 3239 M.B. 37/27-28 ESTABLISHED BY PRORATION

PRIVATE DRIVEWAY AND FIRE LANE

SET L & T IN CONC. SIDEWALK

N73°13'00"E 67.98'

N73°13'00"E 619.00'

68.00' N89°41'11"E

N89°41'11"E 72.34'

1

4.17 ACRES GROSS
3.64 ACRES NET

℄ 10' WIDE EASEMENT TO THE COUNTY OF LOS ANGELES FOR SANITARY SEWER PURPOSES

N89°59'30"E - 255.00'

N69°17'00"E - 134.53'

N89°41'11"E - 98.00'

547.49'

547.77'

N89°59'30"E - 557.63'

N89°59'30"E - 599.49'

547.77'

N89°59'30"E - 624.36'

223RD STREET

SEE DETAIL "A"

Δ=89°41'41" R=27' L=42.27'

Δ=29°57'36" L=14.12'

Δ=29°46'25" L=14.03'

N45°09'39"W 5.12'

N29°51'06"E RAD.

N59°43'35"E RAD.

38.65' 253.28' 9.86'

N0°18'49"W-263.14'

VERMONT AVENUE

DETAIL "A"
NO SCALE

E'LY LINE OF TRACT No. 3239 M.B. 37/27-28 AND W'LY LINE OF TRACT No. 3612 M.B. 40/5-6

N89°59'49"W 38.61'

N89°59'49"W-635.68'

S'LY LINE OF LOT 68 TRACT No. 3612 M.B. 40/5-6

N89°59'49"W-660.82'

℄ 223RD STREET

N0°19'49"W 280.07'

320.30' 25.00'

N89°59'30"E 547.77'

S'LY LINE OF LOT 36 TRACT No. 3239 M.B. 37/27-28

N89°59'30"E 599.35'

DETAIL "C"
NO SCALE

W'LY LINE OF TRACT No. 3612 TRACT No. 3239

SET L & T IN CONC. SIDEWALK

43.00' 30.00' 141.63' 38.65'

N0°18'49"W - 263.14'

1.00'

24.00'

965.46' 305.14'

N0°18'49"W - 1270.60'

FD. S & W PER RDFB 0420/290 D

990.46' 253.56' 76.59'

N0°18'49"W - 1320.61'

FD. L & RD TAG W/4-1.00' STRADDLERS PER RDFB 0420/711.

VERMONT AVENUE

NORTH

INDICATE THE BOUNDARY OF LAND BEING SUBDIVIDED BY THIS MAP.

1083|53

BOOK 1083 PAGE 53

SHEET 1 OF 2 SHEETS

TRACT NO. 42773

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES

BEING A SUBDIVISION OF A PORTION OF LOT 32, TRACT NO. 3239, AS SHOWN ON MAP RECORDED IN BOOK 37, PAGES 27 AND 28, OF MAPS, IN THE OFFICE OF THE RECORDER IN THE COUNTY OF LOS ANGELES

FOR CONDOMINIUM PURPOSES

MAR 24 1987

FILED
AT REQUEST OF OWNER
01 MIN PAST 2 P.M.
IN BOOK 1083
AT PAGE 53
OF MAPS
LOS ANGELES COUNTY, CALIF.
BY Viola Peoples Deputy
FEE $ 8.00

MAP & DED'C

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF OR ARE INTERESTED IN THE LANDS INCLUDED WITHIN THE SUBDIVISION SHOWN ON THIS MAP WITHIN THE DISTINCTIVE BORDER LINES, AND WE CONSENT TO THE PREPARATION AND FILING OF SAID MAP AND SUBDIVISION.

WE HEREBY DEDICATE TO THE PUBLIC USE ALL STREETS, HIGHWAYS, AND OTHER PUBLIC WAYS SHOWN ON SAID MAP.

WE FURTHER CERTIFY THAT WE KNOW OF NO EASEMENT OR STRUCTURE EXISTING WITHIN THE EASEMENTS HEREIN OFFERED FOR DEDICATION TO THE PUBLIC, OTHER THAN PUBLICLY OWNED WATER LINES, SEWERS, OR STORM DRAINS, THAT WE WILL GRANT NO RIGHT OR INTEREST WITHIN THE BOUNDARIES OF SAID EASEMENTS OFFERED TO THE PUBLIC, EXCEPT WHERE SUCH RIGHT OR INTEREST IS EXPRESSLY MADE SUBJECT TO THE SAID EASEMENTS.

AS A DEDICATION TO PUBLIC USE, WHILE ALL OF NORMANDIE AVENUE AND 223RD STREET WITHIN OR ADJACENT TO THIS SUBDIVISION REMAIN PUBLIC STREETS, WE HEREBY ABANDON ALL RIGHTS, EXCEPT FOR ONE DRIVEWAY OPENING TO EACH STREET, RESPECTIVELY FOR LOT 1, OF DIRECT VEHICULAR INGRESS AND EGRESS TO THE SAID STREETS. IF ANY PORTION OF SAID STREETS WITHIN OR ADJACENT TO THIS SUBDIVISION ARE VACATED, SUCH VACATION TERMINATES THE ABOVE DEDICATION AS TO THE PART VACATED.

R.G. GARLAND CORP., A CORPORATION, OWNER

Ralph G. Garland

RALPH G. GARLAND, PRESIDENT

CALIFORNIA FIRST BANK, A CALIFORNIA BANKING CORPORATION, RECORD HOLDER OF BENEFICIAL INTEREST UNDER DEED OF TRUST RECORDED DECEMBER 24, 1986, AS INSTRUMENT NO. 86-1794196, OFFICIAL RECORDS.

Kei Matsuda
KEITARO MATSUDA, AVP

Kandice K. Chappell
KANDICE K. CHAPPELL, AVP

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS.

ON THIS 13TH DAY OF June, 1986 BEFORE ME, THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR SAID STATE, PERSONALLY APPEARED RALPH G. GARLAND PERSONALLY KNOWN TO ME OR PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON WHO EXECUTED THE WITHIN INSTRUMENT AS THE PRESIDENT, OF THE CORPORATION THAT EXECUTED THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT SUCH CORPORATION EXECUTED THE WITHIN INSTRUMENT PURSUANT TO ITS BY-LAWS OR A RESOLUTION OF ITS BOARD OF DIRECTORS.

Evelyn S. Becker
NOTARY PUBLIC

SEAL
EVELYN S. BECKER
LOS ANGELES COUNTY

IN RE TRACT NO. 42773 IT IS ORDERED THAT THE MAP OF TRACT NO. 42773 IS HEREBY APPROVED.

THIS IS TO CERTIFY THAT THE INTEREST IN REAL PROPERTY CONVEYED BY THE WITHIN DEDICATION OR GRANT TO THE COUNTY OF LOS ANGELES, A GOVERNMENTAL AGENCY, IS HEREBY ACCEPTED AND THE GRANTEE CONSENTS TO THE RECORDATION THEREOF BY ITS AUTHORIZED OFFICER.

I HEREBY CERTIFY THAT THE FOREGOING ORDER WAS ADOPTED BY THE BOARD OF SUPERVISORS AT A MEETING HELD MAR 17 1987

EXECUTIVE OFFICER-
CLERK OF THE BOARD OF SUPERVISORS
OF THE COUNTY OF LOS ANGELES,
STATE OF CALIFORNIA
BY Lauralito V. Cristobal
DEPUTY

COUNTY OF LOS ANGELES

039-197

I HEREBY CERTIFY THAT I AM A REGISTERED CIVIL ENGINEER OF THE STATE OF CALIFORNIA; THAT THIS FINAL MAP, CONSISTING OF 2 SHEETS, IS A TRUE AND COMPLETE SURVEY AS SHOWN, AND WAS MADE BY ME OR UNDER MY DIRECTION ON MARCH 11TH, 1986; THAT THE MONUMENTS OF THE CHARACTER AND LOCATIONS SHOWN HEREON ARE IN PLACE; THAT SAID MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

James M. Givens
JAMES M. GIVENS R.C.E. 26997
WESTCO ENGINEERING & SURVEYING

SEND DUPLICATE TO RECORDER FOR THE ENGINEER

87- 438303

THIS TRACT IS APPROVED AS A CONDOMINIUM PROJECT FOR 30 UNITS, WHEREBY THE OWNERS OF THE UNITS OF AIR SPACE WILL HOLD AN UNDIVIDED INTEREST IN THE COMMON AREAS WHICH WILL, IN TURN, PROVIDE THE NECESSARY ACCESS AND UTILITY EASEMENTS FOR THE UNITS.

BASIS OF BEARINGS:

THE BASIS OF BEARINGS SHOWN HEREON ARE BASED ON THE BEARING N89° 43'00"W OF THE SOUTHERLY SIDELINE OF 223RD STREET (FORMERLY KNOWN AS WILMINGTON STREET) AS SHOWN ON TRACT NO. 3239, M.B. 37, PAGES 27 AND 28.

• • • • • • • INDICATES THE BOUNDARY OF THE LAND BEING SUBDIVIDED BY THIS MAP.

THE SIGNATURE OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION, HOLDER FOR PUBLIC UTILITY PURPOSES, AS DISCLOSED BY DEEDS RECORDED IN BOOK D817, PAGE 305 AND BOOK 54443, PAGE 210, BOTH OF OFFICIAL RECORDS OF LOS ANGELES COUNTY, HAS BEEN OMITTED UNDER THE PROVISIONS OF SECTION 66436, (a) 3A (I-VII) OF THE SUBDIVISION MAP ACT, THEIR INTEREST IS SUCH THAT IT CANNOT RIPEN INTO A FEE TITLE AND SAID SIGNATURE IS NOT REQUIRED BY THE LOCAL AGENCY.

THE SIGNATURE OF DOMINGUEZ WATER CORPORATION, FORMERLY KNOWN AS DOMINGUEZ WATER COMPANY, HOLDER OF A BLANKET EASEMENT FOR WATER PIPELINE PURPOSES AS DISCLOSED BY DEED RECORDED IN BOOK 1515, PAGE 265 OF OFFICIAL RECORDS, RECORDS OF LOS ANGELES COUNTY, HAS BEEN OMITTED UNDER THE PROVISIONS OF SECTION 66436,(a) 3A (I-VII) OF THE SUBDIVISION MAP ACT, THEIR INTEREST IS SUCH THAT IT CANNOT RIPEN INTO A FEE TITLE AND SAID SIGNATURE IS NOT REQUIRED BY THE LOCAL AGENCY.

STATE OF CALIFORNIA)
COUNTY OF ORANGE) S.S.
ON THIS 13TH DAY OF JAN, 1986 BEFORE ME, THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR SAID STATE, PERSONALLY APPEARED KEITARO MATSUDA PERSONALLY KNOWN TO ME OR PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON WHO EXECUTED THE WITHIN INSTRUMENT AS THE ASSISTANT VICE PRESIDENT, AND KANDICE K. CHAPPELL PERSONALLY KNOWN TO ME OR PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON WHO EXECUTED THE WITHIN INSTRUMENT AS THE ASST. VICE PRESIDENT ~~SECRETARY~~ OF THE CORPORATION THAT EXECUTED THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT SUCH CORPORATION EXECUTED THE WITHIN INSTRUMENT PURSUANT TO ITS BY-LAWS OR A RESOLUTION OF ITS BOARD OF DIRECTORS, AS BENEFICIARY.

Glendora Y Sammond
NOTARY PUBLIC

I HEREBY CERTIFY THAT I HAVE EXAMINED THIS MAP, THAT IT CONFORMS SUBSTANTIALLY TO THE TENTATIVE MAP AND ALL APPROVED ALTERATIONS THEREOF; THAT ALL PROVISIONS OF STATE LAW AND LOCAL SUBDIVISION ORDINANCES APPLICABLE AT THE TIME OF APPROVAL OF THE TENTATIVE MAP HAVE BEEN COMPLIED WITH; AND THAT I AM SATISFIED THAT THIS MAP IS TECHNICALLY CORRECT.

DATE MAR 24 1987 COUNTY ENGINEER
BY Edward Johnson DEPUTY

1083|54

BOOK 1083 PAGE 54

SCALE: 1" = 40'

SHEET 2 OF 2 SHEETS

TRACT NO. 42773
IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES FOR CONDOMINIUM PURPOSES

FILED WITH LOS ANGELES
REGISTRAR-RECORDER
MAR 24 1987

I HEREBY CERTIFY THAT ALL CERTIFICATES HAVE BEEN FILED AND DEPOSITS HAVE BEEN MADE THAT ARE REQUIRED UNDER THE PROVISIONS OF SECTIONS 66492 AND 66493 OF THE SUBDIVISION MAP ACT.

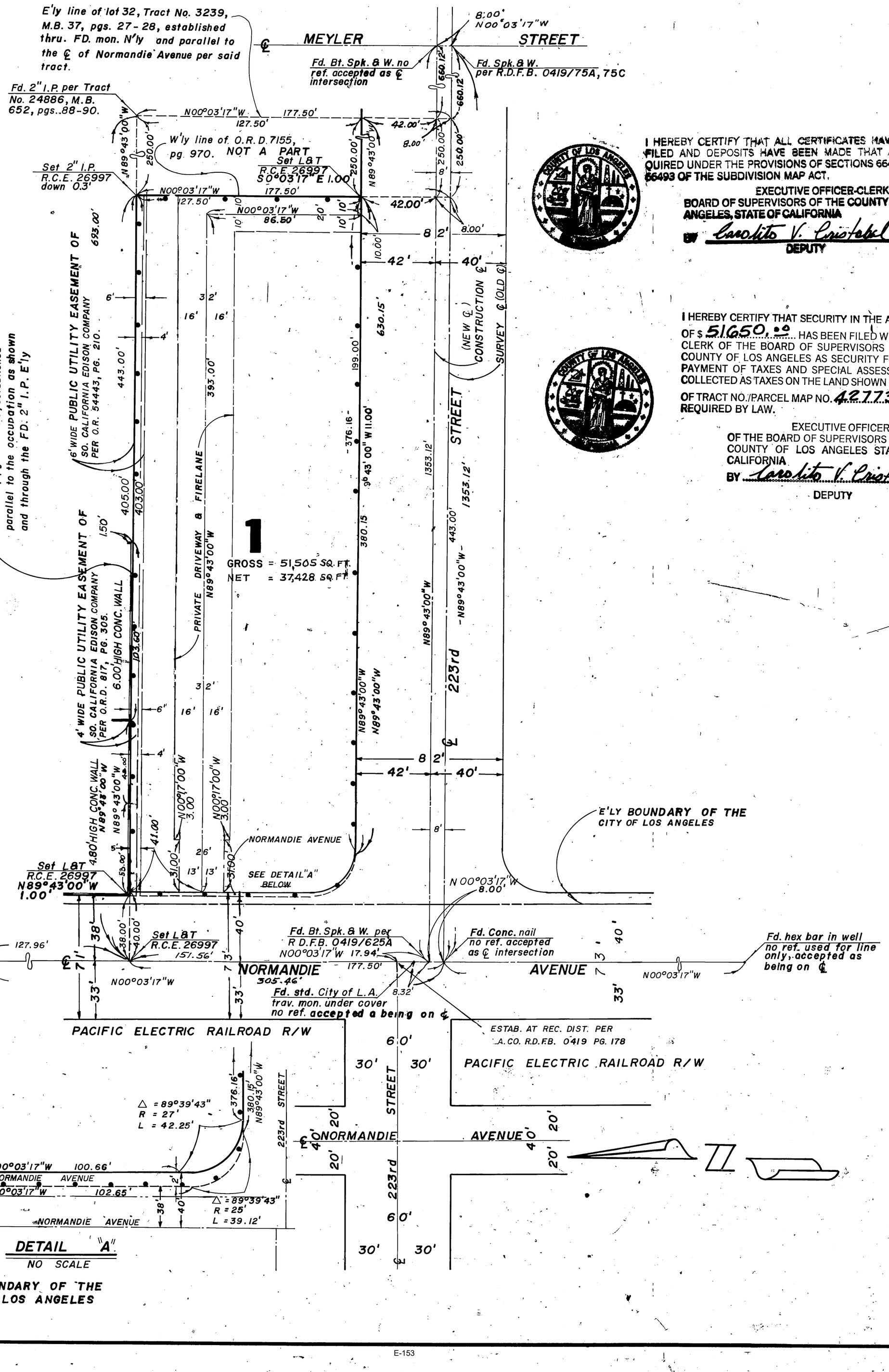
EXECUTIVE OFFICER-CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

BY Carolito V. Cristobal
DEPUTY

I HEREBY CERTIFY THAT SECURITY IN THE AMOUNT OF $ 51650.00 HAS BEEN FILED WITH THE CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES AS SECURITY FOR THE PAYMENT OF TAXES AND SPECIAL ASSESSMENTS COLLECTED AS TAXES ON THE LAND SHOWN ON MAP OF TRACT NO./PARCEL MAP NO. 42773 AS REQUIRED BY LAW.

EXECUTIVE OFFICER-CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES STATE OF CALIFORNIA

BY Carolito V. Cristobal
DEPUTY



1188/87

BOOK 1188 PAGE 87

SCALE 1" = 20'

SHEET 1 OF 3 SHEETS

92- 954345
92-954345
MAY 27 1992
FILED
AT REQUEST OF OWNER
31 MIN PAST 1 PM.
IN BOOK 1188
AT PAGE 87
OF MAPS
LOS ANGELES COUNTY, CA.
Registrar-Recorder/County Clerk
BY 92 Burk
Deputy
FEE $ 12.00

TRACT No. 49098

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

BEING A SUBDIVISION OF A PORTION OF LOT 24, TRACT 3239, PER MAP RECORDED IN BOOK 37, PAGE 27 AND 28 OF MAPS, RECORDS OF LOS ANGELES COUNTY

FOR CONDOMINIUM PURPOSES

MAP & DEDIC.

OWNER'S CERTIFICATE

We hereby certify that we are the owners of, or are interested in the lands included within the subdivision shown on this map within the distinctive border lines, and we consent to the preparation and filing of said map and subdivision. We hereby dedicate to the public use all Streets, Highways and other public ways, shown on said map and we also dedicate to the County of Los Angeles the easement for sanitary sewer purposes so designated on said map and all uses incident thereto including the right to make connections therewith from any adjoining properties.
We further certify that we know of no easement or structure existing within the easements herein offered for dedication to the public, other than publicly owned water lines, sewers, or storm drains, that we will grant no right or interest within the boundaries of said easements offered to the public, except where such right or interest is expressly made subject to the said easement.

John D. Peterson and Christopher Carbonel (owners)

John D. Peterson

Christopher Carbonel

Pacific Heritage Bank, a California corporation, Beneficiary under a deed of Trust recorded Feburary 28, 1992 as Instrument No. 92-329276.

THOMAS N. OKAMURA President

A.R. DESALVO Vice President

The signature of Title Insurance and Trust Company, a corporation, an easement holder for pipeline purposes, by deed recorded in Book 4049, Page 311 of Official Records of Los Angeles County, has been omitted under the provisions of Section 66436, (a) 3A(I-VII) of the Subdivision Map Act, their interest is such that it cannot ripen into a fee title and said signature is not required by the local agency.
Said easement is blanket in nature.

The signature of William C. Brooks, also known as Wm. C. Brooks and Joan Brooks owners of interest in or rights to minerals, oil, gas and other Hydrocarbon substances per document recorded November 25, 1955 as instrument No. 2414, of Offical Records of Los Angeles County, has been omitted under the provisions of Section 66436, (a)(3C) of the Subdivision Map Act.

IN RE TRACT NO. 49098 IT IS ORDERED THAT THE MAP OF TRACT NO. 49098 IS HEREBY APPROVED.

THIS IS TO CERTIFY THAT THE INTEREST IN REAL PROPERTY CONVEYED BY THE WITHIN DEDICATION OR GRANT TO THE COUNTY OF LOS ANGELES, A GOVERNMENTAL AGENCY, IS HEREBY ACCEPTED AND THE GRANTEE CONSENTS TO THE RECORDATION THEREOF BY ITS AUTHORIZED OFFICER.

I HEREBY CERTIFY THAT THE FOREGOING ORDER WAS ADOPTED BY THE BOARD OF SUPERVISORS AT A MEETING HELD.
MAY 19, 1992
EXECUTIVE OFFICER-
CLERK OF THE BOARD OF SUPERVISORS
OF THE COUNTY OF LOS ANGELES,
STATE OF CALIFORNIA.
BY _____ DEPUTY 5-20-92

I HEREBY CERTIFY THAT ALL CERTIFICATES HAVE BEEN FILED AND DEPOSITS HAVE BEEN MADE THAT ARE REQUIRED UNDER THE PROVISIONS OF SECTIONS 66492 AND 66493 OF THE SUBDIVISION MAP ACT.

EXECUTIVE OFFICER-CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA
BY _____ DEPUTY 5-20-92

I HEREBY CERTIFY THAT SECURITY IN THE AMOUNT OF $ 3,325.00 HAS BEEN FILED WITH THE CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES AS SECURITY FOR THE PAYMENT OF TAXES AND SPECIAL ASSESSMENTS COLLECTED AS TAXES ON THE LAND SHOWN ON MAP OF TRACT NO./PARCEL MAP NO. 49098 AS REQUIRED BY LAW.

EXECUTIVE OFFICER-CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA
BY _____ DEPUTY 5-20-92

ENGINEER'S CERTIFICATE

I hereby certify that I am a Registered Civil Engineer of the State of California; that this final map, consisting of 3 sheets, is a true and complete survey as shown, and was made by me or under my direction in September 5, 1990; that the monuments of the character and locations shown hereon are in place and that said monuments are sufficient to enable the survey to be readily retraced.

Gerald E. Ruse R.E. 18530, Expires 6/30/93

REGISTERED PROFESSIONAL ENGINEER
GERALD E. RUSE
Exp 6/30/93
No. 18530
CIVIL
STATE OF CALIFORNIA

BASIS OF BEARINGS

The bearings shown hereon are based on the bearing N 0° 03' 00" W along the sideline of Meyler Street as shown on Tract No. 3239, Map Book 37, pages 27 and 28.

This subdivision is approved as a condominium project for 6 units, whereby the owners of the units of air space will hold an undivided interest in the common areas which will, in turn, provide the necessary access and utility easements for the units.

State of California)
County of Los Angeles) s.s.

On March 12, 1992 before me the undersigned a Notary Public in and for said State, personally appeared John D. Peterson and Christopher Carbonel personally known to me or proved to me on the basis of satisfactory evidence to be the persons whose names are subscribed to the within instrument and acknowledged that they executed the same.

County of Los Angeles,
My Commission Expires 6-30-95

Beatriz De Escalante
,Notary Public

OFFICIAL NOTARY SEAL
BEATRIZ DE ESCALANTE
Notary Public — California
LOS ANGELES COUNTY
My Comm. Expires JUN 30,1995

State of California)
County of Los Angeles) s.s.

On March 9 92 before me the undersigned a Notary Public in and for said State, personally appeared Thomas N. OKAMURA personally known to me or proved to me on the basis of satisfactory evidence to be the person who executed the within instrument as the President, and A.R. DESALVO personally known to me or proved to me on the basis of satisfactory evidence to be the person who executed the within instrument as the VICE PRESIDENT of Pacific Heritage Bank, the corporation that executed the within instrument and acknowledged to me that such Corporation executed the within instrument pursuant to its by-laws or a resolution of its Board of Directors, as beneficiary.

County of Los Angeles,
My Commission Expires 6-30-95

Beatriz De Escalante
,Notary Public

OFFICIAL NOTARY SEAL
BEATRIZ DE ESCALANTE
Notary Public — California
LOS ANGELES COUNTY
My Comm. Expires JUN 30,1995

I HEREBY CERTIFY THAT I HAVE EXAMINED THIS MAP, THAT IT CONFORMS SUBSTANTIALLY TO THE TENTATIVE MAP AND ALL APPROVED ALTERATIONS THEREOF; THAT ALL PROVISIONS OF STATE LAW AND LOCAL SUBDIVISION ORDINANCES APPLICABLE AT THE TIME OF APPROVAL OF THE TENTATIVE MAP HAVE BEEN COMPLIED WITH; AND THAT I AM SATISFIED THAT THIS MAP IS TECHNICALLY CORRECT.

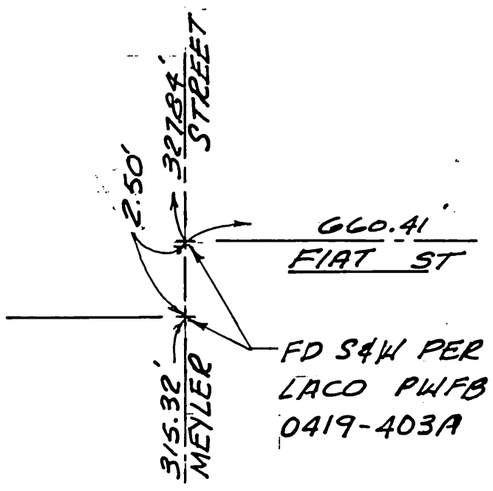
COUNTY ENGINEER
DATED: 5-20-92 BY Gerald C. Thompson
Deputy
RCE: 19763
EXP: 9-30-93

039-197

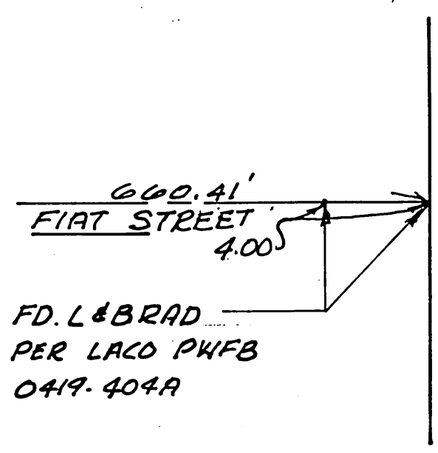
SCALE: 1" = 50'

TRACT NO. 49098

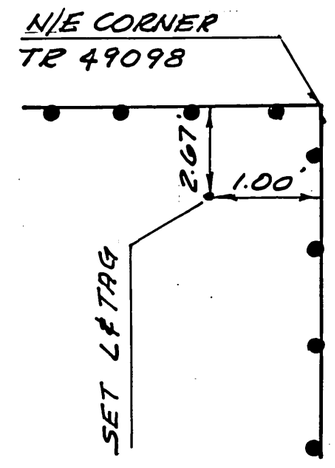
IN THE COUNTY OF LOS ANGELES
STATE OF CALIFORNIA
FOR CONDOMINIUM PURPOSES



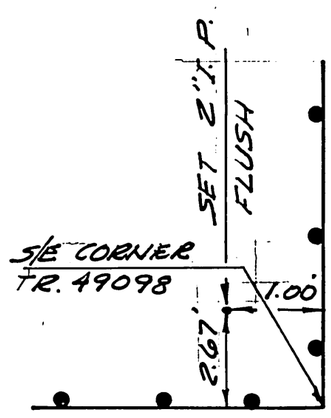
DETAIL "A" NO SCALE



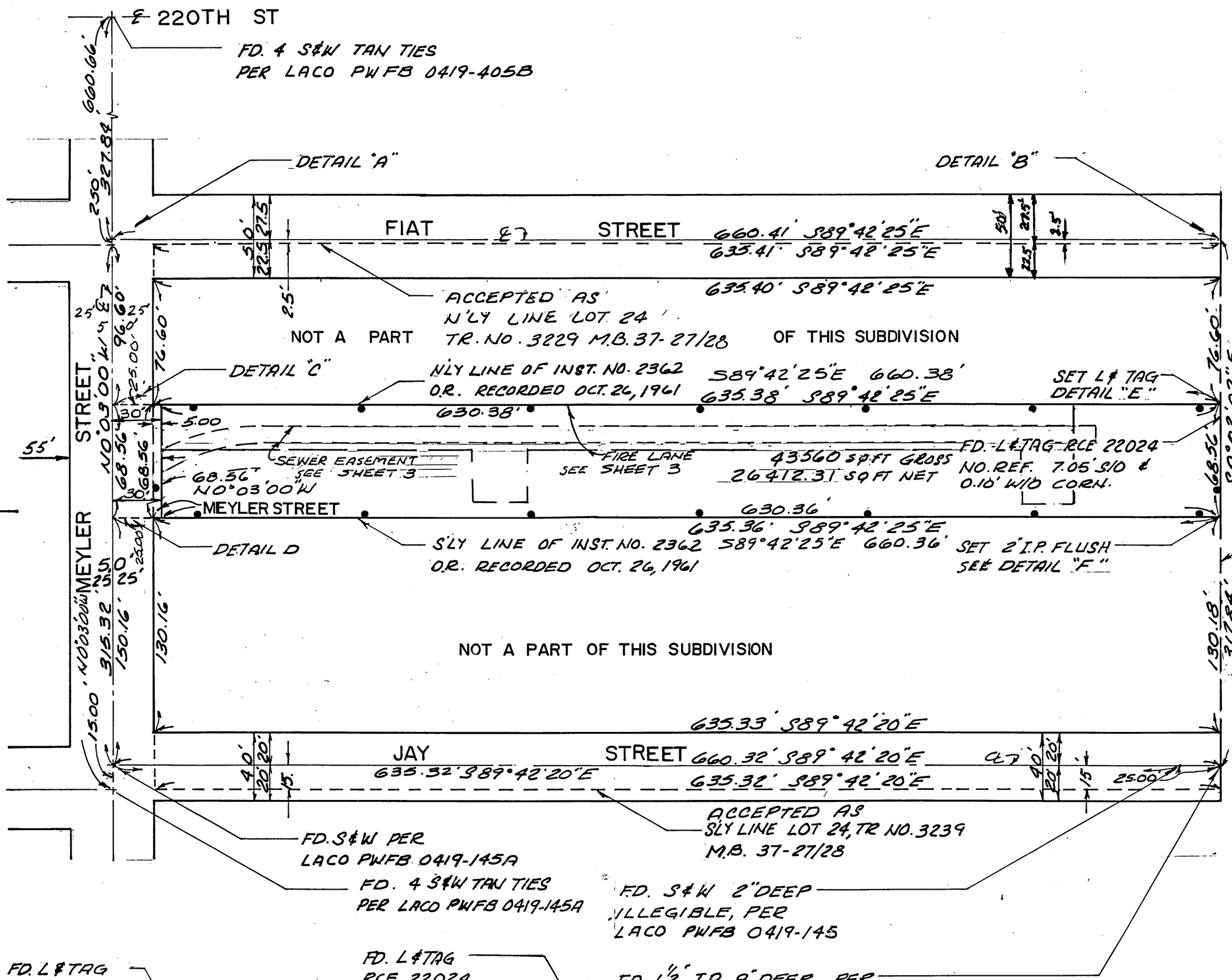
DETAIL "B" NO SCALE

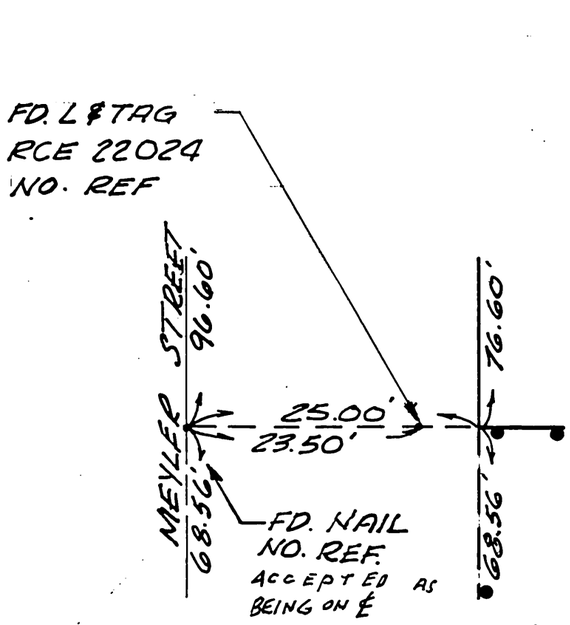


DETAIL "E" NO SCALE

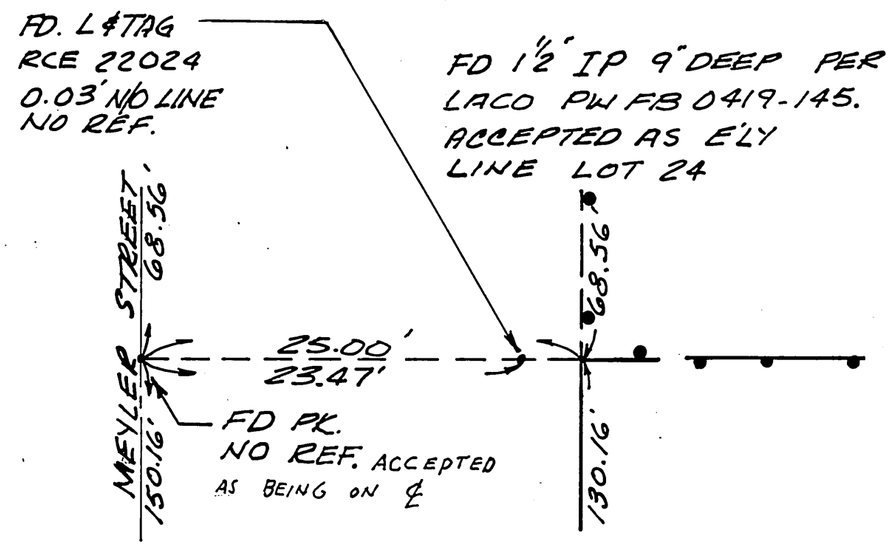


DETAIL "F" NO SCALE





DETAIL "C" NO SCALE



DETAIL "D" NO SCALE

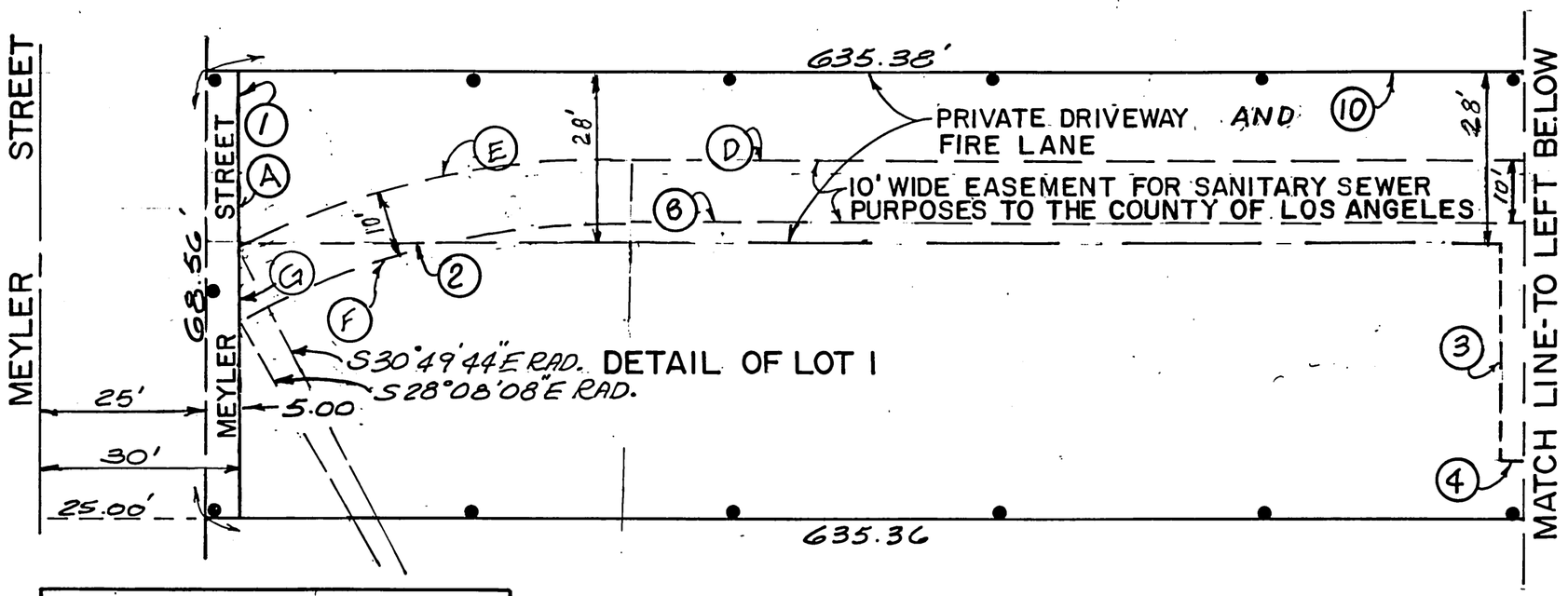
INDICATES THE BOUNDARY OF THE LAND BEING SUBDIVIDED BY THIS MAP

SCALE: 1" =20'

SHEET 3 OF 3 SHEETS

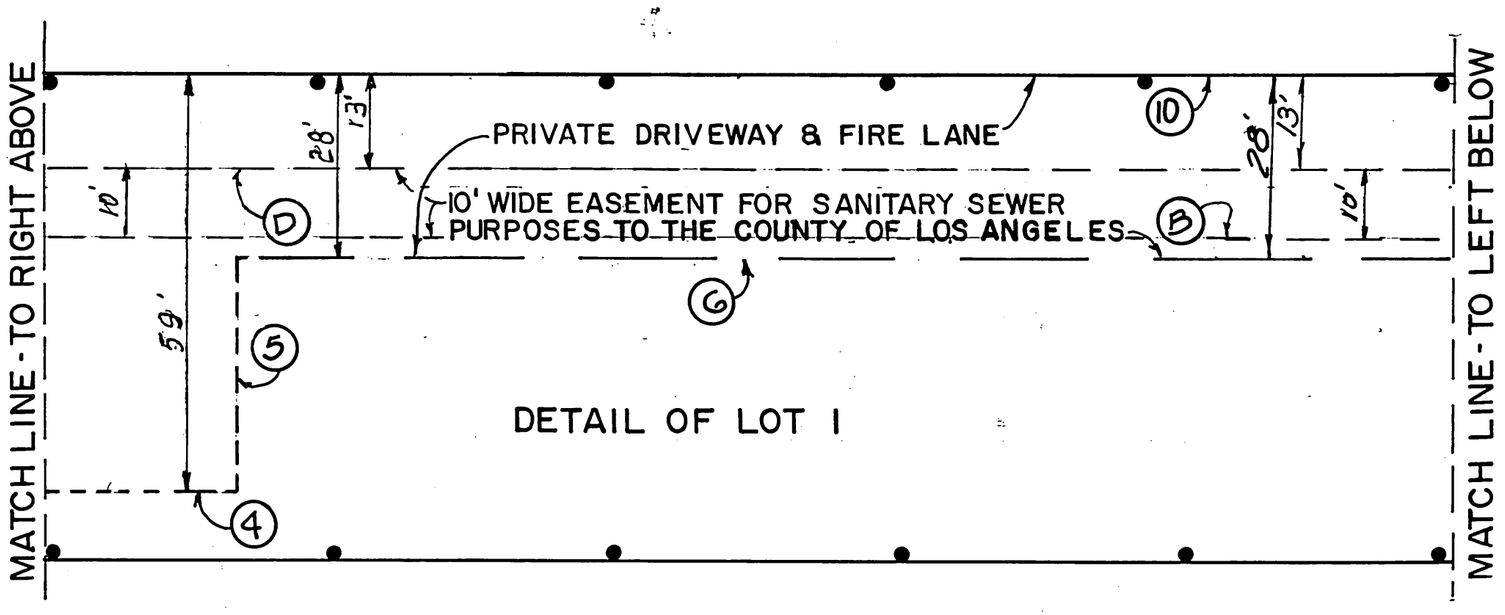
TRACT NO. 49098

IN THE COUNTY OF LOS ANGELES
STATE OF CALIFORNIA
FOR CONDOMINIUM PURPOSES



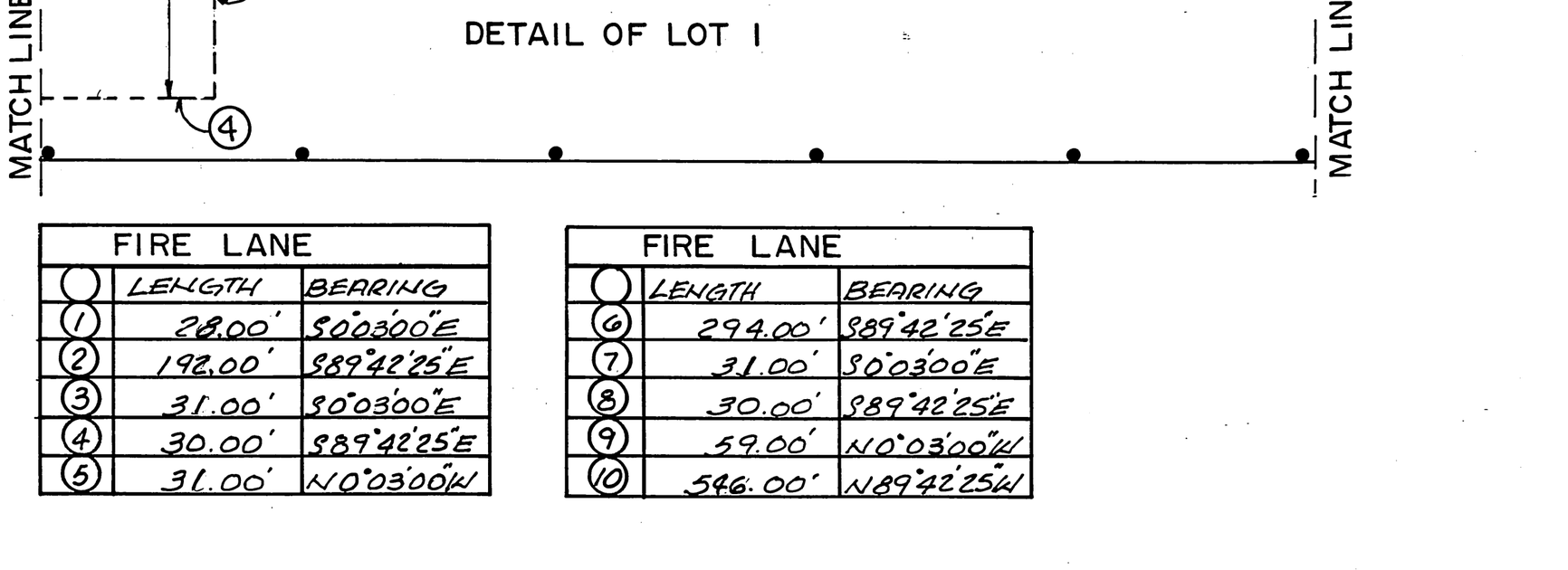
SEWER EASEMENT		
○	LENGTH	BEARING
A	28.07'	S0°03'00"E
B	497.42'	S89°42'25"E
C	10.00'	S0°17'35"W
D	497.42'	N89°42'25"W
○		
○		
G	11.48'	N0°03'00"W

CURVE DATA				
○	R'	Δ	L'	T'
E	125.00	28°25'43"	62.02	31.66
F	115.00	31°07'19"	62.47	32.02



FIRE LANE		
○	LENGTH	BEARING
1	28.00'	S0°03'00"E
2	192.00'	S89°42'25"E
3	31.00'	S0°03'00"E
4	30.00'	S89°42'25"E
5	31.00'	N0°03'00"W

FIRE LANE		
○	LENGTH	BEARING
6	294.00'	S89°42'25"E
7	31.00'	S0°03'00"E
8	30.00'	S89°42'25"E
9	59.00'	N0°03'00"W
10	546.00'	N89°42'25"W



SEWER & FIRE LANE EASEMENT DETAILS

Survey — COPY

RECORDING REQUESTED BY

Gerald E. Ruse
(Engineer or Surveyor)

WHEN RECORDED RETURN TO
RUSE AND ASSOCIATES
2649 AVERILL AVE.
SAN PEDRO, CA 90731-5630
(Engineer or Surveyor)

COPY of Document Recorded
93 941635
Has not been compared with original.
Original will be returned when
processing has been completed.
LOS ANGELES COUNTY REGISTRAR - RECORDER

MAY 18 1993

SPACE ABOVE THIS LINE FOR RECORDER'S USE

CERTIFICATE OF CORRECTION

COUNTY OF LOS ANGELES } s.s.
STATE OF CALIFORNIA

GERALD E. RUSE
(Name of Engineer or Surveyor), being duly sworn, deposes and says:

That the following corrections or amendments to the map of TRACT NO. 49098, as filed in Book 1188, page(s) 87 THRU 89 of MAPS in the office of the Registrar-Recorder of the County of Los Angeles and made by me in accordance with Section 66469 of the Subdivision Map Act:

On sheet 3 of the Tract map for the fire lane boundary change length No. 2 from 192.00' to 197.60', change length No. 6 from 294.00' to 293.10' and change length No. 10 from 546.00' to 550.70'

REGISTERED PROFESSIONAL ENGINEER
GERALD E. RUSE
18530
EXP. 6/30/93
CIVIL
STATE OF CALIFORNIA

Gerald E Ruse
Signature of Engineer

RCE No. 18530
Exp. Date 6/30/93

Certificate of County Surveyor

This is to certify that the above Certificate of Correction has been examined and that the amendments and/or corrections are in compliance with Section 66469 of the Subdivision Map Act.

May 13, 1993
Director of Public Works

By Gerald C. Thompson
Deputy RCE No 19763
EXP. 9-30-93

Listed below are the present fee owners of property affected by the correction or amendment:

JOHN D. PETERSON

1203 / 34

BOOK 1203 PAGE 34

SHEET 1 OF 2 SHEETS

93 2449647

93 2449647

FILED
AT REQUEST OF OWNER
DEC 15 1993
01 MIN PAST 3 PM

IN BOOK 1203

AT PAGE 34
OF MAPS
LOS ANGELES COUNTY, CA.

Registrar-Recorder/County Clerk

BY Mike K
Deputy

FEE $ 9-

TRACT NO. 51112

IN UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES STATE OF CALIFORNIA

BEING A SUBDIVISION OF A PORTION OF LOT 7 OF TRACT NO. 3239, AS SHOWN ON MAP RECORDED IN BOOK 37 PAGES 27 AND 28 OF MAPS, IN THE OFFICE OF THE RECORDER OF THE COUNTY OF LOS ANGELES.

FOR CONDOMINIUM PURPOSES

— LANCO ENGINEERING —

OWNER'S STATEMENT:
WE HEREBY STATE THAT WE ARE THE OWNERS OF OR ARE INTERESTED IN THE LANDS INCLUDED WITHIN THE SUBDIVISION SHOWN ON THIS MAP WITHIN THE DISTINCTIVE BORDER LINES, AND WE CONSENT TO THE PREPARATION AND FILING OF SAID MAP AND SUBDIVISION.
AS A DEDICATION TO PUBLIC USE, WHILE ALL OF VERMONT AVENUE WITHIN OR ADJACENT TO THIS SUBDIVISION REMAINS A PUBLIC STREET, WE HEREBY, GRANT TO THE COUNTY OF LOS ANGELES THE RIGHT TO RESTRICT DIRECT VEHICULAR INGRESS AND EGRESS FROM ABUTTING LOTS TO THE SAID STREET, IF ANY PORTION OF SAID STREET WITHIN OR ADJACENT TO THIS SUBDIVISION IS VACATED, SUCH VACATION TERMINATES THE ABOVE DEDICATION AS TO THE PART VACATED.
WE ALSO HEREBY DEDICATE TO THE COUNTY OF LOS ANGELES THE EASEMENT FOR SANITARY SEWER PURPOSES SO DESIGNATED ON SAID MAP AND ALL USES INCIDENT THERETO, INCLUDING THE RIGHT TO MAKE CONNECTIONS THEREWITH FROM ANY ADJOINING PROPERTIES.

ENGINEER'S STATEMENT:
I HEREBY STATE THAT I AM A REGISTERED CIVIL ENGINEER OF THE STATE OF CALIFORNIA; THAT THIS FINAL MAP, CONSISTING OF 2 SHEETS, IS A TRUE AND COMPLETE SURVEY AS SHOWN, AND WAS MADE BY ME OR UNDER MY DIRECTION IN MAY 1992; THAT THE MONUMENTS OF THE CHARACTER AND LOCATIONS SHOWN HEREON ARE IN PLACE; THAT SAID MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

MICHAEL A. NICHOLS R.C.E. 22504
EXP. 12-31-93

REGISTERED PROFESSIONAL ENGINEER — MICHAEL A. NICHOLS — No. 22504 Exp.12-31-93 — CIVIL — STATE OF CALIFORNIA

TOM M. YONEMURA, SUSAN S. OHARA AND ROBERT T. KAWAMOTO, TRUSTEE
FOR THE FRANK M. YONEMURA AND SUEKO YONEMURA 1980 TRUST U/D/T DATED SEPTEMBER 26, 1980 AS AMENDED, OWNERS.

TOM M. YONEMURA

SUSAN S. OHARA

ROBERT T. KAWAMOTO, TRUSTEE

BASIS OF BEARINGS:
THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARING N89°43'00"W OF THE NORTHERLY SIDELINE OF 220TH STREET AS SHOWN ON TRACT NO. 3239 M.B. 37-27-28.

THE SIGNATURE OF THE DOMINGUEZ WATER COMPANY, A CORPORATION, HOLDER OF A BLANKET EASEMENT FOR WATER LINE PURPOSES BY DEED RECORDED IN BOOK 1515 PAGE 265, OFFICIAL RECORDS, HAS BEEN OMITTED UNDER THE PROVISIONS OF SECTION 66436 (a)3A(I-VIII) OF THE SUBDIVISION MAP ACT. THEIR INTEREST IS SUCH THAT IT CANNOT RIPEN INTO A FEE TITLE AND SAID SIGNATURE IS NOT REQUIRED BY THE LOCAL AGENCY.

THE SIGNATURE OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION, HOLDER OF AN EASEMENT FOR PUBLIC UTILITY PURPOSES BY DEED RECORDED OCTOBER 7, 1953 AS INSTRUMENT NO. 2325 IN BOOK 42867 PAGE 397, OFFICIAL RECORDS, HAS BEEN OMITTED UNDER THE PROVISIONS OF SECTION 66436 (a)3A(I-VIII) OF THE SUBDIVISION MAP ACT. THEIR INTEREST IS SUCH THAT IT CANNOT RIPEN INTO A FEE TITLE AND SAID SIGNATURE IS NOT REQUIRED BY THE LOCAL AGENCY.

THE SIGNATURE OF TICOR TITLE INSURANCE COMPANY OF CALIFORNIA, A CALIFORNIA CORPORATION, FORMERLY KNOWN AS TITLE INSURANCE AND TRUST COMPANY, A CALIFORNIA CORPORATION, HOLDER OF A BLANKET EASEMENT FOR INGRESS, EGRESS AND WATER LINE PURPOSES BY DEED RECORDED IN BOOK 2463 PAGE 289, OFFICIAL RECORDS, HAS BEEN OMITTED UNDER THE PROVISIONS OF SECTION 66436 (a)3A(I-VIII) OF THE SUBDIVISION MAP ACT. THEIR INTEREST IS SUCH THAT IT CANNOT RIPEN INTO A FEE TITLE AND SAID SIGNATURE IS NOT REQUIRED BY THE LOCAL AGENCY.

THE SIGNATURE OF ABC NURSERY INC., A CALIFORNIA CORPORATION, SUCCESSOR OR ASSIGNEE, OWNERS OF OIL AND MINERAL RIGHTS BY DEEDS RECORDED JUNE 28, 1989 AS INSTRUMENT NO.'S 89-1027704, 89-1027705 AND 89-1027706, ALL OF OFFICIAL RECORDS, RECORDS OF LOS ANGELES COUNTY, HAS BEEN OMITTED UNDER THE PROVISIONS OF SECTION 66436 (a)3C OF THE SUBDIVISION MAP ACT.

THIS SUBDIVISION IS APPROVED AS A CONDOMINIUM PROJECT FOR 104 UNITS, WHEREBY THE OWNERS OF THE UNITS OF AIR SPACE WILL HOLD AN UNDIVIDED INTEREST IN THE COMMON AREAS WHICH WILL, IN TURN, PROVIDE THE NECESSARY ACCESS AND UTILITY EASEMENTS FOR THE UNITS.

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS.
ON November 1, 1993, BEFORE ME, KIMI NARUSE A NOTARY PUBLIC IN AND FOR SAID STATE, PERSONALLY APPEARED TOM M. YONEMURA AND SUSAN S. OHARA PERSONALLY KNOWN TO ME OR PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSONS WHOSE NAMES ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT THEY EXECUTED THE SAME IN THEIR AUTHORIZED CAPACITIES, AND THAT BY THEIR SIGNATURES ON THE INSTRUMENT THE PERSONS, OR THE ENTITY UPON BEHALF OF WHICH THE PERSONS ACTED, EXECUTED THE INSTRUMENT.

SIGNATURE Kimi Narusa
NOTARY PUBLIC

MY PRINCIPAL PLACE OF BUSINESS IS IN LOS ANGELES COUNTY.
MY COMMISSION EXPIRES 6/29/97

STATE OF CALIFORNIA)
COUNTY OF SAN FRANCISCO) SS.
ON October 4, 1993, BEFORE ME, Barbara Giraudo A NOTARY PUBLIC IN AND FOR SAID STATE, PERSONALLY APPEARED ROBERT T. KAWAMOTO PERSONALLY KNOWN TO ME OR PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME IN HIS AUTHORIZED CAPACITY, AND THAT BY HIS SIGNATURE ON THE INSTRUMENT THE PERSON, OR THE ENTITY UPON BEHALF OF WHICH THE PERSON ACTED, EXECUTED THE INSTRUMENT.

SIGNATURE Barbara Giraudo
NOTARY PUBLIC:

MY PRINCIPAL PLACE OF BUSINESS IS IN San Francisco, Calif
MY COMMISSION EXPIRES 1-31-97

Barbara Giraudo
Comm. #983799
NOTARY PUBLIC - CALIFORNIA
City & County of San Francisco
Comm. Expires Jan. 31, 1997

IN RE TRACT NO. 51112 IT IS ORDERED THAT THE MAP OF TRACT NO. 51112 IS HEREBY APPROVED.

THIS IS TO CERTIFY THAT THE INTEREST IN REAL PROPERTY CONVEYED BY THE WITHIN DEDICATION OR GRANT TO THE COUNTY OF LOS ANGELES, A GOVERNMENTAL AGENCY, IS HEREBY ACCEPTED AND THE GRANTEE CONSENTS TO THE RECORDATION THEREOF BY ITS AUTHORIZED OFFICER.

I HEREBY CERTIFY THAT THE FOREGOING ORDER WAS ADOPTED BY THE BOARD OF SUPERVISORS AT A MEETING HELD.

12/14/93

EXECUTIVE OFFICER-
CLERK OF THE BOARD OF SUPERVISORS
OF THE COUNTY OF LOS ANGELES,
STATE OF CALIFORNIA.

BY Armando C. Aguilar
DEPUTY 12/15/93

COUNTY OF LOS ANGELES — CALIFORNIA

I HEREBY CERTIFY THAT ALL CERTIFICATES HAVE BEEN FILED AND DEPOSITS HAVE BEEN MADE THAT ARE REQUIRED UNDER THE PROVISIONS OF SECTIONS 66492 AND 66493 OF THE SUBDIVISION MAP ACT.

EXECUTIVE OFFICER-CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

BY Armando C. Aguilar
DEPUTY 12/15/93

COUNTY OF LOS ANGELES — CALIFORNIA

I HEREBY CERTIFY THAT I HAVE EXAMINED THIS MAP, THAT IT CONFORMS SUBSTANTIALLY TO THE TENTATIVE MAP AND ALL APPROVED ALTERATIONS THEREOF; THAT ALL PROVISIONS OF STATE LAW AND LOCAL SUBDIVISION ORDINANCES APPLICABLE AT THE TIME OF APPROVAL OF THE TENTATIVE MAP HAVE BEEN COMPLIED WITH; AND THAT I AM SATISFIED THAT THIS MAP IS TECHNICALLY CORRECT.

COUNTY ENGINEER

DATED: 12/15/93 BY Thomas Hoagland
Deputy

RCE: 20273
EXP: 9/30/97

039-197

1203/35

BOOK 1203 PAGE 35

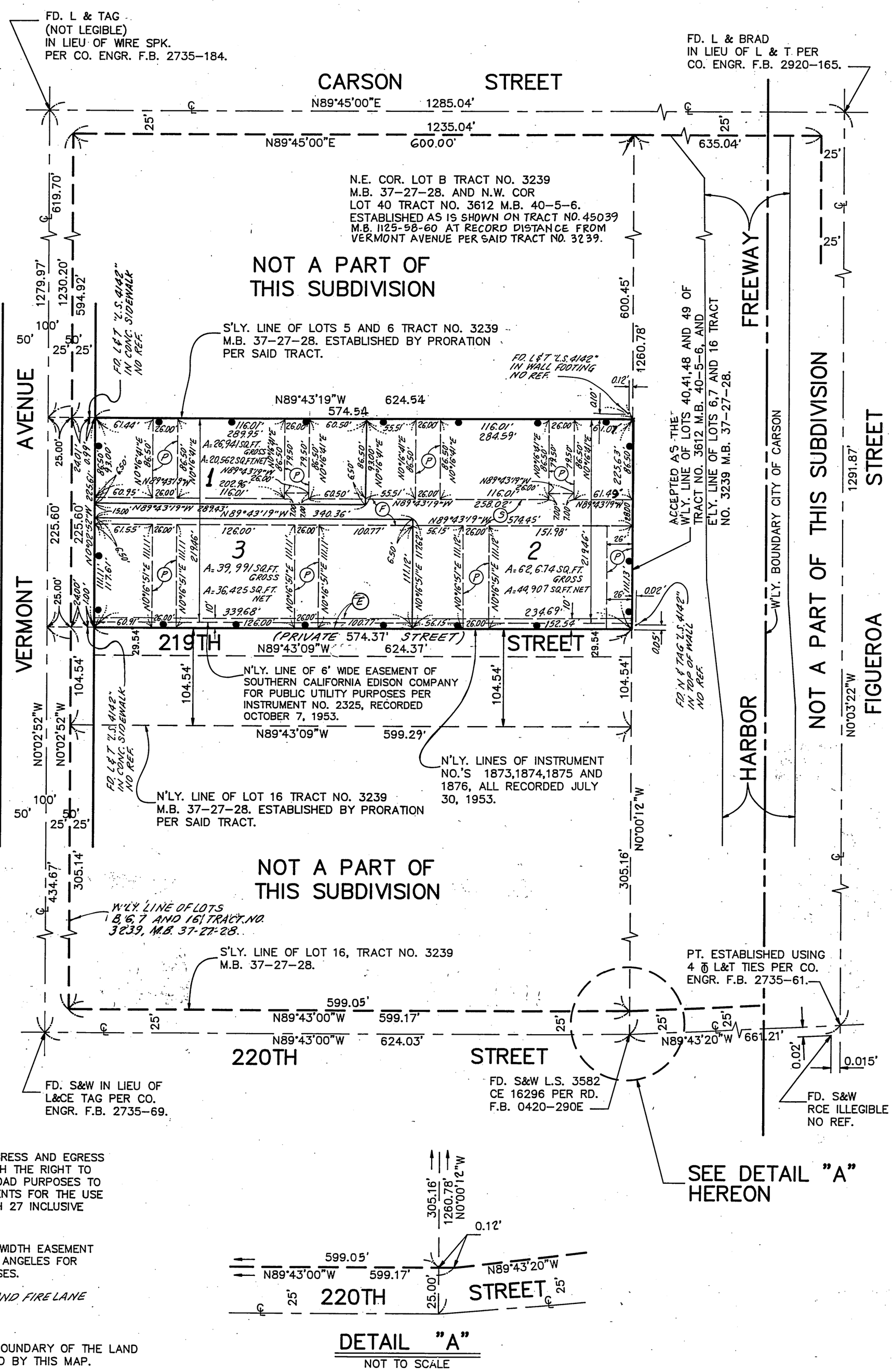
SCALE: 1" = 80'

SHEET 2 OF 2 SHEETS

TRACT NO. 51112

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

FOR CONDOMINIUM PURPOSES
— LANCO ENGINEERING —



(P) : PRIVATE DRIVEWAY

(E) : 10' WIDE RECIPROCAL INGRESS AND EGRESS EASEMENT TOGETHER WITH THE RIGHT TO DEDICATE FOR PUBLIC ROAD PURPOSES TO BE RESERVED IN DOCUMENTS FOR THE USE OF PARCELS 14 THROUGH 27 INCLUSIVE AMB-7344 PG. 2.

(S) : 28' WIDE AND VARIABLE WIDTH EASEMENT TO THE COUNTY OF LOS ANGELES FOR SANITARY SEWER PURPOSES.

(F) : PRIVATE DRIVEWAY AND FIRE LANE

LEGEND:

● ● ● INDICATES THE BOUNDARY OF THE LAND BEING SUBDIVIDED BY THIS MAP.

DETAIL "A"
NOT TO SCALE

12/4/90

BOOK 1214 PAGE 90

MAP/GRANT

VESTING

SHEET 1 OF 3 SHEETS

TRACT NO. 51517

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES
STATE OF CALIFORNIA
BEING A SUBDIVISION OF A PORTION OF LOT 21 OF TRACT NO. 3239, AS PER MAP RECORDED IN BOOK 37 , PAGES 27 AND 28 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

FOR CONDOMINIUM PURPOSES 95-1982842 95-1982842

PIAI ENGINEERING INC.

FILED
AT REQUEST OF OWNER
DEC 13 1995
41 MIN PAST 10 AM
IN BOOK 1214
AT PAGE 90
OF MAPS
LOS ANGELES COUNTY, CA.
Registrar-Recorder/County Clerk
BY D. Intchauspe
Deputy
FEE $ 14 00

OWNERS' STATEMENT:
WE HEREBY STATE THAT WE ARE THE OWNERS OF OR ARE INTERESTED IN THE LANDS INCLUDED WITHIN THE SUBDIVISION SHOWN ON THIS MAP WITHIN THE DISTINCTIVE BORDER LINES , AND WE CONSENT TO THE PREPARATION AND FILING OF SAID MAP AND SUBDIVISION. WE HEREBY DEDICATE TO THE PUBLIC USE ALL STREETS, HIGHWAYS , AND OTHER PUBLIC WAYS SHOWN ON SAID MAP; AND WE ALSO DEDICATE TO THE COUNTY OF LOS ANGELES THE EASEMENT FOR SANITARY SEWER PURPOSES SO DESIGNATED ON SAID MAP AND ALL USES INCIDENT THERETO , INCLUDING THE RIGHT TO MAKE CONNECTIONS THEREWITH FROM ANY ADJOINING PROPERTIES; WE FURTHER STATE THAT WE KNOW OF NO EASEMENT OR STRUCTURE EXISTING WITHIN THE EASEMENTS HEREIN OFFERED FOR DEDICATION TO THE PUBLIC , OTHER THAN PUBLICLY OWNED WATER LINES, SEWERS, OR STORM DRAINS, THAT WE WILL GRANT NO RIGHT OR INTEREST WITHIN THE BOUNDARIES OF SAID EASEMENTS OFFERED TO THE PUBLIC , EXCEPT WHERE SUCH RIGHT OR INTEREST IS EXPRESSLY MADE SUBJECT TO THE SAID EASEMENT.

OWNER:
CAMBRIA COURT HOMES LP, A CALIFORNIA LIMITED PARTNERSHIP

WEEGER BUILDERS, INC., A CALIFORNIA CORPORATION - GENERAL PARTNER

PETER J. WEEGER - PRESIDENT

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS.

ON December 1, 1995 BEFORE ME , Cyndi Avery
PERSONALLY APPEARED PETER J. WEEGER ~~PERSONALLY KNOWN TO ME OR~~ PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME IN HIS AUTHORIZED CAPACITY , AND THAT BY HIS SIGNATURE ON THE INSTRUMENT THE PERSON , OR THE ENTITY UPON BEHALF OF WHICH THE PERSON ACTED , EXECUTED THE INSTRUMENT.

NOTARY PUBLIC - CYNDI AVERY
PRINCIPAL OFFICE IN LOS ANGELES COUNTY
MY COMMISSION EXPIRES 3-7-97

WILLIAM WEEGER AND MARGARET WEEGER , CO-TRUSTEES OF DECLARATION OF TRUST DATED DECEMBER 16 , 1987 , BENEFICIARY UNDER A DEED OF TRUST RECORDED AUGUST 22, 1995 AS INSTRUMENT NO. 95-1367919 , OFFICIAL RECORDS, RECORDS OF LOS ANGELES COUNTY.

WILLIAM WEEGER , (CO-TRUSTEE)

MARGARET WEEGER , (CO-TRUSTEE)

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS.

ON December 1, 1995 BEFORE ME , Cyndi Avery
PERSONALLY APPEARED WILLIAM WEEGER AND MARGARET WEEGER , PERSONALLY KNOWN TO ME OR PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSONS WHOSE NAMES ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT THEY EXECUTED THE SAME IN THEIR AUTHORIZED CAPACITIES , AND THAT BY THEIR SIGNATURES ON THE INSTRUMENT THE PERSONS , OR THE ENTITY UPON BEHALF OF WHICH THE PERSONS ACTED, EXECUTED THE INSTRUMENT.

NOTARY PUBLIC - CYNDI AVERY
PRINCIPAL OFFICE IN LOS ANGELES COUNTY
MY COMMISSION EXPIRES 3-7-97

HOME BANK , A CALIFORNIA CORPORATION , BENEFICIARY UNDER A DEED OF TRUST RECORDED SEPTEMBER 15 , 1995 AS INSTRUMENT NO. 95-1506516 , OFFICIAL RECORDS , RECORDS OF LOS ANGELES COUNTY.

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS.

ON December 1, 1995 BEFORE ME , Cyndi Avery
PERSONALLY APPEARED Dennis A. MacDonell & Fredric Dover
PERSONALLY KNOWN TO ME OR PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSONS WHOSE NAMES ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT THEY EXECUTED THE SAME IN THEIR AUTHORIZED CAPACITIES , AND THAT BY THEIR SIGNATURES ON THE INSTRUMENT THE PERSONS , OR THE ENTITY UPON BEHALF OF WHICH THE PERSONS ACTED, EXECUTED THE INSTRUMENT.

NOTARY PUBLIC - CYNDI AVERY
PRINCIPAL OFFICE IN LOS ANGELES COUNTY
MY COMMISSION EXPIRES 3-7-97

039-197

ENGINEER'S STATEMENT:
I HEREBY STATE THAT I AM A REGISTERED CIVIL ENGINEER OF THE STATE OF CALIFORNIA; THAT THIS FINAL MAP CONSISTING OF 3 SHEETS IS A TRUE AND COMPLETE SURVEY AS SHOWN , AND WAS MADE BY ME OR UNDER MY DIRECTION IN NOVEMBER , 1992 ; THAT THE MONUMENTS OF THE CHARACTER AND LOCATIONS SHOWN HEREON ARE IN PLACE; THAT SAID MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

VICTOR J. PIAI, R.C.E. 20327
EXPIRES 9-30-97

BASIS OF BEARINGS:
THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARING S89°43'00"E OF THE CENTERLINE OF 220TH STREET AS SHOWN ON TRACT NO. 20226 , M.B. 595-50.

CONDOMINIUM NOTE:
THIS TRACT IS APPROVED AS A CONDOMINIUM PROJECT FOR 18 UNITS, WHEREBY THE OWNERS OF THE UNITS OF AIR SPACE WILL HOLD AN UNDIVIDED INTEREST IN ALL THE COMMON AREAS WHICH WILL , IN TURN , PROVIDE THE NECESSARY ACCESS AND UTILITY EASEMENTS FOR THE UNITS. LOTS 1 AND 2 ARE COMMON AREAS.

SIGNATURE OMISSION NOTES:
THE FOLLOWING SIGNATURES HAVE BEEN OMITTED UNDER THE PROVISIONS OF SECTION 66436 (a) 3A (1-VIII) OF THE SUBDIVISION MAP ACT , THEIR INTEREST IS SUCH THAT IT CANNOT RIPEN INTO A FEE TITLE AND SAID SIGNATURES ARE NOT REQUIRED BY THE LOCAL AGENCY:

DOMINGUEZ WATER CORPORATION , A CALIFORNIA CORPORATION , SUCCESSOR TO DOMINGUEZ WATER COMPANY , A CALIFORNIA CORPORATION , EASEMENT HOLDER FOR WATER PIPE PURPOSES BY DEED RECORDED NOVEMBER 9 , 1922 AS INSTRUMENT NO. 1030 IN BOOK 1515 PAGE 265 OF OFFICIAL RECORDS, RECORDS OF LOS ANGELES COUNTY.
SAID EASEMENT IS BLANKET IN NATURE.

DOMINGUEZ WATER CORPORATION , A CALIFORNIA CORPORATION , SUCCESSOR TO TITLE INSURANCE & TRUST COMPANY , A CORPORATION , EASEMENT HOLDER FOR WATER PIPE PURPOSES BY DEED RECORDED APRIL 13 , 1929 AS INSTRUMENT NO. 1405 IN BOOK 7424 PAGE 256 OF OFFICIAL RECORDS , RECORDS OF LOS ANGELES COUNTY.
SAID EASEMENT IS BLANKET IN NATURE.

I HEREBY CERTIFY THAT ALL CERTIFICATES HAVE BEEN FILED AND DEPOSITS HAVE BEEN MADE THAT ARE REQUIRED UNDER THE PROVISIONS OF SECTIONS 66492 AND 66493 OF THE SUBDIVISION MAP ACT.

EXECUTIVE OFFICER-CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA
BY DEPUTY 12/5/95

I HEREBY CERTIFY THAT I HAVE EXAMINED THIS MAP, THAT IT CONFORMS SUBSTANTIALLY TO THE TENTATIVE MAP AND ALL APPROVED ALTERATIONS THEREOF; THAT ALL PROVISIONS OF STATE LAW AND LOCAL SUBDIVISION ORDINANCES APPLICABLE AT THE TIME OF APPROVAL OF THE TENTATIVE MAP HAVE BEEN COMPLIED WITH; AND THAT I AM SATISFIED THAT THIS MAP IS TECHNICALLY CORRECT.

COUNTY ENGINEER
DATED: 12-13-95 BY Thomas W. Hougland
Deputy
R.C.E. : 20273
EXP. : 9-30-97

IN RE TRACT NO. 51517 IT IS ORDERED THAT THE MAP OF TRACT NO. 51517 IS HEREBY APPROVED.

THIS IS TO CERTIFY THAT THE INTEREST IN REAL PROPERTY CONVEYED BY THE WITHIN DEDICATION OR GRANT TO THE COUNTY OF LOS ANGELES, A GOVERNMENTAL AGENCY, IS HEREBY ACCEPTED AND THE GRANTEE CONSENTS TO THE RECORDATION THEREOF BY ITS AUTHORIZED OFFICER.

I HEREBY CERTIFY THAT THE FOREGOING ORDER WAS ADOPTED BY THE BOARD OF SUPERVISORS AT A MEETING HELD.

DECEMBER 12, 1995

EXECUTIVE OFFICER-
CLERK OF THE BOARD OF SUPERVISORS
OF THE COUNTY OF LOS ANGELES,
STATE OF CALIFORNIA.
BY DEPUTY

12-13-95

12/4/91

BOOK 1214 PAGE 91

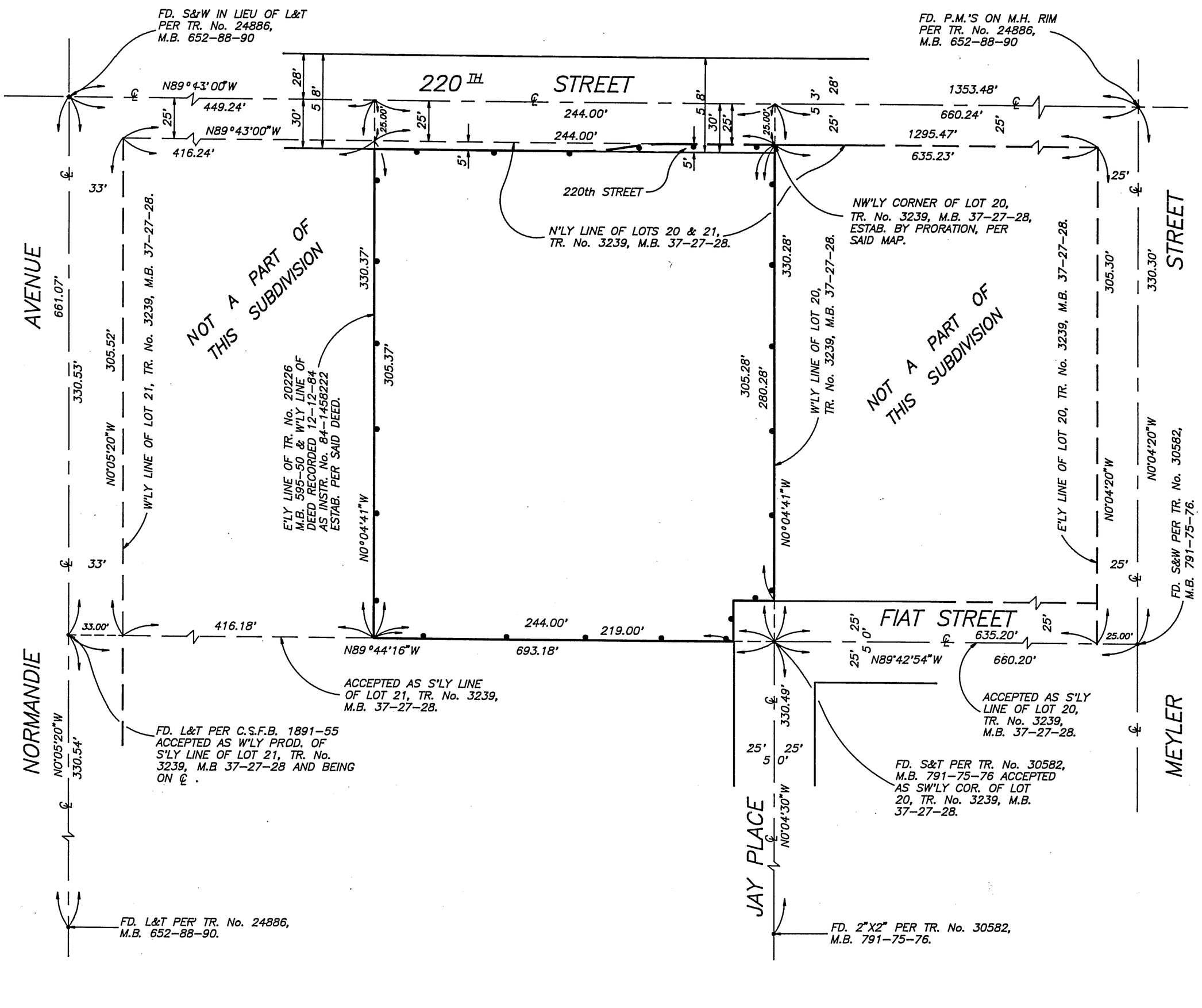
SCALE: 1"=50'

SHEET 2 OF 3 SHEETS

TRACT NO. 51517

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

FOR CONDOMINIUM PURPOSES



LEGEND

INDICATES THE BOUNDARY OF THE LAND BEING SUBDIVIDED BY THIS MAP

I HEREBY CERTIFY THAT SECURITY IN THE AMOUNT OF $ 6,575.00 HAS BEEN FILED WITH THE CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES AS SECURITY FOR THE PAYMENT OF TAXES AND SPECIAL ASSESSMENTS COLLECTED AS TAXES ON THE LAND SHOWN ON MAP OF TRACT NO./PARCEL MAP NO. 51517 AS REQUIRED BY LAW.

EXECUTIVE OFFICER-CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

BY _____ DEPUTY

12-13-95

BOUNDARY ESTABLISHMENT MAP

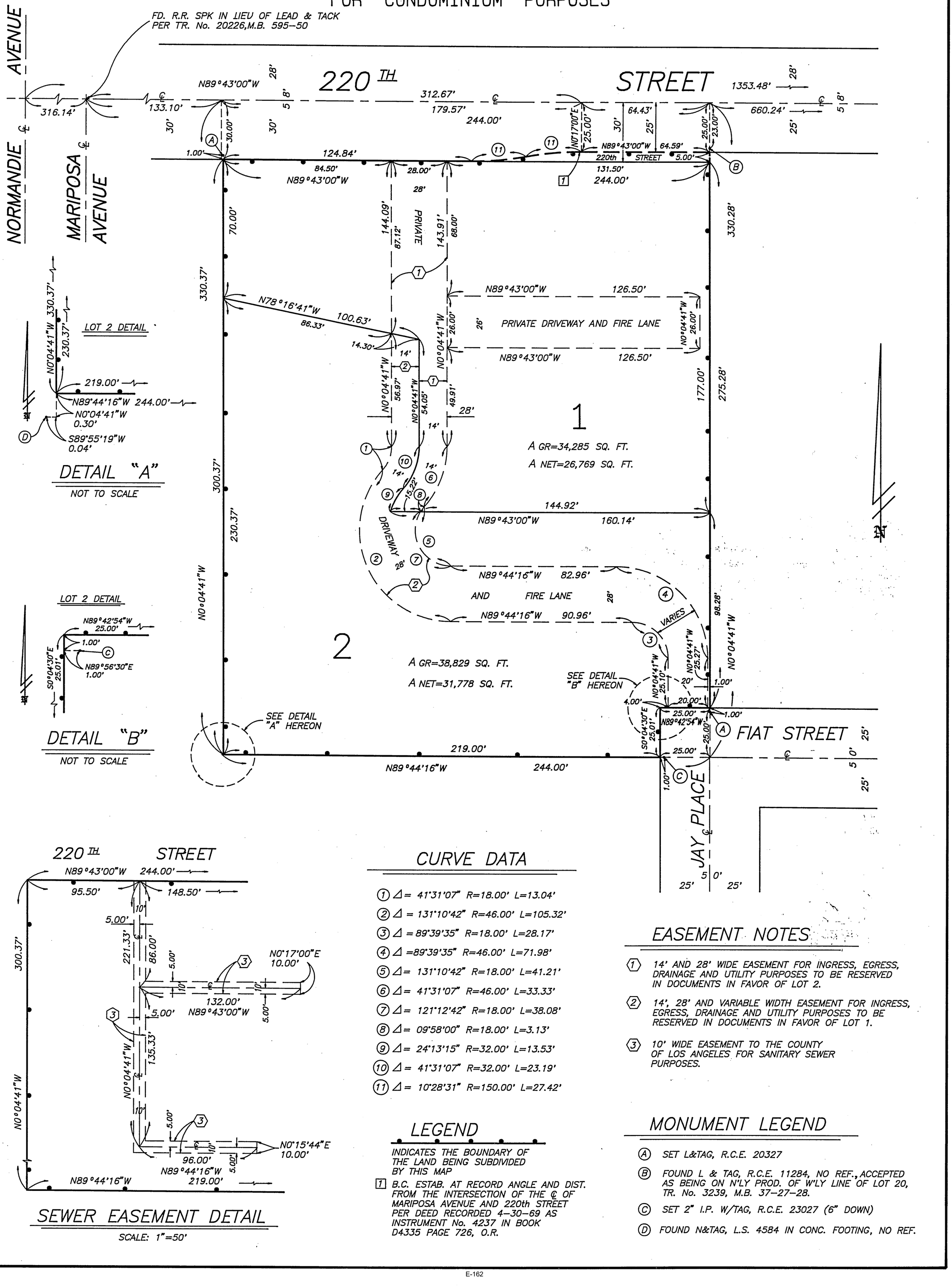
SCALE: 1"=30'

SHEET 3 OF 3 SHEETS

TRACT NO. 51517

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

FOR CONDOMINIUM PURPOSES



LOT 2 DETAIL

DETAIL "A"

NOT TO SCALE

LOT 2 DETAIL

DETAIL "B"

NOT TO SCALE

SEWER EASEMENT DETAIL

SCALE: 1"=50'

CURVE DATA

(1) Δ= 41°31'07" R=18.00' L=13.04'
(2) Δ = 131°10'42" R=46.00' L=105.32'
(3) Δ = 89°39'35" R=18.00' L=28.17'
(4) Δ =89°39'35" R=46.00' L=71.98'
(5) Δ= 131°10'42" R=18.00' L=41.21'
(6) Δ= 41°31'07" R=46.00' L=33.33'
(7) Δ= 121°12'42" R=18.00' L=38.08'
(8) Δ= 09°58'00" R=18.00' L=3.13'
(9) Δ= 24°13'15" R=32.00' L=13.53'
(10) Δ= 41°31'07" R=32.00' L=23.19'
(11) Δ= 10°28'31" R=150.00' L=27.42'

LEGEND

INDICATES THE BOUNDARY OF THE LAND BEING SUBDIVIDED BY THIS MAP

[1] B.C. ESTAB. AT RECORD ANGLE AND DIST. FROM THE INTERSECTION OF THE ℄ OF MARIPOSA AVENUE AND 220th STREET PER DEED RECORDED 4–30–69 AS INSTRUMENT No. 4237 IN BOOK D4335 PAGE 726, O.R.

EASEMENT NOTES

(1) 14' AND 28' WIDE EASEMENT FOR INGRESS, EGRESS, DRAINAGE AND UTILITY PURPOSES TO BE RESERVED IN DOCUMENTS IN FAVOR OF LOT 2.

(2) 14', 28' AND VARIABLE WIDTH EASEMENT FOR INGRESS, EGRESS, DRAINAGE AND UTILITY PURPOSES TO BE RESERVED IN DOCUMENTS IN FAVOR OF LOT 1.

(3) 10' WIDE EASEMENT TO THE COUNTY OF LOS ANGELES FOR SANITARY SEWER PURPOSES.

MONUMENT LEGEND

(A) SET L&TAG, R.C.E. 20327

(B) FOUND L & TAG, R.C.E. 11284, NO REF., ACCEPTED AS BEING ON N'LY PROD. OF W'LY LINE OF LOT 20, TR. No. 3239, M.B. 37–27–28.

(C) SET 2" I.P. W/TAG, R.C.E. 23027 (6" DOWN)

(D) FOUND N&TAG, L.S. 4584 IN CONC. FOOTING, NO REF.

BOOK 24 48

SCALE 1"= 30'

SHEET 1 OF 1 SHEET

PARCEL MAP NO. 1495

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

BEING A DIVISION OF A PORTION OF THE 2463.79 ACRE TRACT ALLOTTED TO VICTORIA DOMINGUEZ DE CARSON BY DECREE OF PARTITION OF A PORTION OF THE RANCHO SAN PEDRO, AS SHOWN ON MAP FILED IN CASE NO. 3284, SUPERIOR COURT OF SAID COUNTY

FILED
AT THE REQUEST OF
Andrew Lane
MAR. 6, 1970
3 MIN. PAST 4 P.M.
IN BOOK 24
OF PAGE 48
BY [signature]
FEE $5.00

This map was prepared by me or under my direction and was compiled from record data in conformance with the requirements of the Subdivision Map Act at the request of Andrew Lane and Lexie Lane on December 1, 1969. I hereby certify that it conforms to the approved tentative map and the conditions of approval thereof, that all provisions of applicable state law and local ordinances have been complied with.

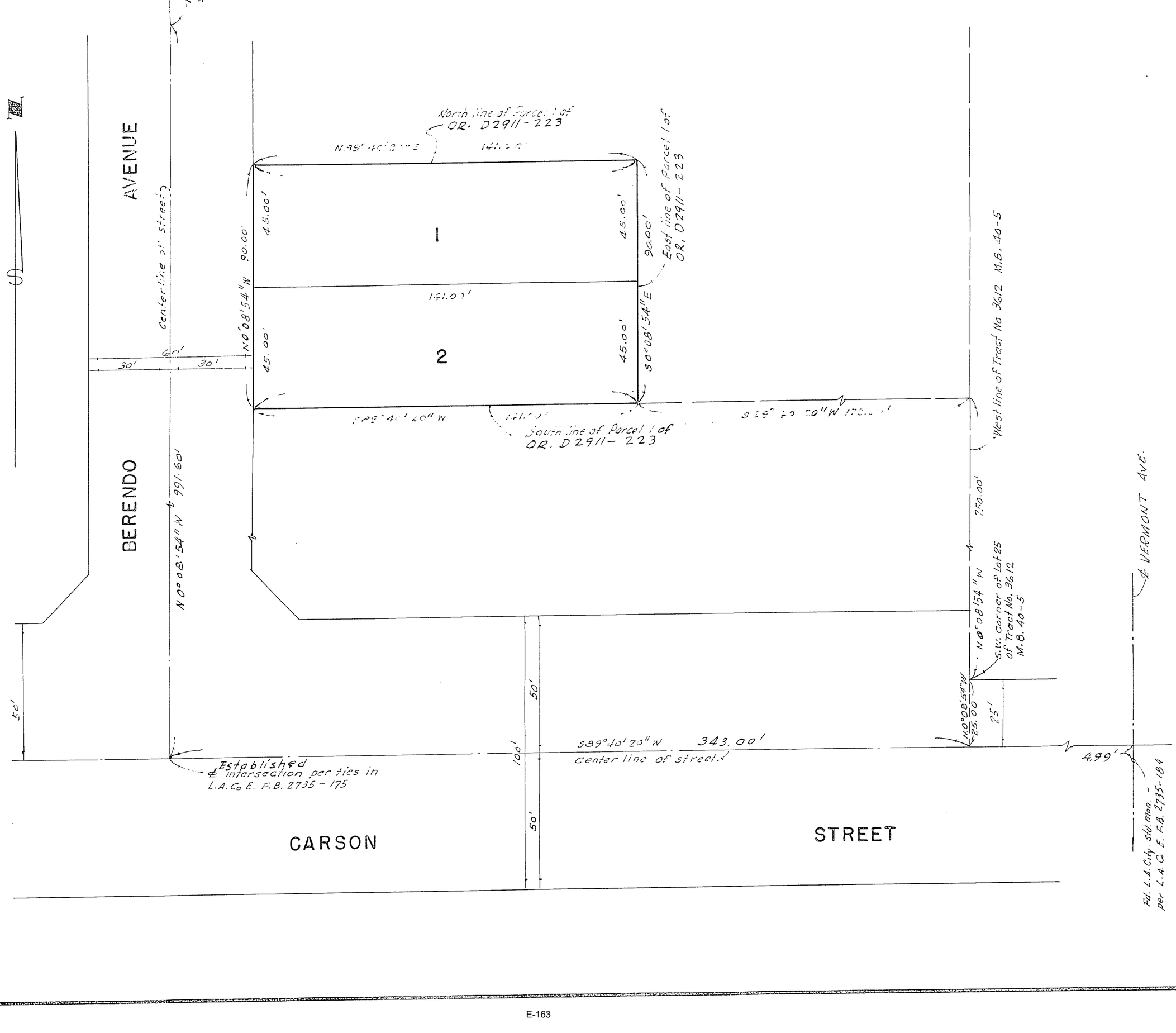
Frank V. Scartozzi
L.S. 2598

COUNTY ENGINEER'S CERTIFICATE

This map was examined this 6th day of March, 1970 for conformance with the requirements of Section 11575 of the Subdivision Map Act.

John A. Lambie
COUNTY ENGINEER
By [signature]
Deputy

NOTE: Record data is from Tract No 3612, M.B. 40-5; Tract No 24831, M.B. 645 – 48-50



304/17

BOOK 304 PAGE 17

2 PARCELS
18,047 SF

SHEET 1 OF 2 SHEETS

PARCEL MAP NO. 25085

IN THE UNINCORPORATED TERRITORY OF
THE COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

01-1657430
01-1657430

BEING A SUBDIVISION OF A PORTION OF THE 2463.79 ACRE TRACT ALLOTTED TO VICTORIA DOMINGUEZ DE CARSON BY DECREE OF PARTITION OF A PORTION OF THE RANCHO SAN PEDRO IN CASE NO. 3284, OF SUPERIOR COURT OF LOS ANGELES COUNTY.

FILED
AT REQUEST OF OWNER
SEP 04 2001
21 MIN PAST 3 P.M.
IN BOOK 304
AT PAGE 17-18
OF PARCEL MAPS
LOS ANGELES COUNTY, CA.
Registrar-Recorder/County Clerk
BY Marsha S. Reyes Deputy
FEE $ 11.00
D.A.- 2.00

OWNER'S STATEMENT:

WE HEREBY STATE THAT WE ARE THE OWNERS OF OR ARE INTERESTED IN THE LANDS INCLUDED WITHIN THE SUBDIVISION SHOWN ON THIS MAP WITHIN THE DISTINCTIVE BORDER LINES, AND WE CONSENT TO THE PREPARATION AND FILING OF SAID MAP AND SUBDIVISION.

AS A DEDICATION TO PUBLIC USE, WHILE ALL OF CARSON STREET WITHIN OR ADJACENT TO THIS SUBDIVISION REMAINS A PUBLIC STREET, WE HEREBY GRANT TO THE COUNTY OF LOS ANGELES THE RIGHT TO RESTRICT DIRECT VEHICULAR INGRESS AND EGRESS TO THE SAID STREET. IF ANY PORTION OF SAID STREET WITHIN OR ADJACENT TO THIS SUBDIVISION IS VACATED, SUCH VACATION TERMINATES THE ABOVE DEDICATION AS TO THE PART VACATED.

CORINNE (CORINA) HORVATH DAVIDSON, TRUSTEE OF CORINNE (CORINA) HORVATH DAVIDSON TRUST, UNDER DECLARATION DATED JANUARY 1, 1995, OWNER.

Corinne Horvath Davidson
CORINNE (CORINA) HORVATH DAVIDSON, TRUSTEE

PETER T. HORVATH, TRUSTEE OF PETER T. HORVATH DAVIDSON TRUST, UNDER DECLARATION DATED SEPTEMBER 25, 1995, OWNER.

Peter T. Horvath
PETER T. HORVATH, TRUSTEE

PAUL G. MARKOVITS, TRUSTEE OF THE PAUL G. MARKOVITS TRUST, UDT DATED NOVEMBER 10, 1992, OWNER

Paul G. Markovits
PAUL G. MARKOVITS, TRUSTEE

THOMAS MARKOVITS, TRUSTEE OF THE THOMAS MARKOVITS TRUST, UDT DATED APRIL 7, 1993, OWNER

Thomas Markovits
THOMAS MARKOVITS, TRUSTEE

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS

ON March 12-01, BEFORE ME, Luis E. Alvarez,
A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, PERSONALLY APPEARED, CORINNE (CORINA) HORVATH DAVIDSON, PERSONALLY KNOWN TO ME (OR PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE) TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT SHE EXECUTED THE SAME IN HER AUTHORIZED CAPACITY, AND THAT BY HER SIGNATURE ON THE INSTRUMENT THE PERSON, OR THE ENTITY UPON BEHALF OF WHICH THE PERSON ACTED, EXECUTED THE INSTRUMENT.

WITNESS MY HAND AND OFFICIAL SEAL.

SIGNATURE
NAME: Luis E. Alvarez
MY PRINCIPAL PLACE OF BUSINESS: LOS ANGELES COUNTY
MY COMMISSION EXPIRES Oct 30-2003

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS

ON 3/12/01, BEFORE ME, Luis E. Alvarez,
A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, PERSONALLY APPEARED, PETER T. HORVATH, PERSONALLY KNOWN TO ME (OR PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE) TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME IN HIS AUTHORIZED CAPACITY, AND THAT BY HIS SIGNATURE ON THE INSTRUMENT THE PERSON, OR THE ENTITY UPON BEHALF OF WHICH THE PERSON ACTED, EXECUTED THE INSTRUMENT.

WITNESS MY HAND AND OFFICIAL SEAL.

SIGNATURE
NAME: Luis E. Alvarez
MY PRINCIPAL PLACE OF BUSINESS: LOS ANGELES COUNTY
MY COMMISSION EXPIRES Oct 30-2003

ENGINEER'S STATEMENT:

THIS MAP WAS PREPARED BY ME OR UNDER MY DIRECTION, AND WAS COMPILED FROM RECORD DATA IN CONFORMANCE WITH THE REQUIREMENTS OF THE SUBDIVISION MAP ACT AND LOCAL ORDINANCE AT THE REQUEST OF TIBOR NORVATH, JULY 14, 2000. I HEREBY STATE THAT THIS PARCEL MAP SUBSTANTIALLY CONFORMS TO THE APPROVED OR CONDITIONALLY APPROVED PRELIMINARY MAP, IF ANY.

Robert K. Kameoka
ROBERT K. KAMEOKA R.C.E. NO. 15429
EXPIRES 3-31-05

REGISTERED PROFESSIONAL ENGINEER
ROBERT K. KAMEOKA
NO. 15429
EXP. 3-31-05
CIVIL
STATE OF CALIFORNIA

NOTE:

RECORD DATA FROM TRACT NO. 21495, MB 585-5/6

GEOTECHNICAL NOTE:

POTENTIAL BUILDING SITE: FOR GRADING AND CORRECTIVE WORK REQUIREMENTS FOR ACCESS AND BUILDING AREAS FOR LOT NOS. 1 AND 2, REFER TO THE SOILS REPORTS BY STRATA TECH, DATED 4/20/98, 9/8/98 AND 2/25/99.

REGISTERED PROFESSIONAL ENGINEER
THOMAS W. HOAGLAND
No. 020273
Exp. 9-30-01
CIVIL
STATE OF CALIFORNIA

I HEREBY CERTIFY THAT I HAVE EXAMINED THIS MAP, THAT IT CONFORMS SUBSTANTIALLY TO THE TENTATIVE MAP AND ALL APPROVED ALTERATIONS THEREOF; THAT ALL PROVISIONS OF STATE LAW AND LOCAL SUBDIVISION ORDINANCES APPLICABLE AT THE TIME OF APPROVAL OF THE TENTATIVE MAP HAVE BEEN COMPLIED WITH; AND THAT I AM SATISFIED THAT THIS MAP IS TECHNICALLY CORRECT.

COUNTY ENGINEER
DATED: 8/29/01 BY Thomas Hoagland Deputy

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS

ON 3/12/01, BEFORE ME, Luis E. Alvarez,
A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, PERSONALLY APPEARED, PAUL G. MARKOVITS, PERSONALLY KNOWN TO ME (OR PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE) TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME IN HIS AUTHORIZED CAPACITY, AND THAT BY HIS SIGNATURE ON THE INSTRUMENT THE PERSON, OR THE ENTITY UPON BEHALF OF WHICH THE PERSON ACTED, EXECUTED THE INSTRUMENT.

WITNESS MY HAND AND OFFICIAL SEAL.

SIGNATURE
NAME: Luis E. Alvarez
MY PRINCIPAL PLACE OF BUSINESS: LOS ANGELES COUNTY
MY COMMISSION EXPIRES Oct 30-2003

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS

ON 3/12/01, BEFORE ME, Luis E. Alvarez,
A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, PERSONALLY APPEARED, THOMAS MARKOVITS, PERSONALLY KNOWN TO ME (OR PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE) TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME IN HIS AUTHORIZED CAPACITY, AND THAT BY HIS SIGNATURE ON THE INSTRUMENT THE PERSON, OR THE ENTITY UPON BEHALF OF WHICH THE PERSON ACTED, EXECUTED THE INSTRUMENT.

WITNESS MY HAND AND OFFICIAL SEAL.

SIGNATURE
NAME: Luis E. Alvarez
MY PRINCIPAL PLACE OF BUSINESS: LOS ANGELES COUNTY
MY COMMISSION EXPIRES Oct 30-2003

039-197 (7345-15

4

304/18

BOOK 304 PAGE 18

SCALE: 1"=20'

SHEET 2 OF 2 SHEETS

PARCEL MAP NO. 25085

IN THE UNINCORPORATED TERRITORY OF
THE COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

LEGEND

INDICATES THE BOUNDARY OF THE LAND BEING SUBDIVIDED BY THIS MAP

CERTIFICATE OF ACCEPTANCE

THIS IS TO CERTIFY THAT THE INTEREST IN REAL PROPERTY CONVEYED BY THE WITHIN DEDICATION OR GRANT TO THE COUNTY OF LOS ANGELES, A GOVERNMENTAL AGENCY, IS HEREBY ACCEPTED UNDER AUTHORITY OF TITLE 21 OF THE LOS ANGELES COUNTY CODE ADOPTED BY THE BOARD OF SUPERVISORS OF SAID COUNTY AND THE GRANTEE CONSENTS TO THE RECORDATION THEREOF BY ITS AUTHORIZED OFFICER.

DATE 8/27/01 BY Thomas Hoagland COUNTY ENGINEER DEPUTY

REGISTERED PROFESSIONAL ENGINEER THOMAS W. HOAGLAND No. 020273 Exp. 9-30-01 CIVIL STATE OF CALIFORNIA

216TH STREET

FD S & T PER ~~CSFB 2051 97/100~~
TRACT NO. 21495,
M.B. 585-5-6

S'LY LINE LOT 1, TRACT NO. 21495
MB 585-5-6

N 89°40'20"E 101.00'

180.00'

115.00'

1
11,615 S.F.

115.00'

155.08'

E'LY LINE PER DEED RECORDED ON SEPT. 30, 1988
AS INSTR. NO. 88-1581285

N 89°40'20"E 101.00'

N 0°09'20"W

65.00'

2
6,431 S.F.

40.08'

△=89°49'40"
R=25'
L=39.19"

N 89°40'20"E 76.08'

6 0'

3 0' 3 0'

AVENUE

N 0°09'20"W

BUDLONG

6 0'

3 0' 3 0'

I HEREBY CERTIFY THAT ALL CERTIFICATES HAVE BEEN FILED AND DEPOSITS HAVE BEEN MADE THAT ARE REQUIRED UNDER THE PROVISIONS OF SECTIONS 66492 AND 66493 OF THE SUBDIVISION MAP ACT.

EXECUTIVE OFFICER-CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA
BY Abigail Bruno DEPUTY 9-4-01

I HEREBY CERTIFY THAT SECURITY IN THE AMOUNT OF $ 4800.00 HAS BEEN FILED WITH THE CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES AS SECURITY FOR THE PAYMENT OF TAXES AND SPECIAL ASSESSMENTS COLLECTED AS TAXES ON THE LAND SHOWN ON MAP OF TRACT NO./PARCEL MAP NO. 25085 AS REQUIRED BY LAW.

EXECUTIVE OFFICER-CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA
BY Abigail Bruno DEPUTY 8-27-01

5 0'

10 0'

N 89°40'20"E

CARSON STREET

FD S & T PER ~~CSFB 2051 97/100~~
TRACT NO. 21495,
M.B. 585-5-6

10 0'

5 0'

Tract No. 3612

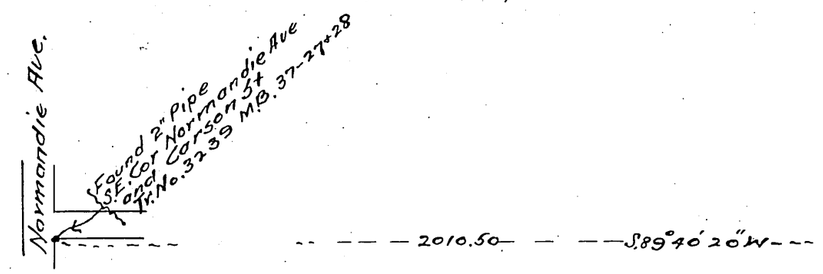
SHEET 1

BEING A SUBDIVISION OF A PORTION OF
THE
VICTORIA DOMINGUEZ de CARSON 2463.79 ACRE ALLOTMENT
IN THE
RANCHO SAN PEDRO
as shown on map filed in case No 3284 Superior Court of
Los Angeles County, California.

Scale 1"= 300 ft.

Feby. 11th 1920. Fremont Ackerman CE.

Basis of bearings on this map is taken from the bearing N12°38'W. on Main St. as per map of Tr. No. 2982 M.B. 35-31.



I, Fremont Ackerman hereby certify that I am a Civil Engineer, and that this map, consisting of 2 sheets, correctly represents a survey made under my supervision from Dec. 19th 19 to Feby 26th 1920 and that all of the monuments, shown hereon, actually exist and their positions are correctly shown.

Fremont Ackerman

Subscribed and sworn to before me this 26th day of Feb. 1920.

F.H. Greene
Notary Public in and for Los Angeles Co. State of Cal.

Owners Certificate

We hereby certify that we are the owners of, or interested in, the land included within the subdivision shown on the annexed map, and that we are the only persons whose consent is necessary to pass a clear title to said land, and we consent to the making of said map and subdivision as shown within the colored border lines, and hereby dedicate to the public use all Streets and Avenues shown on said Map within said subdivision.

Title Insurance and Trust Company.
By O.F. Brant Pres.
By O.P. Clark Secy.

State of California } S.S.
County of Los Angeles }

On this 1st day of Mar. in the year one thousand nine hundred and twenty before F.H. Greene Notary Public in and for said County of Los Angeles, State of California, residing therein, duly commissioned and sworn, personally appeared, O.F. Brant known to me to be the Vice President and O.P. Clark known to me to be the Secretary of the Title Insurance and Trust Company the corporation that executed the within instrument and known to me to be the persons whose names are subscribed thereto and acknowledged to me that such corporation executed the same.

In Witness Where of, I have unto set my hand and affixed my official Seal the day and year in this Certificate first Above Written.

F.H. Greene
Notary Public in and for Los Angeles Co. State of Cal.

Mar. 1, 1920

H. M. Jones

MAR 1 1920
44 MIN PAST 11 A.M.
40
5
Maps

J. B. Roberts, Deputy
5.00

Tract No 3612.
Tract No 3612.

McClellan

Mar. 1, 1920

M. M. Beatty

Tract No. 3612

SHEET 2

Carson Street — N89°40'20"E 3068.98' — Street

Amelia Street — N.89°48'40"W. — Street

Wilmington Street — N.89°48'40"W. — Street

Ocean Street — N.89°48'40"W. — 3852.64'

Main — Center Line of Co. Survey MAP No. 1803 — S.1°38'E. 2967.85'

Hoover Street — Figueroa Street

Found 2" Pipe at N.E. Cor. Lot B Tr. No. 3239 M.B. 37-27-28

Found 2" Pipe N.W. Cor. Lot 44 Tr. No. 2982 M.B. 35-31

Found Spk. + Tin

Found 2" Pipe

Found 2" Pipe S.E. Cor. Lot 57 Tr. No. 3239 M.B. 37-27-28

Found 2" Pipe S.W. Cor. Lot 58 Tr. No. 3239 M.B. 37-27-28

N.E. corner J. Crowley 40 acres M.R. 52-3.

Road 12' Wide

Found 4" Pipe Tr. No. 2982 M.B. 35-31

Found 4" Pipe S.W. Cor. Lot 1 Tr. No. 2982 M.B. 35-31

Found Spk. + Washer L.A. Co. Highway F 13-27-31

F.F. 4" Pipe

Title Insurance and Trust Company - Owner.

MAR 1 1920
44 MIN. PAST 11 A.M.
40
6
Maps

Free

MAY 1 1923
20 10 A M
C8
1
map

E Backenman
Deputy

SHEET 1.

TRACT Nº6378.

IN THE COUNTY OF LOS ANGELES.

BEING A SUBDIVISION OF A PORTION OF THE 511.65 ACRE TRACT ALLOTTED TO ANA JOSEFA DOMINGUEZ DE GUYER, MADE IN SUPERIOR COURT CASE Nº. 3284, IN AND FOR LOS ANGELES COUNTY CALIFORNIA.

THE BASIS OF BEARINGS USED FOR THIS MAP, BEING THE EAST LINE OF THE HAMMERTON TRACT, AS RECORDED IN M.B. 40-2-3-4 — S0°34'E.

SURVEYED MARCH 1923.

FRANK R. LEONARD
LICENSED SURVEYOR.

Scale 1" = 300 Ft.

Not a part of this Subdivision.

East line Lot 2/3 - Tr. Nº. 4983 - Sheets 1-2-3-4 - M-B-57-6-7-8-9

Found 2" Pipe N.E. Cor. Hammerton Tract. M-B-40-2-3-4

Set 2" Pipe.

Found 2" Pipe S.W. Cor. Lot 30 Tract 4671 - M-B-56-30-31

Found 2" Pipe N.E. Cor. of 511.65 Acre Tract S-C-C-Nº. 3284.

JAMES ST.

HAMILTON ST.

PINE AVE.

NORTH WALNUT AVE.

EAST ROAD.

MAIN ST.

HOOVER ST.

VERMONT AVE.

NORMANDIE AVE.

Found 2" Pipe N.E. Cor. Lot 2/3. Tr. Nº. 4983 - Sheets 1-2-3-4 M-B-57-6-7-8-9

Found 2" Pipe S.W. Cor. Lot 33 - Hammerton Tract. M-B-40-2-3-4.

Found 2" Pipe S.E. Cor. Hammerton Tract. M-B-40-2-3-4

Found Spike & Washer Tr. Nº. 4983 - Sheets 1-2-3-4 - M-B 57-6-7-8-9

Found Cut Spike

Found 2" Pipe S.E. Cor. Lot 1. Tract 3612 - MB 40-5-6

Found 2" Pipe N.W. Cor. Lot 4. Tract 3612 - M-B. 40. 5-6

Found 2" Pipe N.E. Cor. Lot 3 Tr. "3612 MB 40-5-6

Found 2" Pipe N.E. Cor. Lot 6. Tract 3612 M-B-40-5-6

Found 2" Pipe S.E. Cor. Lot 91 Tr. Nº. 4671 - M-B-56-30-31

Found Spike

Found 2" Pipe N.W. Cor. Lot 50 - Tr. Nº. 5927 M-B-64-58.

Found Spike & Washer Tract Nº. 5927 - M-B-64-58.

Found 4" Pipe

Found Spike & Washer

Found Spike & Washer Tr. Nº. 5927 - M-B-64-58.

S.W. Cor. Lot 49 Tr. Nº. 5927 - M-B-64-58.

S.W. Cor. of 511.65 Acr. Tract.

N.E. Cor. Lot Tract 3612

S.E. Cor. of 511.65 Acr. Tract.

MARGINAL MAP.
VERMONT AVE. AT SOUTH LINE OF 511.65 ACRE TRACT.

RADIAL LINE - N82°57'30"E
TAN. = S0°02'30"E = 0.12'

South Line of 511.65 Acr. Tract

Tangent S0°02'30"E = 0.12'

Found 1"x1" C.S. 8218.

S0°02'30"E C.S. 8218 - Sheet 2

Set 2" Pipe

Found Cut Spike

Found 2" Pipe

Found 4" Pipe

Found Spike & Washer

Found Spike & Washer N77°28'30"E

N12°31'30"W 56.52'

Found 4" Pipe N87°06'E 106.66'

Found 2" Pipe N88°55'E 161.91'

Found 2" Pipe S4°E. Cor. Lot 91 Tr. Nº. 4671 - M-B-56-30-31

Found 2" Pipe N.E. Cor. Lot 6. Tract 3612 M-B-40-5-6

Found 2" Pipe N.W. Cor. Lot 4. Tract 3612 - M-B. 40. 5-6

Found 2" Pipe N.E. Cor. Lot 3 Tr. "3612 MB 40-5-6

Found 2" Pipe S.E. Cor. Lot 1. Tract 3612 - MB 40-5-6

Found 2" Pipe S.W. Cor. of 511.65 Acr. Tract. S-C-Nº. 3284.

Found Spike & Washer Tr. Nº. 4983 - Sheets 1-2-3-4 - M-B 57-6-7-8-9

Found Spike & Washer Tract Nº. 5927 - M-B-64-58.

N89°26'E 2303.27'

N89°52'W - 5937.47'

N89°52'W - 1220

N89°52'W - 1951.60'

N89°02'30"W

N0°34'W 1648.32'

N0°34'W 1110.54'

N0°34'W 1366.10'

N2°54'W 809.39'

N2°54'W 1366.10'

N0°03'W 1624.76'

N0°03'W 1294.37'

N0°03'W 1118.95'

N0°03'W 600.0'

N0°03'W 510.64'

N0°34'W 1648.32'

N0°34'W 1110.54'

N0°34'W 1366.10'

N2°54'W 809.39'

N2°54'W 1366.10'

E:138-270

E:151-183, O.R. 49688-10

E:151-3

E:145-98

E:145-212

E:138-142

E:145-205

E:138-234

E:157-43, OR 50372-219

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54

68-1

TRACT Nº 6378

20 Maps 68 2

G Bustamante Free Deputy

We hereby certify that we are the owners of, or are interested in the land included within the subdivision shown on the annexed map, and that we are the only persons whose consent is neccessary to pass a clear title to said land, and that we give our consent to the making of said map and subdivision as shown within the colored border lines.

THE DOMINGUEZ LAND CORPORATION

By M R Osburn President

By W.H. McCord Ass't Secretary.

SECURITY TRUST & SAVINGS BANK

By L.H. Roseberry Vice President

By J.H. Griffin Ass't Secretary

State of California } s.s.
County of Los Angeles }

On this 10 day of MARCH in the year 1923 A.D. before me, DONALD FINDLEY a Notary Public in and for the said County of Los Angeles, State of California residing therein, duly commissioned and sworn personally appeared M.R. OSBURN known to me to be the President and W.H. McCORD known to me to be the Ass't Secretary of the DOMINGUEZ LAND CORPORATION, personally known to me to be the persons whose names are subscribed to the within instrument for said Corporation, and acknowledged to me that said Corporation executed the same.

In witness whereof I have hereto set my hand and affixed my official seal the day and year in this certificate first above written.

Donald Findley

NOTARY PUBLIC IN AND FOR LOS ANGELES COUNTY, STATE OF CALIFORNIA

My commission expires Aug. 14, 1926

State of California } s.s.
County of Los Angeles }

On this 12TH day of March in the year 1923 A.D. before me, Gladys McKee a Notary Public in and for the said County of Los Angeles, State of California, residing therein, duly commissioned and sworn personally appeared L.H. Roseberry known to me to be the Vice President, and J.H. Griffin known to me to be the Ass't Secretary of the SECURITY TRUST & SAVINGS BANK, personally known to me to be the persons whose names are subscribed to the within instrument for said Corporation, and acknowledged tome that said Corporation executed the same, as trustee.

In witness whereof I have hereto set my hand and affixed my official seal the day and year in this certificate first above written.

Gladys McKee

NOTARY PUBLIC IN AND FOR LOS ANGELES COUNTY, STATE OF CALIFORNIA

My commission expires Sept 17 1926

I, FRANK R. LEONARD, hereby certify that I am a Licensed Surveyor, of the State of California, and that this map consisting of two sheets, correctly represents a survey made under my supervision March 1923, and that all the monuments shown here on actually exist, and that their positions are correctly shown.

Frank R Leonard

Subscribed to and sworn to before me this day of MARCH in the year 1923 A.D.

NOTARY PUBLIC IN AND FOR LOS ANGELES, STATE OF CALIFORNIA

My commission expires

Tract No. 6378 (Sheets 1 & 2)
Tract No. 6378 (Sheets 1 & 2)
3000.00

Wright

April 30 - 1923

May 1 1923.
Chas F. Calhoun

329-12

SHEET 1 OF 2 SHEETS

TRACT NO. 15190

IN UNINCORPORATED TERRITORY
OF LOS ANGELES COUNTY
BEING A SUBDIVISION OF A PORTION OF LOT 22
OF TRACT NO. 3612 AS RECORDED IN BOOK 40
PAGE 5 OF MAPS RECORDS OF LOS ANGELES
COUNTY CALIFORNIA

August 4, 1948
27 3 P.M.
329
12

Grace L. Bovard
$5.00

M. W. FINLEY L. S. 2342

SCALE 1" = 60'

We hereby certify that we are the owners of or are interested in the lands included within the subdivision shown on this map within the colored border line and we consent to the preparation and recordation of said map and subdivision and hereby dedicate to the public use the Streets shown on said map; we further certify that, except as shown on a copy of this map on file in the office of the County Road Commissioner, we know of no easements or structures existing within the easements hereby offered to the public other than publicly owned water lines, sewers, or storm drains; that we will grant no right or interest within the boundaries of said easements except where such right or interest is expressly made subject to said easements.

We also hereby grant to the County of Los Angeles for sanitary sewer purposes the easement so designated on said map, and all uses incident thereto including the right to make connections therewith from any adjoining properties.

Max A. Schiresohn & Martha Schiresohn

Harold B. Gordon & Dorothy Gordon

TITLE INSURANCE AND TRUST COMPANY
EASEMENT HOLDER O.R. 3932-225

Wm by E. H. Booth
VICE PRESIDENT

and J. A. Willett
Assistant Secretary

State of California } ss
County of Los Angeles }

On this 24th day of March 1948 before me Margaret C. Reilly a Notary Public in and for said County and State personally appeared Max A. Schiresohn and Harold B. Gordon

known to me to be the persons whose names are subscribed to the within instrument and acknowledged to me that they executed same.

Margaret C. Reilly
Notary Public
My commission expires April 26, 1949.

State of California } ss
County of Los Angeles }

On this 24th day of March 1948 before me J. J. Woodruff a Notary Public in and for said County and State personally appeared E. H. Booth Jr. known to me to be Vice President and J. A. Willett known to me to be Ass't Secretary of the Title Insurance and Trust Company, the Corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the Corporation therein named and acknowledged to me that such Corporation executed same, as easement holder.

J. J. Woodruff
Notary Public

State of California } ss.
County of Riverside }

On this 1st day of April 1948 before me O. M. PERDEW a Notary Public in and for said County and State personally appeared MARTHA SCHIRESOHN known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that she executed same

O. M. Perdew
Notary Public
My commission expires Sept 23-1950

State of California } ss
County of Los Angeles }

On this 2nd day of April 1948 before me John W Helfer a Notary Public in and for said County and State personally appeared Dorothy Gordon known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that she executed same.

John W Helfer
Notary Public
My commission expires Sept. 23, 1949

I hereby certify that I am a Licensed Land Surveyor of the State of California, that this map, consisting of two sheets, correctly represents a true and complete survey made under my supervision February 1948; that the monuments shown thereon will be in place not later than August 15, 1948, that their position and character are correctly shown and that said monuments are sufficient to enable the survey to be retraced.

M. W. Finley
M. W. Finley L.S. 2342

The Metropolitan Water District of Southern California, a public corporation of the State of California, hereinafter in this Certificate called "District," is the owner and in possession of certain easements, rights of way, and interests acquired by said District by Final Order of Condemnation recorded January 16, 1941, in Book 18139, page 86, Official Records of Los Angeles County, California, and said District reserves to itself and its successors and assigns, all easements, rights of way and interests owned or possessed by said District within the subdivision hereinafter mentioned, and said District, subject to the foregoing reservation, hereby consents to the making and recordation of the map and subdivision as shown within the colored border lines on said map and to the dedication to the public use for street purposes of the streets shown on said map within said subdivision, and to the dedication to the County of Los Angeles of the easement for sanitary sewer shown on said map within said subdivision.

The Metropolitan Water District
of Southern California

E.L. By J. M. Gaylord
Chief Electrical Engineer

Attest:
A. L. Gram
Executive Secretary

Approved as to form
Lemuel H. Howard
General Counsel

State of California } ss
County of Los Angeles }

On this 13th day of April, 1948, before me, RUTH K. THIERS, a Notary Public in and for said County and State, personally appeared J. M. GAYLORD and A. L. GRAM, known to me to be the persons who executed the within instrument on behalf of The Metropolitan Water District of Southern California the corporation therein named and acknowledged to me that such corporation executed the same.

Ruth K. Thiers
Notary Public in and for the
County of Los Angeles, State
of California

Dominguez Water Corporation, easement holder by reservation in deed recorded in Book 1515 Page 265 of Official Records, which reservation retains to the Dominguez Water Corporation all rights of way and easements granted or reserved or both for laying, maintaining, operating, extending, repairing replacing or changing the size of pipe and mains and the right of ingress and egress for said purposes to maintain its water distribution system in and upon all portions of said real property which shall be set apart and used as Streets, Avenues, Boulevards, Highways, Thoroughfares, Roads and Alleys either public or private, hereby subordinates such easements granted or reserved or both to the easements of Streets, Avenues, Boulevards Roads Highways or Alleys as offered for dedication and shown on this map.

H. H. Colton
President

H. G. Arnold
Secretary

State of California } ss.
County of Los Angeles }

On this 4th day of May 1948, before me Minna G. Newman a Notary Public in and for said County and State personally appeared H. H. Colton known to me to be the President and H. G. Arnold known to me to be the Secretary of Dominguez Water Corporation, the Corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the Corporation therein named and acknowledged to me that such Corporation executed the same as easement holder.

Minna G. Newman
Notary Public

My commission expires Mar 30 1950

329-13

SHEET 2 OF 2 SHEETS

TRACT NO. 15190

IN UNINCORPORATED TERRITORY OF LOS ANGELES COUNTY

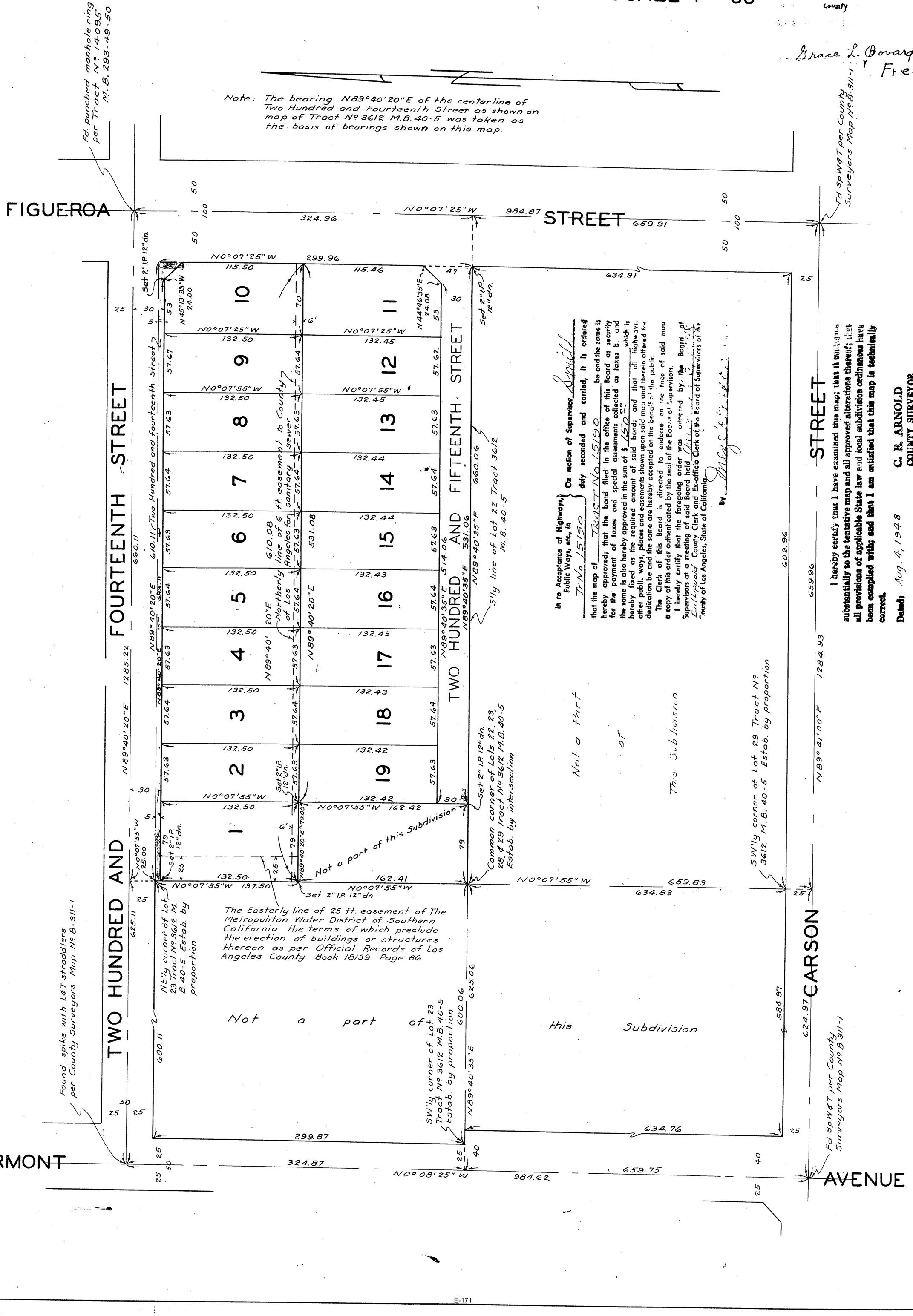
M. W. FINLEY L. S. 2342

SCALE 1" = 60'

August 4, 1948
2T 3 P.M.
329
13
County

Grace L. Bovard
Y Free

Note: The bearing N89°40'20"E of the centerline of Two Hundred and Fourteenth Street as shown on map of Tract No 3612 M.B. 40-5 was taken as the basis of bearings shown on this map.



In re Acceptance of Highways, Public Ways, etc., in Tr No 15190

On motion of Supervisor [illegible] duly seconded and carried, it is ordered that the map of Tract No 15190 be and the same is hereby approved; that the bond filed in the office of this Board as security for the payment of taxes and special assessments collected as taxes b[illegible] and the same is also hereby approved in the sum of $ 1500.00 which is hereby fixed as the required amount of said bond; and that all highways, other public ways, places and easements shown upon said map and therein offered for dedication be and the same are hereby accepted on the behalf of the public.

The Clerk of this Board is directed to endorse on the face of said map a copy of this order authenticated by the seal of the Board of Supervisors.

I hereby certify that the foregoing order was ordered by the Board of Supervisors at a meeting of said Board held [illegible] and [illegible] by the Board of Supervisors of the County of Los Angeles, State of California.

By [illegible]

I hereby certify that I have examined this map; that it conforms substantially to the tentative map and all approved alterations thereof; that all provisions of applicable State law and local subdivision ordinances have been complied with; and that I am satisfied that this map is technically correct.

Dated: Aug. 4, 1948

C. E. ARNOLD
COUNTY SURVEYOR

By [illegible] Deputy

38573 Pg 2nd

SCALE: 1"= 60'

SHEET 1 OF 2 SHEETS

1730

TRACT No. 21495

IN UNINCORPORATED TERRITORY
OF THE COUNTY OF LOS ANGELES
BEING A SUBDIVISION OF A PORTION OF THE 2463.79 ACRE TRACT OF LAND IN THE RANCHO SAN PEDRO ALLOTTED TO SUSANA DOMINGUEZ AS SHOWN ON MAP FILED IN CASE NO. 3284 OF THE SUPERIOR COURT OF THE STATE OF CALIFORNIA IN AND FOR THE COUNTY OF LOS ANGELES

RECORDED
AT REQUEST OF
Nov 23, 1955
6 min 48 m
IN BOOK 185
AT PAGE 5
L D Jackson
Co Recorder

BARCLAY SURVEYING COMPANY

BASIS OF BEARINGS

The bearing N89°40'20"E of the centerline of Carson Street as shown on map of Tract No. 3612, M.B. 40/5-6 was taken as the basis of bearings used on this map.

We hereby certify that we are the owners of, or are interested in the lands included within the subdivision shown on this map, and we consent to the preparation and recordation of said map and subdivision as shown within the colored border lines and we hereby dedicate to the public use all streets, highways and other public ways shown on said map and also grant to the county of Los Angeles an easement for drainage purposes so designated on said map and all uses incident thereto, including the right to make connections therewith from any adjoining properties.

We further certify that except as shown on a copy of this map on file in the Office of the County Road Commissioner we know of no easement or structure existing within the easements hereby offered for dedication to the public other than the publicly owned water lines, sewers or storm drains; that we will grant no right or interest within the boundaries of said easements offered to the public, except where such right or interest is expressly made subject to said easements.

TITLE INSURANCE AND TRUST COMPANY (A Corporation)

By _____ Vice-President

_____ Assistant-Secretary

COUNTY SANITATION DIST. No 2 OF LOS ANGELES COUNTY
Easement Holder per O.R. 45673-310 and O.R. 47930-403 and O.R. 47927-418

_____ Chairman of the Board of Directors

_____ Secretary of the Board of Directors

HOME SAVINGS AND LOAN ASSOCIATION (A Corporation)

K. D. Childs
Vice President

R. H. Wright
Asst. Secretary

State of California
County of Los Angeles } ss. On this 13th day of October 1955 before me, Harold J. Ostly, County Clerk and Ex-Officio Clerk of the Superior Court in and for said County, personally appeared Burton W. Chace known to me to be the Chairman, and J.R. Foster known to me to be the Secretary of the Board of Directors of COUNTY SANITATION DIST. No 2 OF LOS ANGELES COUNTY, the organization that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the organization therein named and acknowledged that such organization executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the Superior Court, the day and year in this certificate first above written.

Harold J. Ostly
County Clerk and Ex-Officio Clerk of said Superior Court

by _____ Deputy

State of California
County of Los Angeles } ss. On this 20th day of October 1955, before me S.A. Stodder Jr. a notary public in and for said county and state personally appeared K.D. Childs known to me to be the Vice President, and R.H. Wright known to me to be the Secretary of HOME SAVINGS AND LOAN ASSOCIATION, the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged to me that such corporation executed the same.

S.A. Stodder Jr.
My Commission Expires Jan. 25, 1958

The signatures of the present owners of one-half of all oil, gas and other hydrocarbon substances lying beneath a depth of 500 feet, measured from the surface of said land, without any rights to the surface and said sub-surface area to a depth of 500 feet, as reserved by Title Insurance and Trust Company by deed recorded March 31, 1955 in Book 47354, page 20, Official Records, have been omitted in accordance with Section 11587-c-(1) of the Subdivision Map Act.

I hereby certify that I am a Licensed Surveyor of the State of California; that this map consisting of two sheets correctly represents a true and complete survey made under my supervision in Sept. 1955; that the monuments of character and locations shown hereon will be in place not later than Oct. 1, 1956; that said monuments are sufficient to enable the survey to be readily retraced, and that the notes to all centerline monuments shown hereon as set by me will be on file in the Office of the County Engineer not later than Nov. 1, 1956.

Robert Barclay
Licensed Surveyor No. 2521

State of California
County of Los Angeles } ss. On this 20th day of Oct. 1955 before me, the undersigned a notary public in and for said county, personally appeared Claire Comment known to me to be the Vice-President, and L.W. Ecker known to me to be the Assistant-Secretary of TITLE INSURANCE AND TRUST COMPANY the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged to me that such corporation executed the same.

D. L. Bantock
My Commission Expires 2-26-56

State of California
County of Los Angeles } ss. On this 7th day of Nov. 1955 before me Glen A. Duke a notary public in and for said county and state personally appeared C. V. Carson known to me to be the President and Florence Sheafer known to me to be the ~~Assistant~~ Secretary of DOMINGUEZ WATER CORPORATION, the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

Glenn A. Duke
My Commission Expires Sept 19, 1956

Dominguez Water Corporation hereby certifies that it is interested in the land included within the subdivision shown on the annexed map by virtue of ~~a deed~~ easement granted to it by deed ~~recorded in Book 2000, page 000 of Official Records of the County of Los Angeles~~ to Dominguez Water Company, its predecessor in interest, recorded in Book 1515, page 265, Official Records of the County of Los Angeles, and said Corporation hereby consents to the making and recordation of said map and subdivision as shown within the colored border lines and hereby dedicates to the public use its said easements within the streets, avenue and shown on said map within said subdivision, except that said Corporation retains such of said easements as are necessary for laying, maintaining, operating, repairing and replacing the water mains, water pipes and water service connections of said Corporation and for making extensions thereto; provided, however, that the easements hereby retained by said Corporation are subordinate to the easements for streets, avenue and as offered for dedication as shown on said map; that the Public Utilities Commission of the State of California has granted to said Corporation a certificate of public convenience and necessity to serve and distribute water for domestic purposes to the land included within said subdivision; that the subdivider has filed with Dominguez Water Corporation an application for a water main extension to serve the land within said subdivision and has agreed to deposit with Dominguez Water Corporation, pursuant to Rule and Regulation No. 20 of the tariff of said Corporation, the estimated cost of constructing a water distribution system to serve the land within said subdivision with standards of Dominguez Water Corporation and when completed Dominguez Water Corporation will serve and distribute water to all parcels of land within said subdivision, pursuant to its tariff on file with said Public Utilities Commission. Said Corporation further certifies that, except as shown on copy of said map on file in the office of the County Road Commissioner, it knows of no easements or structure existing within the easements hereby offered for dedication to the public other than water lines owned by said Corporation and publicly owned sewers and storm drains; that said Dominguez Water Corporation will grant no right or interest within the boundaries of said easements offered to the public except where such right or interest is expressly made subject to said easements.

DOMINGUEZ WATER CORPORATION

C. V. Carson VICE PRESIDENT

Florence Sheafer SECRETARY

In re Acceptance of Highways, Public Ways, etc., in TRACT NO. 21495 } On motion approved by the Board of Supervisors, it is ordered that the map of TRACT NO. 21495 be and the same is hereby approved; and that all streets, highways, other public ways and easements shown upon said map and thereon offered for dedication be and the same are hereby accepted on behalf of the public.

The Clerk of this Board is directed to endorse on the face of said map a copy of this order authenticated by the seal of the Board of Supervisors.

I hereby certify that the foregoing order was adopted by the Board of Supervisors at a meeting of said board held November 22, 1955

Harold J. Ostly, County Clerk and Ex-officio Clerk of the Board of Supervisors of the County of Los Angeles, State of California.

By Lucy Lohman Deputy

I hereby certify that I have examined this map; that it conforms substantially to the tentative map and all approved alterations thereof; that all provisions of applicable State law and local subdivision ordinances have been complied with; and that I am satisfied that this map is technically correct.

Dated: November 23, 1955

JOHN A. LAMBIE
COUNTY ENGINEER
By Ralph L. Kennedy Deputy

SCALE: 1"= 60'

SHEET 2 OF 2 SHEETS

TRACT No. 21495

IN UNINCORPORATED TERRITORY
OF THE COUNTY OF LOS ANGELES

BARCLAY SURVEYING COMPANY

Nov 23, 1955
6 4 P.M.
L 785
φ

D Jackson
Fee

N.89°40'20"E. 5.00'
Set 2" I.P.
Set 2" I.P.
5' 200' N.0°09'20"W.
5.00' easement to the County of Los Angeles for drainage purposes.
5'
Set 2" I.P.
N'ly line per O.R. 47354-17.
N'ly line per O.R. 47354-22.
N89°40'20"E 525.68'
Set 2" I.P.
N89°40'20"E 167.64
N.89°40'20"E 5.00'
6'
N89°40'20"E 358.04'
32' 32' 32' 51' 50.99' 32.53' 32.52'
W'ly line per O.R. 47354-17
E'ly line of 6' easement to the County of Los Angeles for drainage purposes
12 13 14 15 16 17 18
N0°09'20"W 100' 100' 100' 100' 100' 110.55'
Not a Part of This Subdivision
DESFORD STREET
N89°40'20"E 131' 45.14' 44.86' 127.07'
Set 5/8" I.P.
Set 5/8" I.P.
Set 2" I.P.
N89°40'20"E 85.96' 82.20' 152.13'
N45°14'30"W 15.80'
Set 2" I.P.
S'ly line of 7.5' wide L.A. Co. Sanitation District No 2 easement per O.R. 47930-403.
N'ly line of L.A. Co. Sanitation District No 2 easement per O.R. 47927-418 (Vacated)
N'ly line of 15' wide easement of L.A. Co. Sanitation District No 2 per O.R. 45673-310
11 10 9 8 7 6 5 4 3 2 1
42 41 40 39 38 37 36 35 34
43 44 45 46 47 48 49 50
19 20 21 22 23 24 25 26 27 28
AVENUE
STREET
MEYLER
N0°09'20"W
N89°40'20"E 101' 103' 111.68' 214.68'
Natural Drainage Course
W'ly line per O.R. 47354-20
1185' 755.00' 541' 457' 496.79' 308.81' 820.83' 365'
N0°09'20"W 855'
N0°09'20"W 838'
N0°09'20"W 230'
N0°09'20"W 25.00'
N0°09'20"W 130'
N0°09'20"W 114.93'
N0°09'20"W 199.98'
N0°09'20"W 235.04'
N0°09'20"W 579.96'
N0°09'20"W 155.08'
N0°09'20"W 820.83'
E'ly line of 15' wide easement of L.A. Co. Dist. No 2 per O.R. 45673-310.
S'ly & W'ly line of L.A. Co. Sanitation Dist. No 2 per C.S.B. 766-1
Fd. 2" I.P. & 789 Lks 1742" S.W. Cor. Lot 9 Tract No 6378 M.B. 68-1/2 per Tract No 19551 M.B. 495-3/5 per C.S.B. 766-1
Fd. Nothing
W'ly line of Tract No 3612 M.B. 40-5/6 per C.S.B. 766-1
Fd. L.E.T. per L.A.Co. Rd. Dept F.B.F.A. 70-147 & F.B. 491-44.
Not a Part of this Subdivision
BUDLONG AVE.
NORMANDIE AVE.
Fd. Spk. & cem. mon. per L.A. City F.B. 12601-28
N0°09'00"W
N89°40'20"E 1070.06'
25' 25' 30' 60' 30' 75'
CARSON STREET
N89°40'20"E 131' 34.77' 55.23' 748' 751.7' 330.68' 301.2' 399.68'
Set 5/8" I.P.
Set 5/8" I.P.
Set 5/8" I.P.
Set 5/8" I.P.
216TH STREET
N89°40'20"E 271.08'
N89°40'20"E 139.23'
N89°40'20"E 369.68'
N89°40'20"E 142.23'
N89°40'20"E 666.37'
Fd. Cut Spk. & Washer per C.S.B. 291-16
Fd. Spk. & Washer per C.S.B. 766-1
E. VERMONT AVE.

Note:—
All 2" I.P. set 12" deep

K&E 155 IMPERIAL * TRACING CLOTH T.M.

SCALE: 1"=60'

TRACT No. 24141

IN UNINCORPORATED TERRITORY OF
THE COUNTY OF LOS ANGELES
BEING A SUBDIVISION OF LOTS 13 TO 16 INCLUSIVE, AND PORTIONS OF LOTS 19 AND 20 OF TRACT NO. 6378 AS PER MAP RECORDED IN BOOK 68, PAGES 1-2 OF MAPS, RECORDS OF LOS ANGELES COUNTY, STATE OF CALIFORNIA.

4186

RECORDED
AT REQUEST OF OWNER
OCT. 9, 1957
MIN. PAST 4 P.M.
IN BOOK 623
AT PAGE 40
OF MAP RECORDS
LOS ANGELES COUNTY, CALIF.
RAY E. LEE
COUNTY RECORDER
DEPUTY
$9.00

BARCLAY SURVEYING COMPANY

BASIS OF BEARINGS

The bearing S. 00°57'30" W. of the centerline of Vermont Avenue as shown on map of Tract No. 6378, M. B. 68/1-2, was taken as the basis of bearings used on this map.

We hereby certify that we are the owners of, or are interested in the lands included within the subdivision shown on this map, and we consent to the preparation and recordation of said map and subdivision as shown within the colored border lines; and we hereby dedicate to the public use all streets, highways and other public ways shown on said map. We further certify that except as shown on a copy of this map on file in the Office of the County Road Commissioner, we know of no easement or structure existing within the easements hereby offered for dedication to the public, other than publicly owned water lines, sewers, or storm drains; that we will grant no right or interest within the boundaries of said easements offered to the public, except where such right or interest is expressly made subject to the said easements.

As a dedication to public use while all of Vermont Avenue within this subdivision remains a public highway for such time only, we hereby abandon all easements of ingress and egress to the said Vermont Avenue so that the owners of lots 1 to 25 inclusive abutting this highway during such time will have no rights of access whatever in this highway as such except the general easement of travel which belongs to the whole public. If any change of alignment or width of such highway results in the vacation of any part thereof within this subdivision, such vacation terminates the above dedication as to the part vacated. We also grant to the County of Los Angeles the easements for sanitary sewer and drainage purposes so designated on said map and all uses incident thereto, including the right to make connections therewith from any adjoining property.

TITLE INSURANCE AND TRUST COMPANY (A corporation)
Trustee under deed of trust recorded September 18, 1957, as instrument numbered 1675

Paul Pfleuger
Vice President

W. Willett
Ass't. Secretary

BARCLAY DEVELOPMENT CO. (A partnership)

Richard Barclay
Partner

Robert Barclay
Partner

Walter C. Bradford
Nellie M. Bradford
Donald Findley

Katherine B. Curtiss
Charles A. Curtiss

Blanket Easement Holders per Book 7030 page 49; Book 5621 page 61; Book 4441 page 268; Book 5137 page 80; Book 5177 page 282 all of Official Records.

DOMINGUEZ WATER CORPORATION *hereby certifies that it has an interest in the land included within the subdivision shown on the annexed map by virtue of an easement granted in deed recorded in Book 38362 page 377, Official Records, and by virtue of a blanket easement granted in deed recorded in Book 48339 page 359, Official Records, and by virtue of a blanket easement granted to it by deed to* **DOMINGUEZ WATER COMPANY**, *its predecessor in interest, recorded in Book 1515 page 265, Official Records, and by virtue of a blanket easement granted to it by deed to* **DOMINGUEZ ESTATE COMPANY** *its predecessor in interest, recorded in Book 4575 page 256 Official Records of the County of Los Angeles, and said corporation hereby consents to the making and recordation of said map and subdivision as shown within the colored border lines and hereby dedicates to the public use its said easements within the streets, avenues and other public ways shown on said map within said subdivision, except that said corporation retains such of said easements as are necessary for laying, maintaining, operating, repairing and replacing the water mains, water pipes, and water service connections of said corporation and for making extensions thereto; provided, however that the easements hereby retained by said corporation are subordinate to the easements for streets, avenues and other public ways as offered for dedication as shown on said map; that the public utilities commission of the State of California has granted to said corporation a certificate of public convenience and necessity to serve and distribute water for domestic purposes to the land included within said subdivision; that the subdivider has filed with* **DOMINGUEZ WATER CORPORATION** *an application for a water main extension to serve the land within said subdivision and has agreed to deposit with* **DOMINGUEZ WATER CORPORATION**, *pursuant to Rule and Regulation No 20 of the tariff of said corporation, the estimated cost of constructing a water distribution system to serve the land within said subdivision with standards of* **DOMINGUEZ WATER CORPORATION** *and when completed* **DOMINGUEZ WATER CORPORATION** *will serve and distribute water to all parcels of land within said subdivision, pursuant to its tariff on file with said public utilities commission. Said corporation further certifies that except as shown on copy of said map on file in the Office of the County Road Commissioner, it knows of no easements or structures existing within the easements hereby offered for dedication to the public other than water lines owned by said corporation and publicly owned sewers and storm drains; that said* **DOMINGUEZ WATER CORPORATION** *will grant no right or interest within the boundaries of said easements offered to the public except where such right or interest is expressly made subject to said easements.*

DOMINGUEZ WATER CORPORATION

J. P. Bradley
President

Florence Shrafor
Secretary

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, *a public corporation of the State of California, hereinafter in this certificate called "District," is the owner and in possession of certain easements, rights of way and interests conveyed to said District by deed recorded Jan. 5, 1939 in Book 16346 pages 65 to 67, Official Records of Los Angeles County California, the terms of which deed preclude the erection of buildings or structures on the easement area, and said District reserves to itself and its successors and assigns, all easements, rights of way and interests owned or possessed by said District within the subdivision hereinafter mentioned, and said District, subject to the foregoing reservation, hereby consents to the making and recordation of the annexed map and subdivision as shown within the colored border lines on said map and to the dedication to the public use for street purposes of the Streets and Avenues shown on said map within said subdivision it being further understood that the grade of any said Street, Avenue or Lot crossing said easements shall not be less than 3.5 feet above the top of Districts pipe line under or adjacent to such Street or Avenue, and that no fill greater than 3 feet in depth shall be placed on the surface of the ground within the area of any such easement.*

ATTEST
A. L. Gram
EXECUTIVE SECRETARY

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
By Robert B. Diemer
GENERAL MANAGER AND CHIEF ENGINEER

APPROVED AS TO FORM
Charles H. Toepfer Jr.
ASST. GENERAL COUNSEL

STATE OF CALIFORNIA } SS:
COUNTY OF LOS ANGELES }

On this 12th day of August 1957 before me, Ruth K. Thiers a notary public in and for said County personally appeared Robert B. Diemer known to me to be the General Manager and Chief Engineer, and A. L. Gram known to me to be the Executive Secretary of The Metropolitan Water District of Southern California, the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged to me that such corporation executed the same

Ruth K. Thiers
My Commission Expires January 21, 1960

I hereby certify that I am a Licensed Surveyor of the State of California; that this map consisting of three sheets correctly represents a true and complete survey made under my supervision in July 1957; that the monuments of character and locations shown hereon will be in place not later than Sept. 1, 1958; that said monuments are sufficient to enable the survey to be readily retraced, and that tie notes to all centerline monuments shown as set by me will be on file in the Office of the County Engineer and Surveyor not later than Oct. 1, 1958.

Robert Barclay
Licensed Surveyor No. 2521

In re Acceptance of Highways, Public Ways, etc., in TRACT NO. 24141

On motion approved by the Board of Supervisors, it is ordered that the map of TRACT NO. 24141 be and the same is hereby approved; that the bond filed in the office of this Board as security for the payment of taxes and special assessments collected as taxes be and the same is also hereby approved in the sum of $1875.00 which is hereby fixed as the required amount of said bond; and that all streets, highways, other public ways and easements shown upon said map and therein offered for dedication be and the same are hereby accepted on behalf of the public. *Also the Future Street shown on said map and herein offered for dedication is hereby rejected under the provisions of Section 11616 of the Subdivision Map Act. Also the offer of dedication for abandonment of ingress and egress is hereby rejected.*

The Clerk of this Board is directed to endorse on the face of said map a copy of this order authenticated by the seal of the Board of Supervisors.

I hereby certify that the foregoing order was adopted by the Board of Supervisors at a meeting of said Board held October 8, 1957

Harold J. Ostly, County Clerk and Ex-officio Clerk of the Board of Supervisors of the County of Los Angeles, State of California.

By Evelyn Fodor Deputy

State of California } S.S.
County of Los Angeles }

On this 26 day of September 1957 before me THE UNDERSIGNED a notary public in and for said County and State personally appeared PAUL PFLUEGER known to me to be the VICE President and J. A. WILLETT known to me to be the ASS'T Secretary of TITLE INSURANCE AND TRUST COMPANY, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged to me that such corporation executed the same as trustee.

Lola M. Brack
My Commission Expires 7-30-61

We hereby dedicate for public use for street purposes that certain strip of land designated as "Future Street" shown on said map within said subdivision reserving to ourselves for the use of ourselves and successive owners of the respective certain strip shown on said map, any and all ordinary uses of said land except the erection or construction thereon of any structure not ordinarily placed in public streets, until such time as the proper legislative body shall open said street for public use.

State of California } S.S.
County of Los Angeles }

On this 9th day of Sept. 1957, before me John R. Spahn a notary public in and for said County and State personally appeared Charles A. Curtiss and Katherine B. Curtiss husband and wife, Walter C. Bradford and Nellie M. Bradford, husband and wife, and Donald Findley as individual, and known to me to be the persons whose names are subscribed to the within instrument and acknowledged to me that they executed the same.

John R. Spahn
My commission expires 8-6-60

State of California } S.S.
County of Los Angeles }

On this 29th day of July 1957, before me Frank Spelios a notary public in and for said County and State personally appeared Richard Barclay and Robert Barclay, known to me to be the partners of the general partnership that executed the within instrument and acknowledged to me that such general partnership executed the same.

Frank Spelios
My Commission Expires November 20, 1959

State of California } S.S.
County of Los Angeles }

On this 27 day of Aug. 1957, before me Marion G. Perrigo a notary public in and for said County and State personally appeared J. P. BRADLEY known to me to be the President, and FLORENCE SHRAFOR known to me to be the Secretary of **DOMINGUEZ WATER CORPORATION**, *the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation herein named and acknowledged to me that such corporation executed the same*

Marion G. Perrigo
My Commission Expires June 17, 1959

The signature of the present owner of all mineral rights in said property below 500 feet which was reserved in deed recorded September 18, 1957, as instrument No. 1678, has been omitted as a necessary party to sign the Map under the provisions of Section 11587 C.-(1) of the Subdivision Map Act inasmuch as such ownership does not include a right of entry on the surface of the land.

SCALE: 1" = 60'

SHEET 2 OF 3 SHEETS

TRACT No. 24141

IN UNINCORPORATED TERRITORY OF
THE COUNTY OF LOS ANGELES

4180 PG. 2
RECORDED
AT REQUEST OF OWNER
OCT. 9, 1957
14 MIN. PAST 4 P.M.
IN BOOK 623
AT PAGE 41
OF MAP RECORDS
LOS ANGELES COUNTY, CALIF.
RAY E. LEE
COUNTY RECORDER
BY [signature] DEPUTY

BARCLAY SURVEYING COMPANY

Fd. L. A. City Eng. Mon. 3/4" Pun. Dural Hex. Rod in 6" conc. well per C.E.F.B. 10635-68

Set P.K. Nail

N0°34'08"W 1873.06'

FIGUEROA STREET

363.07' 323.54' 402.60' 208.10'

℄

Fd. Pun. Bolt & Washer in 4" Sleeve 3" below Surface, per St. Hwy. F.B. A 189.001/67

N89°25'12"E 184.85'

NOT A PART OF THIS

Set 2"I.P.

HARBOR SUBDIVISION

135.49'

N10°17'31"E 119.08'

N51°55'27"E 158.18'

A--W'ly Line OR. 44493-337

FREEWAY

52.95' 56.51' 61.10' 52.95' 56.52' 61.10' 52.95' 30.81'

739.46'

Set 2"I.P.

N89°24'44"E 324.18'

Set P.K. Nail

South line Lot 19 Tr. No. G378 M.B. 68/1-2 by proportion

N89°24'44"E 122.02'

N89°24'44"E 276.02'

Set 2"I.P. N.E. Cor. Lot 15 Tr. No. G378 M.B. 68/1-2. by intersection

N0°34'15"W 776.45'

68.88' 48.91'

30'

5'

1180.47'

STREET

SUBDIVISION

North Line Lot 20, Tr. No. G378 M.B. 68/1-2 by proportion 965.28'

N.E. Cor. Lot 13 Tr. No. G378 M.B. 68/1-2. by proportion

N89°25'24"E 208.76'

NOT A PART OF THIS

N89°25'12"E 965.28'

N.W. Cor. Lot 13 Tr. No. G378 M.B. 68/1-2 Rel. 2"I.P. 0.04'E & 0.06'N No Reference

W'ly Line of a 25' Easement of Metropolitan Water Dist. of So. Calif. per O.R. 16346/65-67. The terms of which deed preclude the erection of buildings on the easement area.

W'ly Line of a 25' Easement of Metropolitan Water Dist. of So. Calif. per O.R. 16346/65-67. The terms of which deed preclude the erection of buildings on the easement area.

Set 2"I.P. N.E. Cor. Lot 19 Tr. No. G378 M.B. 68/1-2 by proportion

Set 2"I.P. N.E. Cor. Lot 15 Tr. No. G378 M.B. 68/1-2. by intersection

Set S.&T.

Set 5/8"I.P.

Set 5/8"I.P. on Tan. line

N.W. Cor. Lot 15, Tr. G378, M.B. 68/1-2

P.O.S.T. - Fd. L.&T. per L.A. Co. Road Dept. F.B. F.T. 26-29

B.C. - Fd. L.&T. per L.A. Co. Road Dept. F.B. F.T. 26-29

B.C. - Fd. L.&T. per L.A. Co. Road Dept. F.B. F.T. 26/30

NOTE:-
All 2"I.P.'s Set 12" Deep

SCALE: 1" = 60'

4188 P6.3 SHEET 3 OF 3 SHEETS

TRACT No. 24141

IN UNINCORPORATED TERRITORY OF
THE COUNTY OF LOS ANGELES

RECORDED
AT REQUEST OF BARC
OCT. 9, 1957
14 MIN. PAST 4 P.M.
IN BOOK 623
AT PAGE 42
OF MAP RECORDS
LOS ANGELES COUNTY, CALIF.
RAY E. LEE
COUNTY RECORDER
BY [signature] DEPUTY

BARCLAY SURVEYING COMPANY

I hereby certify that I have examined this map; that it conforms substantially to the tentative map and all approved alterations thereof; that all provisions of applicable State law and local subdivision ordinances have been complied with; and that I am satisfied that this map is technically correct.

Dated: October 9, 1957

JOHN A. LAMBIE
COUNTY ENGINEER
By Ralph S. Kennedy Deputy

NOTE:—
All 2"I.P.'s Set 12" Deep

NOT A PART OF THIS SUBDIVISION

LOT 95
6.408 Acres

FIGUEROA STREET — 208.10' — 1873.06' — ℄ N0°34'08"W — 575.75'

Fd. L.A. City Eng. Mon. 3/4" Pun. Dural Hex. Rod in 6" conc. well per C.E.F.B. 10635-67

Angle point, intersection of E'ly prolongation of S'ly line Lot 17, Tr. No. 6378 M.B. 68/1-2 Fd. Pun. Bolt & Washer in 4". Sleeve, 3" below Surface per St. Hwy. F.B. 189.001/66

N.00°02'10"W. — 946.68' — 335.12'

Fd. Pun. S.F.W.L. per St. Hwy. F.B. A189.001-66.

213 TH STREET

214 TH STREET

Fd. 4 P.K.'s on M.H. Tim per St. Hwy. F.B. A189.001-65

S'ly line Lot 17, Tr. No. 6378 M.B. 68/1-2 — 600.21' — N89°52'49"W

S.E. Cor. Lot 16 Tr. No. 6378 M.B. 68/1-2 Set 2" I.P. by proportion

East line Lots 15 & 16, Tr. No. 6378 M.B. 68/1-2 by proportion

N0°34'15"W — 450.93' — N0°34'15"W — 1335.05'

W'ly Line of a 25' Easement of Metropolitan Water Dist. of So. Calif. per O.R. 1634 G/65-67. The terms of which deed preclude the erection of buildings on the easement area.

MENLO (FUTURE STREET) AVENUE

77G45' — N52°36'E — 188.64' — 171.16' — Δ=21°56'28" L=76.99' R=200' — R=220' — L=74.21' Δ=21°56'28" — 40' — 45.16'

R=20' Δ=64°46'35" T=13.25' — 45G.18'

SEE SHEET 2

CONRAD AVENUE

68.88' — 30' — 28' — 5' — Set S.&T. — G11.15' — 171.99' — 385.32' — 5 — 8 — STREET

254.56' — N89°25'12"E — 58' — 30' — 28'

R=15' Δ=86°14'10" L=22.58'

Δ=6°46'07" — R=2232.43' — L=264.55' — Δ=8°37'42" — R=2287' — L=344.48'

VAN DEENE AVENUE — Set S.&T. — 45.13' — 2.53' — 30' — 28' — 5' — 8' — R=2211.43' — T=150.28' — L=301.48' — N9°57'09"E

Δ=7°48'40" — Δ=6°33'45" — L=55.74' Δ=1°27'50" — L=53.28' Δ=1°23'58" — L=57.34' Δ=1°30'22" — L=53.28' Δ=1°23'58" — L=30.22' Δ=0°47'37" — L=25.53' Δ=0°31'22"

R=15' Δ=93°58'12" L=24.60' — 30.6 — 0' — 30' — 182.07' — N89°25'12"E — 65.90' — JAVELIN AVENUE

12 — 11 — 10 — 9 — 8 — 7 — 6 — 5 — 4 — 3 — 2 — 1

Rad. 105' — N85°08'46"W — N83°44'48"W — N82°41'26"W — N80°50'28"W — N80°40'17"W — N81°55'53"W — N83°23'07"W — N84°43'47"W — N85°59'23"W — N87°26'37"W — N88°47'17"W — N89°57'01"E

Δ=1°04'03" L=38.60' — Δ=1°23'58" L=50.72' — Δ=1°30'22" L=54.58' — Δ=1°23'58" L=50.71' — Δ=0°47'37" L=28.76' — Δ=0°31'20" L=26.67' — Δ=1°15'36" L=53.88' — Δ=1°27'14" L=62.17' — Δ=1°20'40" L=57.49' — Δ=1°15'36" L=53.88' — Δ=1°27'14" L=62.17' — Δ=1°20'40" L=57.49' — Δ=1°15'36" L=53.88'

Δ=8°59'39" — R=2066.43' — L=324.38' — Δ=0°09'58" — R=2076.43' — L=223.46' — Δ=10°00'02" — R=2450' — L=427.63' — N0°02'53"W 0.15' — L=429.38'

VERMONT AVENUE

Δ=8°59'39" — R=2026.43' — T=159.38' — L=318.11' — N9°57'09"E — 378.11' — Δ=10°00'02" — R=2500' — L=436.36' — T=218.73' — NO°02'53"W — 954.63'

Set S.&T. on Tan. line

B.C. — Fd. L.&T. per L.A. Co. Road Dept. F.B. F.T. 26/30

P.I. — Fd. L.&T. per L.A. Co. Road Dept. F.B. F.T. 26/30

P.R.C. — Fd. Spk. & Washer with 4 L.&T.'s per L.A. Co. Road Dept. F.B. F.T. 26/30

P.I. — Fd. L.&T. per L.A. Co. Road Dept. F.B. F.T. 26/30

Fd. Spk. & Washer with 4 L.&T. Tangent per Co. Surv. F.B. 329/57

N89°52'49"W — 418.41' — 212 TH STREET — 500.16' — 645.16' — 40' — 80' — 40'

Fd. 2" I.P. with R.E. 1368 Notch and 0.04' Westerly. No Reference.

N89°52'49"W — Ely line of S. Easement to the County of Los Angeles for Sanitary Sewer purposes

S.W. Cor. Lot 16 Tr. No. 6378 M.B. 68/1-2

B.C. — Intersection of W'ly prolongation of S'ly line of Lot 16, Tr. No. 6378 M.B. 68/1-2 Fd. Spk. & Washer with 4 L.&T.'s per L.A. Co. Road Dept. F.B. F.T. 26/30

214TH & STREET

633 77

SCALE: 1"= 40'

SHEET 1 OF 2 SHEETS

TRACT No. 21007

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

BEING A SUBDIVISION OF A PORTION OF LOT 2 OF TRACT No 3612 AS PER MAP RECORDED IN BOOK 40 PAGES 5 AND 6 OF MAPS, RECORDS OF LOS ANGELES COUNTY, STATE OF CALIFORNIA.

AUG. 6, 1958
30 3 P.M.
633
77

BARCLAY SURVEYING COMPANY

$7.00

BASIS OF BEARINGS

The bearing N. 0° 02' 53" W. of the centerline of Vermont Avenue as shown on map of Tract Nº 24141, M. B. 623 pages 40-42 was taken as the basis of bearings used on this map.

We hereby certify that we are the owners of, or are interested in the lands included within the subdivision shown on this map, and we consent to the preparation and recordation of said map and subdivision as shown within the colored border lines and we hereby dedicate to the public use all streets, highways, and other public ways shown on said map. We further certify that, except as shown on a copy of this map on file in the office of the County Road Commissioner, we know of no easement or structure existing within the easements hereby offered for dedication to the public, other than publicly owned water lines, sewers, or storm drains; that we will grant no right or interest within the boundaries of said easements offered to the public, except where such right or interest is expressly made subject to the said easements.

FLAGSTAFF LAND CO., (A corporation) as owner and as easement holder for drive way purposes and sewer lines created by deed recorded in Book 47306 page 406 of Official Records.

Richard Barclay — President

Robert Barclay — Secretary

DOMINGUEZ WATER CORPORATION, hereby certifies that it has an interest in the land included within the subdivision shown on the annexed map by virtue of the blanket easement created by reservation in deed recorded in Book 3449, page 203 Official Records said rights having been acquired by deeds recorded in Book 39383, page 236, official Records, and in Book 52892 page 422, Official Records, and by virtue of a blanket easement granted to it by deed to DOMINGUEZ WATER COMPANY, its predecessor in interest, recorded in Book 1515 page 265, Official Records, and by virtue of a blanket easement granted to it by deed to DOMINGUEZ ESTATE COMPANY its predecessor in interest, recorded in Book 4575 page 256 Official Records of the County of Los Angeles, and said corporation hereby consents to the making and recordation of said map and subdivision as shown within the colored border lines and hereby dedicates to the public use its said easements within the streets, avenues and other public ways shown on said map within said subdivision, except that said corporation retains such of said easements as are necessary for laying, operating, repairing and replacing the water mains, water pipes, and water service connections of said corporation and for making extensions thereto; provided however that the easements hereby retained by said corporation are subordinate to the easements for streets, avenues and other public ways as offered for dedication as shown on said map; that the public utilities commission of the State of California has granted to said corporation a certificate of public convenience and necessity to serve and distribute water for domestic purposes to the land included within said subdivision; that the subdivider has filed with DOMINGUEZ WATER CORPORATION an application for a water main extension to serve the land within said subdivision and has agreed to deposit with DOMINGUEZ WATER CORPORATION, pursuant to Rule and Regulation Nº 20 of the tariff of said corporation, the estimated cost of constructing a water distribution system to serve the land within said subdivision with standards of DOMINGUEZ WATER CORPORATION and when completed DOMINGUEZ WATER CORPORATION will serve and distribute water to all parcels of land within said subdivision, pursuant to its tariff on file with said public utilities commission. Said corporation further certifies that except as shown on a copy of said map on file in the Office of the County Road Commissioner, it knows of no easements or structures existing within the easements hereby offered for dedication to the public other than water lines owned by said corporation and publicly owned sewers and storm drains; that said DOMINGUEZ WATER CORPORATION will grant no right or interest within the boundaries of said easements offered to the public except where such right or interest is expressly made subject to said easements.

DOMINGUEZ WATER CORPORATION

J. P. Bradley — President

Florence Sneator — Secretary

State of California } S.S.
County of Los Angeles }

On this 28th day of April 1958 before me John R. Spahn a notary public in and for said County and State personally appeared Richard Barclay, known to me to be the president, and Robert Barclay, known to me to be the secretary of FLAGSTAFF LAND CO. the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged to me that such corporation executed the same.

John R. Spahn
My Commission Expires Aug. 6, 1962

State of California } S.S.
County of Los Angeles }

On this 10th day of June 1958 before me Marion G. Ferris a notary public in and for said County and State personally appeared J. P. Bradley known to me to be the president, and Florence Keator known to me to be the secretary of DOMINGUEZ WATER CORPORATION, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation herein named and acknowledged to me that such corporation executed the same.

Marion G. Ferris
My Commission Expires June 7, 1962

William N. Roberts — William N. Roberts

Addie V. Roberts — Addie V. Roberts

State of California } S.S.
County of Los Angeles }

On this 2nd day of July 1958, before me the undersigned a notary public in and for said County and State personally appeared William N. Roberts and Addie V. Roberts, husband and wife and known to me to be the persons whose names are subscribed to the within instrument and acknowledged to me they executed the same.

Eileen Maeker
My Commission Expires July 8 1961

LINCOLN ESCROW COMPANY, (a corporation)
Trustee under deed of trust recorded May 9, 1958, as instrument No. 540.

Nelson N. Bennett — President

Alberta Lundell Bennett — Secretary

State of California } S.S.
County of Los Angeles }

On this 30th day of July 1958, before me John R. Spahn a notary public in and for said County and State personally appeared Nelsen N. Bennett known to me to be the President and Alberta Lundell Bennett known to me to be the Secretary of LINCOLN ESCROW COMPANY, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged to me that such corporation executed the same as trustee.

John R. Spahn
My Commission Expires Aug. 6, 1960

I hereby certify that I am a Licensed Surveyor of the State of California; that this map consisting of two sheets correctly represents a true and complete survey made under my supervision in April 1958; that the monuments of character and locations shown hereon will be in place not later than May 1st, 1959; that said monuments are sufficient to enable the survey to be readily retraced. and that tie notes to all centerline monuments shown hereon as set by me will be on file in the office of the County Engineer not later than Feb. 1, 1959.

Robert Barclay
Licensed Surveyor No. 2521.

In re Acceptance of Highways, Public Ways, etc., in Tract No 21007 } On motion approved by the Board of Supervisors it is ordered that the map ... Tract No. 21007 ... be and the same is hereby approved ... filed in the office of this Board as security for the payment ... bonds ... taxes ... assess ... 100 00 ... which is hereby fixed as the required amount of ... and that all streets, highways, other public ways and easements shown upon said map ... and therein offered for dedication be and the same are hereby ... half ... of the public.

The Clerk of this Board is directed to endorse on the face ... this order authenticated by the seal of the Board of Supervisors.

I hereby certify that the foregoing order was adopted by ... of Supervisors at a meeting of said Board held ... August 5, 1958

Harold J. Ostly ... Clerk of the Board of Supervisors of the County of Los ...

By Marjorie Todd Deputy

I hereby certify that I have examined this map; that it conforms substantially to the tentative map and all approved alterations thereof; that all provisions of applicable State law and local subdivision ordinances have been complied with; and that I am satisfied that this map is technically correct.

Dated: August 6, 1958

JOHN A. LAMBIE
COUNTY ENGINEER
Paul R. Foust Deputy

E-177

633 78

SCALE: 1" = 40'

SHEET 2 OF 2 SHEETS

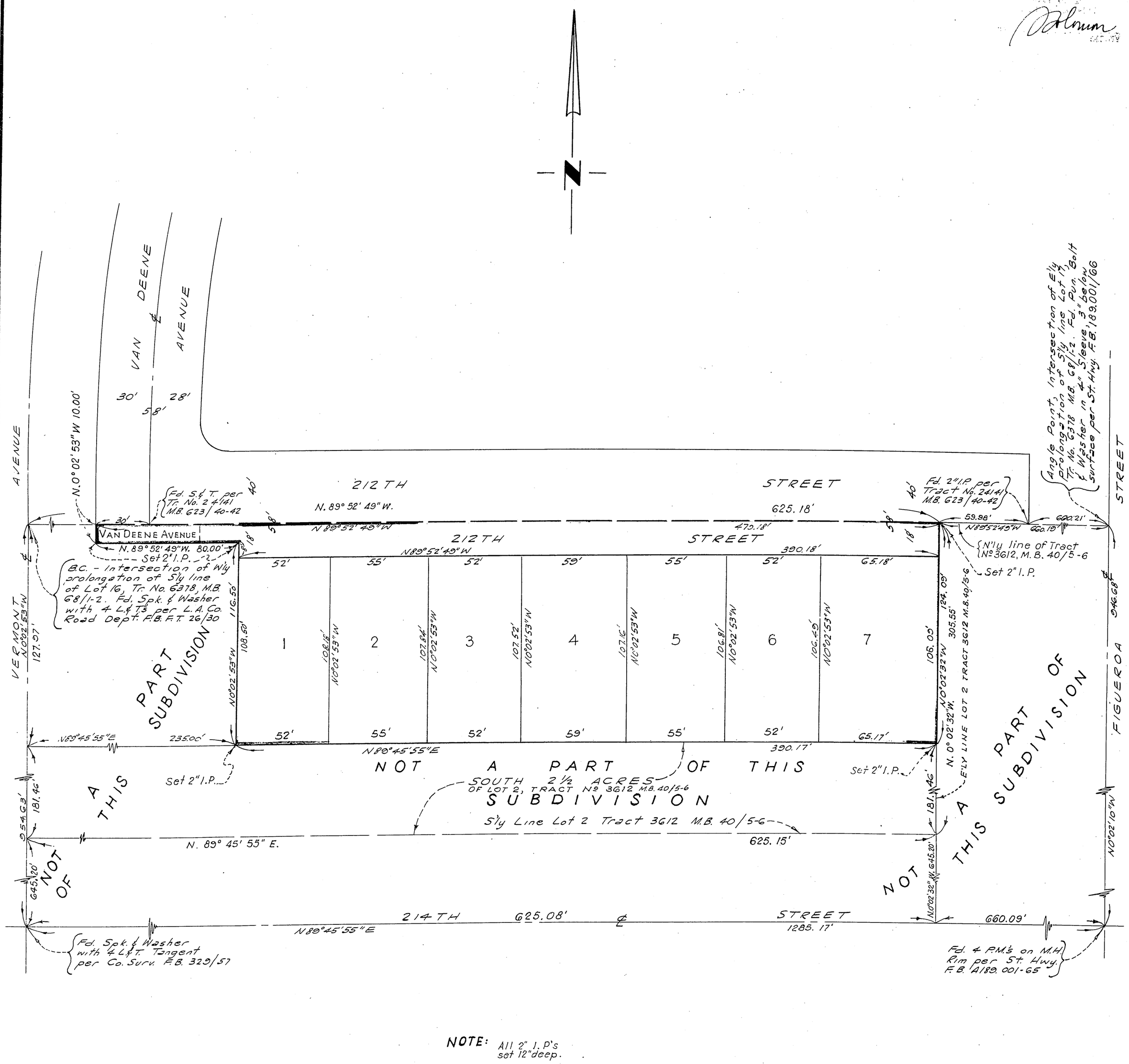
TRACT No. 21007

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

633 PG. 2

RECORDED
AUG. 6, 1958
30 MIN. 3 P.M.
633
78

BARCLAY SURVEYING COMPANY



NOTE: All 2" I.P's set 12" deep.

SCALE: 1"= 40'

TRACT No. 24363

IN UNINCORPORATED TERRITORY OF

THE COUNTY OF LOS ANGELES

BEING A SUBDIVISION OF A PORTION OF LOT 14, OF TRACT NO. 3612, AS PER MAP RECORDED IN BOOK 40, PAGES 5 - 6, OF MAPS, RECORDS OF LOS ANGELES COUNTY, STATE OF CALIFORNIA.

RECORDED
AUG. 7, 1958
10 3 P.M.
633
80

S Solomon

$7.00

BARCLAY SURVEYING COMPANY

BASIS OF BEARINGS

The bearing N. 00°02'53" W. of the centerline of Vermont Avenue as shown on map of Tract No. 24141, M. B. 623/40-42 was taken as the basis of bearings used on this map.

We hereby certify that we are the owners of or are interested in the lands included within the subdivision shown on this map within the colored border lines, and we consent to the preparation and recordation of said map and subdivision and hereby dedicate to the public use all streets, highways and other public ways shown on said map. We further certify that, except as shown on a copy of this map on file in the office of the County Road Commissioner, we know of no easement or structure existing within the easements hereby offered for dedication to the public, other than publicly owned water lines, sewers, or storm drains; that we will grant no right or interest within the boundaries of said easements offered to the public, except where such right or interest is expressly made subject to the said easements.

FLAGSTAFF LAND CO., (a corporation)

Richard Barclay, President — Robert Barclay, Secretary

DOMINGUEZ WATER CORPORATION *hereby certifies that it has an interest in the land included within this subdivision shown on the annexed map by virtue of the blanket easement created by reservation in deed recorded in Book 2821 page 379, Official Records, said rights having been acquired by deeds recorded in Book 39383 page 236, Official Records, and in Book 52892 page 422, Official Records, and by virtue of a blanket easement granted to it by deed to DOMINGUEZ WATER COMPANY, its predecessor in interest, recorded in Book 1515 page 265, Official Records, and by virtue of a blanket easement granted to it by deed to DOMINGUEZ ESTATE COMPANY its predecessor in interest, recorded in Book 4575 page 256 Official Records of the County of Los Angeles, and said corporation hereby consents to the making and recordation of said map and subdivision as shown within the colored border lines and hereby dedicates to the public use its said easements within the streets, avenues and other public ways shown on said map within said subdivision, except that said corporation retains such of said easements as are necessary for laying, maintaining, operating, repairing and replacing the water mains, water pipes and water service connections of said corporation and for making extensions thereto; provided, however that the easements hereby retained by said corporation are subordinate to the easements for streets, avenues and other public ways as offered for dedication as shown on said map; that the public utilities commission of the state of California has granted to said corporation a certificate of public convenience and necessity to serve and distribute water for domestic purposes to the land included within said subdivision; that the subdivider has filed with DOMINGUEZ WATER CORPORATION an application for a water main extension to serve the land within said subdivision and has agreed to deposit with DOMINGUEZ WATER CORPORATION, pursuant to Rule and Regulation No 20 of the tariff of said corporation, the estimated cost of constructing a water distribution system to serve the land within said subdivision with standards of DOMINGUEZ WATER CORPORATION and when completed DOMINGUEZ WATER CORPORATION will serve and distribute water to all parcels of land within said subdivision, pursuant to its tariff on file with said public utilities commission. Said corporation further certifies that except as shown on copy of said map on file in the Office of the County Road Commissioner, it knows of no easements or structures existing within the easements hereby offered for dedication to the public other than water lines owned by said corporation and publicly owned sewers and storm drains; that said DOMINGUEZ WATER CORPORATION will grant no right or interest within the boundaries of said easements offered to the public except where such right or interest is expressly made subject to said easements.*

DOMINGUEZ WATER CORPORATION

J. P. Bradley, President — Florence Sheafor, Secretary

State of California } S.S. On this 28th day of April 1958 before me,
County of Los Angeles } John R. Spahn a notary public in and for said County and State personally appeared Richard Barclay, known to me to be the president, and Robert Barclay, known to me to be the secretary of FLAGSTAFF LAND CO., the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged to me that such corporation executed the same.

John R. Spahn
My Commission Expires Aug. 6, 1960

State of California } S.S. On this 19th day of June 1958 before me
County of Los Angeles } Marion G. Perrigo a notary public in and for said County and State personally appeared J. P. Bradley known to me to be the president, and Florence Sheafor known to me to be the secretary of DOMINGUEZ WATER CORPORATION, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation herein named and acknowledged to me that such corporation executed the same.

Marion G. Perrigo
My Commission Expires June 17, 1959

TITLE INSURANCE AND TRUST COMPANY, a corporation trustee under deed of trust recorded March 28, 1958, as Instrument No 1624.

Jam D. MacNeil, VICE President — C.R.S. Dunlop, ASSISTANT Secretary

I hereby certify that I am a Licensed Surveyor of the State of California; that this map, consisting of two sheets correctly represents a true and complete survey made under my supervision in Feb. 1958; that the monuments of character and locations shown hereon will be in place not later than Jan. 1, 1959; that said monuments are sufficient to enable the survey to be readily retraced, and that tie notes to all centerline monuments shown hereon as set by me will be on file in the office of the County Engineer not later than Feb. 1, 1959.

Robert Barclay
Licensed Surveyor No. 2521

I hereby certify that I have examined this map; that it conforms substantially to the tentative map and all approved alterations thereof; that all provisions of applicable State law and local subdivision ordinances have been complied with; and that I am satisfied that this map is technically correct.

Dated: August 7, 1958

JOHN A. LAMBIE
COUNTY ENGINEER
Paul R. Foust Deputy

In re Acceptance of Highways, Public Ways, etc., in Tract No 24363 } On motion approved by the Board of Supervisors it is ordered that the map of Tract No 24363 be and the same is hereby approved; that the bond filed in the office of this Board as security for the payment of taxes and special assessments collected as taxes be and the same is also hereby approved in the sum of $225.00 which is hereby fixed as the required amount of said bond and that all streets, highways, other public ways and easements shown upon said map and therein offered for dedication be and the same are hereby accepted on behalf of the public.

The Clerk of this Board is directed to endorse on the face of said map a copy of this order authenticated by the seal of the Board of Supervisors.

I hereby certify that the foregoing order was adopted by the Board of Supervisors at a meeting of said Board held August 5, 1958

Harold J. Ostly, County Clerk and Ex officio Clerk of the Board of Supervisors of the County of Los Angeles, State of California.

By Caroline Fedor Deputy

State of California } S.S. On this 10 day of JULY 1958, before me
County of Los Angeles } THE UNDERSIGNED, a notary public in and for said County and State personally appeared JAMES D. MACNEIL known to me to be the VICE President and C.R.S. DUNLOP known to me to be the ASS'T. Secretary of TITLE INSURANCE AND TRUST COMPANY, the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged to me that such corporation executed the same, as trustee.

C. J. Lienau
My Commission Expires DEC. 9, 1961

The present owner of all oil, gas, petroleum, and other hydrocarbon substances, which were reserved in the deed recorded March 28, 1958, as instrument No 1623, has been omitted as a necessary party to sign the map under the provisions of Section 11587(c) (1) of the Subdivision Map Act inasmuch as such ownership does not include a right of entry on the surface of the land.

SCALE: 1"= 40'

SHEET 2 OF 2 SHEETS

TRACT No. 24363

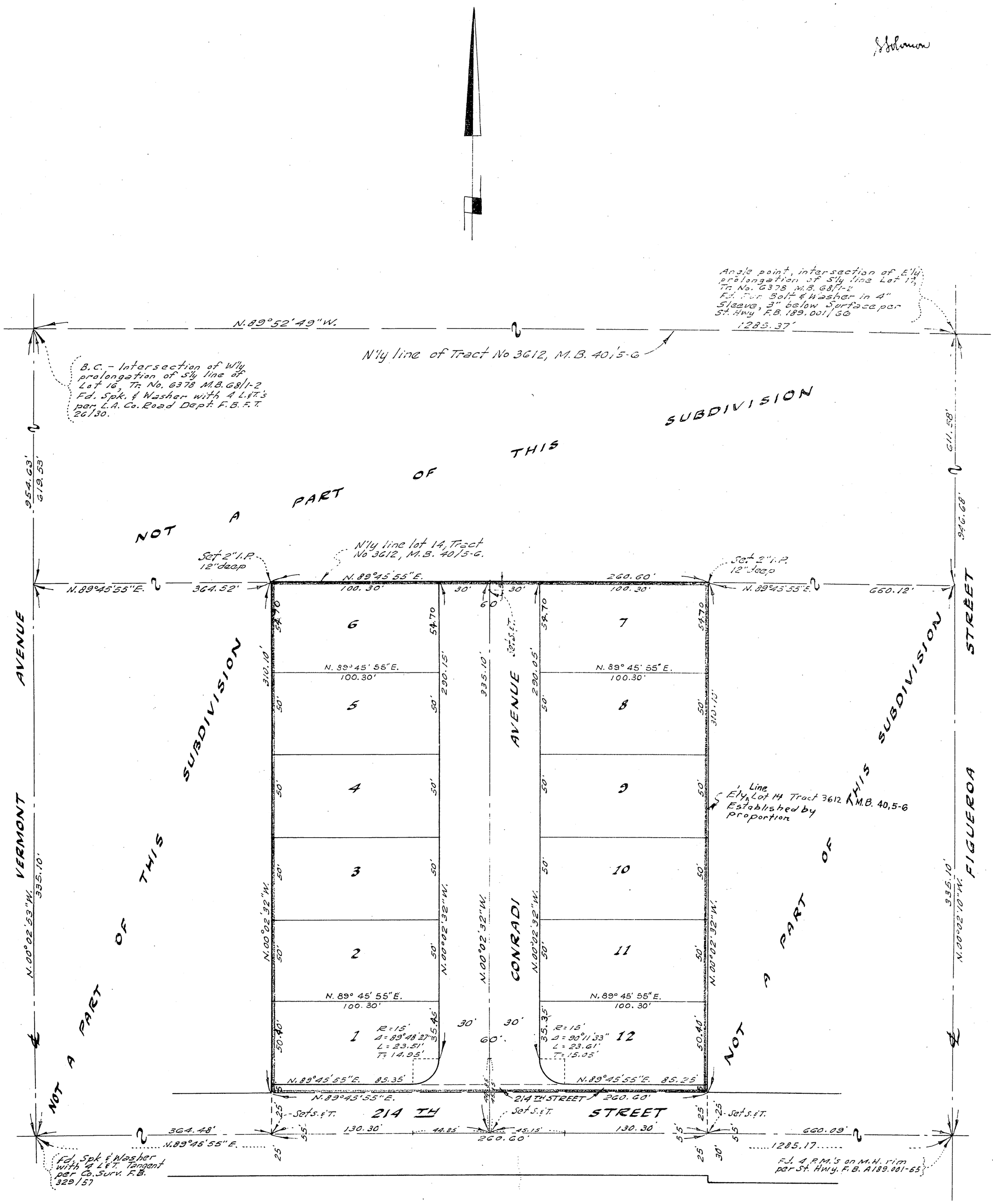
IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

Pg. 2

BARCLAY SURVEYING COMPANY

AUG. 7, 1958
10 3 P.M.
633
81

S Johnson



641 53

SCALE: 1"= 50'

SHEET 1 OF 3 SHEETS

TRACT No. 24891

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

BEING A SUBDIVISION OF A PORTION OF THE 2463.79 ACRE TRACT ALLOTTED TO VICTORIA DOMINGUEZ DE CARSON BY DECREE OF PARTITION OF A PORTION OF THE RANCHO SAN PEDRO, IN CASE No. 3284 OF THE SUPERIOR COURT OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA.

April 15 1959
40 3 PM
641
53

D Walters

90°

BARCLAY - PEARSON CO., INC.

BASIS OF BEARINGS

The bearing N.89° 40' 20"E. of the centerline of Carson Street as shown on map of Tract Nº 21495, M.B. 585/5-6 was taken as the basis of bearings used on this map.

We hereby certify that we are the owners of or are interested in the lands included within the subdivision shown on this map within the colored border lines, and we consent to the preparation and recordation of said map and subdivision and hereby dedicate to the public use all streets, highways and other public ways shown on said map. We further certify that, except as shown on a copy of this map on file in the office of the County Road Commissioner, we know of no easement or structure existing within the easements hereby offered for dedication to the public, other than publicly owned water lines, sewers, or storm drains; that we will grant no right or interest within the boundaries of said easements offered to the public, except where such right or interest is expressly made subject to the said easements.

As a dedication to public use while all of Normandie Avenue within this subdivision remains a public highway for such time only, we hereby abandon all easements of ingress and egress to the said Normandie Avenue so that the owner of lot 1 abutting this highway during such time will have no rights of access whatever in this highway as such except the general easement of travel which belongs to the whole public. If any change in alignment or width of such highway results in the vacation of any part thereof within this subdivision, such vacation terminates the above dedication as to the part vacated. We also grant to the County of Los Angeles the easements for sanitary sewer and drainage purposes so designated on said map and all uses incident thereto, including the right to make connections therewith from any adjoining properties.

TITLE INSURANCE AND TRUST COMPANY (A corporation)
Trustee under deed of trust recorded on April 10, 1959, as Document No. 2203.

Earl J. Sachs
Vice Pres.

A. B. Wilcox
Asst. Sec'y

BURWOOD LAND CO. (a corporation)

Richard Barclay
Richard Barclay (Pres.)

Lois Barclay
Lois Barclay (Sec'y)

State of California } ss. On this 10th day of April 1959, before me HELEN H. MAZGAY
County of Los Angeles } a notary public in and for said County and State personally appeared Earl J. Sachs known to me to be the Vice President, and J. B. Wilcox known to me to be the Asst. Secretary of TITLE INSURANCE AND TRUST COMPANY, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged to me that they executed the same as trustee.

Helen H. Mazgay
My Commission Expires MARCH 4, 1960

COUNTY SANITATION DISTRICT No 2 OF LOS ANGELES COUNTY
Easement Holder per Q.R. 45673-304 and Q.R. 45673-307

Burton W. Chace
Chairman of the Board of Directors

J. R. Foster
Secretary of the Board of Directors

State of California } ss. On this 11th day of March 1959 before me,
County of Los Angeles } Harold J. Ostly County Clerk and Ex-Officio Clerk of the Superior Court in and for said County, personally appeared Burton W. Chace known to me to be the Chairman, and J. R. Foster known to me to be the Secretary of the Board of Directors of COUNTY SANITATION DISTRICT No 2 OF LOS ANGELES COUNTY, the organization that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the orgonization therein named and acknowledged that such organization executed the same.

IN WITNESS WHEREOF, I have here unto set my hand and affixed the seal of the Superior Court, the day and year in this certificate above written.

Harold J. Ostly
County Clerk and Ex-Officio Clerk of said Superior Court

by Homer Teall
Deputy

State of California } S.S. On this 3rd day of Mar. 1959, before me
County of Los Angeles } John R. Sparks, a notary public in and for said County and State personally appeared Richard Barclay, known to me to be the President, and Lois Barclay, known to me to be the Secretary of **BURWOOD LAND CO.**, the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

John R. Sparks
My Commission Expires 8-6-60

I hereby certify that I am a Registered Civil Engineer of the State of California; that this map consisting of three sheets correctly represents a true and complete survey made under my supervision February 1959; that the monuments of the character and locations shown hereon will be in place within twelve months from recording date of this map; that said monuments are sufficient to enable the survey to be readily retraced and that tie notes to all centerline monuments shown hereon as set by me will be on file in the office of the County Engineer within twelve months from recording date shown hereon.

Edward F. Seaman
Registered Civil Engineer No 9783

Southern California Edison Company, a corporation, as the owner of three easements for electric pole lines, one of which was recorded in Book 50686, page 358, and one in Book 53255, page 188, both of Official Records, records of Los Angeles County, State of California, and a blanket easement in Book 5626, page 248 of Deeds, records of said County, does hereby consent to the preparation and recordation of this map and subdivision, subject to its aforesaid easements, and does hereby join in the dedication to the public use of the streets, highways and other public ways shown on said map within the colored border line, subject to the aforesaid easements of Southern California Edison Company.

Southern California Edison Company.

By Robert P. O'Brien
Vice President

By J. C. Bobek
Assistant Secretary

State of California }
County of Los Angeles } ss

On this 3rd day of April, 1959, before me Ruth M. Elliott, a Notary Public in and for said County of Los Angeles, personally appeared Robert P. O'Brien, known to me to be the Vice President and C. Bobek, known to me to be the Assistant Secretary of the Southern California Edison Company, the corporation that executed the within and foregoing instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

Witness my hand and official seal the day and year in this certificate first above written.

Notary Public in and for said County of Los Angeles. My commission expires Dec. 3, 1960.

Ruth M. Elliott

and b) the right, without application being first made to or permit and/or license first being obtained from any public body or official, to lay the water mains and extensions first laid within each of the streets, avenues and drives within the boundaries of said subdivision,

We also join in the granting of the sanitary sewer and drainage easements

Dominguez Water Corporation hereby certifies that it owns an interest in the land ~~blanket~~ included within the subdivision shown on the annexed map by virtue of easements granted to it by deed recorded in Book 56177, page 92 of Official Records of County of Los Angeles and by deed to Dominguez Water Company, its predecessor in interest, recorded in Book 1515, page 265, Official Records of the County of Los Angeles, and said Dominguez Water Corporation hereby consents to the making and recordation of said map and subdivision as shown within the colored border lines and hereby dedicates to the public use its said easements within the streets, avenues and drives shown on said map within said subdivision, except that said Dominguez Water Corporation retains: a) such of said easements as are necessary for laying, maintaining, operating, repairing and replacing the water mains, water pipe lines and water service connections of said Dominguez Water Corporation and/or making extensions thereto; provided, however, that the easements hereby retained by said Dominguez Water Corporation are subordinate to the easements for streets, avenues and drives as offered for dedication as shown on said map; that the Public Utilities Commission of the State of California has granted to said Dominguez Water Corporation a certificate of public convenience and necessity to serve and distribute water for domestic purposes to the land included within said subdivision; that the subdivider has filed with Dominguez Water Corporation an application for a water main extension to serve the land within said subdivision and has agreed to deposit with Dominguez Water Corporation, pursuant to Rule and Regulation No. 20 of the tariff of said Dominguez Water Corporation, the estimated cost of constructing a water distribution system to serve the land within said subdivision with standards of Dominguez Water Corporation and when completed Dominguez Water Corporation will serve and distribute water to all parcels of land within said subdivision, pursuant to its tariff on file with said Public Utilities Commission. Said Dominguez Water Corporation further certifies that, except as shown on a copy of said map on file in the office of the County Road Commissioner, it knows of no easements or structure existing within the easements hereby offered for dedication to the public other than water lines owned by said Dominguez Water Corporation and publicly owned sewers and storm drains; that said Dominguez Water Corporation will grant no right or interest within the boundaries of said easements offered to the public except where such right or interest is expressly made subject to said easements.

DOMINGUEZ WATER CORPORATION

J. V. Carson
VICE PRESIDENT

Florence Shrador
SECRETARY

State of California } S. S. On this 1st day of APRIL 1959, before me
County of Los Angeles } the undersigned, a notary public in and for said County and State personally appeared J. V. CARSON, known to me to be the Vice-President, and FLORENCE SHRADOR, known to me to be the Secretary of **DOMINGUEZ WATER CORPORATION**, the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

Marie T. Theophanes
My Commission Expires 12-8-62

The signatures of ~~Title Insurance and Trust Company, a corporation,~~ owners of certain oil, gas, petroleum and other mineral and hydrocarbon substances in and under said land as excepted and reserved in deed recorded on April 10, 1959 as instrument No. 2202, have been omitted under Section 11587(c)(1) of the Subdivision Map Act since such ownership is ~~below a depth of 500 feet~~ without right of surface entry.

641 54

SCALE: 1" = 50'

SHEET 2 OF 3 SHEETS

TRACT No. 24891

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

BARCLAY - PEARSON CO., INC.

A 9 2

April 15 1959
40 3 PM
641
54

D Walters

Fd. L & T. per Tr. No. 19551 M.B. 495 3-6

Fd L & T per Tr. No. 9551 M.B. 495/3-5

Fd. L & T. per Tr. No. 18261 M.B. 462/22-24

13000'

13000'

N89°40'20"E 1322.45'

N89°40'20"E 1000.42'

N89°40'20"E 530.92'

N89°40'20"E 598.98'

N89°40'20"E 438.84'

N89°40'20"E 552'

N89°40'20"E 790.09'

N89°40'20"E 940.06'

N89°40'20"E 776.71'

N89°40'20"E 1037.06'

N89°40'20"E 1070.06'

N89°40'20"E 1201.06'

N89°40'20"E 596.97'

N89°40'20"E 147.38'

N89°40'20"E 100.38'

N89°40'20"E 33'

N89°40'20"E 33'

N89°40'20"E 100.57'

N89°40'20"E 100.72'

N89°40'20"E 100.87'

N89°40'20"E 101.02'

N89°40'20"E 74.82'

N89°40'20"E 92.09'

N89°40'20"E 105.17'

N89°40'20"E 50.93'

N89°40'20"E 1032.06'

N89°40'20"E 1037.06'

N89°40'20"E 1070.06'

V89°40'20"E

N0°09'20"W 373.50'

N0°09'20"W 355.25'

N0°09'20"W 55.32'

N0°09'20"W 54.81'

N0°09'20"W 140.00'

N0°09'20"W 370.00'

N0°09'20"W 66'

N0°19'40"W 1.50'

N0°19'40"W 100'

N0°19'40"W 102.50'

N0°19'40"W 104.17'

N0°19'40"W 110'

N0°19'40"W 109.50'

N0°19'40"W 95.38'

N0°19'40"W 79'

N0°19'40"W 92.33'

N0°19'40"W 85.08'

N0°19'40"W 50.96'

N0°19'40"W 63.95'

N0°19'40"W 43.95'

N0°19'40"W 51.95'

N0°19'40"W 112.22'

N0°19'40"W 39.18'

N0°19'40"W 60.27'

N0°19'40"W 29.09'

N0°19'40"W 26.57'

N0°19'40"W 52.43'

N0°19'40"W 104.17

641 55

SCALE: 1"= 50'

SHEET 3 OF 3 SHEETS

TRACT No. 24891

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

Pg. 3

April 15 1959
40 3 PM
641
55

D Walters

I hereby certify that I have examined this map, that it conforms substantially to the tentative map and all approved alterations thereof; that all provisions of applicable State law and local subdivision ordinances have been complied with; and that I am satisfied that this map is technically correct.

Dated: April 15, 1959

JOHN A. LAMBIE
COUNTY ENGINEER
By Robert Kennedy ..... Deputy

In re Acceptance of Highways, Public Ways, etc., in TRACT NO. 24891 } On motion approved by the Board of Supervisors, It is ordered that the map of TRACT NO. 24891 be and the same is hereby approved; that the bond filed in the office of this Board as security for the payment of taxes and special assessments collected as taxes be and the same is also hereby approved in the sum of $ 3,515.00 which is hereby fixed as the required amount of said bond, and that all streets, highways, other public ways and easements shown upon said map and therein offered for dedication be and the same are hereby accepted on behalf of the public. Also the offer of dedication for abandonment of ingress and egress is hereby accepted.

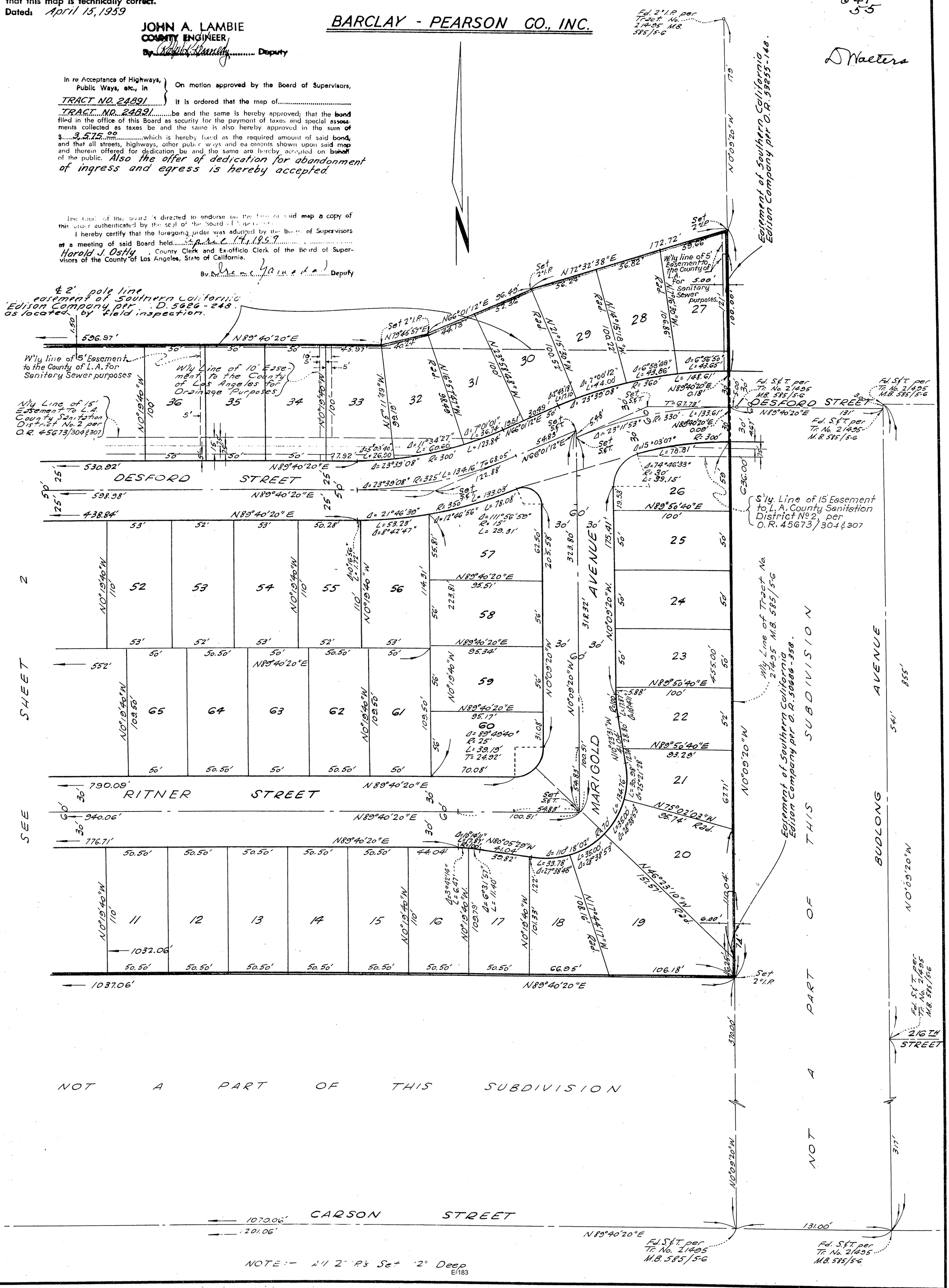
The Clerk of this Board is directed to endorse on the face of said map a copy of this order authenticated by the seal of the Board of Supervisors.

I hereby certify that the foregoing order was adopted by the Board of Supervisors at a meeting of said Board held April 14, 1959

Harold J. Ostly, County Clerk and Ex-officio Clerk of the Board of Supervisors of the County of Los Angeles, State of California.

By Irene Yamada Deputy

BARCLAY - PEARSON CO., INC.



NOTE:— All 2" I.P.'s Set 12" Deep

SCALE: 1"= 50'

TRACT No. 24892

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

BEING A SUBDIVISION OF A PORTION OF THE 2463.79 ACRE TRACT ALLOTTED TO VICTORIA DOMINGUEZ DE CARSON BY DECREE OF PARTITION OF A PORTION OF THE RANCHO SAN PEDRO, IN CASE No. 3284 OF THE SUPERIOR COURT OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA.

April 15, 1959
40 3 PM
641
56

BARCLAY - PEARSON CO., INC.

D Walters
700

BASIS OF BEARINGS

The bearing N. 0° 09' 20" W. of the centerline of Normandie Avenue as shown on map of Tract № 24891, M. B. 641/53-55 was taken as the basis of bearings used on this map.

We hereby certify that we are the owners of or are interested in the lands included within the subdivision shown on this map within the colored border lines, and we consent to the preparation and recordation of said map and subdivision and hereby dedicate to the public use all streets, highways and other public ways shown on said map. We further certify that, except as shown on a copy of this map on file in the office of the County Road Commissioner, we know of no easement or structure existing within the easements hereby offered for dedication to the public, other than publicly owned water lines, sewers, or storm drains; that we will grant no right or interest within the boundaries of said easements offered to the public, except where such right or interest is expressly made subject to the said easements. We also grant to the County of Los Angeles the easements for drainage and sanitary sewer purposes so designated on said map and all uses incident thereto, including the right to make connections therewith from any adjoining properties.

I hereby certify that I am a Registered Civil Engineer of the State of California; that this map consisting of two sheets correctly represents a true and complete survey made under my supervision February 1959; that the monuments of the character and locations shown hereon will be in place within twelve months from recording date of this map; that said monuments are sufficient to enable the survey to be readily retraced and that the notes to all centerline monuments shown hereon as set by me will be on file in the office of the County Engineer within twelve months from recording date shown hereon.

Edward L Pearson
Registered Civil Engineer No. 9783

TITLE INSURANCE AND TRUST COMPANY, (a corporation)
Trustee under deed of trust recorded on April 10, 1959, as Document No. 2205.

Earl L Sachs
Vice President

J A Millett
Asst Secretary

BYGROVE LAND CO., (a corporation)

Robert Barclay
Robert Barclay (Pres.)

Marie Barclay
Marie Barclay (Sec'y)

State of California } S.S.
County of Los Angeles }

On this 10 day of April 1959, before me [illegible], a notary public in and for said County and State personally appeared Earl L. Sachs, known to me to be the Vice President, and J. A. Millett, known to me to be the Asst. Secretary of TITLE INSURANCE AND TRUST COMPANY, the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same as trustee.

Helen F. Traynor
My Commission Expires March 7, 1960

DOMINGUEZ WATER CORPORATION hereby certifies that it owns an interest in the land included within the subdivision shown on the annexed map by virtue of blanket easements granted to it by deed recorded in Book 56177, page 92 of Official Records of County of Los Angeles and by deed to Dominguez Water Company, its predecessor in interest, recorded in Book 1515, page 265, Official Records of the County of Los Angeles, and said Dominguez Water Corporation hereby consents to the making and recordation of said map and subdivision as shown within the colored border lines and hereby dedicates to the public use its said easements within the streets, avenues and drives shown on said map within said subdivision, except that said Dominguez Water Corporation retains: a) such of said easements as are necessary for laying, maintaining, operating, repairing and replacing the water mains, water pipelines and water service connections of said Dominguez Water Corporation and/or making extensions thereto provided, however, that the easements hereby retained by said Dominguez Water Corporation are subordinate to the easements for streets, avenues and drives as offered for dedication as shown on said map; that the Public Utilities Commission of the State of California has granted to said Dominguez Water Corporation a certificate of public convenience and necessity to serve and distribute water for domestic purposes to the land included within said subdivision; that the subdivider has filed with Dominguez Water Corporation an application for a water main extension to serve the land within said subdivision and has agreed to deposit with Dominguez Water Corporation, pursuant to Rule and Regulation No. 20 of the tariff of said Dominguez Water Corporation, the estimated cost of constructing a water distribution system to serve the land within said subdivision with standards of Dominguez Water Corporation and when completed Dominguez Water Corporation will serve and distribute water to all parcels of land within said subdivision, pursuant to its tariff on file with said Public Utilities Commission. Said Dominguez Water Corporation further certifies that, except as shown on copy of said map on file in the office of the County Road Commissioner, it knows of no easements or structure existing within the easements hereby offered for dedication to the public other than water lines owned by said Dominguez Water Corporation and publicly owned sewers and storm drains; that said Dominguez Water Corporation will grant no right or interest within the boundaries of said easements offered to the public except where such right or interest is expressly made subject to said easements.

DOMINGUEZ WATER CORPORATION

J V Carson
Vice-President

Florence Shearer
Secretary

State of California } S.S.
County of Los Angeles }

On this 18th day of Mar. 1959, before me John R. Spahn, a notary public in and for said County and State, personally appeared Robert Barclay, known to me to be the President, and Marie Barclay, known to me to be the Secretary of BYGROVE LAND CO., the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

John R. Spahn
My Commission Expires Aug. 6, 1960

and b) the right, without application being first made to or permit and/or license first being obtained from any public body or official, to lay the water mains and extensions first laid within each of the streets, avenues and drives within the boundaries of said subdivision,

We also join in the granting of the sanitary sewer and drainage easements

Southern California Edison Company, a corporation, as the owner of a blanket easement for an electric pole line, recorded in Book 5626, page 248, of Deeds, records of Los Angeles County, State of California, does hereby consent to the preparation and recordation of this map and subdivision, subject to its aforesaid easement, and does hereby join in the dedication to the public use of the streets, highways and other public ways shown on said map within the colored border line, subject to the aforesaid easement of Southern California Edison Company.

Southern California Edison Company.

By Robert R. O'Brien
Vice President

By J. C. Babek
Assistant Secretary

State of California } S S
County of Los Angeles }

On this 3rd day of April, 1959, before me Ruth M. Elliott, a Notary Public in and for said County of Los Angeles, personally appeared Robert P. O'Brien, known to me to be the Vice President and J. C. Babek, known to me to be the Assistant Secretary of the Southern California Edison Company, the corporation that executed the within and foregoing instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

Witness my hand and official seal the day and year in this certificate first above written.

Ruth M. Elliott
Notary Public in and for said County of Los Angeles. My commission expires Dec. 3, 1960.

The signatures of ~~Title Insurance and Trust Company, a corporation,~~ owners of certain oil, gas, petroleum and other mineral and hydrocarbon substances in and under said land as excepted and reserved in deed recorded on April 10, 1959 as instrument No. 2204, have been omitted under Section 11587(c)(1) of the Subdivision Map Act since such ownership is ~~below a depth of 500 feet~~ without right of surface entry.

641 57

SCALE: 1"=50'

SHEET 2 OF 2 SHEETS

TRACT No. 24892

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

Pg. 2

April 15 1959
40 3 PM
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D Walters

BARCLAY - PEARSON CO., INC.

In re Acceptance of Highways, Public Ways, etc., in TRACT NO. 24892

On motion approved by the Board of Supervisors, It is ordered that the map of TRACT NO. 24892 be and the same is hereby approved; that the bond filed in the office of this Board as security for the payment of taxes and special assessments collected as taxes be and the same is also hereby approved in the sum of $ 500.00 which is hereby fixed as the required amount of said bond; and that all streets, highways, other public ways and easements shown upon said map and therein offered for dedication be and the same are hereby accepted on behalf of the public.

The Clerk of this Board is directed to endorse on the face of said map a copy of this order authenticated by the seal of the Board of Supervisors.

I hereby certify that the foregoing order was adopted by the Board of Supervisors at a meeting of said Board held April 14, 1959

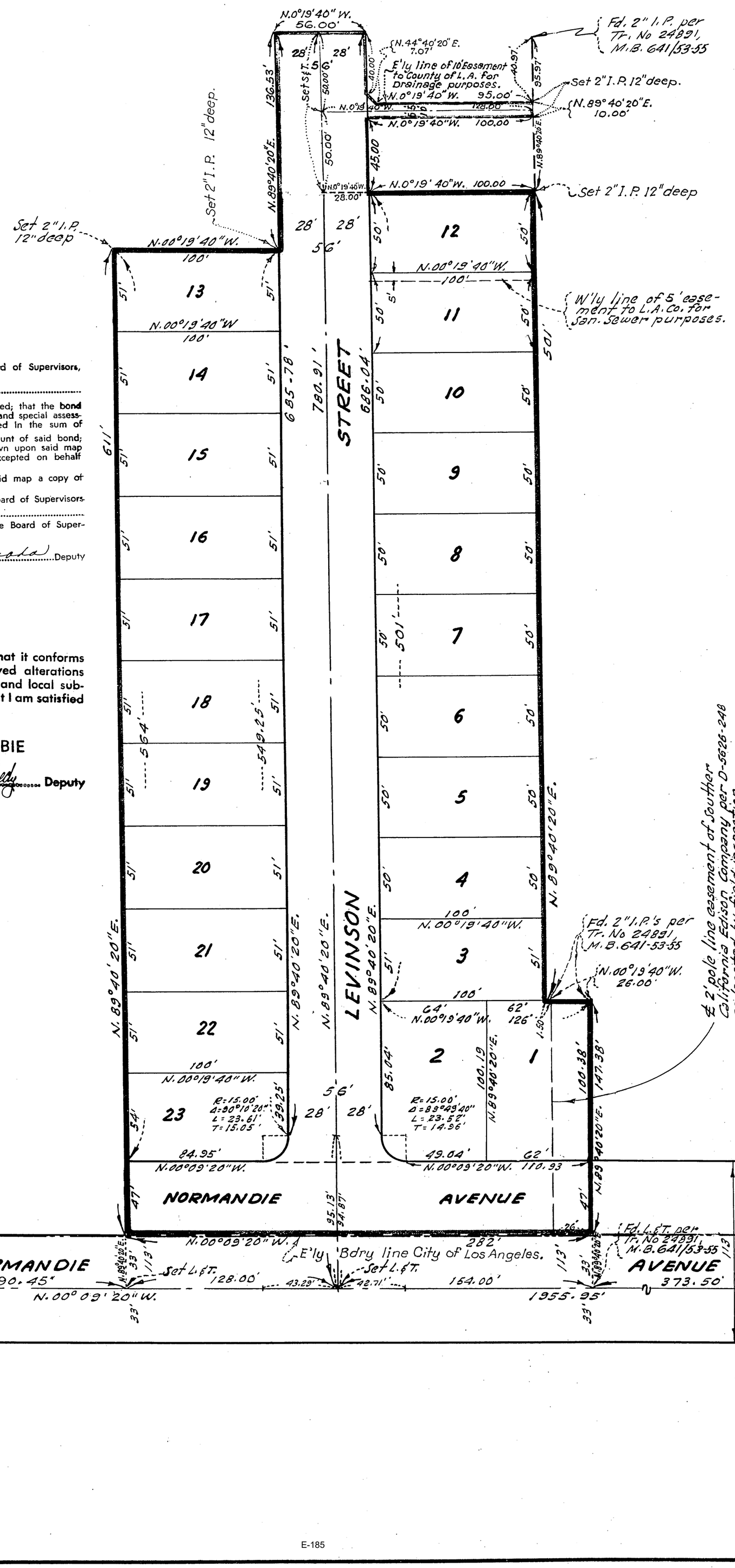
Harold J. Ostly, County Clerk and Ex-officio Clerk of the Board of Supervisors of the County of Los Angeles, State of California.

By Irene Yamada Deputy

I hereby certify that I have examined this map, that it conforms substantially to the tentative map and all approved alterations thereof; that all provisions of applicable State law and local subdivision ordinances have been complied with; and that I am satisfied that this map is technically correct.

Dated: April 15-1959

JOHN A. LAMBIE
COUNTY ENGINEER
By Ralph K. Kennedy Deputy



644 - 49

SCALE: 1"=60'

SHEET 1 OF 2 SHEETS

TRACT No. 24894

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

BEING A SUBDIVISION OF A PORTION OF THE 2463.79 ACRE TRACT ALLOTTED TO VICTORIA DOMINGUEZ DE CARSON BY DECREE OF PARTITION OF A PORTION OF THE RANCHO SAN PEDRO, IN CASE No. 3284 OF THE SUPERIOR COURT OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA.

June 24 1959
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D Waeters
Joo

BARCLAY - PEARSON CO., INC.

BASIS OF BEARINGS

The bearing N. 0°09'20"W. of the centerline of Normandie Avenue as shown on map of Tract No. 24891, M. B. 641/53-55 was taken as the basis of bearings used on this map.

We hereby certify that we are the owners of or are interested in the lands included within the subdivision shown on this map within the colored border lines, and we consent to the preparation and recordation of said map and subdivision and hereby dedicate to the public use all streets, highways and other public ways shown on said map. We further certify that, except as shown on a copy of this map on file in the office of the County Road Commissioner, we know of no easement or structure existing within the easements hereby offered for dedication to the public, other than publicly owned water lines, sewers, or storm drains; that we will grant no right or interest within the boundaries of said easements offered to the public, except where such right or interest is expressly made subject to the said easements.

We also grant to the County of Los Angeles the easement for drainage purposes so designated on said map.

TITLE INSURANCE AND TRUST COMPANY (A corporation)
trustee under deed of trust recorded April 10, 1959 as Instrument No 2209.

Claire Cammert
Vice President

J. A. Willett
Asst. Secretary.

EL CAMINO PARK, (a corporation)

Richard Barclay
Richard Barclay (Pres.)

Robert Barclay
Robert Barclay (Sec'y.)

Dominguez Water Corporation hereby certifies that it owns an interest in the land included within the subdivision shown on the annexed map by virtue of easements granted to it by the deed(s) recorded in Book 56177 page 92 of Official Records of County of Los Angeles and by deed to Dominguez Water Company, its predecessor in interest, recorded in Book 1515, page 265, Official records of the County of Los Angeles, and said Dominguez Water Corporation hereby consents to the making and recordation of said map and subdivision as shown within the colored border lines and hereby dedicates to the public use its said easements within the streets, avenues, and drives shown on said map within said subdivision, except that said Dominguez Water Corporation retains: (a) such of said easements as are necessary for laying, maintaining, operating, repairing and replacing the water mains, water pipelines and water service connections of said Dominguez Water Corporation and/or making extensions thereto and (b) the right, without application being first made to or permit and/or licence first being obtained from any public body or official, to lay the water mains and extensions first laid within each of the streets, avenues and drives within the boundaries of said subdivision provided, however, that the easements hereby retained by said Dominguez Water Corporation are subordinates to the easements for streets, avenues and drives as offered for dedication as shown on said map; that the Public Utilities Commision of the State of California has granted to said Dominguez Water Corporation a certificate of public convenience and necessity to serve and distribute water for domestic purposes to the land included within said subdivision; that the subdivider has filed with Dominguez Water Corporation an application for water main extension to serve the land within said subdivision and has agreed to deposit with Dominguez Water Corporation, pursuant to rule and Regulation No 20 of the tariff of said Dominguez Water Corporation, the estimated cost of constructing a water distribution system to serve the land within said subdivision with standards of Dominguez Water Corporation and when completed Dominguez Water Corporation will serve and distribute water to all parcels of land within said subdivision, pursuant to its tariff on file with said Public Utilities Commission. Said Dominguez Water Corporation further certifies that, except as shown on copy of said map on file in the office of the County Road Commissioner, it knows of no easements or structure existing within the easements hereby offered for dedication to the public other than water lines owned by said Dominguez Water Corporation and publicly owned sewers and storm drains; that said Dominguez Water Corporation will grant no right or interest within the boundaries of said easements offered to the public except where such right or interest is expressly made subject to said easements.

DOMINGUEZ WATER CORPORATION.

J. P. Bradley
PRESIDENT

Florence Shrefler
SECRETARY

State of California } S.S.
County of Los Angeles }

On this 21st day of MAY 1959, before me FRANK SPELIOTIS, a notary public in and for said County and State, personally appeared Richard Barclay, known to me to be the President, and Robert Barclay, known to me to be the Secretary of EL CAMINO PARK, the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

Frank Speliotis
My Commission Expires 11-20-59

I hereby certify that I am a Registered Civil Engineer of the State of California; that this map consisting of two sheets correctly represents a true and complete survey made under my supervision February 1959; that the monuments of the character and locations shown hereon will be in place within twelve months from recording date of this map; that said monuments are sufficient to enable the survey to be readily retraced and that the notes to all centerline monuments shown hereon as set by me will be on file in the office of the County Engineer within twelve months from recording date shown hereon.

Edward E. Pearson
Registered Civil Engineer No. 9783

I hereby certify that I have examined this map, that it conforms substantially to the tentative map and all approved alterations thereof; that all provisions of applicable State law and local subdivision ordinances have been complied with; and that I am satisfied that this map is technically correct.
Dated: June 24, 1959

JOHN A. LAMBIE
COUNTY ENGINEER
By Ralph L. Kennedy ..... Deputy

State of California } S.S.
County of Los Angeles }

On this 12th day of June, 1959, before me Elwood E. Perry a notary public in and for said County and State personally appeared Claire Cammert known to me to be the Vice president and J. A. Willett known to me to be the Asst secretary of TITLE INSURANCE AND TRUST COMPANY the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation herein named and acknowledged to me that such corporation executed the same as trustee.

Elwood E. Perry
My Commission Expires May 25 1961

State of California } S.S.
County of Los Angeles }

On this 2nd day of JUNE 1959, before me Elizabeth Penney, a notary public in and for said County and State personally appeared J. P. Bradley, known to me to be the President, and Florence Shrefler, known to me to be the Secretary of DOMINGUEZ WATER CORPORATION, the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

Elizabeth Penney
My Commission Expires Jan 15, 1960

Southern California Edison Company, a corporation, as the owner of two easements for electric lines, consisting of overhanging wires and cross-arms, one of said easements being recorded in Book 44248, page 45, and one in Book 44248 page 48 both of Official Records, records of Los Angeles County, State of California, does hereby consent to the preparation and recordation of this map and subdivision, subject to its aforesaid easements, and does hereby join in the dedication to the public use of the streets, highways and other public ways shown on said map within the colored border line, subject to the aforesaid easements of Southern California Edison Company.

Southern California Edison Company.

By J. H. Mead Vice President
By J. C. Bobek Assistant Secretary

State of California }
County of Los Angeles } S S

On this 11th. day of June, 1959, before me Ruth M. Elliott, a Notary Public in and for said County of Los Angeles, personally appeared J. H. Mead, known to me to be the Vice President and J. C. Bobek, known to me to be the Assistant Secretary of the Southern California Edison Company, the corporation that executed the within and foregoing instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

Witness my hand and official seal the day and year in this certificate first above written.

Ruth M. Elliott
Notary Public in and for said County of Los Angeles. My commission expires Dec. 3, 1960.

The signature of the present owner of that certain oil, gas, other hydrocarbons and minerals and blanket easements in connection therewith which was reserved in the deed recorded April 10, 1959 as Instrument No 2208, of Official Records, has been omitted under the provisions of Section 11587 (c-1) of the Subdivision Map Act, inasmuch as such ownership does not include a right of entry on the surface of the land.

SCALE: 1"=60'

SHEET 2 OF 2 SHEETS

June 24 1959 49.2
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Walters

TRACT No. 24894

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

BARCLAY - PEARSON CO., INC.

In re Acceptance of Highways, Public Ways, etc., in TRACT NO. 24894

On motion approved by the Board of Supervisors, it is ordered that the map of TRACT NO. 24894 be and the same is hereby approved; that the bond filed in the office of this Board as security for the payment of taxes and special assessments collected as taxes be and the same is also hereby approved in the sum of $ 1625.00 which bond is hereby approved as the required amount of said bond; and that all streets, highways, other public ways and easements shown upon said map and therein offered for dedication be and the same are hereby accepted on behalf of the public.

The Clerk of this Board is directed to endorse on the face of said map a copy of this order authenticated by the seal of the Board of Supervisors.

I hereby certify that the foregoing order was adopted by the Board of Supervisors at a meeting of said Board held ... 3 1959

Harold J. Ostly, County Clerk and Ex officio Clerk of the Board of Supervisors of the County of Los Angeles, State of California.

By ... Deputy

Easement of Southern California Edison Company for overhanging wires and cross-arms per O.R. 4424-48

S'ly line of Tr. No 19551, M.B. 495/3-5.

N.W. corner Lot 1 Tract No 3612 M.B. 40/5-6 per C.S.B. 766/1 and per Tr. No 21495, M.B. 385/5-6

Fd. 2" I.P. 0.02' No per Tr. No 18261 M.B. 462/22-24 & per Tr. No 19551, M.B. 495/3-5.

W'ly line Tr. No 3612 M.B. 40/5-6 per C.S.B. 766/1

Set 2" I.P. 12" deep

℄ VERMONT AVENUE

Fd. cut spk. W&T. per C.S.F.B. 481-46

Fd. Spk. & washer per C.S.B. 766/1

N.0°08'54"W. 1423.50'

N.89°45'20"E. 666.37'

N.89°59'03"W. 1.38'

N.00°08'54"W. 520.20'

Fd. L.&T. per Tract No 3612, M.B. 766/1, M.B. 385/5-6

Fd. L.&T. per Tr. No 19551, M.B. 495/3-5

Fd. 5.&T. per Tract No 19551, M.B. 495/3-5

Fd. 2" I.P. per Tract No 19551, M.B. 495/3-5 N.89°59'03"W.

Fd. 2" I.P. per TR. No 24893, M.B. 644-49,50

Fd. L.&T. per Tr. No 24893, M.B. 644-49,50

Fd. L.&T. per Tr. No 24893, M.B.

Fd. Spk.&T. per L.A. City F.B. 12601/28

Fd. L.&T. per Tr. No 19551 M.B. 495/3-5.

Fd. L.&T. per Tr. No 18261 M.B. 462/22-24

Fd. L.&T. per Tr. No 24893, M.B. 644-49,50

Fd. L.&T. per Tr. No 24893, M.B. 644-49,50

Fd. 5.&T. per Tract No 24893, M.B. 644-49,50

Fd. 5.&T. per Tract No 24893, M.B. 644-49,50

BROADWELL AVENUE

BERENDO AVENUE

BUDLONG AVENUE

ROYAL BOULEVARD

ROYAL BOULEVARD

212TH STREET

DRIVE

CLARION DRIVE

℄ NORMANDIE AVE.

Ely line of 10' Easement to the County of Los Angeles for Drainage Purposes

THIS SUBDIVISION IS NOT A PART OF THIS SUBDIVISION

THIS STREET IS NOT A PART OF CARSON

57
2.18 Acs.

645 26

SCALE: 1"= 50'

SHEET 1 OF 4 SHEETS

TRACT No. 24895

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

July 8. 1959
40 2 P.M.
645
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D Walters
1/00

BEING A SUBDIVISION OF LOTS 62 AND 63 OF TRACT NO 24893 AS PER MAP RECORDED IN BOOK 644, PAGES 46, 47 AND 48 OF MAPS, AND OF LOT 57 OF TRACT NO 24894 AS PER MAP RECORDED IN BOOK 644 PAGES 49 AND 50 OF MAPS, AND OF A PORTION OF THE 2463.79 ACRE TRACT ALLOTTED TO VICTORIA DOMINGUEZ DE CARSON BY DECREE OF PARTITION OF A PORTION OF THE RANCHO SAN PEDRO IN CASE NO 3284 OF THE SUPERIOR COURT OF THE COUNTY OF LOS ANGELES, RECORDS OF LOS ANGELES COUNTY, STATE OF CALIFORNIA.

BARCLAY - PEARSON CO., INC.

BASIS OF BEARINGS

The bearing N. 0° 09' 20" W. of the centerline of Normandie Avenue as shown on map of Tract № 24891, M. B. 641/53-55 was taken as the basis of bearings used on this map.

We hereby certify that we are the owners of or are interested in the lands included within the subdivision shown on this map within the colored border lines, and we consent to the preparation and recordation of said map and subdivision and hereby dedicate to the public use all streets, highways and other public ways shown on said map. We further certify that, except as shown on a copy of this map on file in the office of the County Road Commissioner, we know of no easement or structure existing within the easements hereby offered for dedication to the public, other than publicly owned water lines, sewers, or storm drains; that we will grant no right or interest within the boundaries of said easements offered to the public, except where such right or interest is expressly made subject to the said easements.

As a dedication to public use while all of Normandie Avenue within this subdivision remains a public highway for such time only, we hereby abandon all easements of ingress and egress to said Normandie Avenue so that the owner of lot 1 abutting this highway during such time will have no rights of access whatever in this highway as such except the general easement of travel which belongs to the whole public. If any change in alignment or width of such highway results in the vacation of any part thereof within this subdivision, such vacation terminates the above dedication as to the part vacated. We also grant to the County of Los Angeles the easement for drainage purposes so designated on said map and all uses incident thereto, including the right to make connections therewith from any adjoining properties.

We also hereby grant to the County of Los Angeles lot 53 in fee simple for storm drain purposes.

HASS LAND CO., (A corporation)

R A Watt
R. A. Watt (Pres.)

Ralph Garland
Ralph Garland (Sec'y)

EL CAMINO PARK (A corporation)

Richard C Barclay
Richard Barclay (Pres.)

Robert C Barclay
Robert Barclay (Sec'y)

BYGROVE LAND CO., (a corporation)

Robert Barclay
Robert Barclay (Pres.)

Marie Barclay
Marie Barclay (Sec'y.)

TITLE INSURANCE AND TRUST COMPANY, a corporation
Trustee under deeds of trust recorded April 10, 1959 as instruments numbered 2211 and 2205.

W O Williams J Wilson
Vice President.

A Willett
Asst Secretary

~~INGLEWOOD LAND CO. (A corporation)~~
~~R A Watt~~
~~R. A. Watt (Pres.)~~
~~Rosemary Judge~~
~~Rosemary Judge (Secty)~~

State of California } S.S.
County of Los Angeles }

On this 26th day of June 1959, before me John R. Spahn, a notary public in and for said county and state, personally appeared R. A. Watt known to me to be the president and Ralph Garland known to me to me the secretary of HASS LAND CO., a corporation, and also Richard Barclay known to me to be the president and Robert Barclay known to me to be the secretary of EL CAMINO PARK, a corporation, the corporations that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporations herein named and acknowledged to me that such corporations executed the same.

John R. Spahn
My Commission Expires Aug. 6, 1960.

State of California } S.S.
County of Los Angeles }

On this 17th day of JUNE 1959, before me HELEN A. MAZGAY, a notary public in and for said County and State personally appeared WILLIAM J. WILSON, known to me to be the Vice President and J. A. WILLETT, known to me to be the Asst. Secretary of TITLE INSURANCE AND TRUST COMPANY, the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same as trustee.

Helen A. Mazgay
My Commission Expires MARCH 4, 1960

State of California } S.S.
County of Los Angeles }

On this 21st day of MAY 1959, before me FRANK SPELIOTIS, a notary public in and for said County and State personally appeared Robert Barclay, known to me to be the President, and Marie Barclay, known to me to be the Secretary of BYGROVE LAND CO., the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

Frank Spheliotis
My Commission Expires 11-20-59

NOTE: The County of Los Angeles (owner of an easement for drainage purposes) by dedication upon the map of Tract № 24892 recorded in Book 641 pages 56 and 57 of Maps, (and owner of easements for sanitary sewer purposes) by dedication upon the

E-188

County of Los Angeles } S.S. ... day ... 1959, before me

I hereby certify that I am a Registered Civil Engineer of the State of California; that this map consisting of Four sheets correctly represents a true and complete survey made under my supervision February 1959; that the monuments of the character and locations shown hereon will be in place within twelve months from recording date of this map; that said monuments are sufficient to enable the survey to be readily retraced and that tie notes to all centerline monuments shown hereon as set by me will be on file in the office of the County Engineer within twelve months from recording date shown hereon.

Edward F Fearon
Registered Civil Engineer No 9783

Dominguez Water Corporation hereby certifies that it owns an interest in the land included within the subdivision shown on the annexed map by virtue of easements granted to it by deeds recorded in Book 56177 page 92 of Official Records, of County of Los Angeles and by deed to Dominguez Water Company its predecessor in interest, recorded in Book 1515, page 265, Official Records of the County of Los Angeles, and said Dominguez Water Corporation hereby consents to the making and recordation of said map and subdivision as shown within the colored border lines and hereby dedicates to the public use its said easements within the streets, avenues and drives shown on said map within said subdivision, except that said Dominguez Water Corporation retains: a) such of said easements as are necessary for laying, maintaining, operating, repairing, and replacing the water mains, water pipelines and water service connections of said Dominguez Water Corporation and/or making extension thereto and b) the right, without application being first made to or permit and/or license first being obtained from any public body or official, to lay the water mains and extensions first laid within each of the streets, avenues, and drives within the boundaries of said subdivision, provided, however, that the easements hereby retained by said Dominguez Water Corporation are subordinate to the easement for streets, avenues and drives as offered for dedication as shown on said map; that the Public Utilities Commission of the State of California has granted to said Dominguez Water Corporation a certificate of public convenience and necessity to serve and distribute water for domestic purposes to the land included within said subdivision; that the subdivider has filed with Dominguez Water Corporation an application for a water main extension to serve the land within said subdivision and has agreed to deposit with Dominguez Water Corporation, pursuant to rule and regulation No 20 of the tariff of said Dominguez Water Corporation, the estimated cost of constructing a water distribution system to serve the land within said subdivision with standards of Dominguez Water Corporation and when completed Dominguez Water Corporation will serve and distribute water to all parcels of land within said subdivision, pursuant to its tariff on file with said Public Utilities Commission. said Dominguez Water Corporation further certifies that, except as shown on a copy of said map on file in the office of the County Road Commissioner, it knows of no easement or structure existing within the easements hereby offered for dedication to the public other than water lines owned by Dominguez Water Corporation and publicly owned sewers and storm drains; that said Dominguez Water Corporation will grant no right or interest within the boundaries of said easements offered to the public except where such right or interest is expressly made subject to said easements.

DOMINGUEZ WATER CORPORATION

J. P. Bradley
President.

Florence Shealor
Secretary.

State of California } S.S.
County of Los Angeles }

On this 2 day of June 1959, before me Elizabeth Penner, a notary public in and for said County and State, personally appeared J. P. Bradley, known to me to be the President, and Florence Shealor, known to me to be the Secretary of DOMINGUEZ WATER CORPORATION, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

Elizabeth Penner
My Commission Expires Apr. 15, 1960

~~State of California } S.S.~~
~~County of Los Angeles }~~

~~On this 29th day of June 1959, before me John R. Spahn a notary public in and for said, County, and State personally appeared R. A. Watt, known to me to be the president and Rosemary Judge, known to me to be the secretary, of INGLEWOOD LAND CO., the corporation that executed the within instrument, and known to be the persons who executed the within instrument on behalf of the corporation herein named and acknowledged to me that such corporation executed the same.~~

~~John R. Spahn~~
~~My Commission Expires Aug. 6, 1960~~

The signature of the present owner of that certain oil, gas, other hydrocarbons and other minerals and blanket easements in connection therewith which was reserved in deeds recorded April 10, 1959 as Instrument No 2204, 2206, 2208 and 2210 of Official Records, has been omitted as a necessary party to sign the map under the provisions of Section 11581 (c-1) of the Subdivision Map Act inasmuch as such ownership does not include a right of entry on the surface of the land.

SCALE: 1"= 50'

TRACT No. 24895

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

P 9.2

July 8, 1959
40 2 PM
645
27

D Walters

BARCLAY - PEARSON CO., INC.

I hereby certify that I have examined this map, that it conforms substantially to the tentative map and all approved alterations thereof; that all provisions of applicable state law and local subdivision ordinances have been complied with; and that I am satisfied that this map is technically correct.

Dated: July 8, 1959

JOHN A. LAMBIE
COUNTY ENGINEER
By Ralph L. Kennedy Deputy

In re Acceptance of Highways, Public Ways, etc., in Tract No 24895 / Tract No 24895 filed in the office of this Board

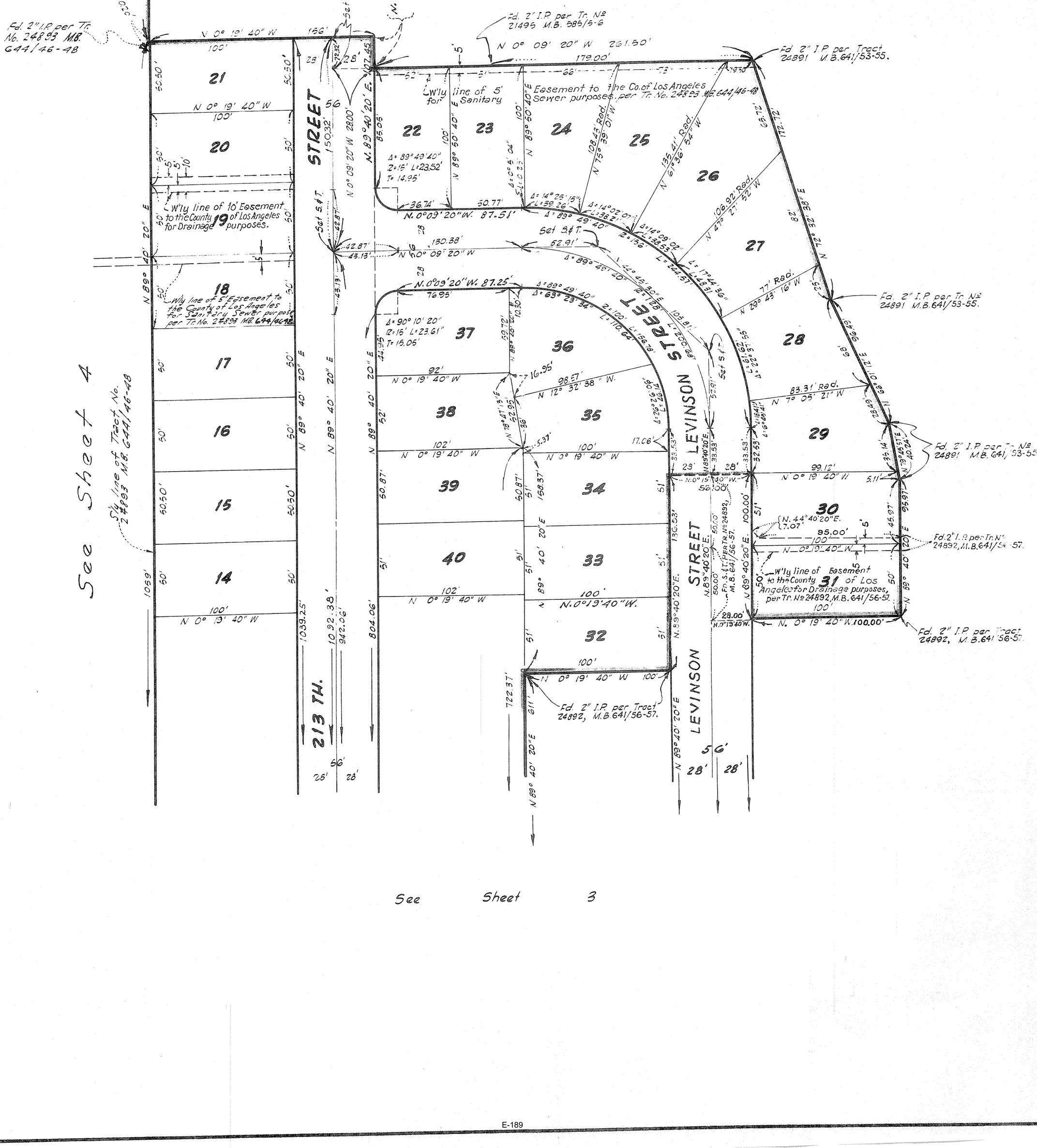
On motion approved by the Board of Supervisors, it is ordered that the map of ... and the same is hereby approved; that the bond as security for the payment of taxes and special assessments collected as taxes be and the same is also hereby approved in the sum of $1725.00 which is hereby fixed as the amount of said bond; and that all streets, highways, other public ways and easements shown upon said map and therein offered for dedication be and the same are hereby accepted on behalf of the public. Also the offer of dedication for abandonment of ingress and egress is hereby accepted. Also the grant of Lot 53 in fee parcels is hereby accepted.

The Clerk of this Board is directed to endorse on the face of said map a copy of this order authenticated by the seal of the Board of Supervisors.

I hereby certify that the foregoing order was adopted by the Board of Supervisors at a meeting of said Board held July 7, 1959

Harold J. Ostly, County Clerk and Ex-officio Clerk of the Board of Supervisors of the County of Los Angeles, State of California.

By Evelyn Ludow Deputy



See Sheet 3

645 28

SCALE: 1" = 50'

SHEET 3 OF 4 SHEETS

TRACT No. 24895

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

BARCLAY - PEARSON CO., INC.

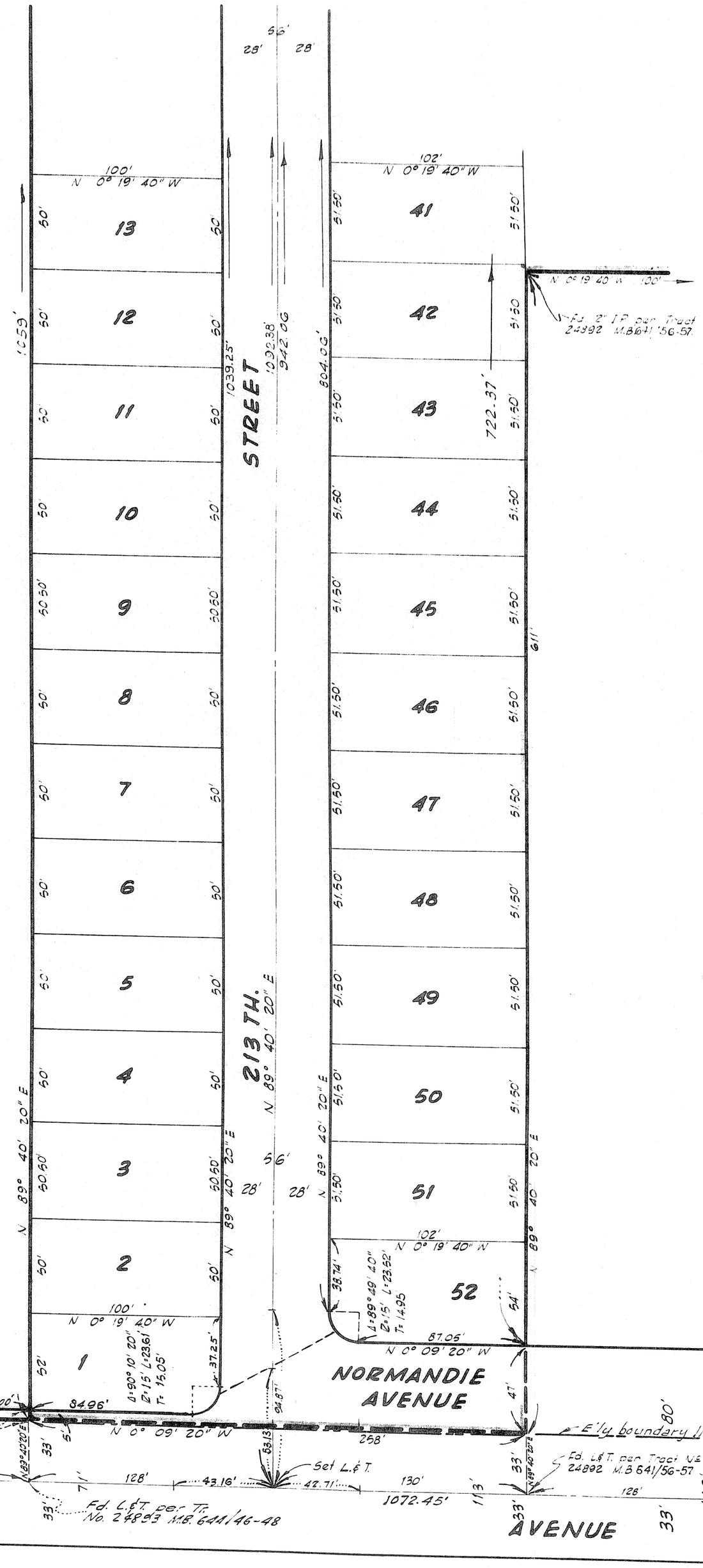
9.3

July 8 1959
40 2PM
645
28

D Walters

See Sheet 2

See Sheet 4



645 29

SHEET 4 OF 4 SHEETS

SCALE: 1" = 100'

TRACT No. 24895

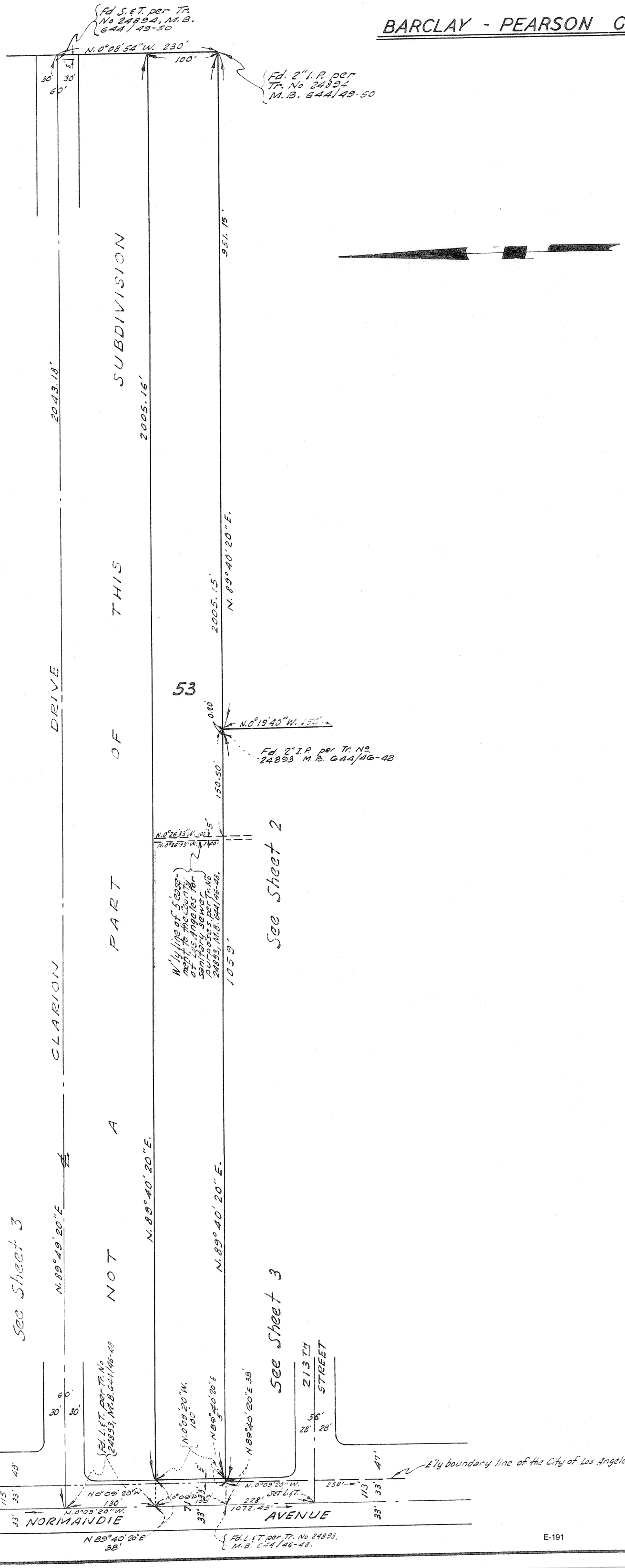
IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

6 Pgs

July 8 1959
10 2 PM
645
29

Drafters

BARCLAY - PEARSON CO., INC.



645 - 48

SCALE: 1"=50'

SHEET 1 OF 3 SHEETS

TRACT No. 24831

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

BEING A SUBDIVISION OF A PORTION OF THE 2463.79 ACRE TRACT ALLOTTED TO VICTORIA DOMINGUEZ DE CARSON BY DECREE OF PARTITION OF A PORTION OF THE RANCHO SAN PEDRO IN CASE NO. 3284 OF THE SUPERIOR COURT OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AND A PORTION OF TRACT NO. 21495, AS PER MAP RECORDED IN BOOK 585/5-6 OF MAPS, RECORD OF LOS ANGELES, COUNTY STATE OF CALIFORNIA.

BARCLAY - PEARSON CO., INC.

BASIS OF BEARINGS

The bearing N. 0°09'20" W. of the centerline of Normandie Avenue as shown on map of Tract No. 24891, M.B. 641/53-55 was taken as the basis of bearings used on this map.

We hereby certify that we are the owners of or are interested in the lands included within the subdivision shown on this map within the colored border lines, and we consent to the preparation and recordation of said map and subdivision and hereby dedicate to the public use all streets, highways and other public ways shown on said map. We further certify that, except as shown on a copy of this map on file in the office of the County Road Commissioner, we know of no easement or structure existing within the easements hereby offered for dedication to the public, other than publicly owned water lines, sewers, or storm drains; that we will grant no right or interest within the boundaries of said easements offered to the public, except where such right or interest is expressly made subject to the said easements.

I hereby certify that I am a Registered Civil Engineer of the State of California; that this map consisting of three sheets correctly represents a true and complete survey made under my supervision February 1959 that the monuments of the character and locations shown hereon will be in place within twelve months from recording date of this map; that said monuments are sufficient to enable the survey to be readily retraced and that the notes to all centerline monuments shown hereon as set by me will be on file in the office of the County Engineer within twelve months from recording date shown hereon

Edward L. Seaver
Registered Civil Engineer No. 9783

July 15 1959
29 3 Pm
645
48

D Walters
900

TITLE INSURANCE AND TRUST COMPANY, a corporation, (Trustee) under deed of trust recorded April 10, 1959 as instrument No. 2211.

Claire Cammert
Vice President

J.A. Willett
Asst. Secretary

INGLEWOOD LAND CO. (a corporation)

R.A. Watt
R. A. Watt (Pres.)

Rosemary Judge
Rosemary Judge (Secy.)

State of California } S.S.
County of Los Angeles }

On this 6th day of July 1959, before me Helen A. Mazgay, a notary public in and for said County and State personally appeared Claire Cammert, known to me to be the Vice President, and J.A. Willett, known to me to be the Asst. Secretary of **TITLE INSURANCE AND TRUST COMPANY**, the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged to me that such corporation executed the same as trustee

Helen A. Mazgay
My Commission Expires Mar 4, 1962

DOMINGUEZ WATER CORPORATION, hereby certifies that it owns an interest in the land included within the subdivision shown on the annexed map by virtue of easements granted to it by deeds recorded in Book 56177 page 92 of Official Records of County of Los Angeles and by deed to Dominguez Water Company, its predecessor in interest, recorded in Book 1515, page 265, Official Records of the County of Los Angeles, and said Dominguez Water Corporation hereby consents to the making and recordation of said map and subdivision as shown within the colored border lines and hereby dedicates to the public use its said easements within the streets, Avenues and drives shown on said map within said subdivision, except that said Dominguez Water Corporation retains: a) such of said easements as are necessary for laying, maintaining, operating, repairing, and replacing the water mains, water pipelines and water service connections of said Dominguez Water Corporation and/or making extensions thereto and b) the right, without application being first made to or permit and/or licence first made to or permit and/or license first being obtained from any public body or official, to lay the water mains and extensions first laid within each of the streets, avenues, and drives within the boundaries of said subdivision, provided, however, that the easements hereby retained by said Dominguez Water Corporation are subordinate to the easements for streets, avenues and drives as offered for dedication as shown on said map; that the Public Utilities Commission of the State of California has granted to said Dominguez Water Corporation a certificate of public convenience and necessity to serve and distribute water for domestic purposes to the land included within said subdivision; that the subdivider has filed with Dominguez Water Corporation an application for a water main extension to serve the land within said subdivision and has agreed to deposit with Dominguez Water Corporation, pursuant to Rule and Regulation No. 20 of the tariff of said Dominguez Water Corporation, the estimated cost of constructing a water distribution system to serve the land within said subdivision with standards of Dominguez Water Corporation and when completed Dominguez Water Corporation will serve and distribute water to all parcels of land within said subdivision, pursuant to its tariff on file with said Public Utilities Commission. Said Dominguez Water Corporation further certifies that, except as shown on a copy of said map on file in the office of the County Road Commissioner, it knows of no easements or structure existing within the easements hereby offered for dedication to the public other than water lines owned by said Dominguez Water Corporation and publicly owned sewers and storm drains; that said Dominguez Water Corporation will grant no right or interest within the boundaries of said easements offered to the public except where such right or interest is expressly made subject to said easements.

DOMINGUEZ WATER CORPORATION

J. P. Bradley
President.

Florence Shrefler
Secretary.

State of California } S.S.
County of Los Angeles }

On this 2 day of JUNE 1959, before me Elizabeth Cannon, a notary public in and for said County and State, personally appeared J. P. Bradley, known to me to be the President, and Florence Shrefler, known to me to be the Secretary of DOMINGUEZ WATER CORPORATION, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

Elizabeth Cannon
My Commission Expires April 1, 1960.

State of California } S.S.
County of Los Angeles }

On this 1st day of June 1959, before me John R. Spahn a notary public in and for said County and State, personally appeared R.A. Watt, known to me to be the President, and Rosemary Judge, known to me to be the Secretary of **INGLEWOOD LAND CO.** the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

John R. Spahn
My Commission Expires Aug. 6, 1960

NOTE: The County of Los Angeles (easement holder) by dedication on map of Tract No 21495, recorded in Book 585 pages 5 and 6 of Maps.

Southern California Edison Company, a corporation, as the owner of an easement for an electric pole line, recorded in Book 50623, page 140, of Official Records, records of Los Angeles County, State of California, does hereby consent to the preparation and recordation of this map and subdivision, subject to its aforesaid easement, and does hereby join in the dedication to the public use of the streets, highways and other public ways shown on said map within the colored border line, subject to the aforesaid easement of Southern California Edison Company.

Southern California Edison Company.

By J. H. Mead
Vice President

By J. C. Bobek
Assistant Secretary

State of California } SS
County of Los Angeles }

On this 11th. day of June, 1959, before me Ruth M. Elliott, a Notary public in and for said County of Los Angeles, personally appeared J. H. Mead, known to me to be the Vice President and C. Bobek, known to me to be the Assistant Secretary of the Southern California Edison Company, the corporation that executed the within and foregoing instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

Witness my hand and official seal the day and year in this certificate first above written.

Ruth M. Elliott
Notary Public in and for said County of Los Angeles. My commission expires Dec. 3, 1960.

The present owner of that certain oil, gas, other hydrocarbons and minerals and blanket easements in connection therewith which was reserved in the deed recorded April 10, 1959 as instrument No. 2210 of Official Records, has been omitted as a necessary party to sign the map under the provisions of Section 11587C-1 of the subdivision Map Act inasmuch as such ownership does not include a right of entry on the surface of the land.

COUNTY OF LOS ANGELES
Owner of an easement for sewer purposes by dedication on the map of Tract No 24893, recorded in book 644 pages 46, 47 and 48 of Maps.

645 49

SCALE: 1" = 50'

SHEET 2 OF 3 SHEETS

TRACT No. 24831

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

Pg. 2

July 15, 1959
29 3 PM.
645
49

D Walters

BARCLAY - PEARSON CO., INC.

In re Acceptance of Highways, Public Ways, etc., in Tract No. 24831 } On motion approved by the Board of Supervisors, it is ordered that the map of Tract No. 24831 be and the same is hereby approved; that the bond filed in the office of this board as security for the payment of taxes and special assessments collected as taxes has and the same is also hereby approved in the sum of $ 1525.00 which is hereby fixed as the required amount of said bond; and that all streets, highways, other public ways and easements shown upon said map and therein offered for dedication be and the same are hereby accepted on behalf of the public.

The Clerk of this Board is directed to endorse on the face of said map a copy of this order authenticated by the seal of the Board of Supervisors.

I hereby certify that the foregoing order was adopted by the Board of Supervisors at a meeting of said board held July 14, 1959

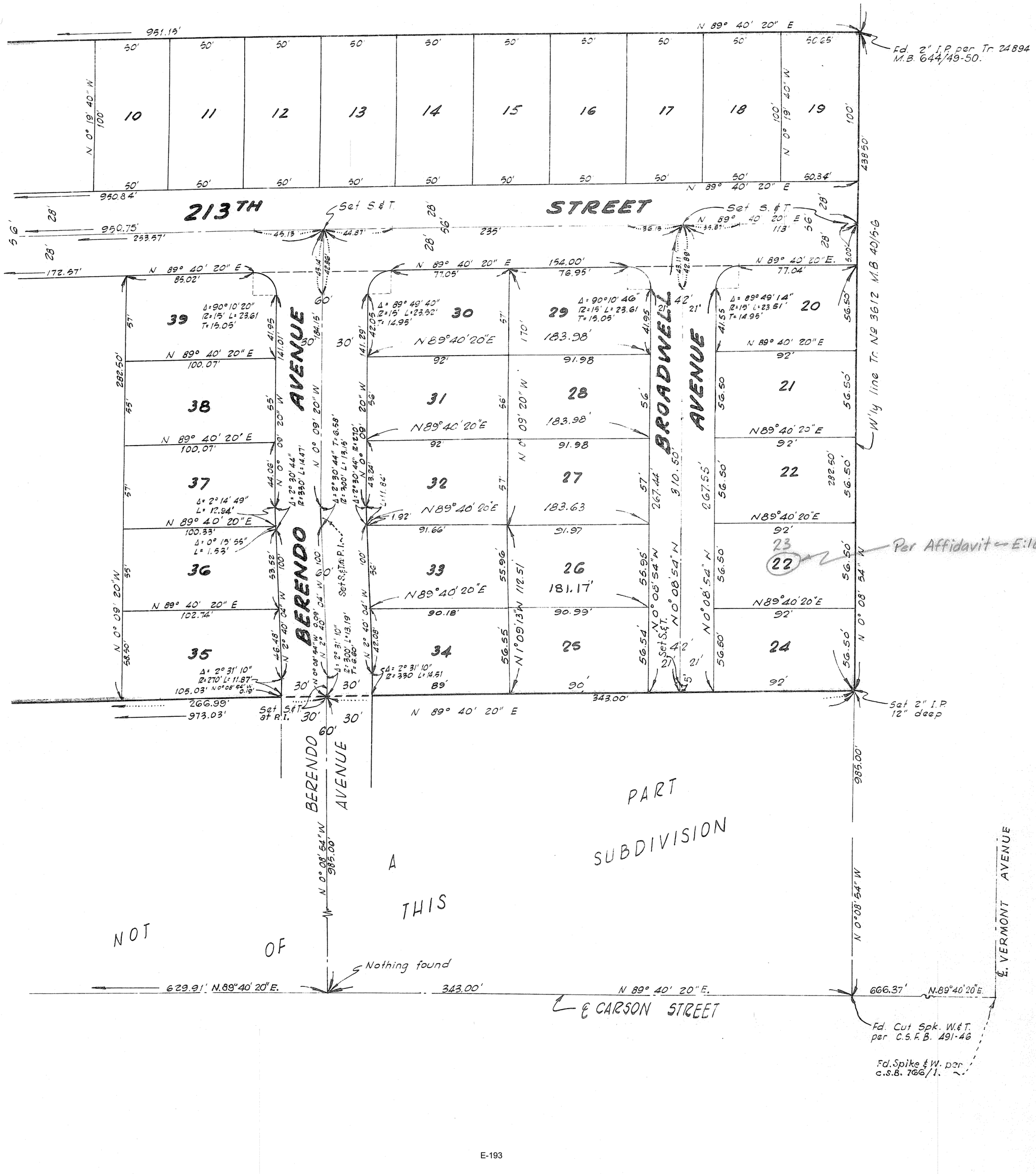
Harold J. Ostly, County Clerk and Ex-officio Clerk of the Board of Supervisors of the County of Los Angeles, State of California.

By Everlegene Jordan Deputy

I hereby certify that I have examined this map, that it conforms substantially to the tentative map and all approved alterations thereof; that all provisions of applicable State law and local subdivision ordinances have been complied with; and that I am satisfied that this map is technically correct.

Dated: July 15, 1959

JOHN A. LAMBIE
COUNTY ENGINEER
By Ralph L. Kennedy Deputy



645 50

SCALE: 1"= 50'

SHEET 3 OF 3 SHEETS

TRACT No. 24831

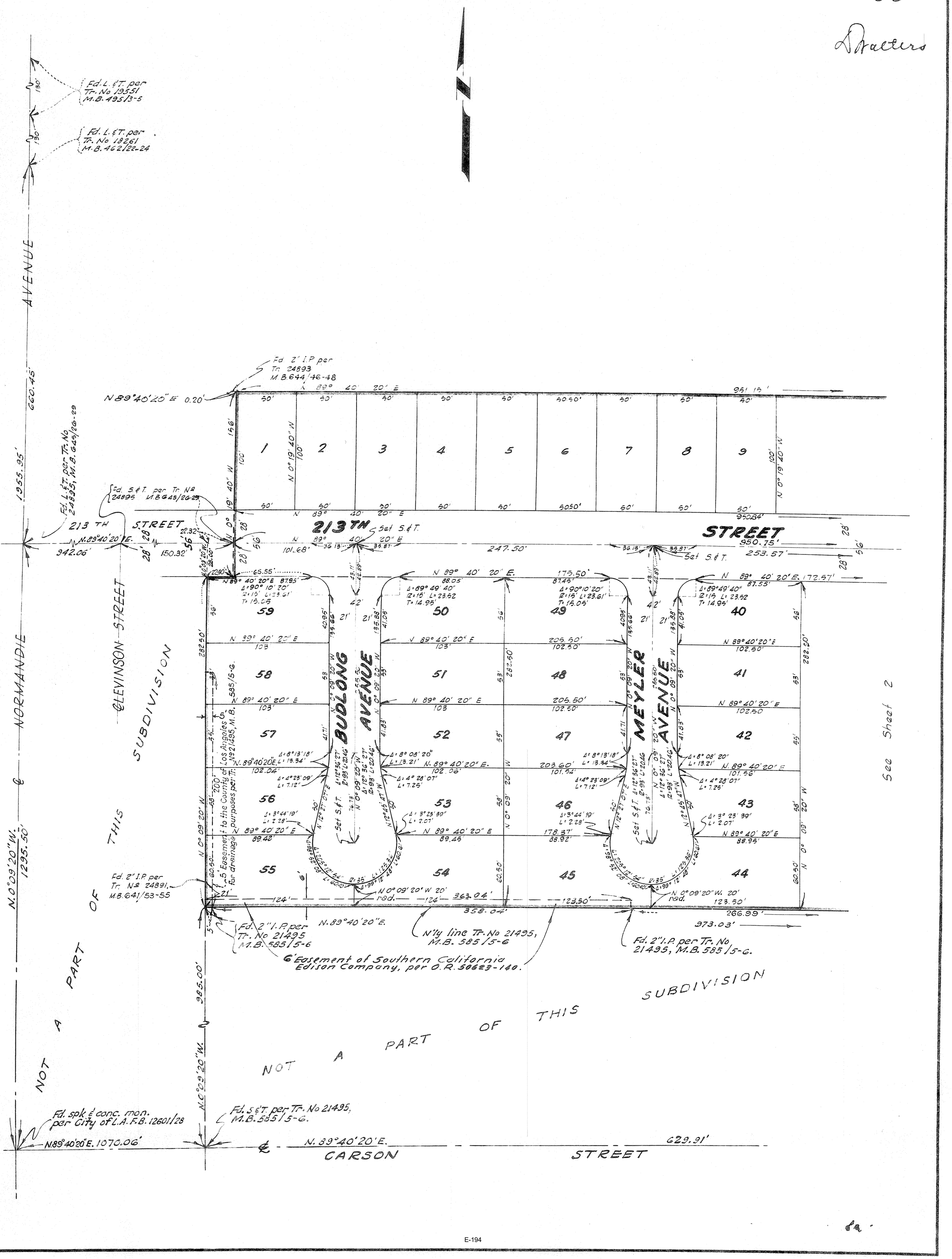
IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

Pg. 3

July 15, 1959
29 3 PM
645
50

Walters

BARCLAY - PEARSON CO., INC.



SCALE: 1" = 60'

SHEET 1 OF 4 SHEETS

TRACT No. 25362

IN UNINCORPORATED TERRITORY OF

THE COUNTY OF LOS ANGELES

BEING A SUBDIVISION OF LOT 13, AND PORTIONS OF LOTS 1, 12, & 24 OF TRACT NO. 3612, AS PER MAP RECORDED IN BOOK 40 PAGES 5 & 6, AND OF PORTIONS OF LOTS 9 & 10 OF TRACT NO. 6378, AS PER MAP RECORDED IN BOOK 68 PAGES 1 & 2 OF MAPS, RECORDS OF LOS ANGELES COUNTY, STATE OF CALIFORNIA, AND GRANT AN EASEMENT OVER A PORTION OF LOT 11, TRACT No 6378 AS PER MAP RECORDED IN BOOK 68, PAGES 1 & 2 OF MAPS, RECORDS OF LOS ANGELES COUNTY, STATE OF CALIFORNIA

BARCLAY - PEARSON CO., INC.

4580

RECORDED
AT REQUEST OF OWNER
DEC. 3, 1959
30 MIN PAST 3 P.M.
IN BOOK 650
OF PAGE 53
COUNTY RECORDER
BY J. Bolourn DEPUTY
$11.00

BASIS OF BEARINGS

The bearing N 89° 40' 20" E of the ℄ of Carson Street as shown on map of Tract Nº 24831 M.B. 645/48-50 was taken as the basis of bearings used on this map.

We hereby certify that we are the owners of or are interested in the lands included within the subdivision shown on this map within the colored border lines, and we consent to the preparation and recordation of said map and subdivision and hereby dedicate to the public use all streets, highways and other public ways shown on said map. We further certify that, except as shown on a copy of this map on file in the office of the County Road Commissioner, we know of no easement or structure existing within the easements hereby offered for dedication to the public, other than publicly owned water lines, sewers, or storm drains; that we will grant no right or interest within the boundaries of said easements offered to the public, except where such right or interest is expressly made subject to the said easements. We also grant to the County of Los Angeles, the easements for sanitary sewer, storm drain and drainage purposes so designated on said map and all uses incident thereto including the right to make connections therewith from any adjoining properties, and we hereby dedicate Lots 120, 121, & 122 shown on said map within said subdivision, in fee simple to the County of Los Angeles. As a dedication to public use, while all of Vermont Avenue within this subdivision remains a public highway for such time only, we hereby abandon all easements of ingress and egress to the said avenue so that owners of lots, abutting this highway during such time will have no rights of access whatever in the highway as such except the general easement of travel which belongs to the whole public. If any change of alignment or width of such highway results in the vacation thereof within this subdivision, such vacation terminates the above dedication as to the part vacated.

BAINBRIDGE CORP., a corporation

R A Watt — President

Ralph Garland — Ass't Secretary

CARSON CONSTRUCTION CO., INC. a corporation, (Owner)

Mike Hollander — President

Orest J. Gause Jr. — Secretary

TITLE INSURANCE AND TRUST COMPANY, a corporation, (trustee) under deed of trust recorded November 8, 1959, as instrument No. 1079.

Walter C. Wells — Vice President

Dale L. Dykema — Asst. Secretary

GRAGMONT LAND CO., a corporation

Richard Barclay — President

Lois Barclay — Secretary

UNION BANK, a corporation (Trustee) under deed of trust recorded in book T-850 page 126, Official Records.

_____ President

R. M. Brown — ASSISTANT ~~SECRETARY~~ CASHIER

State of California } S.S.
County of Los Angeles }

On this 28th day of October 1959, before me John R. Spahn, a notary public in and for said County and State, personally appeared R. A. Watt, known to me to be the President, and Ralph Garland, known to me to be the Ass't Secretary of BAINBRIDGE CORP., the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

John R. Spahn
My Commission Expires Aug. 6, 1960
John R. Spahn

State of California } S.S.
County of Los Angeles }

On this 25th day of Nov. 1959, before me the undersigned, a notary public in and for said County and State, personally appeared R. M. Brown, known to me to be the Asst. ~~President~~, and ~~known to me to be the~~ Secretary of UNION BANK, the corporation that executed the within instrument and known to me to be the person who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same as trustee.

Lorraine Fowler
My Commission Expires 12-23-61
Lorraine Fowler

State of California } S.S.
County of Los Angeles }

On this 24TH day of Nov. 1959, before me John R. Spahn, a notary public in and for said County and State, personally appeared Mike Hollander, known to me to be the President, and Orest J. Gause Jr., known to me to be the Secretary of CARSON CONSTRUCTION CO., INC. the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

John R. Spahn
My Commission Expires Aug 6, 1960
John R. Spahn

I hereby certify that I am a registered Civil Engineer of the State of California; that this map, consisting of four sheets correctly represents a true and complete survey made under my supervision July 1959; that the monuments of character and locations shown hereon will be in place within twenty-four months from recording date of this map; that said monuments are sufficient to enable the survey to be readily retraced, and that tie notes to all centerline monuments shown hereon as set by me will be on file in the office of the County Engineer within twenty-four months from recording date shown hereon.

Edward L Pearson
Registered Civil Engineer No. 9783.

The signatures of DOMINGUEZ ESTATE COMPANY, a corporation, owner of the blanket easement to construct and maintain drainage ditches, all as created by reservation in deed recorded in Book 4575 page 256 of deeds, have been omitted under the provisions of Section 11587(a) of the Subdivision Map Act, since such interest can not ripen into a fee and such signatures are not required by the governing body.

Dominguez Water Corporation hereby certifies that it owns an interest in the land included within the subdivision shown on the annexed map by virtue of easements granted to it by deeds recorded in Book 39383 page 236 of Official Records, and created by reservation in deed recorded in Book 7092 page 201, Official Records of County of Los Angeles and by deed to Dominguez Water Company its predecessor in interest, recorded in Book 1515, page 265, Official Records, and said Dominguez Water Corporation hereby consents to the making and recordation of said map and subdivision as shown within the colored border lines and hereby dedicate to the public use its said easements within the streets, avenues and drives shown on said map within said subdivision, except that said Dominguez Water Corporation retains: a) such of said easements as are necessary for laying, maintaining, operating, repairing, and replacing the water mains, water pipelines and water service connections of said Dominguez Water Corporation and/or making extension thereto and b) the right, without application being first made to or permit and/or license first being obtained from any public body or or official, to lay the water mains and extensions first laid within each of the streets, avenues, and drives within the boundaries of said subdivision, provided, however, that the easements hereby retained by said Dominguez Water Corporation are subordinate to the easements for streets, avenues and drives as offered for dedication as shown on said map; that the Public Utilities Commission of the State of California has granted to said Dominguez Water Corporation a certificate of public convenience and necessity to serve and distribute water for domestic purposes to the land included within said subdivision; that the subdivider has filed with Dominguez Water Corporation an application for a water main extension to serve the land within said subdivision and has agreed to deposit with Dominguez Water Corporation, pursuant to rule and regulation No. 20 of the tariff of said Dominguez Water Corporation, the estimated cost of constructing a water distribution system to serve the land within said subdivision with standards of Dominguez Water Corporation and when completed Dominguez Water Corporation will serve and distribute water to all parcels of land within said subdivision, pursuant to its tariff on file with said Public Utilities Commission, said Dominguez Water Corporation further certifies that, except as shown on a copy of said map on file in the office of the County Road Commissioner, it knows of no easement or structure existing within the easements hereby offered for dedication to the public other than water lines owned by Dominguez Water Corporation and publicly owned sewers and storm drains; that said Dominguez Water Corporation will grant no right or interest within the boundaries of said easements offered to the public except where such right or interest is expressly made subject to said easements.

DOMINGUEZ WATER CORPORATION

J. V. Carson — Vice President

Carol Stovall — Assistant Secretary

State of California } S.S.
County of Los Angeles }

On this 5th day of November 1959, before me Alexander Lawrence, a notary public in and for said County and State, personally appeared J. V. Carson, known to me to be the Vice President, and Carol Stovall, known to me to be the Ass't Secretary of DOMINGUEZ WATER CORPORATION, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

Alexander Lawrence
My Commission Expires July 10, 1961
Alexander Lawrence

State of California } S.S.
County of Los Angeles }

On this 25 day of NOV. 1959, before me J. R. STRACHAN, a notary public in and for said County and State, personally appeared WALTER C. WELLS, known to me to be the VICE President, and DALE L. DYKEMA, known to me to be the ASS'T Secretary of TITLE INSURANCE AND TRUST COMPANY, the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same as trustee.

J. R. Strachan
My Commission Expires MAR. 9, 1962
J. R. STRACHAN

State of California } S.S.
County of Los Angeles }

On this 27th day of Nov. 1959, before me John R. Spahn, a notary public in and for said County and State, personally appeared Richard Barclay, Lois Barclay known to me to be the President and Secretary of GRAGMONT LAND CO., the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged to me that such corporation executed the same.

John R. Spahn
My Commission Expires Aug. 6, 1960.
John R. Spahn

NOTE: The signatures of the present owners of that certain oil, minerals and other hydrocarbon substances which was reserved in deed recorded March 28, 1956 in book 50725 page 43, Official Records, in deeds recorded May 13, 1958 in book D-98 page 813, Official Records, and in book D-98 page 812, Official Records, and in deed recorded November 30, 1955 in book 49657 page 215, Official Records have been omitted under the provisions of Section 11587 (c-1) of the Subdivision Map Act inasmuch as said ownership does not include a right of entry on the surface of the land.

SCALE: 1"= 60'

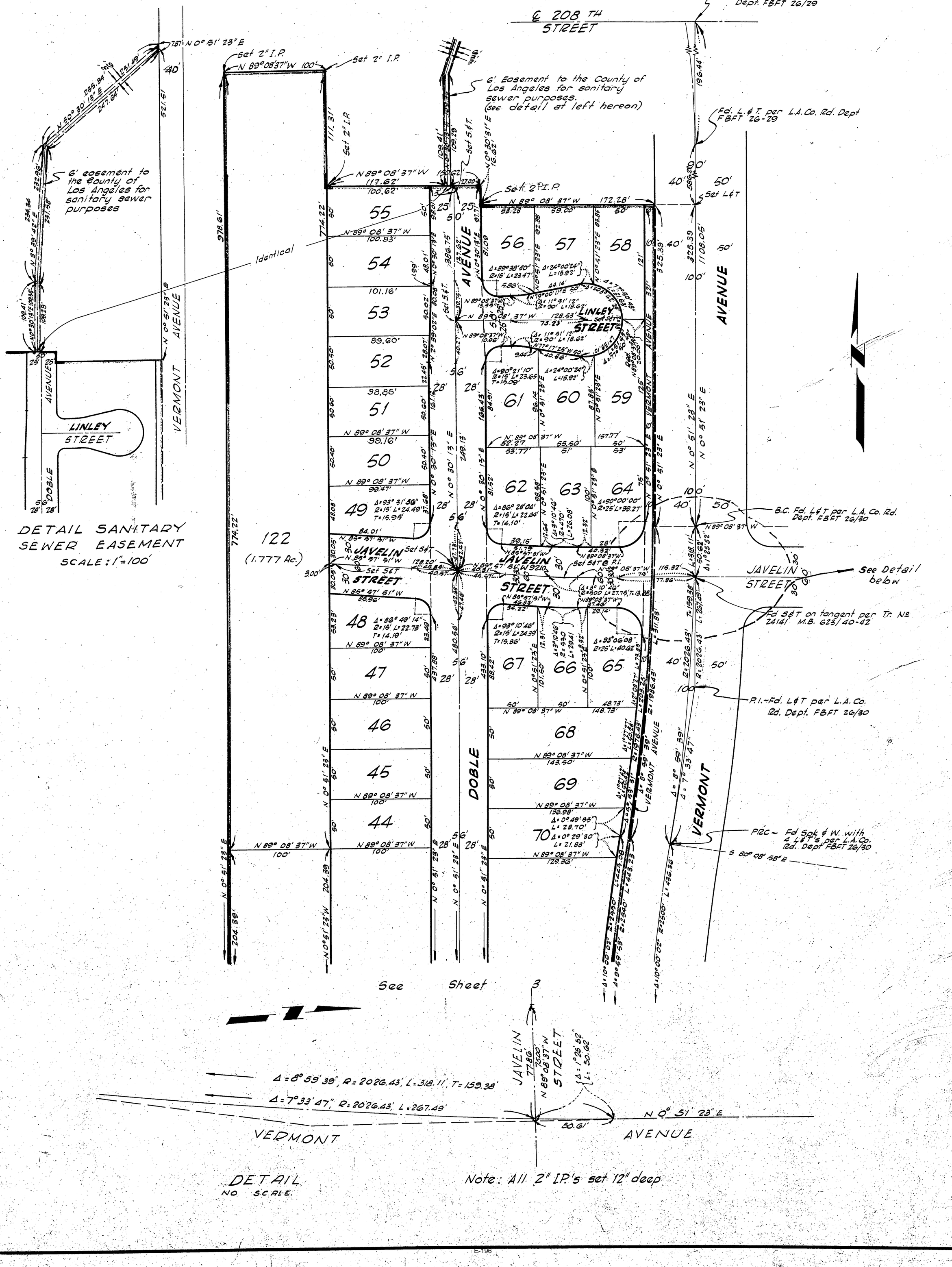
SHEET 2 OF 4 SHEETS 650 - 54

TRACT No. 25362

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

BARCLAY - PEARSON CO., INC.

RECORDED
AT REQUEST OF OWNER
DEC. 3, 1959
30 MIN. 3 P.M.
IN BOOK 650
AT PAGE 54
OFFICIAL RECORDS
LOS ANGELES COUNTY, CALIF.
FEE $
FRANK LOY
COUNTY RECORDER
S Solomon
DEPUTY



650 - 55

SCALE: 1"= 60'

SHEET 3 OF 4 SHEETS

TRACT No. 25362

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

4838 Pg.3

RECORDED
AT REQUEST OF OWNER
DEC. 3, 1959
30 MIN. PAST 3 P.M.
IN BOOK 650
AT PAGE 55
OF MAP RECORDS
LOS ANGELES COUNTY, CALIF.
RAY E. LEE
COUNTY RECORDER
BY D. Moun DEPUTY

BARCLAY - PEARSON CO., INC.

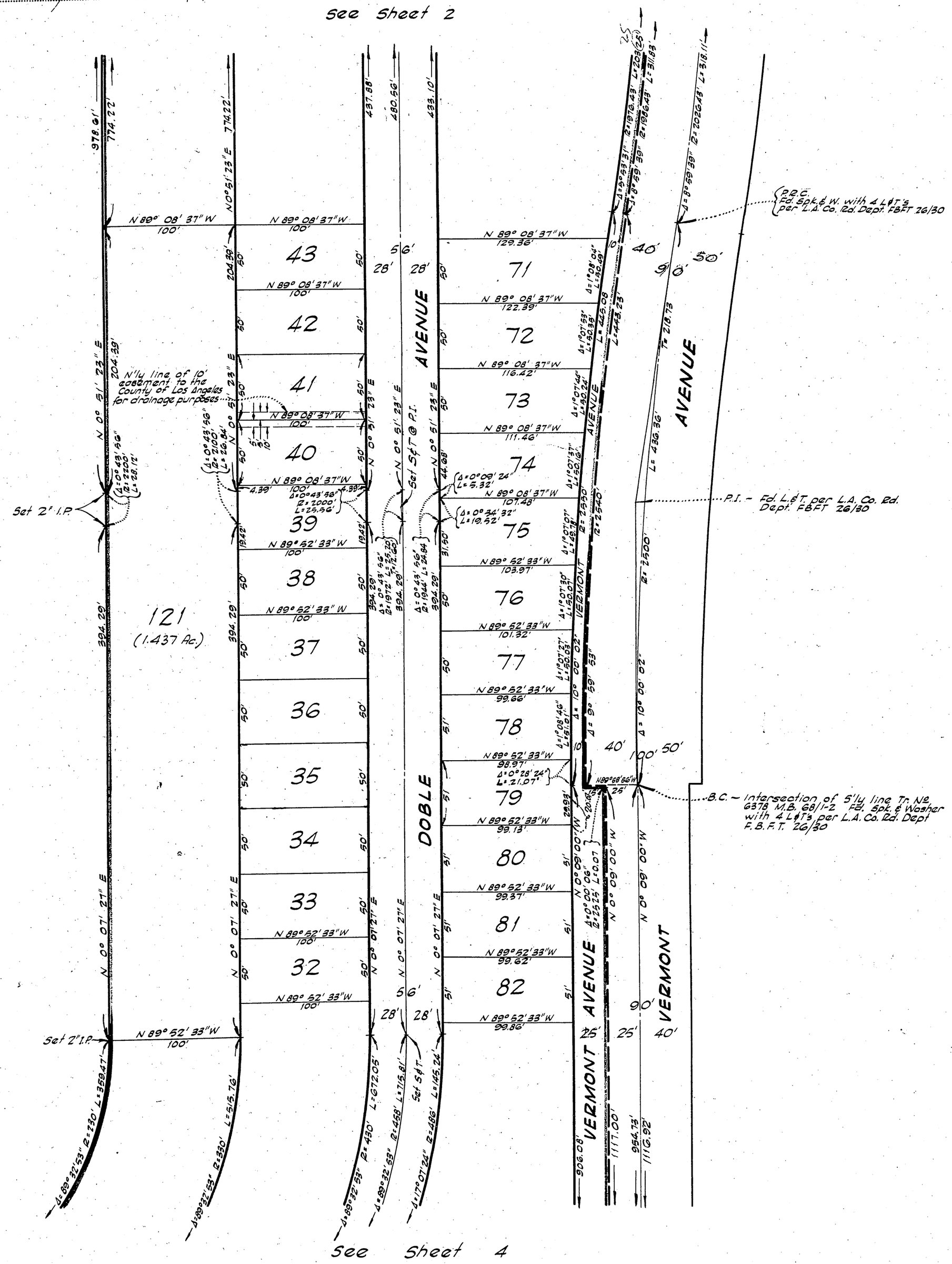
In re Acceptance of Highways, Public Ways, etc., in Tract No 25362 } On motion approved by the Board of Supervisors, It is ordered that the map of Tract No 25362 be and the same is hereby approved; and that all streets, highways, other public ways, and easements shown upon said map and therein offered for dedication be and the same are hereby accepted on behalf of the public.
The grant in fee simple of lots 120, 121 and 122 for storm drain purposes is hereby accepted.
Also the offer of dedication for abandonment of ingress and egress is hereby accepted

The Clerk of this Board is directed to endorse on the face of said map a copy of this order authenticated by the seal of the Board of Supervisors.
I hereby certify that the foregoing order was adopted by the Board of Supervisors at a meeting of said Board held December 1, 1959
Gordon T. Nesvig, Clerk of the Board of Supervisors of the County of Los Angeles, State of California.
By Irene Yamada Deputy

I hereby certify that I have examined this map, that it conforms substantially to the tentative map and all approved alterations thereof; that all provisions of applicable State law and local subdivision ordinances have been complied with; and that I am satisfied that this map is technically correct.
Dated: December 3, 1959

JOHN A. LAMBIE
COUNTY ENGINEER
By Ralph L. Kennedy Deputy

see Sheet 2



see Sheet 4

Note: All 2" I.P.'s set 12" deep

BOOK 650 PAGE 56

SCALE: 1"= 60'

SHEET 4 OF 4 SHEETS

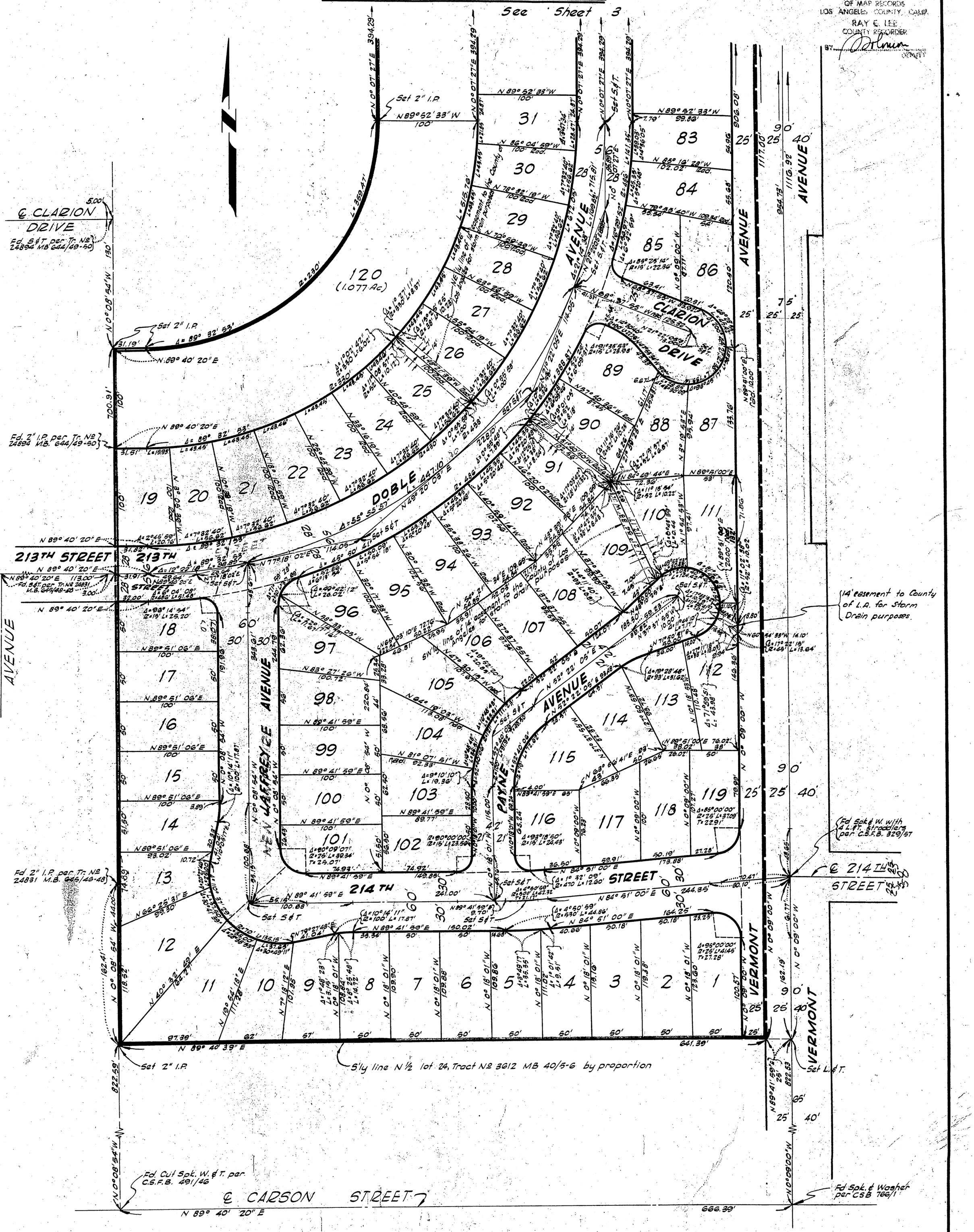
TRACT No. 25362

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

4530 Pg. 4

RECORDED
AT REQUEST OF OWNER
DEC. 3, 1959
MIN. 30 PAST 3 P.M.
IN BOOK 650
AT PAGE 56
OF MAP RECORDS
LOS ANGELES COUNTY, CALIF.
RAY E. LEE
COUNTY RECORDER
BY [signature] DEPUTY

BARCLAY - PEARSON CO., INC.


See Sheet 3
N 0° 07' 27" E 394.29'
Set 2" I.P.
N 89° 52' 33" W 100'
N 0° 08' 54" W 700.91'
Fd. 2" I.P. per Tr. No 24894 M.B. 644/49-50
N 89° 40' 20" E 31.51'
5.00'
℄ CLARION DRIVE
Fd. S&T per Tr. No 24894 M.B. 644/49-50
130'
R = 230'
L = 359.47'
Set 2" I.P.
Δ = 89° 32' 53"
N 89° 40' 20" E
31.19'
120 (1.077 Ac)
31
30
29
28
27
26
25
24
23
22
21
20
19
18
17
16
15
14
13
12
11
10
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8
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6
5
4
3
2
1
83
84
85
86
87
88
89
90
91
92
93
94
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97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
DOBLE AVENUE
Δ = 55° 55' 57"
L = 447.10'
N 49° 20' 03" E
213TH STREET
N 89° 40' 20" E 1113.00'
Fd. S&T per Tr. No 24831 M.B. 645/48-50
3.00'
℄ BROADWELL AVENUE
N 89° 51' 06" E 100'
N 89° 51' 06" E 93.02'
Fd. 2" I.P. per Tr. No 24831 M.B. 645/46-48
N 66° 25' 31" E 99.30'
N 40° 32' 49" E 164.27'
N 19° 54' 18" E 111.28'
N 7° 18' 12" E 107.95'
N 0° 08' 54" W 822.59'
Set 2" I.P.
N 89° 40' 39" E 641.39'
97.39'
62'
57'
50'
Fd. Cut Spk. W. ℄ T. per C.S.F.B. 491/46
℄ CARSON STREET
N 89° 40' 20" E 666.39'
Set L. ℄ T.
Fd. Spk. & Washer per CSB 766/1
N 0° 09' 00" W 822.53'
N 89° 41' 59" E 25'
℄ 214TH STREET
N 89° 41' 59" E 230.00'
N 84° 51' 00" E 244.35'
Set S&T
Δ = 1° 32' 09" R = 470 L = 12.60'
Δ = 4° 50' 59" R = 530 L = 44.86'
N 84° 51' 00" E 164.25'
50.18'
23.23'
Δ = 95° 00' 00" R = 25' L = 41.45' T = 27.28'
VERMONT AVENUE
N 0° 09' 00" W 962.19'
1117.00'
954.73'
1116.92'
90'
75'
40'
25'
14' easement to County of L.A. for Storm Drain purposes.
N 66° 44' 55" W 14.10'
Δ = 17° 22' 18" R = 465' L = 13.64'
Fd Spk & W with 4 L.F. straddlers per C.S.F.B. 329/57
Δ = 93° 18' 50" R = 15' L = 24.43'
Δ = 90° 00' 00" R = 15' L = 23.56'
Δ = 90° 00' 00" R = 25' L = 39.27'
Δ = 85° 00' 00" R = 25' L = 37.09' T = 22.91'
Δ = 91° 38' 53" R = 15' L = 23.98'
Δ = 98° 26' 11" R = 15' L = 25.77'
Δ = 21° 14' 36" L = 671.05'
Δ = 16° 39' 32" R = 416' L = 121.00'
Δ = 5° 20' 48" R = 416' L = 38.85'
Δ = 16° 42' 50" R = 416' L = 121.36'
Δ = 85° 25' 14" R = 15' L = 22.36'
Δ = 63° 26' 05" R = 20' L = 22.15'
Δ = 14° 30' 40" R = 500' L = 126.66'
Δ = 1° 07' 42" R = 340' L = 6.82'
Δ = 1° 27' 11" R = 330' L = 8.37'
Δ = 11° 08' 57" R = 52' L = 10.12'
Δ = 130° 25' 25" R = 38' L = 86.48'
Δ = 0° 55' 58" L = 7.00' R = 430'
Δ = 2° 45' 59" L = 20.76'
Δ = 12° 22' 18" L = 99.85'
Δ = 90° 14' 54" R = 15' L = 25.20'
Δ = 10° 14' 11" R = 100' L = 17.87'
Δ = 49° 42' 12" L = 26.02'
Δ = 45° 50' 41" L = 60.09'
Δ = 55° 54' 18" L = 73.05'
Δ = 1° 49' 23" L = 3.15'
Δ = 18° 25' 48" L = 14.72'
Δ = 4° 11' 40" R = 268' L = 19.61'
Δ = 1° 30' 49" L = 35.35'
Δ = 1° 10' 42" L = 19.51'
Δ = 9° 52' 20" L = 20.84'
Δ = 18° 28' 46" R = 93' L = 31.62'
Δ = 7° 19' 59" L = 43.98'
Δ = 4° 16' 48" L = 13.31'
Δ = 9° 10' 10" L = 19.36'
Δ = 0° 09' 07" R = 25' L = 39.34' T = 25.07'
Δ = 0° 48' 58" L = 7.00' R = 458'
Δ = 0° 52' 24" L = 16.36' R = 1070'
Δ = 0° 09' 31" R = 2000' L = 5.54'
Δ = 0° 52' 45" L = 7.18'
Δ = 5° 20' 48" L = 38.85'
Δ = 11° 05' 47" R = 268' L = 51.91'
Δ = 11° 16' 12" R = 340' L = 10.03'
Δ = 11° 16' 12" R = 330' L = 10.01

SCALE: 1"= 60'

SHEET 1 OF 3 SHEETS

650 - 57

4531

TRACT No. 25150

IN UNINCORPORATED TERRITORY OF

THE COUNTY OF LOS ANGELES

BEING A SUBDIVISION OF PORTIONS OF LOTS 1 AND 12 OF TRACT NO. 3612 AS PER MAP RECORDED IN BOOK 40 PAGES 5 AND 6 OF MAPS AND PORTIONS OF LOTS 9, 10 AND 11 OF TRACT NO 6378 AS PER MAP RECORDED IN BOOK 68 PAGES 1 AND 2 OF MAPS, RECORDS OF LOS ANGELES COUNTY, STATE OF CALIFORNIA.

RECORDED
AT REQUEST OF OWNER
DEC. 3, 1959
30 MIN PAST 3 P.M.
IN BOOK 650
AT PAGE 57
OF MAP RECORDS
LOS ANGELES COUNTY, CALIF.
RAY E. LEE
COUNTY RECORDER
BY [signature] DEPUTY
$9.00

BARCLAY - PEARSON CO., INC.

BASIS OF BEARINGS

The bearing N.89° 40' 20"E. of the centerline of Clarion Drive as shown on map of Tract No. 24894 M.B. 644/49-50 was taken as the basis of bearings used on this map.

We hereby certify that we are the owners of or are interested in the lands included within the subdivision shown on this map within the colored border lines, and we consent to the preparation and recordation of said map and subdivision and hereby dedicate to the public use all streets, highways, walks and other public ways shown on said map. We further certify that, except as shown on a copy of this map on file in the office of the County Road Commissioner, we know of no easement or structure existing within the easements hereby offered for dedication to the public, other than publicly owned water lines, sewers, or storm drains; that we will grant no right or interest within the boundaries of said easements offered to the public, except where such right or interest is expressly made subject to the said easements. We also grant to the County of Los Angeles, ~~the easements for storm drain~~ drainage purposes so designated on said map and all uses incident thereto, including the right to make connections therewith from any adjoining properties.

GRAGMONT LAND CO., a corporation

Richard Barclay — President

Lois Barclay — Secretary

UNION BANK, a corporation (Trustee)
under deed of trust recorded in book T-850 page 126, Official Records.

R. M. Brown — President ~~Secretary~~ ASSISTANT CASHIER

I hereby certify that I have examined this map, that it conforms substantially to the tentative map and all approved alterations thereof; that all provisions of applicable State law and local subdivision ordinances have been complied with; and that I am satisfied that this map is technically correct.
Dated: December 3, 1959

JOHN A. LAMBIE
COUNTY ENGINEER
By Ralph L. Kennedy ..... Deputy

State of California } S.S.
County of Los Angeles }

On this 25th day of Nov. 1959, before me Lorraine Towles, a notary public in and for said County and State personally appeared R. M. Brown, known to me to be the Asst ~~President~~ of UNION BANK, the corporation that executed the within instrument, and known to me to be the person who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same as trustee.

Lorraine Towles
My Commission Expires 12-23-61
Lorraine Towles

State of California } S.S.
County of Los Angeles }

On this 28th day of Oct. 1959, before me John R. Spahn, a notary public in and for said County and State, personally appeared Richard Barclay, known to me to be the President, and Lois Barclay, known to me to be the Secretary of GRAGMONT LAND CO., the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged to me that such corporation executed the same.

John R. Spahn
My Commission Expires Aug. 6, 1960
John R. Spahn

In re Acceptance of Highways, Public Ways, etc., in Tract No. 25150 } On motion approved by the Board of Supervisors, it is ordered that the map of Tract No. 25150 be and the same is hereby approved; and that all streets, highways, other public ways and easements shown upon said map and therein offered for dedication be and the same are hereby accepted on behalf of the public.

The Clerk of this Board is directed to endorse on the face of said map a copy of this order authenticated by the seal of the Board of Supervisors.

I hereby certify that the foregoing order was adopted by the Board of Supervisors at a meeting of said Board held December 1, 1959

Gordon T. Nesvig, Clerk of the Board of Supervisors of the County of Los Angeles, State of California.

By Irene Yamada Deputy

I hereby certify that I am a registered Civil Engineer of the State of California; that this map, consisting of three sheets correctly represents a true and complete survey made under my supervision August 1959; that the monuments of character and locations shown hereon will be in place within twenty-four months from recording date of this map; that said monuments are sufficient to enable the survey to be readily retraced, and that tie notes to all centerline monuments shown hereon as set by me will be on file in the office of the County Engineer within twenty-four months from recording date shown hereon.

Edward L. Powers
Registered Civil Engineer No 9783.

The signatures of DOMINGUEZ ESTATE COMPANY, a corporation, owner of the blanket right to construct and maintain drainage ditches all as created by reservation in deed recorded in Book 4575 page 256 of deeds, have been omitted under the provisions of Section 11587(a) of the Subdivision Map Act since such interest can not ripen into a fee and such signatures are not required by the governing body.

Dominguez Water Corporation hereby certifies that it owns an interest in the land included within the subdivision shown on the annexed map by virtue of easements granted to it by deeds recorded in Book 39383 page 236 of Official Records of County of Los Angeles and by deed to Dominguez Water Company its predecessor in interest, recorded in Book 1515, page 265, Official Records, blanket in nature

and said Dominguez Water Corporation hereby consents to the making and recordation of said map and subdivision as shown within the colored border lines and hereby dedicates to the public use its said easements within the streets, avenues and drives shown on said map within said subdivision, except that said Dominguez Water Corporation retains; a) such of said easements as are necessary for laying, maintaining, operating, repairing, and replacing the water mains, water pipelines and water service connections of said Dominguez Water Corporation and/or making extension thereto and b) the right, without application being first made to or permit and/or license first being obtained from any public body or official, to lay the water mains and extensions first laid within each of the streets, avenues, and drives within the boundaries of said subdivision, provided, however, that the easements hereby retained by said Dominguez Water Corporation are subordinate to the easement for streets, avenues and drives as offered for dedication as shown on said map; that the Public Utilities Commission of the State of California has granted to said Dominguez Water Corporation a certificate of public convenience and necessity to serve and distribute water for domestic purposes to the land included within said subdivision; that the subdivider has filed with Dominguez Water Corporation an application for a water main extension to serve the land within said subdivision and has agreed to deposit with Dominguez Water Corporation, pursuant to rule and regulation No 20 of the tariff of said Dominguez Water Corporation, the estimated cost of constructing a water distribution system to serve the land within said subdivision with standards of Dominguez Water Corporation and when completed Dominguez Water Corporation will serve and distribute water to all parcels of land within said subdivision, pursuant to its tariff on file with said Public Utilities Commission, said Dominguez Water Corporation further certifies that, except as shown on a copy of said map on file in the office of the County Road Commissioner, it knows of no easement or structure existing within the easements hereby offered for dedication to the public other than water lines owned by Dominguez Water Corporation and publicly owned sewers and storm drains; that said Dominguez Water Corporation will grant no right or interest within the boundaries of said easements offered to the public except where such right or interest is expressly made subject to said easements.

and grants to the County of Los Angeles the easements for storm drain and drainage purposes

DOMINGUEZ WATER CORPORATION

J. V. Carson — Vice President

Carol Stovall — Assistant Secretary

State of California } S.S.
County of Los Angeles }

On this 5th day of November 1959, before me Alexander Lawrence, a notary public in and for said County and State, personally appeared J.V. Carson, known to me to be the Vice President and Carol Stovall, known to me to be the Asst Secretary of DOMINGUEZ WATER CORPORATION, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

Alexander Lawrence
My Commission Expires July 10, 1961
Alexander Lawrence

Southern California Edison Company, a corporation, as the owner of two easements for electric pole lines, consisting of overhanging wires and cross-arms, one of which was recorded in Book 44248, page 47, and one in Book 44262, page 318, both of Official Records, records of Los Angeles County, State of California, does hereby consent to the preparation and recordation of this map and subdivision, subject to its aforesaid easements, and does hereby join in the dedication to the public use of the streets, highways and other public ways shown on said map within the colored border line, subject to the aforesaid easements of Southern California Edison Company.

and grants to the County of Los Angeles the easements for storm drain and drainage purposes

Southern California Edison Company

By J. H. Mead — Vice President

By J. C. Bobek — Assistant Secretary

STATE OF CALIFORNIA } S.S.
COUNTY OF LOS ANGELES }

On this 16th day of November, 1959, before me Ruth M. Elliott, a Notary Public in and for said County of Los Angeles, personally appeared J.H. Mead, known to me to be the Vice President and J.C. Bobek, known to me to be the Assistant Secretary of the Southern California Edison Company, the corporation that executed the within and foregoing instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

WITNESS my hand and official seal the day and year in this certificate first above written.

Ruth M. Elliott
Notary Public in and for said County of Los Angeles.
My commission expires December 3, 1960.
Ruth M. Elliott

NOTE: The signature of the present owners of that certain interest in all oil, minerals and other hydrocarbon substances, which was reserved in deed recorded March 28, 1956, in book 50725 page 43 Official Records, and deeds recorded May 13, 1958, in book D-98 page 812 Official Records, and 813 have been omitted under the provisions of Section 11587(c-1) of the "Subdivision Map Act" inasmuch as said ownership does not include a right of entry on the surface of the land.

SCALE: 1"= 60'

SHEET 2 OF 3 SHEETS

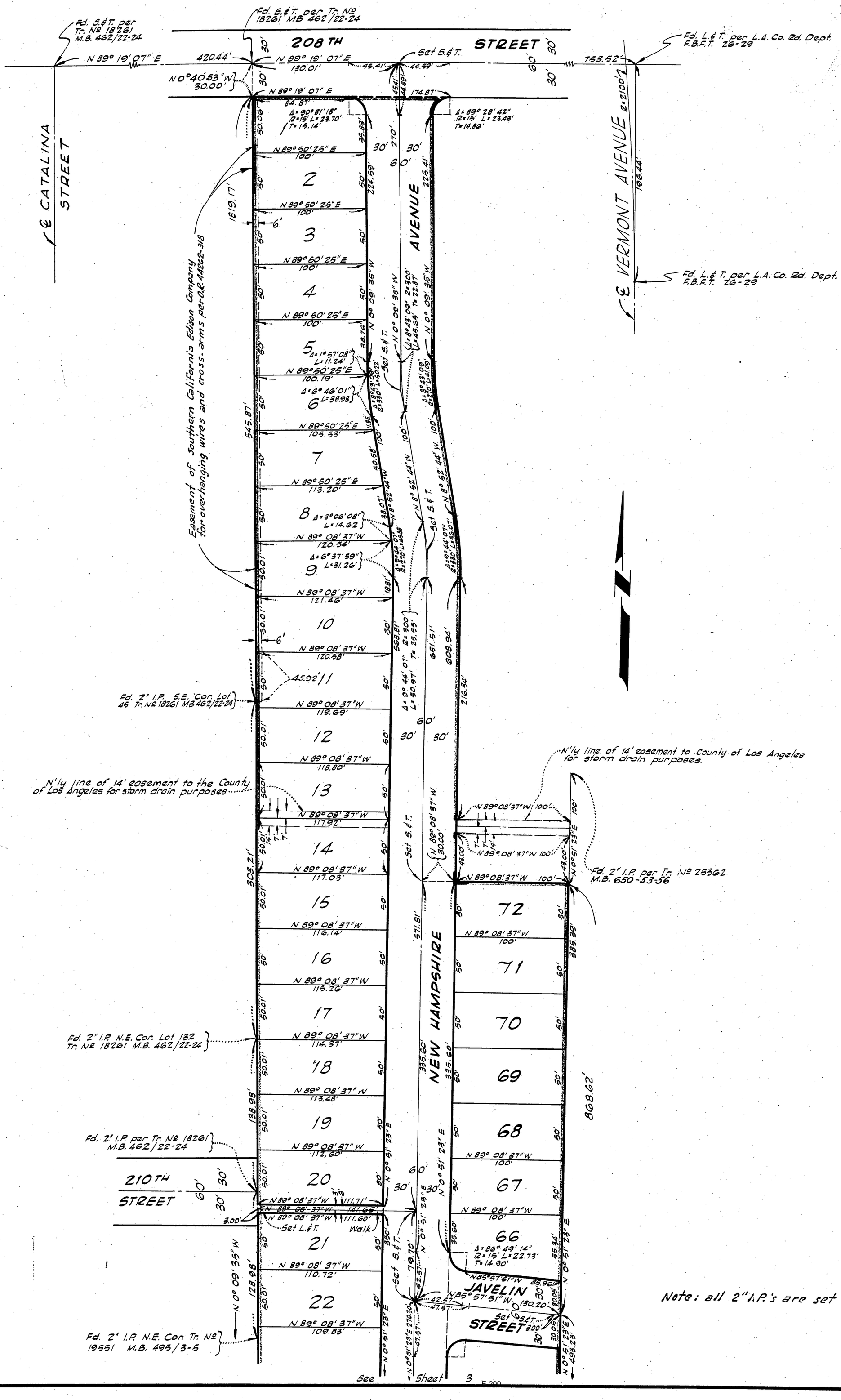
650 - 58

TRACT No. 25150

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

BARCLAY - PEARSON CO., INC.

RECORDED
DEC. 3, 1959
30 min. 3 P.M.
650
58


208TH STREET
Fd. S.&T. per Tr. No 18261 M.B. 462/22-24
N 89° 19' 07" E 420.44'
N 89° 19' 07" E 130.01'
Set S.&T.
45.41'
44.59'
753.52'
Fd. L.&T. per L.A. Co. Rd. Dept. F.B.F.T. 26-29
N 0° 40' 53" W 30.00'
N 89° 19' 07" E 84.87'
Δ = 90° 31' 18" R = 15' L = 23.70' T = 15.14'
174.87'
Δ = 89° 28' 42" R = 15' L = 23.43' T = 14.86'
E CATALINA STREET
N 89° 50' 25" E 100'
N 89° 50' 25" E 100'
N 89° 50' 25" E 100'
N 89° 50' 25" E 100'
N 89° 50' 25" E 105.53'
N 89° 50' 25" E 113.20'
N 89° 08' 37" W 120.54'
N 89° 08' 37" W 121.46'
N 89° 08' 37" W 120.58'
N 89° 08' 37" W 119.69'
N 89° 08' 37" W 118.80'
N 89° 08' 37" W 117.92'
N 89° 08' 37" W 117.03'
N 89° 08' 37" W 116.14'
N 89° 08' 37" W 115.26'
N 89° 08' 37" W 114.37'
N 89° 08' 37" W 113.48'
N 89° 08' 37" W 112.60'
N 89° 08' 37" W 111.71'
N 89° 08' 37" W 111.60'
N 89° 08' 37" W 110.72'
N 89° 08' 37" W 109.83'
N 89° 08' 37" W 100'
N 89° 08' 37" W 100'
N 89° 08' 37" W 100

SCALE: 1"= 60'

SHEET 3 OF 3 SHEETS

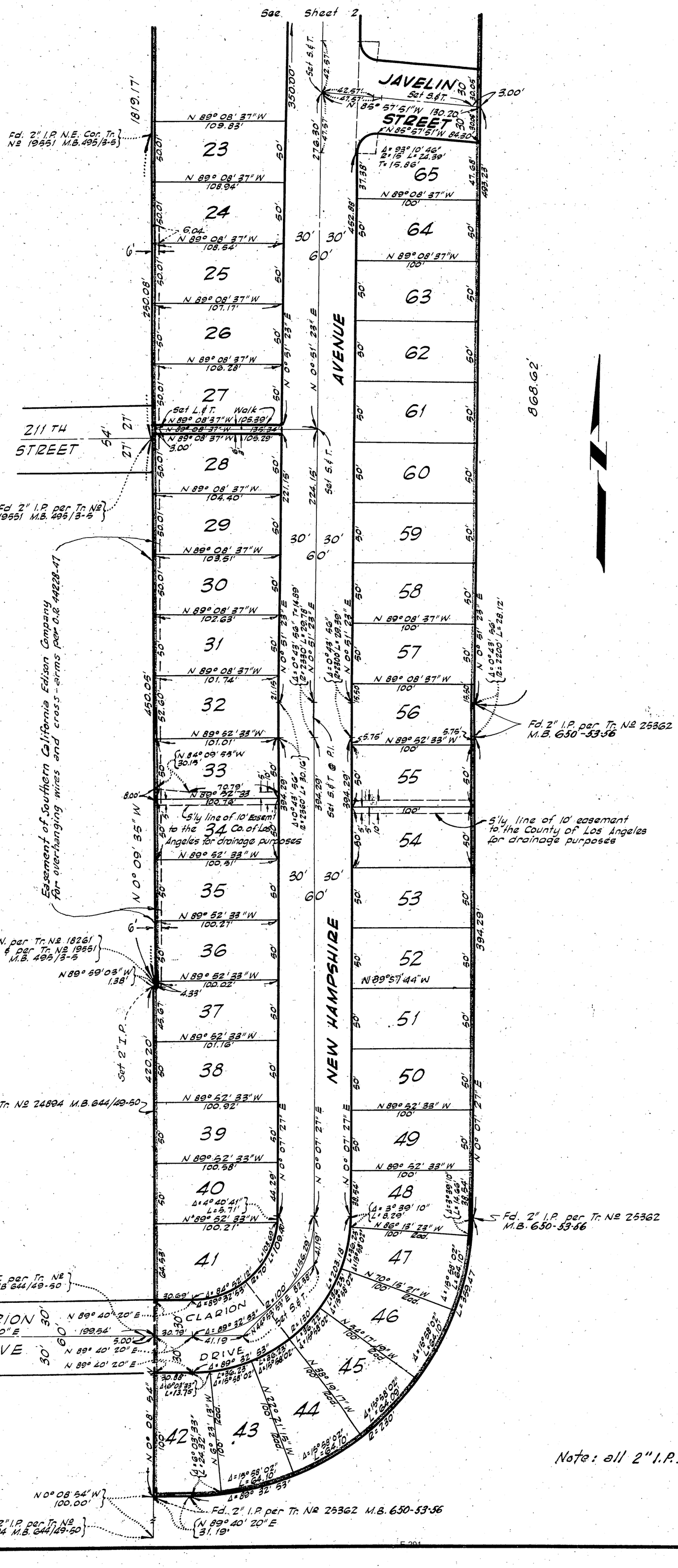
TRACT No. 25150

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

4931 PG. 3

RECORDED
AT REQUEST OF OWNER
DEC. 3, 1959
MIN. 30 PAST 3 P.M.
IN BOOK 650
AT PAGE 59
MAP RECORDS
LOS ANGELES COUNTY, CALIF.
RAY E. LEE
COUNTY RECORDER
BY [signature]
DEPUTY

BARCLAY - PEARSON CO., INC.


See Sheet 2
JAVELIN STREET
AVENUE
NEW HAMPSHIRE
CLARION DRIVE
211 TH STREET
BROADWELL AVENUE
1819.17'
350.00'
276.30'
452.88'
250.08'
224.15'
450.05'
420.20'
394.29'
868.62'
N 89° 08' 37" W 109.83'
N 89° 08' 37" W 108.94'
N 89° 08' 37" W 108.54'
N 89° 08' 37" W 107.17'
N 89° 08' 37" W 106.28'
N 89° 08' 37" W 105.39'
N 89° 08' 37" W 105.29'
N 89° 08' 37" W 104.40'
N 89° 08' 37" W 103.51'
N 89° 08' 37" W 102.63'
N 89° 08' 37" W 101.74'
N 89° 52' 33" W 101.01'
N 89° 52' 33" W 100.14'
N 89° 52' 33" W 100.27'
N 89° 52' 33" W 100.02'
N 89° 52' 33" W 101.16'
N 89° 52' 33" W 100.92'
N 89° 52' 33" W 100.58'
N 89° 52' 33" W 100'
N 89° 57' 44" W
N 89° 40' 20" E 199.54'
N 0° 08' 54" W 100.00'
N 89° 40' 20" E 31.19'
Fd. 2" I.P. N.E. Cor. Tr. No 19551 M.B. 495/3-5
Fd. 2" I.P. per Tr. No 19551 M.B. 495/3-5
Fd. 2" I.P. 0.02' N. per Tr. No 18261 M.B. 462/22-24 & per Tr. No 19551 M.B. 495/3-5
Fd. 2" I.P. per Tr. No 25362 M.B. 650-53-56
Fd. S. & T. per Tr. No 24894 M.B. 644/49-50
Set 2" I.P.
E'ly line Tr. No 24894 M.B. 644/49-50
Easement of Southern California Edison Company for overhanging wires and cross-arms per O.R. 44228-47
S'ly line of 10' Easement to the County of Los Angeles for drainage purposes
Set L. & T. Walk
Set S. & T.
Set S. & T. @ P.I.
N 85° 57' 51" W 130.20'
N 85° 57' 51" W 84.30'
Δ= 93° 10' 46" R= 15' L= 24.39' T= 15.86'
Δ= 89° 32' 53" R= 100' L= 156.29' T= 97.88'
Δ= 89° 32' 53" R= 130' L= 203.18' T= 127.24'
Δ= 89° 32' 53" R= 70' L= 109.40' T= 68.52'
Δ= 15° 58' 02" R= 230' L= 64.10'
Δ= 4° 40' 41" L= 5.71'
Δ= 3° 39' 10" L= 8.29'
Δ= 16° 03' 33" L= 13.75'
Δ= 4° 10' 43" R= 2300' L= 167.69'
Δ= 0° 43' 46" R= 2300' L= 29.29'
Δ= 0° 43' 46" R= 2200' L= 28.12'
Δ= 4° 10' 43" R= 2330' L= 169.89'
Δ= 19° 58' 02" R= 230' L= 80.10'
Δ= 19° 58' 02" R= 200' L= 69.71'
Δ= 19° 58' 02" R= 200' L= 69.71'
Δ= 19° 58' 02" R= 230' L= 80.10'
Δ= 3° 39' 10" L= 14.66'
Δ= 4° 40' 41" L= 5.71'
Δ= 16° 03' 33" L= 24.32'
Δ= 15° 58' 02" L= 64.10'
Δ= 15° 58' 02" L= 64.10'
Δ= 15° 58' 02" L= 64.10'
Δ= 15° 58' 02" L= 64.10'
Δ= 89° 32' 53" R= 100' L= 156.29'
Δ= 89° 32' 53" R= 130' L= 203.18'
Δ= 89° 32' 53" R= 70' L= 109.40'
Δ= 89° 32' 53" R= 230' L= 359.47'
Δ= 89° 32' 53" R= 200' L= 312.63'
Δ= 89° 32' 53" R= 200' L= 312.63'
Δ= 89° 32' 53" R= 230' L= 359.47'
Δ= 84° 52' 12" R= 70' L= 103.69'
Δ= 84° 52' 12" R= 100' L= 148.10'
Δ= 89° 32' 53" R= 100' L= 156.29'
Δ= 89° 32' 53" R= 130' L= 203.18'
Δ= 89° 32' 53" R= 200' L= 312.63'
Δ= 89° 32' 53" R= 230' L= 359.47'
Δ= 4° 10' 43" R= 2330' L= 170.16'
Δ= 0° 43' 46" R= 2330' L= 29.68'
Δ= 0° 43' 46" R= 2200' L= 28.12'
Δ= 4° 10' 43" R= 2200' L= 160.56'
Δ= 19° 58' 02" R= 200' L= 69.71'
Δ= 19° 58' 02" R= 230' L= 80.10'
Δ= 19° 58' 02" R= 200' L= 69.71'
Δ= 19° 58' 02" R= 230' L= 80.10'
Δ= 19° 58' 02" R= 230' L= 80.10'
Δ= 19° 58' 02" R= 200' L= 69.71'
Δ= 19° 58' 02" R= 200' L= 69.71'
Δ= 19° 58' 02" R= 230' L= 80.10'
Δ= 19° 58' 02" R= 230' L= 80.10'
Δ= 19° 58' 02" R= 200' L= 69.71'
Δ= 19° 58' 02" R= 200' L= 69.71'
Δ= 19° 58' 02" R= 230' L= 80.10'
Δ= 15° 58' 02" L= 64.10'
Δ= 15° 58' 02" L= 64.10'
Δ= 15° 58' 02" L= 64.10'
Δ= 15° 58' 02" L= 64.10'
Δ= 89° 32' 53" R= 230' L= 359.47'
Δ= 89° 32' 53" R= 200' L= 312.63'
Δ= 89° 32' 53" R= 200' L= 312.63'
Δ= 89° 32' 53" R= 230' L= 359.47

SCALE: 1"=60'

SHEET 1 OF 2 SHEETS

TRACT NO. 30353

IN UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

A SUBDIVISION OF THOSE PORTIONS OF LOTS 3 AND 10 OF TRACT NO. 3812 AS SHOWN ON MAP RECORDED IN BOOK 40, PAGES 5 AND 6 OF MAPS, AND PORTIONS OF LOTS 17 AND 18 OF TRACT NO. 6378 AS SHOWN ON MAP RECORDED IN BOOK 68, PAGES 1 AND 2 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

SURVEYED BY SOUTH BAY ENGINEERING CORPORATION

BASIS OF BEARINGS

The bearing N. 89 45' 55" E. of the northerly line of Tract No. 24363 shown on the map of TRACT No. 24363 recorded in Book 633 pages 80-81 of maps, Records of Los Angeles County, was used as the basis of bearings shown on this map.

NOTE: ALL 2" IRON PIPES SHOWN HEREON AS SET ARE 6" BELOW SURFACE OF GROUND

We hereby certify that we are the owners of or are interested in the lands included within the subdivision shown on this map within the colored border lines, and we consent to the preparation and recordation of said map and subdivision, and hereby dedicate to the public use all streets, highways and other public ways shown on said map. ~~and hereby offer to the public use the private and future streets shown on said map which shall have ceased to remain closed or posted and shall have been opened to the public travel for a period of three months or more.~~ We further certify that, except as shown on a copy of this map on file in the office of the County Road Commissioner, we know of no easement or structure existing within the easements hereby offered for dedication to the public, other than publicly owned water lines, sewers, or storm drains; that we will grant no right or interest within the boundaries of said easements offered to the public, except where such rights or interest is expressly made subject to said easements. We hereby certify that all requirements of Section 16251 through 16255 of the Education code of the State of California have been complied with.

Dan E. Butcher

LOS ANGELES UNIFIED SCHOOL DISTRICT OF LOS ANGELES COUNTY
By the BOARD OF EDUCATION of the City of Los Angeles,
who acquired title as The Los Angeles City School District of Los Angeles County.

President

Director of Real Estate

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) s.s

On this 29th day of July, 1965 before me Walter Henry Kessenich, Jr. a Notary Public in and for said County and State, personally appeared Dan E. Butcher known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

Walter Henry Kessenich Jr
Notary Public

STATE OF CALIFORNIA)
COUNTY OF LOSANGELES) s.s.

On this 8th day of October, 1965, before me the undersigned Notary Public in and for said County and State, personally appeared Ralph Richardson, known to me to be the President and Arol Burns, known to me to be the Director of Real Estate of the Board of Education of the City of Los Angeles for the Los Angeles Unified School District of Los Angeles County, the District that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the District therein named and acknowledged to me that said District executed the same.

John R. Conaghan
Notary Public

NOTE: DOMINGUEZ WATER CORPORATION, a corporation
as successor to Dominguez Water Company, a corporation, are blanket easement holders by reservation in deed recorded in book 1515 page 265, Official Records, and as
successor to Dominguez Estate Company, a corporation, are blanket easement holders by reservation in deed recorded in book 4575 page 256 of Deeds, and are
Present owners of blanket easements created by reservations in deeds recorded in book 7266 page 15, and in book 8130 page 68, Official Records. The interest of Dominguez Water Corporation being that which acquired by deed recorded in book 39383 page 236, Official Records.

DOMINGUEZ WATER CORPORATION
a corporation

We, Dominguez Water Corporation, having a record title interest in the land subdivided on the annexed map, certify as follows: we intend to serve water within said area as well as other areas within Los Angeles County. We hereby consent to the making and recordation of said map and subdivision as shown within the colored boundary lines thereof. We hereby dedicate to the public use, for street or highway purposes, our said record title interest within the avenues, streets, courts and drives shown on said map within said subdivision, except that in making such offer of dedication we retain and reserve forever in us and for the benefit of our successors and assigns: every incident of ownership; all interest in the soil, and our said rights for all purposes necessary to exercise freely, from time to time and forever, any and all of our said record title interest now or hereafter at any time existing within the areas so offered for dedication; provided, however, that the said rights hereby so retained and reserved by us are subordinate to the said easement for street or highway purposes herein offered for dedication. In this connection the Public Utilities Commission of the State of California has granted to us a Certificate of Public Convenience and Necessity to serve and distribute water for domestic, irrigation and fire-fighting purposes to the lands included within the boundaries of said subdivision as well as to other lands within Los Angeles County. The subdivider thereof has filed with us an application for a water main extension to serve the land within said subdivision and has agreed to deposit with us, pursuant to rule and regulation No. 15 of our Tariff, the estimated cost of constructing a water distribution system to serve the land within said subdivision pursuant to our standards and when completed we, at all times now and hereafter intending to do so, will serve and distribute water to all parcels of land within said subdivision pursuant to our tariff now or hereafter on file with said Public Utilities Commission. We will grant no right or interest within the boundary of the said areas herein offered for dedication, except where such right or interest is expressly made subject to said public use herein offered for dedication.

J. P. Bradley
President

Chas Lawrence
Secretary

REMCO - REAL ESTATE MANAGEMENT COMPANY
a corporation
Successor in interest to Dominguez Land Corporation Blanket easement holder by reservation in deeds recorded in book 5132 page 97, book 5777 page 282, book 4490 page 361, Book 7166 page 73, and Book 17091 page 229, official Records.

President

Walter L. Bradford
Secretary

I hereby certify that I am a Registered Civil Engineer of the State of California; that this map, consisting of 2 sheets, correctly represents a true and complete survey made under my supervision May, 1965; that the monuments of the character and locations shown hereon are in place or will be in place within twenty-four months from recording date of this map; that said monuments are sufficient to enable the survey to be readily retraced and that tie notes to all center line monuments shown hereon as set by me will be on file in the office of the County Engineer within twenty-four months from recording date shown hereon.

Raymond L. Quigley
Raymond L. Quigley, R.C.E. No. 7191

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS

On this 8TH day of SEPT., 1965 before me, the undersigned Notary Public in and for said County and State personally appeared J. P. BRADLEY known to me to be the President and ALEX LAWRENCE known to me to be the Secretary of the Dominguez Water Corporation, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation herein named and acknowledged to me that such corporation executed the same.

OFFICIAL SEAL
SHIRLEY A. FURTEECH
NOTARY PUBLIC
LOS ANGELES COUNTY

Shirley A. Furteech
Notary Public
My Commission Expires JULY 10, 1967

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS

On this 23rd day of Sept, 1965 before me, the undersigned Notary Public in and for said County and State, personally appeared CHAS H. CURTIS known to me to be the President and WALTER L. BRADFORD known to me to be the Secretary of the Remco-Real Estate Management Company, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation herein named and acknowledged to me that such corporation executed the same.

Donald Whitbeck
Notary Public

The signatures of Aurelio Sancioni and Angelina Sancioni owners of certain oil rights per deed recorded in book 19858 page 63, Official Records and in book 18773 page 215, Official Records and Harry S. Chapman owner of certain oil rights recorded in book 22995 page 287, Official Records have been omitted under provisions of Section 11587 (C-2) of the Subdivision Map Act, inasmuch as the use of the surface of the land in connection with the mineral ownership is prohibited by Zoning and other governmental regulations, and said signatures are not required by the Los Angeles County Board of Supervisors.

The signature of the Metropolitan Water District of Southern California, the owner of easements as recorded by deeds recorded in book 15694 page 269, book 15883 page 322, book 15780 page 152, and book 15571 page 147, Official Records has been omitted under the provisions of Section 11587 (a) of the Subdivision Map Act in as much as their interest is such that it cannot ripen into a fee title and such signatures are not required by the Los Angeles County Board of Supervisors.

The signatures of the present owners of certain mineral rights, oil, natural gas and other hydrocarbons reserved in the deeds recorded in book 48959 page 347, book D-484 page 937, book 43721 page 397, book 44549 page 76, Official Records, have been omitted as necessary parties to sign the map under the provisions of Section 11587 (C-1) of the Subdivision Map Act, inasmuch as such ownership does not include a right of entry on the surface of the land.

and book B-2978 page 305, O.R.

IN RE TRACT NO. 22153) IT IS ORDERED THAT THE MAP OF TRACT NO. 30353 IS HEREBY APPROVED; THAT ALL STREETS, HIGHWAYS AND OTHER PUBLIC WAYS AND EASEMENTS SHOWN ON SAID MAP AND OFFERED FOR DEDICATION BE AND THE SAME ARE HEREBY ACCEPTED ON BEHALF OF THE PUBLIC.

I HEREBY CERTIFY THAT THE FOREGOING ORDER WAS ADOPTED BY THE BOARD OF SUPERVISORS AT A MEETING HELD [illegible] 1, 1965

GORDON T. NESVIG, CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA.

BY [signature] DEPUTY

RECORDED
AT REQUEST OF OWNER
OCT. 20, 1965
MIN. 12 PAST 4 P.M.
IN BOOK 748
AT PAGE 61
OF MAP RECORDS
LOS ANGELES COUNTY, CALIF.
RAY E. LEE
COUNTY RECORDER
BY [signature] Deputy
$7.00

I hereby certify that I have examined this map, that it conforms substantially to the tentative map and all approved alterations thereof; that all provisions of applicable State law and local subdivision ordinances have been complied with; and that I am satisfied that this map is technically correct.

Dated October 20, 1965

JOHN A. LAMBIE
COUNTY ENGINEER
By [signature] Deputy

BOOK 748 PAGE 62

SCALE : 1=60

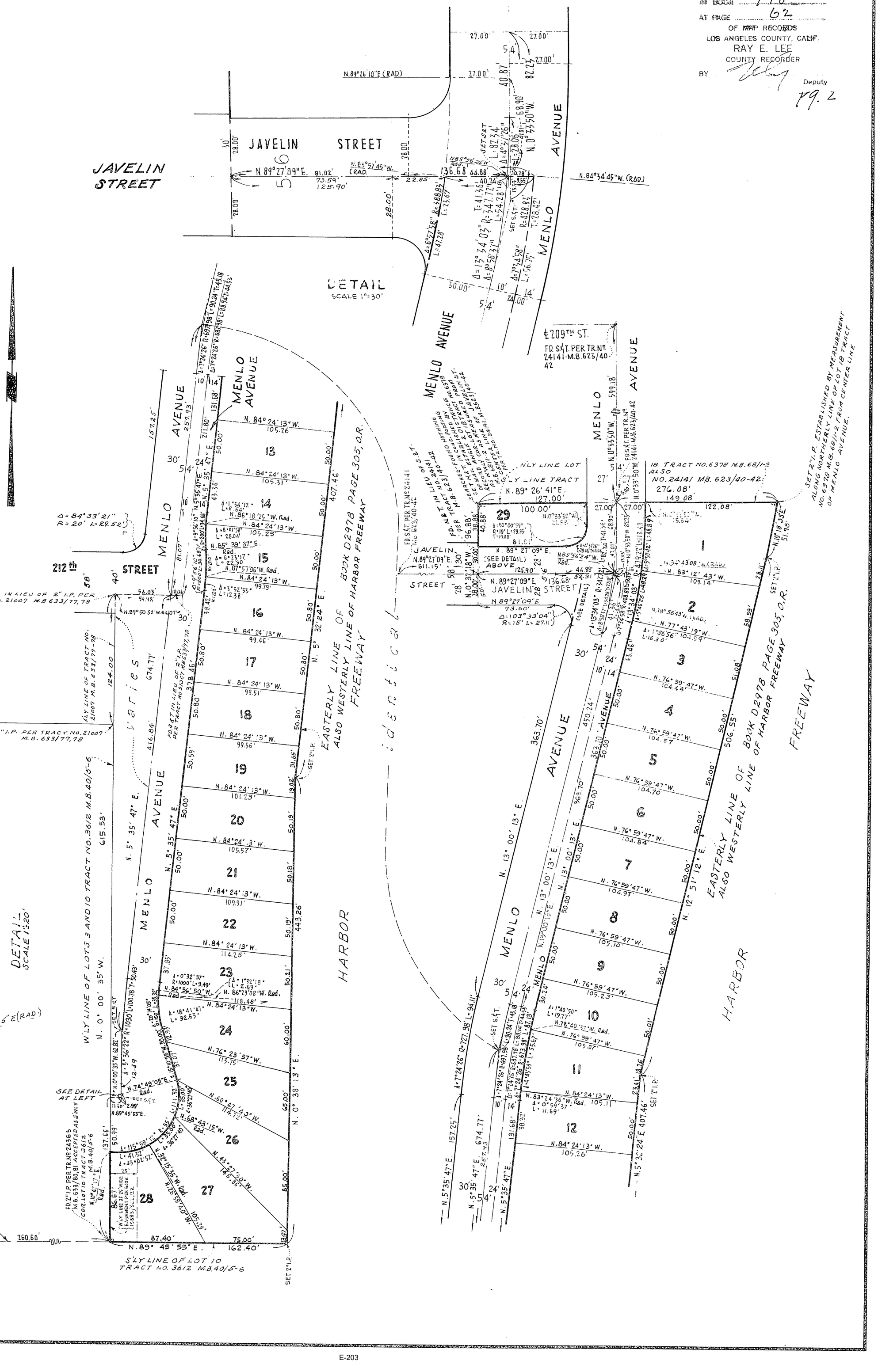
SHEET 2 OF 2 SHEETS

TRACT NO. 30353

IN UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES STATE OF CALIFORNIA

SURVEYED BY SOUTH BAY ENGINEERING CORPORATION

RECORDED
AT REQUEST OF OWNER
OCT. 20, 1965
12 MIN. PAST 4 P.M.
IN BOOK 748
AT PAGE 62
OF MAP RECORDS
LOS ANGELES COUNTY, CALIF.
RAY E. LEE
COUNTY RECORDER
BY _____ Deputy
pg. 2


JAVELIN STREET
N. 89°27'09"E. 81.02'
N. 89°27'09"E. 136.68'
N. 84°34'45"W. (RAD.)
MENLO AVENUE
DETAIL SCALE 1"=30'
212th STREET
FD. S&T IN LIEU OF 2" I.P. PER TRACT No. 21007 M.B. 633/77, 78
N. 89°50'52"W. 64.07'
FD. 2" I.P. PER TRACT No. 21007 M.B. 633/77-78
N. 0° 00' 35" W. 615.53'
N. 0° 00' 35" W. 137.66'
N. 89°45'55"E. 50.99'
N. 89°45'55"E. 13.30'
N. 74°49'05"E (RAD.)
N. 84° 24' 13" W. 105.26'
N. 84° 24' 13" W. 105.31'
N. 84° 24' 13" W. 105.25'
N. 84° 24' 13" W. 99.79'
N. 84° 24' 13" W. 99.46'
N. 84° 24' 13" W. 99.51'
N. 84° 24' 13" W. 99.56'
N. 84° 24' 13" W. 101.23'
N. 84° 24' 13" W. 105.57'
N. 84° 24' 13" W. 109.91'
N. 84° 24' 13" W. 114.25'
N. 76° 23' 57" W. 113.75'
N. 60° 47' 43" W. 114.72'
N. 43° 27' 39" W. 146.86'
N. 32° 15' 35" W. (RAD.) 105.09'
N. 26° 43' 10" W. 105.09'
N. 5° 35' 47" E. 674.77'
N. 5° 32' 24" E. 407.46'
N. 0° 38' 13" E.
N. 89° 45' 55" E. 260.60'
N. 89° 45' 55" E. 162.40'
87.40'
75.00'
FD. 2" I.P. PER TRACT No. 24363 M.B. 633/80, 81
S'LY LINE OF LOT 10 TRACT NO. 3612 M.B. 40/5-6
W'LY LINE OF LOTS 3 AND 10 TRACT NO. 3612 M.B. 40/5-6
N'LY LINE TR. No. 24363 M.B. 633/80, 81
W'LY LINE OF 75' WIDE EASEMENT PER BOOK D 1588, P. 324, O.R.
SEE DETAIL AT LEFT
SEE DETAIL ABOVE
FD. S&T IN LIEU OF 2" I.P. PER TRACT No. 21007 M.B. 633/77, 78
FD. 2" I.P. PER TRACT No. 24363
ACCEPTED AS W'LY LOT LINE TRACT 3612 M.B. 40/5-6
FD. S&T PER TR. No. 24141 M.B. 623/40-42
FD. S&T PER TR. No. 24141
FD. S&T IN LIEU OF S&T PER TRACT No. 24141 M.B. 623/40-42
FD. NAIL IN LIEU OF 2" I.P. PER TRACT No. 6378 M.B. 68/1-2
SET 2" I.P. ESTABLISHED BY MEASUREMENT ALONG NORTHERLY LINE OF LOT 18 TRACT NO. 6378 M.B. 68/1-2 FROM CENTER LINE OF MENLO AVENUE.
SET 2" I.P.
SET S&T
EASTERLY LINE OF BOOK D2978 PAGE 305, O.R. ALSO WESTERLY LINE OF HARBOR FREEWAY
HARBOR FREEWAY
N'LY LINE OF LOT 10 TRACT NO. 3612 M.B. 40/5-6
N'LY LINE TRACT
N'LY LINE LOT
18 TRACT NO. 6378 M.B. 68/1-2 ALSO NO. 24141 M.B. 623/40-42
276.08'
149.08'
122.08'
599.18'
363.70'
450.24'
506.55'
51.98'
#209TH ST.
FD. S&T. PER TR. No. 24141 M.B. 623/40-42
JAVELIN STREET
N. 89°27'09"E. 611.15'
N. 89°27'09"E. 136.68'
N. 89°27'09"E 73.60'
Δ=103°33'04" R=15' L=27.11'
N. 0°33'50"W.
N. 0°32'18"W.
N. 13° 00' 13" E.
N. 12° 51' 12" E.
Δ=84°33'21" R=20' L=29.52'
Δ=17°34'07" R=347.72' L=54.28'
Δ=84°00'59" R=19' L=29.85' T=19.00'
Δ=4°21'26" R=368.67' L=28.05'
Δ=6°57'58" R=388.82' L=47.28'
Δ=8°56'31" R=428.83' L=66.90'
Δ=7°24'58" R=428.83' L=56.77'
Δ=7°24'26" R=697.98' L=90.24' T=45.18'
Δ=7°24'26" R=673.98' L=88.94' T=44.53'
Δ=1°54'12" L=6.64'
Δ=8°01'58" L=28.04'
Δ=6°23'17" L=22.30'
Δ=3°32'53" L=12.38'
Δ=1°32'18" L=2.69'
Δ=18°41'47" L=32.65'
Δ=1°40'50" L=19.77'
Δ=1°56'56" L=16.30'
Δ=1°13'34" R=1342.03' L=41.76'
Δ=1°13'34" R=1342.03' L=41.76'
Δ=1°13'34" R=1342.03' L=28.72'
Δ=4°13'34" R=1342.03' L=99.08'
Δ=4°13'34" R=1342.03' L=99.08'
Δ=4°13'34" R=1342.03' L=99.08

$5 [illegible] 855/5

BOOK 858 PAGE 5

SCALE: 1" = 50'

TRACT No. 25102

IN THE CITY OF LOS ANGELES
STATE OF CALIFORNIA
FOR SUBDIVISION PURPOSES

BEING A SUBDIVISION OF A PORTION OF THE S.E. 1/4 OF SECTION 17, T. 2 N., R. 16 W., EX MISSION DE SAN FERNANDO PER MAP RECORDED IN BOOK 1, PAGES 605 AND 606, OF PATENTS, RECORDS OF LOS ANGELES COUNTY.

SHEET 1 OF 4 SHEETS

FILED
AT REQUEST OF OWNER
OCT. 30, 1975
27 MIN. PAST 3 P.M.
IN BOOK 858
AT PAST 5
OF MAP RECORDS
LOS ANGELES, COUNTY CALIF.
Registrar-Recorder
BY K. Spreitz
DEPUTY
$ 11.00

We hereby certify that we are the owers of or are interested in the land included within the subdivision shown on this map within the distinctive border lines, and we consent to the preparation and filing of said map and subdivision. And we hereby dedicate to the public use the streets, highways and other public ways, shown on said map within said subdivision.

As a dedication to public use, we hereby abandon and waive in favor of the public, as a covenant running with the land and binding upon our heirs, successors and assigns, all rights of vehicular ingress and egress from Lot 50 to MAYALL street within 50 feet OF WINNETKA AVENUE and from Lots 8, 9, 10, 21, 22, 36, 37, 38, and 50 to WINNETKA AVENUE, such abandonment to continue only for so long as any of WINNETKA AVENUE and Moyall Street within this subdivision remain public streets and said lots remain in a residential zone, it being understood that at such time as any of said lots is rezoned to a nonresidential zone this abandonment and waiver shall automatically terminate as to such lot. We also hereby grant and dedicate to the City of Los Angeles easements for public utility purposes and storm drain purposes over the strips of land so designated on said map. We further hereby grant and dedicate to the City of Los Angeles for public use, all pubic utility facilities within said subdivision constructed and/or required as part of the improvements thereof.

W. & B. BUILDERS, INC., A Delaware Corporation, Who Acquired Title As W. and B. Builders, Inc., (Owner)

D.F. Thompson
Vice-President

John W. Vail
Secretary

TITLE INSURANCE AND TRUST COMPANY, A California Corporation, Trustee Under Deed of Trust Recorded In Book T-8511, Page 968 of Official Records, Records of Los Angeles County.

Basil A. Jackson Jr.
Vice President

L.G. Coffman
Asst. Secretary

I HEREBY CERTIFY THAT [illegible]
AMT. REQUIRED [illegible]
[illegible]
LOS ANGELES [illegible]
BY Edwin L. Cruz

CONTINENTAL AUXILIARY COMPANY, A California Corporation, Trustee Under Deed of Trust Recorded August 29, 1975 as Instrument No. 6723, RECORDS OF LOS ANGELES County.

[illegible]
Asst. Vice President

H.G. Johnson
Assistant Secretary

State of California } S.S.
County of Los Angeles }

On this 19th day of September 1975, before me M. L. Goble a Notary Public in and for said County and State personally appeared R. E. South known to me to be the Asst. Vice President and H. G. Johnson known to me to be the Asst. Secretary of CONTINENTAL AUXILIARY COMPANY, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation herein named and acknowledged to me that such corporation executed the same, as TRUSTEE.

M L Goble
Notary Public

I hereby certify that I am a Registered Civil Engineer of the State of California; that this map, consisting of 4 sheets, correctly represents a true and complete survey made under my supervision, in Feb. 1975 that the monuments of the character and locations shown hereon are in place or will be in place within six months after being notified of the date of acceptance of the street improvements, not to exceed twenty-four months following the filing date of this map; that said monuments are sufficient to enable the survey to be readily retraced and that the notes to center line monuments shown as "TO BE SET" will be on file in the office of the City Engineer within six months after being notified of the date of acceptance of the street improvements, not to exceed twenty-four months, following the filing date hereon.

Edward L Pearson
Edward L. Pearson R.C.E. 9783
E.L. PEARSON & ASSOCIATES

BASIS OF BEARINGS:
The bearing N89°59'18"W of the center line of DEVONSHIRE STREET as shown on map of Tract No. 26357, as recorded in Book 675, Pages 75 and 76, of Maps, Records of Los Angeles County was taken as the basis of bearings shown on this map.

State of California } S.S.
County of Los Angeles }

On this 20 day of MAY 1975 before me STEPHANIE J. CHAMBERS a Notary Public in and for said County and State, personally appeared D.F. THOMPSON known to me to be the Vice President and JOHN W. VAIL known to me to be the Secretary of W. & B. BUILDERS, INC., the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation herein named and acknowledged to me that such corporation executed the same.

Stephanie J. Chambers
Notary Public

State of California } S.S.
County of Los Angeles }

On this 5th day of June 19[illegible] before me [illegible] a Notary Public in and for said County and State, personally appeared BASIL A. JACKSON JR. known to me to be the Vice President and L. G. COFFMAN known to me to be the Ass't Secretary of TITLE INSURANCE AND TRUST COMPANY, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation herein named and acknowledged to me that such corporation executed the same as trustee.

[illegible]
Notary Public

The signature of the City of Los Angeles, easement holder by deed recorded October 6, 1975, as instrument No. 2082 and as disclosed by deeds recorded in Book D-2570, Page 456 and in Book D-2680, Page 715, All of Official Records, Records of Los Angeles County, has been omitted under the provisions of Section 66436, Subsection (b)(1) of the Subdivision Map Act, it's interest is such that it cannot ripen into a fee title and said signature is not required by The Los Angeles City Council.

The signatures of the easement holders as disclosed by deed recorded in Book 20967, Page 101 of Official Records, Records of Los Angeles County, have been omitted under the provisions of Section 66436, Subsection (b)(2) of The Subdivision Map Act, since the present ownership of said easement is impracticable to determine

I HEREBY CERTIFY THAT A GOOD AND SUFFICIENT BOND IN THE SUM OF $ 14,925.00 DULY APPROVED BY THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, HAS BEEN FILED WITH SAID BOARD AS SURETY FOR THE PAYMENT OF TAXES AND SPECIAL ASSESSMENTS COLLECTED AS TAXES ON LAND SHOWN ON MAP OF Tract No. 25102 AS REQUIRED BY LAW.

JAMES S. MIZE, EXECUTIVE OFFICER - CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

BY Edwin L. Cruz DEPUTY

SPE
that
[illegible]
NONE
Date: OCT. 14 [illegible]5
[illegible]
J. Farias
[illegible] XXXXXX

October 28, [illegible]5
[illegible]
Donald C. Tillman
[illegible]

SAFECO TITLE INSURANCE COMPANY
[illegible] 7512932 Oct. 15,
5
W & B BUILDERS, INC.
TITLE INSURANCE AND TRUST COMPANY
CONTINENTAL AUXILIARY COMPANY

October 29, 5
Donald C. Tillman
[illegible]

[illegible] other properties offered for dedication [illegible] unless otherwise relinquished or abandoned [illegible] ingress and egress rights shown on said map and thereon offered for dedication, except those rights [illegible] Future Alley, provided that nothing herein contained shall be construed as an acceptance of any improvements made to or upon any street, road, alley, highway or easement shown on this map.

Date: October 29, 1975
[illegible] LANNING, City Clerk
By [illegible] Deputy

$2.00 — 8596

BOOK 858 PAGE 6

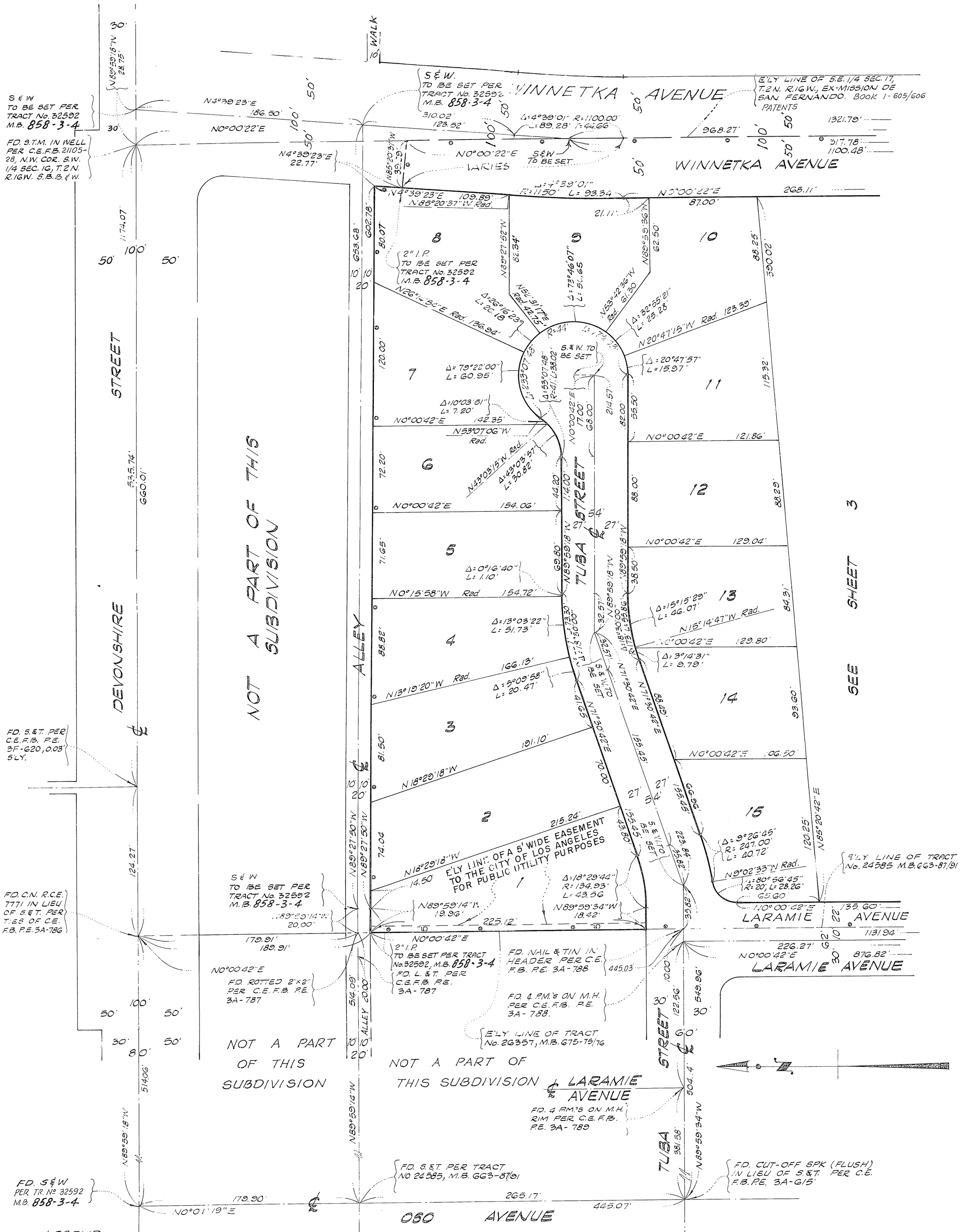
SCALE: 1"= 50'

TRACT No. 25102

IN THE CITY OF LOS ANGELES
STATE OF CALIFORNIA

SHEET 2 OF 4 SHEETS

FILED WITH LOS ANGELES COUNTY RECORDER
OCT 30 1975



LEGEND

o o o = INDICATES THE BOUNDARY OF THE LAND BEING SUBDIVIDED.

#2 - 85917

BOOK 858 PAGE 7

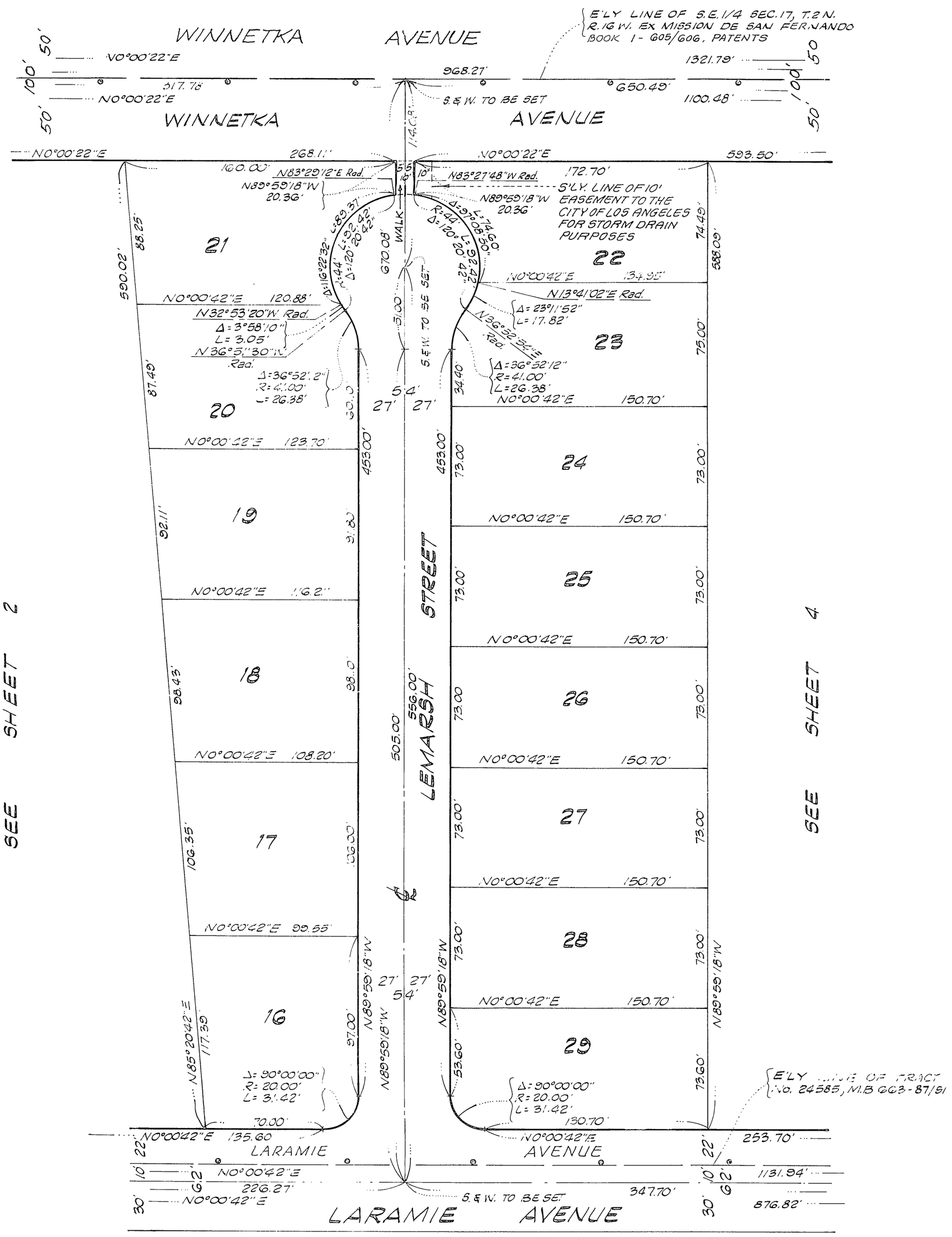
SCALE: 1" = 50'

TRACT No. 25102

IN THE CITY OF LOS ANGELES
STATE OF CALIFORNIA

SHEET 3 OF 4 SHEETS

FILED WITH LOS ANGELES COUNTY RECORDER
OCT 30 1975



#27

85818

BOOK 858 PAGE 8

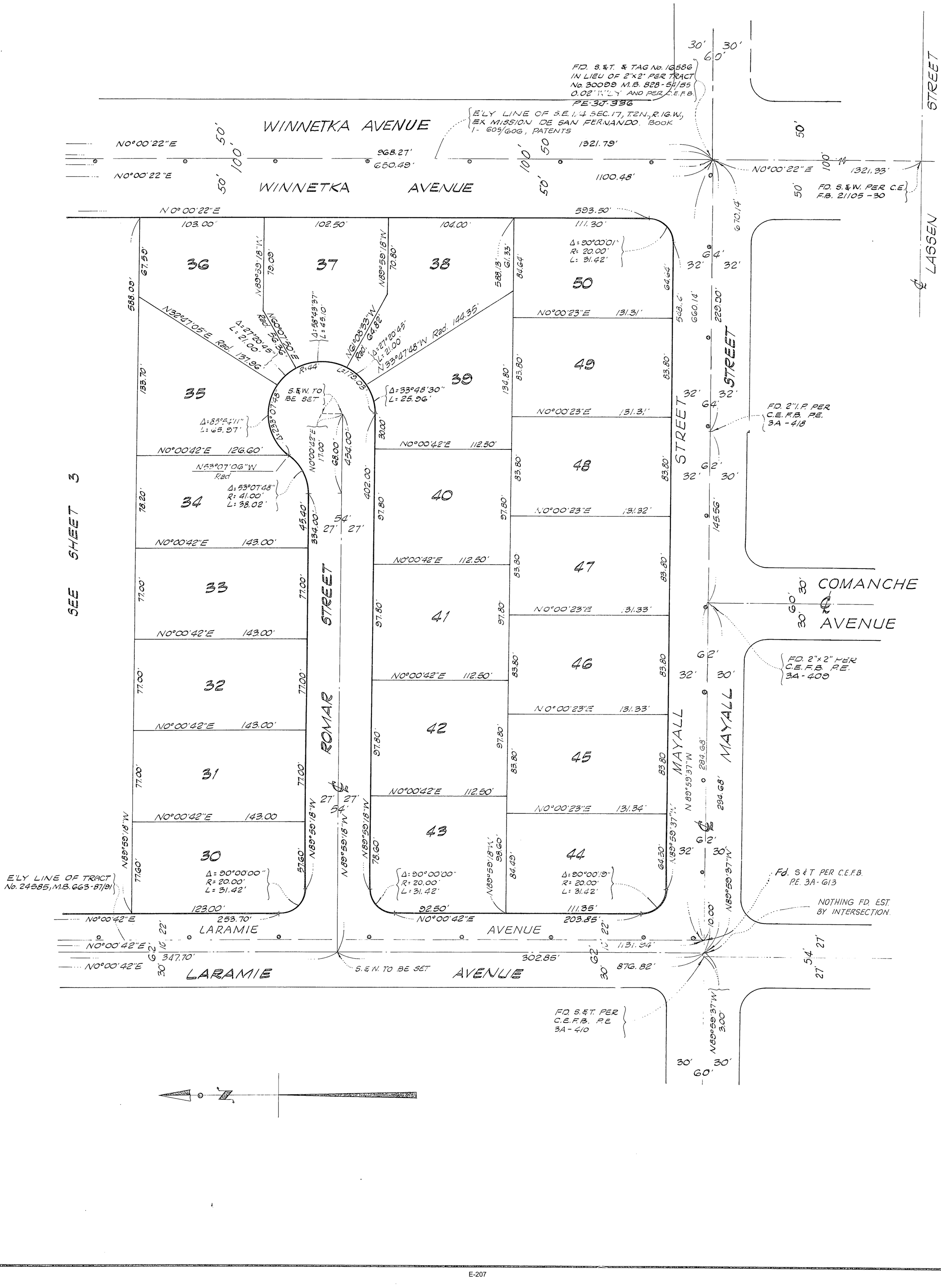
SCALE: 1"=50'

TRACT No. 25102

IN THE CITY OF LOS ANGELES
STATE OF CALIFORNIA

SHEET 4 OF 4 SHEETS

FILED WITH LOS ANGELES COUNTY RECORDER
OCT 30 1975



BOOK 858 PAGE 41

SHEET 1 OF 2 SHEETS

TRACT NO. 31355

IN UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

BEING A SUBDIVISION OF A PORTION OF LOT 2, AND LOT 11 OF TRACT NO. 3612, AS PER MAP RECORDED IN BOOK 40, PAGES 5 & 6, OF MAPS RECORDS OF LOS ANGELES COUNTY

FILED
AT REQUEST OF OWNER
NOV 13, 1975
21 MIN. PAST 3 PM
BK 858
PG 41-42
OFFICIAL RECORDS
LOS ANGELES COUNTY, CALIF.
Registrar-Recorder
BY J. Garcia
Deputy
$7.00

— LANCO —

LAND CONSULTANTS AND ENGINEERS

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF OR ARE INTERESTED IN THE LANDS INCLUDED WITHIN THE SUBDIVISION SHOWN ON THIS MAP WITHIN THE DISTINCTIVE BORDER LINES, AND WE CONSENT TO THE PREPARATION AND FILING OF SAID MAP AND SUBDIVISION.

WE HEREBY DEDICATE TO THE PUBLIC USE ALL STREETS, HIGHWAYS, AND OTHER PUBLIC WAYS SHOWN ON SAID MAP AS A DEDICATION TO PUBLIC USE, WHILE ALL OF VERMONT AVENUE WITHIN OR ADJACENT TO THIS SUBDIVISION REMAINS A PUBLIC STREET, WE HEREBY ABANDON ALL RIGHTS OF DIRECT INGRESS AND EGRESS FROM ABUTTING LOTS TO THE SAID STREET, IF ANY PORTION OF SAID STREET WITHIN OR ADJACENT TO THIS SUBDIVISION IS VACATED, SUCH VACATION TERMINATES THE ABOVE DEDICATION AS TO THE PART VACATED. WE ALSO DEDICATE TO THE COUNTY OF LOS ANGELES EASEMENTS FOR SANITARY SEWER PURPOSES AND DRAINAGE PURPOSES AS SHOWN ON SAID MAP AND USES INCIDENT THERETO, INCLUDING THE RIGHT TO MAKE CONNECTIONS THEREWITH FROM ANY ADJOINING PROPERTIES.

FRANCIS P. TORINO
OWNER

Francis P. Torino
FRANCIS P. TORINO

WE FURTHER CERTIFY THAT, EXCEPT AS SHOWN ON A COPY OF THIS MAP ON FILE IN THE OFFICE OF THE COUNTY ROAD COMMISSIONER, WE KNOW OF NO EASEMENT OR STRUCTURE EXISTING WITHIN THE EASEMENTS HEREIN OFFERED FOR DEDICATION TO THE PUBLIC, OTHER THAN PUBLICLY OWNED WATER LINES, SEWERS, OR STORM DRAINS, THAT WE WILL GRANT NO RIGHT OR INTEREST WITHIN THE BOUNDARIES OF SAID EASEMENTS OFFERED TO THE PUBLIC, EXCEPT WHERE SUCH RIGHT OR INTEREST IS EXPRESSLY MADE SUBJECT TO THE SAID EASEMENTS.

I HEREBY CERTIFY THAT I AM A REGISTERED CIVIL ENGINEER OF THE STATE OF CALIFORNIA; THAT THIS FINAL MAP, CONSISTING OF 2 SHEETS, CORRECTLY REPRESENTS A TRUE AND COMPLETE SURVEY MADE UNDER MY SUPERVISION ON OCTOBER , 1975; THAT THE MONUMENTS OF THE CHARACTER AND LOCATION SHOWN HEREON ARE IN PLACE OR WILL BE IN PLACE WITHIN TWENTY-FOUR MONTHS FROM THE FILING DATE OF THIS MAP; THAT SAID MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE READILY RETRACED AND THAT TIE NOTES TO ALL CENTERLINE MONUMENTS SHOWN AS "TO BE SET" WILL BE ON FILE IN THE OFFICE OF THE COUNTY ENGINEER WITHIN TWENTY-FOUR MONTHS FROM THE FILING DATE SHOWN HEREON.

CLARK M. LEDYARD R.C.E. 13157

COUNTY OF LOS ANGELES } S. S.
STATE OF CALIFORNIA }

ON THIS 31ST DAY OF OCTOBER , 1975, BEFORE ME STEVEN J. CAMERON A NOTARY PUBLIC IN AND FOR SAID STATE, PERSONALLY APPEARED FRANCIS P. TORINO KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME.

Steven J. Cameron
STEVEN J. CAMERON

IN RE TRACT NO. 31355) IT IS ORDERED THAT THE MAP OF TRACT NO 31355 IS HEREBY APPROVED

THAT ALL STREETS, HIGHWAYS AND OTHER PUBLIC WAYS AND EASEMENTS SHOWN ON SAID MAP AND OFFERED FOR DEDICATION BE AND THE SAME ARE HEREBY ACCEPTED ON BEHALF OF THE PUBLIC.

THAT THE OFFER OF DEDICATION FOR ABANDONMENT OF THE RIGHTS OF INGRESS AND EGRESS BE AND THE SAME IS HEREBY ACCEPTED ON BEHALF OF THE PUBLIC.

I HEREBY CERTIFY THAT THE FOREGOING ORDER WAS ADOPTED BY THE BOARD OF SUPERVISORS AT A MEETING HELD

Unanimous

JAMES S. MIZE, EXECUTIVE OFFICER - CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

BY David E. Lee DEPUTY

I HEREBY CERTIFY THAT ALL CERTIFICATES HAVE BEEN FILED AND DEPOSITS HAVE BEEN MADE THAT ARE REQUIRED UNDER THE PROVISIONS OF SECTIONS 66492 AND 66493 OF THE SUBDIVISION MAP ACT.

JAMES S. MIZE, EXECUTIVE OFFICER - CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

BY David E. Lee DEPUTY

I HEREBY CERTIFY THAT I HAVE EXAMINED THIS MAP, THAT IT CONFORMS SUBSTANTIALLY TO THE TENTATIVE MAP AND ALL APPROVED ALTERATIONS THEREOF; THAT ALL PROVISIONS OF STATE LAW AND LOCAL SUBDIVISION ORDINANCES APPLICABLE AT THE TIME OF APPROVAL OF THE TENTATIVE MAP HAVE BEEN COMPLIED WITH; AND THAT I AM SATISFIED THAT THIS MAP IS TECHNICALLY CORRECT.

DATED: November 13 1975

HARVEY T. BRANDT
COUNTY ENGINEER

BY John Deems
DEPUTY

THE SIGNATURES OF THE PRESENT OWNERS OF THE OIL, PETROLEUM, GAS, ASPHALTUM AND KINDRED SUBSTANCES RESERVED IN DEED RECORDED AS INSTRUMENT Nº 591 ON NOVEMBER 13, 1975, OF OFFICIAL RECORDS, RECORDS OF LOS ANGELES COUNTY HAVE BEEN OMITTED UNDER THE PROVISIONS OF SECTION 66436, SUBSECTION (b)(3) OF THE SUBDIVISION MAP ACT, INASMUCH AS SUCH OWNERSHIP DOES NOT INCLUDE A RIGHT OF ENTRY ON THE SURFACE OF THE LAND.

THE SIGNATURES OF DOMINGUEZ WATER CORPORATION, A CORPORATION, SUCCESSOR TO TITLE INSURANCE AND TRUST COMPANY, A CORPORATION OWNERS OF THE BLANKET EASEMENTS CREATED BY RESERVATION IN DEEDS RECORDED IN BOOK 3449 PAGE 203, BOOK 5516 PAGE 145 OF OFFICIAL RECORDS, RECORDS OF LOS ANGELES COUNTY, HAVE BEEN OMITTED UNDER THE PROVISIONS OF SECTION 66436, SUBSECTION (b)(1) OF THE SUBDIVISION MAP ACT, THEIR INTEREST IS SUCH THAT IT CANNOT RIPEN INTO A FEE TITLE AND SAID SIGNATURES ARE NOT REQUIRED BY THE LOCAL AGENCY.

THE SIGNATURES OF DOMINGUEZ WATER CORPORATION, A CORPORATION, SUCCESSOR TO DOMINGUEZ WATER COMPANY, A CORPORATION, OWNERS OF THE BLANKET EASEMENT CREATED BY GRANT IN DEED RECORDED IN BOOK 1515 PAGE 265 OF OFFICIAL RECORDS, RECORDS OF LOS ANGELES COUNTY, HAVE BEEN OMITTED UNDER THE PROVISIONS OF SECTION 66436, SUBSECTION (b) (1) OF THE SUBDIVISION MAP ACT, THEIR INTEREST IS SUCH THAT IT CANNOT RIPEN INTO A FEE TITLE AND SAID SIGNATURES ARE NOT REQUIRED BY THE LOCAL AGENCY.

THE SIGNATURES OF KATHERINE TRANCHINA, ALSO KNOWN AS KATHERINE LUPO OWNER OF 1/4 INTEREST IN ALL OIL, GAS, MINERALS AND OTHER HYDROCARBON SUBSTANCES BY RESERVATION IN THE DEED RECORDED IN BOOK 46507 PAGE 150 OF OFFICIAL RECORDS, RECORDS OF LOS ANGELES COUNTY HAS BEEN OMITTED UNDER THE PROVISIONS OF SECTION 66436, SUBSECTION (b) (3) (i) OF THE SUBDIVISION MAP ACT, INASMUCH AS SUCH OWNERSHIP DOES NOT INCLUDE A RIGHT OF ENTRY ON THE SURFACE OF THE LAND. SAID RIGHTS OF ENTRY ON THE SURFACE WERE RELINQUISHED BY DEED RECORDED FEBRUARY 9, 1973 IN BOOK D-5758 PAGE 425 OF OFFICIAL RECORDS.

THE SIGNATURE OF VIRGINIA GRANA OWNER OF 1/4 INTEREST IN ALL OIL, GAS, MINERALS AND OTHER HYDROCARBON SUBSTANCES BY RESERVATION IN THE DEED RECORDED IN BOOK 46507 PAGE 150, OF OFFICIAL RECORDS, RECORDS OF LOS ANGELES COUNTY HAS BEEN OMITTED UNDER THE PROVISIONS OF SECTION 66436, SUBSECTION (b)(3)(i) OF THE SUBDIVISION MAP ACT, INASMUCH AS SUCH OWNERSHIP DOES NOT INCLUDE A RIGHT OF ENTRY ON THE SURFACE OF THE LAND. SAID RIGHTS OF ENTRY ON THE SURFACE WERE RELINQUISHED BY DEED RECORDED FEBRUARY 13, 1973 IN BOOK D-5753 PAGE 421 OF OFFICIAL RECORDS.

THE SIGNATURES OF CONCETTA LUPO AND UNITED CALIFORNIA BANK, A CORPORATION, AS TRUSTEE UNDER THE WILL AND DECREE OF DISTRIBUTION OF THE ESTATE OF JOE LUPO, DECEASED, OWNERS OF 1/4 TH INTEREST IN AND TO ALL OIL, GAS, MINERALS AND OTHER HYDROCARBON SUBSTANCES IN A PORTION OF SAID LAND, BY RESERVATION IN DEED RECORDED IN BOOK 46507 PAGE 150 OF OFFICIAL RECORDS, RECORDS OF LOS ANGELES COUNTY HAVE BEEN OMITTED UNDER THE PROVISIONS OF SECTION 66436, SUBSECTION (b) (1) OF THE SUBDIVISION MAP ACT, THEIR INTEREST IS SUCH THAT IT CANNOT RIPEN INTO A FEE TITLE AND SAID SIGNATURES ARE NOT REQUIRED BY THE LOCAL AGENCY.

BASIS OF BEARINGS

THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARING N.1°12'52"W OF THE CENTERLINE OF VERMONT AVENUE AS SHOWN ON TRACT Nº 24141 M.B. 663, PAGES 43-46.

BOOK 858 PAGE 42

SCALE: 1"=40.9'

SHEET 2 OF 2 SHEETS

TRACT NO. 31388

IN UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

— LANCO —

LAND CONSULTANTS AND ENGINEERS

FILED WITH LOS ANGELES COUNTY RECORDER
NOV 18 '77

o o o o o o o INDICATES THE BOUNDARY OF THE LAND BEING SUBDIVIDED BY THIS MAP.

THE DASHED LINES WITHIN STREET R/W'S OF WAY INDICATE PROPERTY LINES FOR THE PURPOSE OF COMPUTING REQUIRED AREA AND BUILDING SETBACKS, AND ARE NOT FOR THE PURPOSE OF CONVEYING.

MENLO AVENUE
DRIVE
CONRADI AVENUE
STREET
CLARION
21ST
VERMONT AVENUE
FND. 3/4" I.P. PER TRACT NO. 30353 M.B. 748/61-62
W'LY LINE OF LOTS 3 & 10 OF TRACT NO. 3612 M.B. 40/5-6 & OF TRACT NO. 30353 M.B. 748/61-62
FND. 3/4" I.P. PER TRACT NO. 30353 M.B. 748/61-62
FND. 2" I.P. PER TRACT NO. 24363 M.B. 633/80-81
FND. 2" I.P. PER TRACT NO. 30353 M.B. 748/61-62
SET TACKS OF TRACT NO. 21207 M.B. 633/77-78, D 4717/947 O.R. & D 4403/992 O.R. ESTABLISHED BY FOUND MONUMENTS
FND. 2" I.P. 12" DOWN, RE. 7191 NO REFERENCE ACCEPTED AS BEING ON INTERSECTION OF S'LY LINE OF D 4717/947 O.R. AND E'LY R/W LINE VERMONT AVENUE (100' WIDE)
FND. 2" I.P., 12" DOWN, R.E. 7191, NO REFERENCE, ACCEPTED AS BEING ON INTERSECTION OF N'LY LINE OF LOT 14, TRACT NO. 3612 M.B. 40/5-6 & E'LY R/W LINE VERMONT AVENUE (100' WIDE)
FND. 5/8" I.R. W/ L.S.T. TAG PER L.A. CO. RD. DEPT. F.B. 0520/636-637
FND. 5/8" I.R. W/ L.S.T. TAG PER L.A. CO. RD. DEPT. F.B. 0520/636-637
N'LY LINE OF LOT 14 TRACT NO. 3612 M.B. 40/5-6 AND TRACT NO. 24363 M.B. 633/80-81 ESTABLISHED BY FOUND MONUMENTS
SET 1" I.P. W/ L.S.T. TAG
SET TO BE SET
SET 3/4" I.P. W/ L.S.T. TAG
SET 5/8" I.R. W/ L.S.T. TAG
SET 1" I.P. W/ L.S.T. TAG

SHEET 1 OF 3 SHEETS

F- 273207

TRACT Nº 32978

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA.

BEING A SUBDIVISION OF A PORTION OF THE 2463.79 ACRE TRACT, ALLOTTED TO VICTORIA DOMINGUEZ de CARSON, BY DECREE OF PARTITION OF A PORTION OF THE RANCHO SAN PEDRO AS SHOWN ON MAP FILED IN CASE NO. 3284 OF THE SUPERIOR COURT OF THE STATE OF CALIFORNIA FOR THE COUNTY OF LOS ANGELES.

FILED
AT REQUEST OF OWNER
MARCH 17, 1977
MIN. 1 PAST 4 P.M.
IN BOOK 874
AT PAGE 52
OF MAP RECORDS
LOS ANGELES COUNTY, CALIF.
Registrar-Recorder
BY John Lewis
Deputy
$9.00

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF OR ARE INTERESTED IN THE LANDS INCLUDED WITHIN THE SUBDIVISION SHOWN ON THIS MAP WITHIN THE DISTINCTIVE BORDER LINES, AND WE CONSENT TO THE PREPARATION AND FILING OF SAID MAP AND SUBDIVISION. WE HEREBY DEDICATE TO THE PUBLIC USE ALL STREETS, HIGHWAYS, AND OTHER PUBLIC WAYS SHOWN ON SAID MAP. WE FURTHER CERTIFY THAT, EXCEPT AS SHOWN ON A COPY OF THIS MAP ON FILE IN THE OFFICE OF THE COUNTY ROAD COMMISSIONER, WE KNOW OF NO EASEMENT OR STRUCTURE EXISTING WITHIN THE EASEMENTS HEREIN OFFERED FOR DEDICATION TO THE PUBLIC, OTHER THAN PUBLICLY OWNED WATER LINES, SEWERS, OR STORM DRAINS, THAT WE WILL GRANT NO RIGHT OR INTEREST WITHIN THE BOUNDARIES OF SAID EASEMENTS OFFERED TO THE PUBLIC, EXCEPT WHERE SUCH RIGHT OR INTEREST IS EXPRESSLY MADE SUBJECT TO SAID EASEMENTS.

V-2 INVESTMENT CO., a corporation, as Trustee, Owner.

Victor E. Cuni — PRESIDENT

Fred G. Buschhausen — SECRETARY

~~UNION~~ BANK, a California corporation, trustee under a ~~deed of~~ trust recorded ~~in Book~~ T 6234 Page 726, ~~Official~~ Records.

PRESIDENT

SECRETARY

THE SIGNATURES OF DOMINGUEZ WATER COMPANY, A CALIFORNIA CORPORATION, EASEMENT HOLDER AS DISCLOSED BY DEED RECORDED IN BOOK 1515, PAGE 265 OF O.R., RECORDS OF LOS ANGELES COUNTY, HAVE BEEN OMITTED UNDER THE PROVISIONS OF SECTION 66436, SUBSECTION (b)(1) OF THE SUBDIVISION MAP ACT, THEIR INTEREST IS SUCH THAT IT CANNOT RIPEN INTO A FEE TITLE AND SAID SIGNATURES ARE NOT REQUIRED BY THE LOCAL AGENCY. SAID EASEMENT IS BLANKET IN NATURE AND FOR WATER LINE PURPOSES.

IN RE TRACT NO. 32978 IT IS ORDERED THAT THE MAP OF TRACT NO. 32978 IS HEREBY APPROVED; AND THAT THE BOND IN THE AMOUNT OF $ 3750.00 FILED WITH THE BOARD TO INSURE PAYMENT OF TAXES AND SPECIAL ASSESSMENT COLLECTED AS TAXES BE APPROVED.

THAT ALL STREETS, HIGHWAYS AND OTHER PUBLIC WAYS AND EASEMENTS SHOWN ON SAID MAP AND OFFERED FOR DEDICATION BE AND THE SAME ARE HEREBY ACCEPTED ON BEHALF OF THE PUBLIC.

I HEREBY CERTIFY THAT THE FOREGOING ORDER WAS ADOPTED BY THE BOARD OF SUPERVISORS AT A MEETING HELD _____

JAMES S. MIZE, EXECUTIVE OFFICER - CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

BY Julie Bundy DEPUTY

I HEREBY CERTIFY THAT ALL CERTIFICATES HAVE BEEN FILED AND DEPOSITS HAVE BEEN MADE THAT ARE REQUIRED UNDER THE PROVISIONS OF SECTIONS 66493 and 66493 OF THE SUBDIVISION MAP ACT.

JAMES S. MIZE, EXECUTIVE OFFICER - CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

BY Julie Bundy DEPUTY

I HEREBY CERTIFY THAT I HAVE EXAMINED THIS MAP, THAT IT CONFORMS SUBSTANTIALLY TO THE TENTATIVE MAP AND ALL APPROVED ALTERATIONS THEREOF; THAT ALL PROVISIONS OF STATE LAW AND LOCAL SUBDIVISION ORDINANCES APPLICABLE AT THE TIME OF APPROVAL OF THE TENTATIVE MAP HAVE BEEN COMPLIED WITH; AND THAT I AM SATISFIED THAT THIS MAP IS TECHNICALLY CORRECT.

DATED MAR 17, 1977

COUNTY ENGINEER

BY Frank Cesar DEPUTY

I HEREBY CERTIFY THAT I AM A LICENSED LAND SURVEYOR OF THE STATE OF CALIFORNIA; THAT THIS FINAL MAP, CONSISTING OF 3 SHEETS, IS A TRUE AND COMPLETE SURVEY AS SHOWN, AND WAS MADE BY ME OR UNDER MY DIRECTION MAY 30, 1976 THAT THE MONUMENTS OF THE CHARACTER AND LOCATIONS SHOWN HEREON ARE IN PLACE; OR WILL BE IN PLACE WITHIN TWENTY-FOUR MONTHS FROM THE FILING DATE OF THIS MAP; THAT SAID MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

THAT TIE NOTES TO ALL CENTERLINE MONUMENTS SHOWN AS "TO BE SET" WILL BE ON FILE IN THE OFFICE OF THE COUNTY ENGINEER WITHIN TWENTY-FOUR MONTHS FROM THE FILING DATE SHOWN HEREON.

David O. Winchell

DAVID O. WINCHELL L.S. 3741

BASIS OF BEARINGS
THE BEARING N 0°08'54" W FOR THE CENTERLINE OF BERENDO AVENUE AS SHOWN ON TRACT Nº 24831, M.B. 645/48-50 WAS USED AS THE BASIS OF BEARINGS FOR THIS MAP

ALL 2" I.P.'S ARE SET FLUSH.

STATE OF CALIFORNIA }
COUNTY OF LOS ANGELES } S.S.

ON THIS 1 DAY OF _____ 1976 BEFORE ME _____, A NOTARY PUBLIC IN AND FOR SAID STATE, PERSONALLY APPEARED _____ KNOWN TO ME TO BE THE _____ PRESIDENT AND _____ KNOWN TO ME TO BE THE _____ SECRETARY OF V-2 INVESTMENT CO., THE CORPORATION THAT EXECUTED THE WITHIN INSTRUMENT AND KNOWN TO ME TO BE THE PERSONS WHO EXECUTED THE WITHIN INSTRUMENT ON BEHALF OF THE CORPORATION HEREIN NAMED AND ACKNOWLEDGED TO ME THAT SUCH CORPORATION EXECUTED THE SAME AS TRUSTEE.

NOTARY PUBLIC

MY COMMISSION EXPIRES _____

~~STATE OF CALIFORNIA }~~
~~COUNTY OF LOS ANGELES } S.S.~~

ON THIS _____ DAY OF _____ 1976 BEFORE ME _____, A NOTARY PUBLIC IN AND FOR SAID STATE, PERSONALLY APPEARED _____ KNOWN TO ME TO BE THE _____ PRESIDENT AND _____ KNOWN TO ME TO BE THE _____ SECRETARY OF FIRST AMERICAN TITLE INSURANCE COMPANY, THE CORPORATION THAT EXECUTED THE WITHIN INSTRUMENT AND KNOWN TO ME TO BE THE PERSONS WHO EXECUTED THE WITHIN INSTRUMENT ON BEHALF OF THE CORPORATION HEREIN NAMED AND ACKNOWLEDGED TO ME THAT SUCH CORPORATION EXECUTED THE SAME AS TRUSTEE.

NOTARY PUBLIC

MY COMMISSION EXPIRES _____

~~STATE OF CALIFORNIA }~~
~~COUNTY OF LOS ANGELES } S.S.~~

ON THIS _____ DAY OF _____ 1976 BEFORE ME _____, A NOTARY PUBLIC IN AND FOR SAID STATE, PERSONALLY APPEARED _____ KNOWN TO ME TO BE THE _____ PRESIDENT AND _____ KNOWN TO ME TO BE THE _____ SECRETARY OF THE CORPORATION THAT EXECUTED THE WITHIN INSTRUMENT AND KNOWN TO ME TO BE THE PERSONS WHO EXECUTED THE WITHIN INSTRUMENT ON BEHALF OF THE CORPORATION HEREIN NAMED AND ACKNOWLEDGED TO ME THAT SUCH CORPORATION EXECUTED THE SAME AS TRUSTEE.

NOTARY PUBLIC

MY COMMISSION EXPIRES _____

BOOK 874 PAGE 23

SHEET 2 OF 3 SHEETS

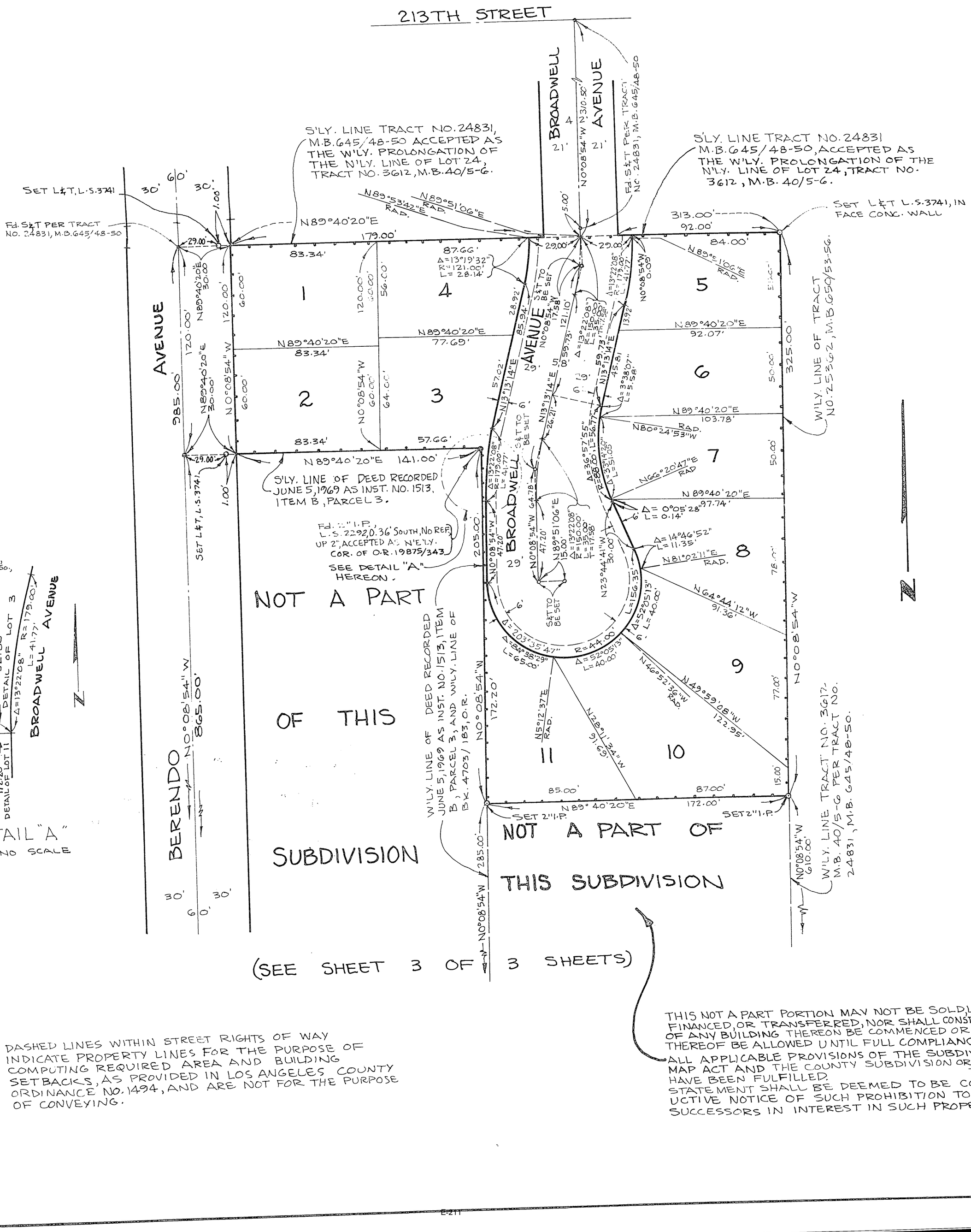
SCALE: 1"=40'

TRACT Nº 32978

IN THE UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

FILED WITH LOS ANGELES
COUNTY RECORDER
MAR 17 1977

INDICATES THE BOUNDARY OF THE LAND BEING SUBDIVIDED BY THIS MAP.



NOTE: DASHED LINES WITHIN STREET RIGHTS OF WAY INDICATE PROPERTY LINES FOR THE PURPOSE OF COMPUTING REQUIRED AREA AND BUILDING SETBACKS, AS PROVIDED IN LOS ANGELES COUNTY ORDINANCE NO. 1494, AND ARE NOT FOR THE PURPOSE OF CONVEYING.

THIS NOT A PART PORTION MAY NOT BE SOLD, LEASED, FINANCED, OR TRANSFERRED, NOR SHALL CONSTRUCTION OF ANY BUILDING THEREON BE COMMENCED OR OCCUPANCY THEREOF BE ALLOWED UNTIL FULL COMPLIANCE WITH ALL APPLICABLE PROVISIONS OF THE SUBDIVISION MAP ACT AND THE COUNTY SUBDIVISION ORDINANCE HAVE BEEN FULFILLED. THIS STATEMENT SHALL BE DEEMED TO BE CONSTRUCTIVE NOTICE OF SUCH PROHIBITION TO ALL SUCCESSORS IN INTEREST IN SUCH PROPERTY.

BOOK 874 PAGE 54

SCALE: 1"=40'

SHEET 3 OF 3 SHEETS

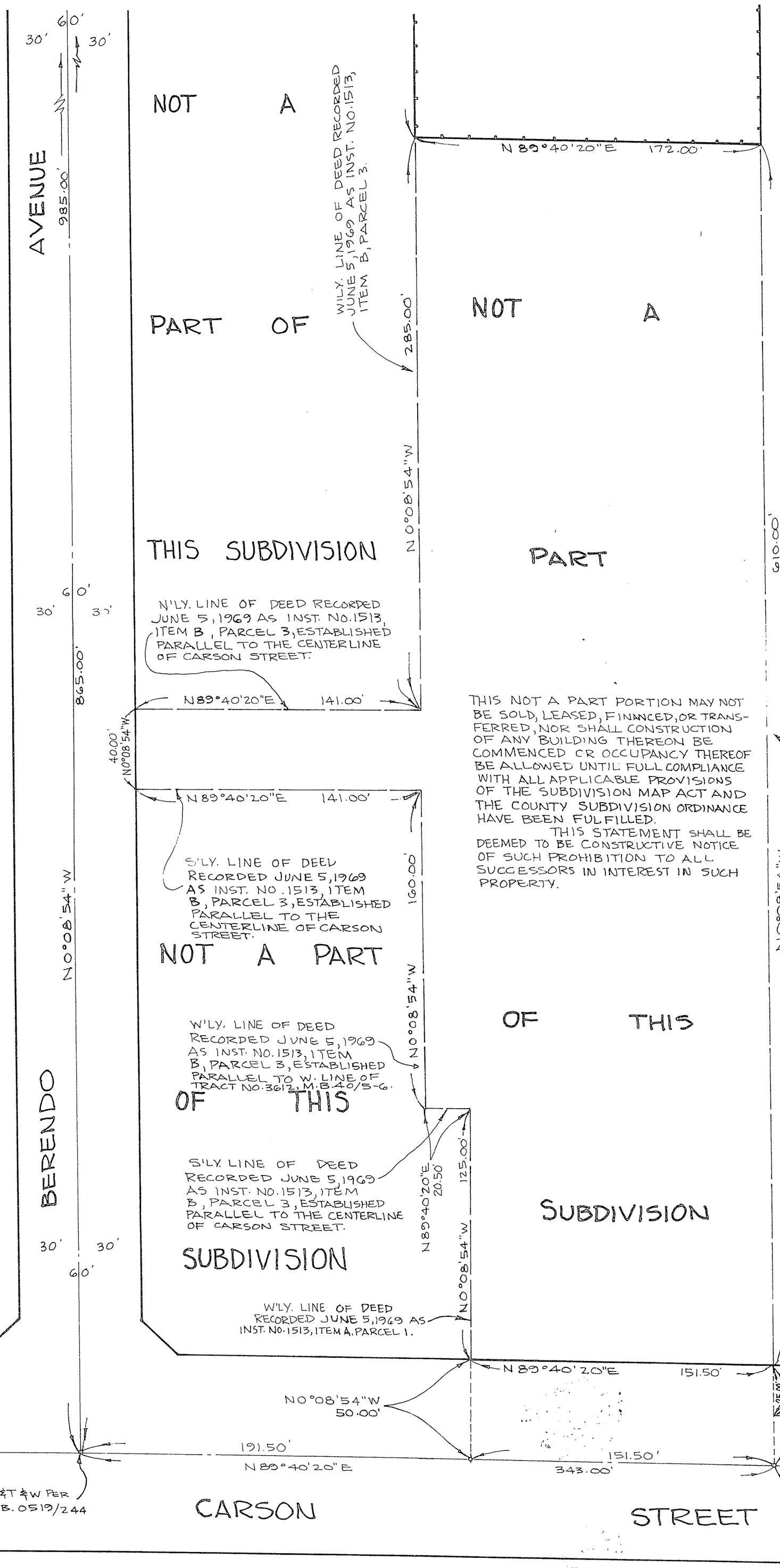
TRACT Nº 32978

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA.

FILED WITH LOS ANGELES COUNTY RECORDER
MAR 17 19[illegible]

INDICATES THE BOUNDARY OF THE LAND BEING SUBDIVIDED BY THIS MAP.

(SEE SHEET 2 OF 3 SHEETS)



THIS NOT A PART PORTION MAY NOT BE SOLD, LEASED, FINANCED, OR TRANSFERRED, NOR SHALL CONSTRUCTION OF ANY BUILDING THEREON BE COMMENCED OR OCCUPANCY THEREOF BE ALLOWED UNTIL FULL COMPLIANCE WITH ALL APPLICABLE PROVISIONS OF THE SUBDIVISION MAP ACT AND THE COUNTY SUBDIVISION ORDINANCE HAVE BEEN FULFILLED.

THIS STATEMENT SHALL BE DEEMED TO BE CONSTRUCTIVE NOTICE OF SUCH PROHIBITION TO ALL SUCCESSORS IN INTEREST IN SUCH PROPERTY.

950/31

BOOK 950 PAGE 31

SCALE: 1"=40'

TRACT NO. 32750

80-591259 80-591259 80-591259

SHEET 1 OF 2 SHEETS

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

BEING A SUBDIVISION OF A PORTION OF THE 2463.79 ACRE TRACT, ALLOTTED TO VICTORIA DOMINGUEZ DE CARSON, BY THE DECREE OF PARTITION OF A PORTION OF THE RANCHO SAN PEDRO IN CASE NO. 3284 OF SUPERIOR COURT, RECORDS OF LOS ANGELES COUNTY.

FILED
AT REQUEST OF OWNER
JUN 18 1980
MIN 27 PAST 3 PM
IN BOOK 950
AT PAGE 31
OF MAP RECORDS
LOS ANGELES COUNTY, CALIF.
Registrar-Recorder
BY D. Boone
Deputy

$7.00

MAP & GRANT

OWNER'S CERTIFICATE

We hereby certify that we are the owners of or are interested in the lands included within the subdivision shown on this map within the distinctive border lines, and we consent to the preparation and filing of said map and subdivision. We hereby dedicate to the public use all streets, highways, and other public ways shown on said map. As a dedication to public use, while all of Broadwell Street within or adjacent to this subdivision remains a public street, we hereby abandon all rights of ingress and egress from Lot 9 to the said street. If any portion of said street within or adjacent to this subdivision is vacated, such vacation terminates the above dedication as to the part vacated. As a dedication to public use, while all of Carson Street within or adjacent to this subdivision remains a public street, we hereby grant to the County of Los Angeles the right to restrict direct vehicular ingress and egress to the said street. If any portion of said street within or adjacent to this subdivision is vacated, such vacation terminates the above dedication as to the part vacated. We further certify that, except as shown on a copy of this map on file in the office of the County Road Commissioner, we know of no easement or structure existing within the easements herein offered for dedication to the public, other than publicly owned water lines, sewers, or storm drains, that we will grant no right or interest within the boundaries of said easements offered to the public, except where such right or interest is expressly made subject to the said easements.

Sam Burrescia
Sam Burrescia Owner

Virginia Burrescia
Virginia Burrescia Owner

Donald G. Mikus
Donald G. Mikus Owner

Edith L. Mikus
Edith L. Mikus Owner

H. HANSEN BUILDERS, INC., a corporation, owner

Hubert W. Hansen
President

Anna M. Hansen
Secretary

And also dedicate to the County of Los Angeles the easement for storm drain and storm drain ingress and egress purposes so designated on said map and all uses incident thereto, including the right to make connections therewith from any adjoining properties.

The signatures of Dominguez Water Company, easement holder, as disclosed by deed recorded in Book 1515 Page 265 and in Book 9211 Page 8 both of Official Records, Records of Los Angeles County, has been omitted under the provisions of Section 66436, Subsection (c)(1) of the Subdivision Map Act, their interest is such that it cannot ripen into a fee title and said signatures are not required by the local agency.

State of California } SS.
County of Los Angeles }

On this 6th day of July, 1979 before me Louise C. Thor, a Notary Public in and for said State, personally appeared Sam Burrescia, Virginia Burrescia, Donald G. Mikus and Edith L. Mikus known to me to be the persons whose names are subscribed to the within instrument and acknowledged to me that they executed the same.

OFFICIAL SEAL
LOUISE C. THOR
NOTARY PUBLIC - CALIFORNIA
LOS ANGELES COUNTY
My comm. expires OCT 29, 1980

Louise C Thor
Notary Public

Commission Expires Oct 29, 1980

SURVEYOR'S CERTIFICATE

I hereby certify that I am a Licensed Land Surveyor of the State of California; that this final map, consisting of 2 sheets, is a true and complete survey as shown, and was made by me or under my direction April 1, 1979; that the monuments of the character and locations shown hereon are in place or will be in place within twenty-four months from the filing date of this map; that said monuments are sufficient to enable the survey to be retraced and that tie notes to all centerline monuments shown as "to be set" will be on file in the office of the County Engineer within twenty-four months from the filing date shown hereon.

Wesley K. Olson
Wesley K. Olson L.S. 4033

BASIS OF BEARINGS

The bearing N 89°40'20"E of the centerline of Carson street as shown on Map of Tract No. 32978 as filed in Book 874 pages 52 to 54 of Maps, Records of Los Angeles County, was taken as the bsis of bearings shown on this Map.

State of California } SS.
County of Los Angeles }

On this 10th day of July, 1979 before me Louise C. THOR, a Notary Public in and for said State, personally appeared Hubert W. Hansen known to me to be the ____ President and Anna M. Hansen known to me to be the ____ Secretary of H. Hansen Builders, Inc, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation herein named and acknowledged to me that such corporation executed the same.

OFFICIAL SEAL
LOUISE C. THOR
NOTARY PUBLIC - CALIFORNIA
LOS ANGELES COUNTY
My comm. expires OCT 29, 1980

Louise C Thor
Notary Public

IN RE TRACT NO. 32750 IT IS ORDERED THAT THE MAP OF TRACT NO. 32750 IS HEREBY APPROVED;
AND THAT THE BOND IN THE AMOUNT OF $ 6,000 FILED WITH THE BOARD TO INSURE PAYMENT OF TAXES AND SPECIAL ASSESSMENTS COLLECTED AS TAXES BE APPROVED.

THAT ALL STREETS, HIGHWAYS AND OTHER PUBLIC WAYS AND EASEMENTS SHOWN ON SAID MAP AND OFFERED FOR DEDICATION BE AND THE SAME ARE HEREBY ACCEPTED ON BEHALF OF THE PUBLIC.

THAT THE OFFER OF DEDICATION FOR ABANDONMENT OF THE RIGHTS OF INGRESS AND EGRESS BE AND THE SAME IS HEREBY ACCEPTED ON BEHALF OF THE PUBLIC.

I HEREBY CERTIFY THAT THE FOREGOING ORDER WAS ADOPTED BY THE BOARD OF SUPERVISORS AT A MEETING HELD

JUN 17 1980

JAMES S. MIZE, EXECUTIVE OFFICER-
CLERK OF THE BOARD OF SUPERVISORS
OF THE COUNTY OF LOS ANGELES,
STATE OF CALIFORNIA
BY ____ DEPUTY

COUNTY OF LOS ANGELES CALIFORNIA

I HEREBY CERTIFY THAT I HAVE EXAMINED THIS MAP, THAT IT CONFORMS SUBSTANTIALLY TO THE TENTATIVE MAP AND ALL APPROVED ALTERATIONS THEREOF; THAT ALL PROVISIONS OF STATE LAW AND LOCAL SUBDIVISION ORDINANCES APPLICABLE AT THE TIME OF APPROVAL OF THE TENTATIVE MAP HAVE BEEN COMPLIED WITH; AND THAT I AM SATISFIED THAT THIS MAP IS TECHNICALLY CORRECT.

DATED: JUN 18 1980 BY Robert L Davis
COUNTY ENGINEER
Deputy

I HEREBY CERTIFY THAT ALL CERTIFICATES HAVE BEEN FILED AND DEPOSITS HAVE BEEN MADE THAT ARE REQUIRED UNDER THE PROVISIONS OF SECTIONS 66492 AND 66493 OF THE SUBDIVISION MAP ACT.

JAMES S. MIZE, EXECUTIVE OFFICER
CLERK OF THE BOARD OF SUPERVISORS
OF THE COUNTY OF LOS ANGELES,
STATE OF CALIFORNIA
BY ____ DEPUTY

COUNTY OF LOS ANGELES CALIFORNIA

288-1

950/32

BOOK 950 PAGE 32

SCALE: 1"= 40'

TRACT NO. 32750

SHEET 2 OF 2 SHEETS

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA.

FILED WITH LOS ANGELES REGISTRAR-RECORDER JUN 18 1980

Fd. S & T per Tract No. 24831 MB. 645 pgs. 48 to 50

S'ly line of Tract No. 32978 MB 874 pgs. 52 to 54

see detail 'A'

Fd. 2" IP, LS 3791, 12" down accepted as SE Cor. of lot 10, Tract No. 32978, M.B. 874 pgs. 52 to 54

N 89° 36'30" E 172.00'

82.00' 90.00'

W'ly line of Parcel 3, Item B of O.R. D4392-268 established parallel to W. line of Tract No. 3612, MB 40 pgs. 5, 6.

N 6°36'55" W Radial

N 27°11'04" E 91.92'

N 45°05'19" E Radial 134.71'

L=69.98' Δ=91°07'28" R=44'

L=40.00' Δ=52°05'19" R=44'

285.51'

99.70'

NOT A PART OF THIS SUBDIVISION

NOT A PART OF THIS SUBDIVISION

N 69°02'44" E 89.18'

S 82°46'27" E Rad. Δ=116°43'41" L=12.85'

N 66°02'46" W (Rad.)

N 81°55'37" E Radial 21.00'

S W&T to be set

L=40.00' Δ=52°05'19" R=44'

N 23°57'14" E L=30.00'

76.00'

Δ=3°28'25" L=5.34'

N 89°40'20" E 101.11'

W'ly line of Tract No. 3612, M.B. 40 pgs. 5, 6, per Tract No. 24831 M.B 645 pgs. 48 to 50

N 69°31'11" W (Rad.)

Δ=32°01'37" R=88' L=49.19'

Δ=28°33'12" L=43.85'

N 0°09'00" W 132.96'

S 58°04'23" E AVENUE

5

50.00'

610.70'

6.94'

N 89°40'20" E 104.96'

59.09'

S 58°04'23" E 50.46'

5.00'

6

50.00'

N 89°40'20" E 98.01'

1.69'

S 39°50'49" E 17.68' Radial

Northeasterly line of variable width easement to the County of Los Angeles for STORM DRAIN & STORM DRAIN INGRESS & EGRESS PURPOSES

7

50.00'

123.10'

95.00'

10'

28.10'

Δ=71°04'14" R=47' L=58.30'

S W&T to be set

23'

N 89°40'20" E 190.06'

N 89°40'20" E 141.16' Set 2" I.P.

100.50'

71.50'

45.00'

N 89°40'20" E

Δ=22°50'40" L=18.74'

N 27°00'04" W (Rad.)

172.00'

Southerly line of 10' easement to the County of Los Angeles for STORM DRAIN & STORM DRAIN INGRESS & EGRESS PURPOSES

S'ly line of Parcel 3, Item B of O.R. D4392-268, established parallel to the centerline of Carson street.

NOT A PART OF THIS SUBDIVISION

W'ly line of Parcel 3, Item B of O.R. D4392-268 established parallel to W. line of Tract No. 3612, MB 40 pgs. 5, 6.

160.00'

N 0°09'00" W

285.00'

9

8

285.00'

N 0°09'00" W

N 89°40'20" E 20.50'

S'ly line of Parcel 3, Item B of O.R. D4392-268, established parallel to to centerline of Carson street.

Set 2" I.P.

S'LY LINE OF PARCEL 5 OF O.R. 3412 P.386 ESTABLISHED RECORD DISTANCE FROM AND parallel to the SIDELINE of Carson Street- 50' WIDE.

Set 2" IP

N 89°40'20" E 141.15'

set S, W&T

BROADWELL AVENUE

N 89° 40' 20" E 219.64'

40.00' 23' 17'

N 0°08'20" W

985.13'

N 0°08'20" W

358.00'

BERENDO

30' 30' 60'

30' 30' 60'

W'ly line of Parcel 1, Item A O.R. D4392-268, established parallel to W. line of Tract No. 3612, MB 40 pgs. 5, 6.

125.00'

N 0°09'00" W

N 0°09'00" W

80.00'

71.50'

1.00'

N 89°40'20" E 151.50'

1.00'

Set L & T

Fd. L & T per Co. E.F.B. 2920-166

N 0°09'00" W 50.00'

N 0°09'00" W 50.00'

50'

100'

191.70'

151.50'

50'

100'

N 89° 40'20" E

343.20'

Fd. S & W & T per Co. E.F.B. 2920-164

CARSON STREET

set S, W&T

Fd. S & W & T per Co. E.F.B. 2920-166

Fd. Brass cap Mon. per Co. E.F.B. 2920-166

All 2" I.P.'s shown as "set" are flush unless otherwise indicated.

N 89°36'30" E 172.00'

0.08'

Fd. 2" IP., LS 3741, flush, accepted as SW corner Lot 11, Tract No. 32978, MB 874 pgs. 52-54

S'LY PROLONGATION OF E'LY LINE OF PARCEL 1 OF O.R. 3412 P. 386 AND W'ly line of Parcel 3, Item B. of O.R. D4392-268 established parallel to W'ly line of Tract No. 3612, MB 40 pgs. 5 & 6

DETAIL 'A'

no scale

N 0°09'00" W 285.51'

NOTE: Dashed lines within street rights of way indicate property lines for the purpose of computing required area and building setbacks, as provided in Los Angeles County Ordinance No. 1494, and are not for the purpose of conveying.

Indicates the boundary of the land being subdivided by this map.

983/42

983 PAGE 42

SHEET 1 OF 2 SHEETS

TRACT NO. 38546

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

BEING A SUBDIVISION OF A PORTION OF LOT 25, TRACT NO. 3612, AS PER MAP FILED IN BOOK 40, PAGES 5 AND 6 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF LOS ANGELES COUNTY.

FILED
AT REQUEST OF OWNER
JUN 17 1981
31 MIN PAST 3 P.M.
IN BOOK 983
AT PAGE 42
OF MAP RECORDS
LOS ANGELES COUNTY, CALIF.
Registrar-Recorder
BY V. Stagg Deputy
81-605841
8.00

STANLEY C. MORSE
CONSULTING CIVIL ENGINEERS, INC.

GARY W. DOKICH, L. S. 4693

JULY 1980

FOR CONDOMINIUM PURPOSES

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF OR ARE INTERESTED IN THE LANDS INCLUDED WITHIN THE SUBDIVISION SHOWN ON THIS MAP WITHIN THE DISTINCTIVE BORDER LINES, AND WE CONSENT TO THE PREPARATION AND FILING OF SAID MAP AND SUBDIVISION.

WE FURTHER CERTIFY THAT,

WE KNOW OF NO EASEMENT OR STRUCTURE EXISTING WITHIN THE EASEMENTS HEREIN OFFERED FOR DEDICATION TO THE PUBLIC, OTHER THAN PUBLICLY OWNED WATERLINES, SEWERS, OR STORM DRAINS, THAT WE WILL GRANT NO RIGHT OR INTEREST WITHIN THE BOUNDARIES OF SAID EASEMENTS OFFERED TO THE PUBLIC, EXCEPT WHERE SUCH RIGHT OR INTEREST IS EXPRESSLY MADE SUBJECT TO THE SAID EASEMENTS.

AS A DEDICATION TO PUBLIC USE, WHILE ALL OF CARSON STREET WITHIN OR ADJACENT TO THIS SUBDIVISION REMAINS A PUBLIC STREET, WE HEREBY ABANDON ALL RIGHTS, EXCEPT FOR ONE DRIVEWAY OPENING FOR LOT 1, OF DIRECT VEHICULAR INGRESS AND EGRESS TO THE SAID STREET. IF ANY PORTION OF SAID STREET WITHIN OR ADJACENT TO THIS SUBDIVISION IS VACATED, SUCH VACATION TERMINATES THE ABOVE DEDICATION AS TO THE PART VACATED.

AND ALSO DEDICATE TO THE COUNTY OF LOS ANGELES THE EASEMENT FOR SANITARY SEWER, STORM DRAIN PURPOSES AND STORM DRAIN INGRESS AND EGRESS PURPOSES SO DESIGNATED ON SAID MAP AND ALL USES INCIDENT THERETO, INCLUDING THE RIGHT TO MAKE CONNECTIONS THEREWITH FROM ANY ADJOINING PROPERTIES.

AND ALSO DEDICATE TO THE PUBLIC USE ALL STREETS, HIGHWAYS, AND OTHER PUBLIC WAYS SHOWN ON THIS MAP.

HARBOR MANOR LTD., A LIMITED PARTNERSHIP

William E. Crowder
WILLIAM E. CROWDER, PARTNER

C. W. Bauer
CLYDE W. BAUER, PARTNER

STATE OF CALIFORNIA)
COUNTY OF SAN BERNARDINO) SS

ON THIS 22nd DAY OF October, 1980, BEFORE ME Toni Snedeker, A NOTARY PUBLIC IN AND FOR SAID STATE, PERSONALLY APPEARED WILLIAM E. CROWDER AND CLYDE W. BAUER KNOWN TO ME TO BE THE PARTNERS OF HARBOR MANOR LTD., A LIMITED PARTNERSHIP, THE PARTNERSHIP THAT EXECUTED THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT SUCH PARTNERSHIP EXECUTED THE SAME.

MY COMMISSION EXPIRES: 9-12-84

NOTARY PUBLIC IN AND FOR
SAID COUNTY AND STATE

I HEREBY CERTIFY THAT I AM A LICENSED LAND SURVEYOR OF THE STATE OF CALIFORNIA; THAT THIS FINAL MAP, CONSISTING OF TWO SHEETS, IS A TRUE AND COMPLETE SURVEY AS SHOWN, AND WAS MADE BY ME OR UNDER MY DIRECTION IN APRIL, 1980; THAT THE MONUMENTS OF THE CHARACTER AND LOCATIONS SHOWN HEREON ARE IN PLACE AND THAT SAID MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

OCTOBER 22, 1980

Gary W. Dokich
GARY W. DOKICH, L.S. 4693

IN RE TRACT NO. 38546 IT IS ORDERED THAT THE MAP OF TRACT NO. 38546 IS HEREBY APPROVED AND THAT SECURITY IN THE AMOUNT OF $ 23,225 FILED WITH THE BOARD TO INSURE PAYMENT OF TAXES AND SPECIAL ASSESSMENTS COLLECTED AS TAXES BE APPROVED.

THAT ALL STREETS, HIGHWAYS AND OTHER PUBLIC WAYS AND EASEMENTS SHOWN ON SAID MAP AND OFFERED FOR DEDICATION BE AND THE SAME ARE HEREBY ACCEPTED ON BEHALF OF THE PUBLIC.

THAT THE OFFER OF DEDICATION FOR ABANDONMENT OF THE RIGHTS OF INGRESS AND EGRESS BE AND THE SAME IS HEREBY ACCEPTED ON BEHALF OF THE PUBLIC.

I HEREBY CERTIFY THAT THE FOREGOING ORDER WAS ADOPTED BY THE BOARD OF SUPERVISORS AT A MEETING HELD JUN 16 1981

JAMES S. MIZE, EXECUTIVE OFFICER-
CLERK OF THE BOARD OF SUPERVISORS
OF THE COUNTY OF LOS ANGELES,
STATE OF CALIFORNIA
BY William J. Stroud DEPUTY

THIS SUBDIVISION IS APPROVED AS A CONDOMINIUM PROJECT FOR 195 UNITS, WHEREBY THE OWNERS OF THE UNITS OF AIR SPACE WILL HOLD AN UNDIVIDED INTEREST IN THE COMMON AREAS WHICH WILL, IN TURN, PROVIDE THE NECESSARY ACCESS AND UTILITY EASEMENTS FOR THE UNITS.

ALL RECORDS HEREON ARE RECORDS OF LOS ANGELES COUNTY.

SIGNATURE OMISSIONS:

THE SIGNATURES OF THE FOLLOWING PARTIES HAVE BEEN OMITTED UNDER THE PROVISIONS OF SECTION 66436 (c) (1) OF THE SUBDIVISION MAP ACT AS THEIR INTEREST IS SUCH THAT IT CANNOT RIPEN INTO A FEE TITLE AND SAID SIGNATURES ARE NOT REQUIRED BY THE LOCAL AGENCY:

DOMINGUEZ WATER COMPANY, A CORPORATION, EASEMENT HOLDER BY DEED RECORDED IN BOOK 1515, PAGE 265 OF OFFICIAL RECORDS. SAID EASEMENT IS FOR THE PURPOSE OF CONSTRUCTING AND MAINTAINING A PIPELINE AND WATER DISTRIBUTION SYSTEM AND IS BLANKET IN NATURE.

TITLE INSURANCE CORPORATION, (OF CALIFORNIA), A CORPORATION, SUCCESSOR IN INTEREST TO TITLE INSURANCE AND TRUST COMPANY, A CORPORATION, EASEMENT HOLDER BY DEEDS RECORDED IN BOOK 2002 PAGE 1428 AND BOOK 2051 PAGE 136, BOTH OFFICIAL RECORDS. EASEMENT IS BLANKET IN NATURE. EASEMENT IS FOR WATER PIPELINES AND INCIDENTAL PURPOSES.

THE COUNTY OF LOS ANGELES, EASEMENT HOLDER BY DEED RECORDED IN BOOK D1020 PAGE 499, O.R.. EASEMENT IS FOR SANITARY SEWER AND INCIDENTAL PURPOSES IN PORTION OF STREET BEING DEDICATED.

THE SIGNATURES OF THE FOLLOWING OWNERS OF OIL AND MINERAL RIGHTS BY DEEDS SHOWN AFTER EACH NAME HAVE BEEN OMITTED UNDER THE PROVISIONS OF SECTION 66436 (c) (3) OF THE SUBDIVISION MAP ACT:

LETTIE V. RAY, BOOK D713 PAGE 641 AND BOOK D713 PAGE 682; MAUD LOUISE LAURANCE, BOOK D713 PAGE 643, AND BOOK D713 PAGE 674; EDWARD D. LAURANCE, BOOK D713 PAGE 645 AND BOOK D713 PAGE 647; ALTA M. PAYNE, BOOK D713 PAGE 648; BESSIE REEVES KRAUSE, BOOK D713 PAGE 650; MILDRED REEVES BECKLEY, BOOK D713 PAGE 652; JOSEPH AUSTIN REEVES, BOOK D713 PAGE 654; H.O. HARRIES, BOOK D713 PAGE 656; MARVEL JUNE KENNEDY SCHOONOVER, BOOK D713 PAGE 662; MADELINE O. SCOTT, BOOK D713 PAGE 664; CECILE OBERLEY MOSIMAN, BOOK D713 PAGE 666; MARGUERITE BELL, BOOK D713 PAGE 668; W.M. SCOTT, AND MADELINE SCOTT, BOOK D713 PAGE 670; S.L. POPPETT, BOOK D713 PAGE 672; EVELYN S. HOWLAND, BOOK D713 PAGE 675; ROBERT LISTON HOWLAND, BOOK D713 PAGE 677; VIRGINIA ANNE HISLOP AND GEORGE HISLOP, BOOK D713 PAGE 679; R.W. BRAZELTON, BOOK D713 PAGE 680, BOOK D713 PAGE 682, BOOK D713 PAGE 684; TURNAGE-GRAGG CO., A PARTNERSHIP, JUNE 29, 1979, INSTRUMENT NO. 79-710305, AND URBATEC, A CALIFORNIA CORPORATION, JUNE 10, 1980, INSTRUMENT NO. 80-559973; VERNON M. BRYDOLF, BOOK D713 PAGE 658; LILA L. SMITH, BOOK D713 PAGE 660, ALL OFFICIAL RECORDS.

I HEREBY CERTIFY THAT I HAVE EXAMINED THIS MAP, THAT IT CONFORMS SUBSTANTIALLY TO THE TENTATIVE MAP AND ALL APPROVED ALTERATIONS THEREOF; THAT ALL PROVISIONS OF STATE LAW AND LOCAL SUBDIVISION ORDINANCES APPLICABLE AT THE TIME OF APPROVAL OF THE TENTATIVE MAP HAVE BEEN COMPLIED WITH; AND THAT I AM SATISFIED THAT THIS MAP IS TECHNICALLY CORRECT.

DATED: JUN 16 1981 BY Robert J. Davis COUNTY ENGINEER
Deputy

I HEREBY CERTIFY THAT ALL CERTIFICATES HAVE BEEN FILED AND DEPOSITS HAVE BEEN MADE THAT ARE REQUIRED UNDER THE PROVISIONS OF SECTIONS 66492 AND 66493 OF THE SUBDIVISION MAP ACT.

JAMES S. MIZE, EXECUTIVE OFFICER-
CLERK OF THE BOARD OF SUPERVISORS
OF THE COUNTY OF LOS ANGELES STATE
OF CALIFORNIA
BY William J. Stroud DEPUTY

28 B-1

983/43

BOOK 983 PAGE 43

SCALE: 1" = 60'

SHEET 2 OF 2 SHEETS

TRACT NO. 38546

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

BEING A SUBDIVISION OF A PORTION OF LOT 25, TRACT NO. 3612, AS PER MAP FILED IN BOOK 40, PAGES 5 AND 6 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF LOS ANGELES COUNTY.

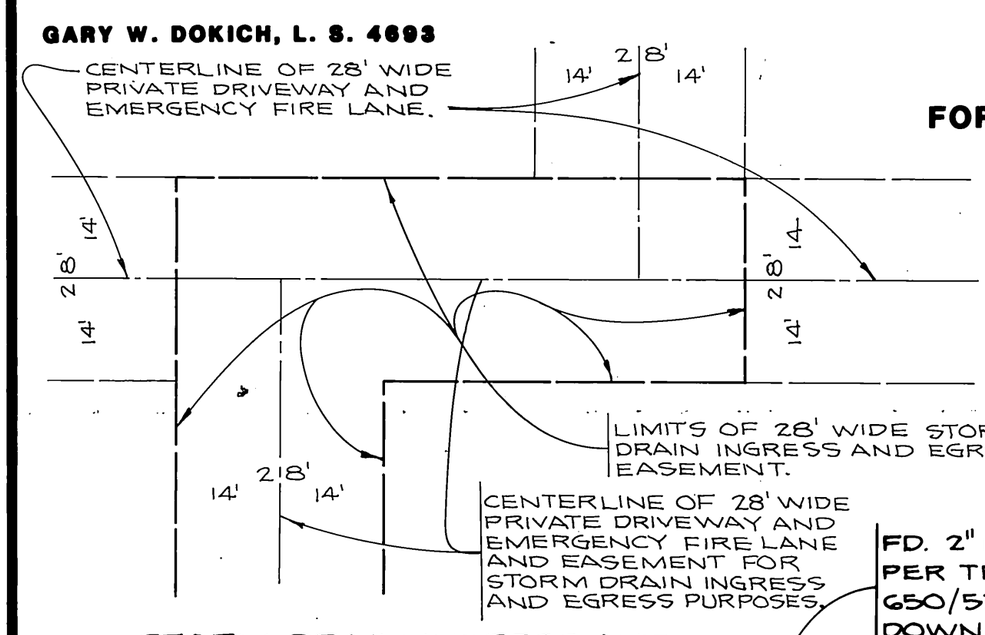
GARY W. DOKICH, L. S. 4693

JULY 1980

STANLEY C. MORSE
CONSULTING CIVIL ENGINEERS, INC.

FOR CONDOMINIUM PURPOSES

FILED WITH LOS ANGELES
REGISTRAR-RECORDER
JUN 17 1981



STORM DRAIN INGRESS AND EGRESS EASEMENT DETAIL
NOT TO SCALE

FD. SPIKE, WASHER & TIN PER TRACT NO. 25362, M.B. 650/53-56, FLUSH ALSO FITS TIES OF L.A. C.R.D. F.B. 0520/639

℄ 214TH STREET

FD. 2" I.P. TAGGED R.C.E. 9783 PER TRACT NO. 25362, M.B. 650/53-56 & P.M.B. 17/43, DOWN 0.30' (SW CORNER LOT 11 OF SAID TRACT)

SW CORNER LOT 24, TRACT NO. 3612, M.B. 40/5-6. ESTABLISHED AT RECORD DISTANCE FROM SW CORNER TRACT NO. 25362, M.B. 650/53-56 PER P.M.B. 17/43. FD. NOTHING. SET 2" I.P. TAGGED L.S. 4693, FLUSH. FD. 2" I.P. TAGGED L.S. 3741 SE COR. TR. NO. 32978, M.B. 874/52-54, FLUSH, 0.58'N & 0.15'E

NE CORNER LOT 25, TRACT NO. 3612, M.B. 40/5-6. ESTABLISHED BY INTERSECTION THROUGH FD. MONS. FD. NOTHING. SET 2" I.P. TAGGED L.S. 4693, FLUSH.

SOUTHERLY LINE LOT 24, TRACT NO. 3612, M.B. 40/5-6.

FD. P.K. NAIL, FLUSH, ON LINE, NO REFERENCE. ACCEPTED AS POINT ON THE E'LY PROLONGATION OF THE S'LY LINE LOT 24, TRACT NO. 3612, M.B. 40/5-6

N89°47'15"E 171.77'

N89°41'13"E

182.36' 336.45' 154.09' 666.49' 330.04' 324.94' 984.83'

FD. 2" I.P. TAGGED L.S. 3741 PER TRACT NO. 32978, M.B. 874/52-54, FLUSH. ACCEPTED AS SW CORNER LOT 11, TRACT NO. 32978, M.B. 874/52-54.

6' WIDE EASEMENT FOR SANITARY SEWER PURPOSES DEDICATED TO COUNTY OF LOS ANGELES

FD. 2" I.P. TAGGED L.S. 2832, DOWN 8" PER P.M.B. 17/43

2.223 ACRES (GR.)
1.913 ACRES (NET)

ESTABLISHED AS THE EASTERLY AND WESTERLY LINES OF O.R. 80-1027502

℄ OF 10' WIDE EASEMENTS FOR STORM DRAIN PURPOSES AND STORM DRAIN INGRESS AND EGRESS PURPOSES DEDICATED TO COUNTY OF LOS ANGELES

ACCEPTED AS WESTERLY LINE LOT 25, TRACT NO. 3612, M.B. 40/5-6 PER P.M.B. 17/43.

320.44' 286.12' 822.58' 287.11' 253.11' 659.97' 609.97'

N 89°51'17" E 146.09'

Δ = 60°43'51"
R = 45.00'
L = 47.70'
T = 26.36'

CENTERLINE OF 28' PRIVATE DRIVEWAY AND EMERGENCY FIRE LANE

N 18°35'46" W RAD.

N 89°51'17" E 188.09'

N 29°07'26" E 23.01'

SEE DETAIL ABOVE

Δ = 18°27'03"
L = 14.49'

N 0°08'43" W 20.00'

FD. NOTHING. SET 2" I.P., DOWN 6", TAGGED L.S. 4693
FD. 2 x 2 TAGGED R.C.E. 9070, FLUSH, 0.30' S'LY, NO REFERENCE.

N 89°51'17" E 133.73' 102.12' 336.35' 154.09'

24.32' 48.57'

N 30°00'46" W 30.00'

98.67'

N 89°40'20" E

Δ = 90°00'00"
R = 45.00'
L = 70.69'
T = 45.00

℄ OF 15' WIDE EASEMENT FOR STORM DRAIN PURPOSES DEDICATED TO COUNTY OF LOS ANGELES.

20' WIDE EASEMENT FOR STORM DRAIN PURPOSES AND STORM DRAIN INGRESS AND EGRESS PURPOSES DEDICATED TO THE COUNTY OF LOS ANGELES.
FD. NOTHING. SET 2" I.P., DOWN 6", TAGGED L.S. 4693.

N 0°09'51" W 289.62'

62.30' 130.30' 21.58' 136.57'

N 89°51'17" E 132' 28.00' 66' 66'

424.00'

N 89°51'17" E 289.62'

N 0°08'43" W 322.85' 356.86'

1.832 ACRES (GR.)
1.546 ACRES (NET)

℄ OF 28' WIDE PRIVATE DRIVEWAY AND EMERGENCY FIRE LANE AND ALSO, ℄ OF 28' WIDE EASEMENT FOR STORM DRAIN INGRESS AND EGRESS PURPOSES DEDICATED TO COUNTY OF LOS ANGELES.

RECIPROCAL INGRESS AND EGRESS EASEMENT. FOR THE USE OF LOTS 1 & 2 TO RESERVED IN DOCUMENT

8' WIDE EASEMENT FOR SANITARY SEWER PURPOSES DEDICATED TO THE COUNTY OF LOS ANGELES

ESTABLISHED AS THE NORTHERLY AND EASTERLY LINES OF O.R. 24766/76.

Δ = 34°04'53"
R = 45.00'
L = 26.77'
T = 13.79'

Δ = 46°24'18"
R = 90.00'
L = 72.89'
T = 38.58'

N 0°08'43" W 65.41' 81.00'

N 46°15'35" E 16.62'

CARSON STREET

N 89°40'20" E 237.58' 218.08'

105.58' 66.00' 66.00' 66.00'

98.67' 336.25' 19.50' 49.50' 49.50' 50.00' 1.80'

SEE DETAIL BELOW

SET 2" I.P. TAGGED L.S. 4693, DOWN 6"

FD. LEAD, TACK & TAG L.S. 2832 PER P.M.B. 17/43.

℄ BERENDO AVENUE

℄ VERMONT AVENUE

℄ CARSON STREET 336.23' 343.19' 330.12' 1009.54'

N 89°40'20" E

FD. S. & W. L.S. 2832 PER P.M.B. 17/43, FLUSH

FD. S. & W. PER TRACT NO. 32750, M.B. 950/31-32. ALSO FITS TIES OF L.A. CO. ROAD DEPT. F.B. 0519/246

FD. 2 1/2" BRASS DISC IN CONC. PEDESTAL STAMPED "COUNTY SURVEYOR R.C.E. 5869" PER C.E.F.B. 2920-166, DOWN 0.1'

FD. LEAD & TACK WITH COPPER TAG (NUMBER ILLEGIBLE) PER P.M.B. 17/43.

ACCEPTED AS WESTERLY LINE OF LOT 26, TRACT NO. 3612, M.B. 40/5-6 PER P.M.B. 17/43.

659.89' N 0°09'08" W

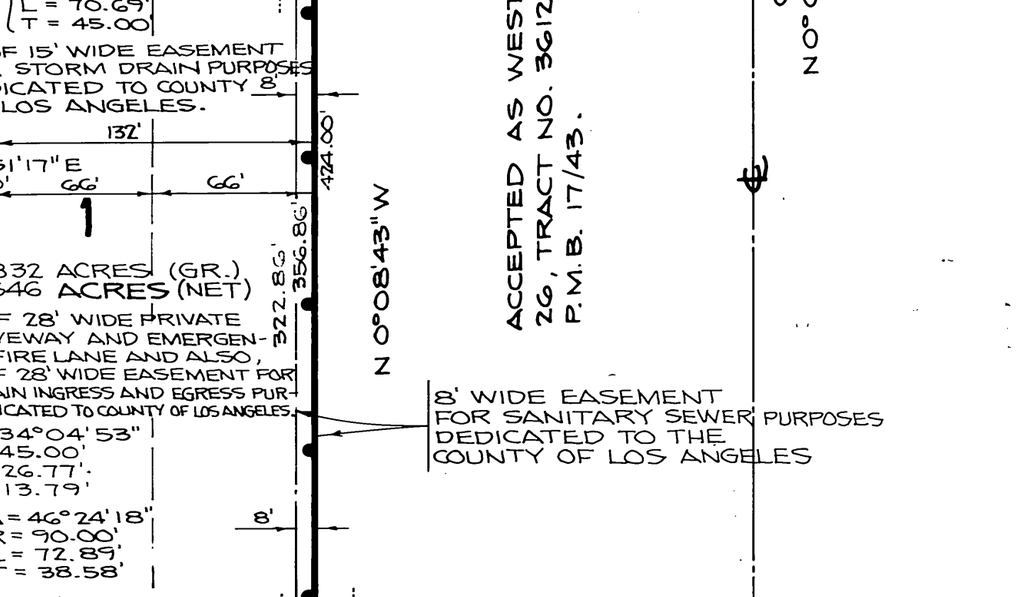
SURVEYOR'S NOTES:

THE BEARING OF N 89°40'20" E FOR THE CENTERLINE OF CARSON STREET AS SHOWN ON TRACT NO. 32750 PER MAP FILED IN BOOK 950, PAGES 31 AND 32 OF MAPS, RECORDS OF LOS ANGELES COUNTY, WAS USED AS THE BASIS OF BEARINGS SHOWN HEREON.

——●——●—— INDICATES THE BOUNDARY OF THE LAND BEING SUBDIVIDED BY THIS MAP.

O INDICATES MONUMENT SET AS NOTED.

● INDICATES MONUMENT FOUND AS NOTED.



DEDICATION DETAIL
NOT TO SCALE

1037/65

BOOK 1037 PAGE 65

SHEET 1 OF 2 SHEETS

TRACT NO. 43134

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

BEING A SUBDIVISION OF A PORTION OF THE 2463.79 ACRE TRACT ALLOTTED TO VICTORIA DOMINGUEZ DE CARSON BY DECREE OF PARTITION OF A PORTION OF THE RANCHO SAN PEDRO IN SUPERIOR COURT CASE NO. 3284 AND LOT 1 OF TRACT NO. 32750 AS PER MAP FILED IN BOOK 950 PAGES 31 AND 32 OF MAPS. BOTH RECORDS OF LOS ANGELES COUNTY.

FILED
AT REQUEST OF OWNER
JUL 18 1984
21 MIN PAST 3: P.M.
IN BOOK 1037
AT PAGE 65-66
OF MAPS
LOS ANGELES COUNTY
Registrar-Recorder
BY Q. Bolen Deputy
FEE $ 8.00

I HEREBY CERTIFY THAT SECURITY IN THE AMOUNT OF $ 2350 HAS BEEN FILED WITH THE CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES AS SECURITY FOR THE PAYMENT OF TAXES AND SPECIAL ASSESSMENTS COLLECTED AS TAXES ON THE LAND SHOWN ON MAP OF TRACT NO./PARCEL MAP NO. 43134 AS REQUIRED BY LAW.

EXECUTIVE OFFICER-CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA
BY William J. Stroncynski DEPUTY

LANCO
LAND CONSULTANTS AND CIVIL ENGINEERS

84- 860932

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF OR ARE INTERESTED IN THE LANDS INCLUDED WITHIN THE SUBDIVISION SHOWN ON THIS MAP WITHIN THE DISTINCTIVE BORDER LINES, AND WE CONSENT TO THE PREPARATION AND FILING OF SAID MAP AND SUBDIVISION.
WE HEREBY DEDICATE TO THE PUBLIC USE ALL STREETS, HIGHWAYS, AND OTHER PUBLIC WAYS SHOWN ON SAID MAP.
WE ALSO CERTIFY THAT, EXCEPT AS SHOWN ON A COPY OF THIS MAP ON FILE IN THE OFFICE OF THE COUNTY ROAD COMMISSIONER, WE KNOW OF NO EASEMENT OR STRUCTURE EXISTING WITHIN THE EASEMENTS HEREIN OFFERED FOR DEDICATION TO THE PUBLIC, OTHER THAN PUBLICLY OWNED WATER LINES, SEWERS, OR STORM DRAINS, THAT WE WILL GRANT NO RIGHT OR INTEREST WITHIN THE BOUNDARIES OF SAID EASEMENTS OFFERED TO THE PUBLIC, EXCEPT WHERE SUCH RIGHT OR INTEREST IS EXPRESSLY MADE SUBJECT TO THE SAID EASEMENTS.

VINCENT GRANT, INC.
A CALIFORNIA CORPORATION (OWNER)

Vincent Grant
VINCENT GRANT, PRESIDENT

May Grant
MAY GRANT, SECRETARY

ROLANDO B. ACUNA
(OWNER)

Rolando B. Acuña

ALICIA A. ALZONA
(OWNER)

Alicia A. Alzona

ANDRES V. ALZONA
(OWNER)

Andres V. Alzona

ANITA B. ACUNA
(OWNER)

Anita B. Acuña

CALIFORNIA FEDERAL SAVINGS AND LOAN ASSOCIATION, A CORPORATION

AS RECORD HOLDER OF THE BENEFICIAL INTEREST UNDER DEED OF TRUST RECORDED JANUARY 31, 1984 AS INSTRUMENT No. 84-125409 OFFICIAL RECORDS.

Sharon D Woodford
SHARON D. WOODFORD, VICE PRESIDENT

Billie M. Lister
BILLIE M. LISTER, VICE PRESIDENT

THE SIGNATURES OF DOMINGUEZ WATER CORPORATION, A CALIFORNIA CORPORATION HOLDER OF A BLANKET EASEMENT FOR WATER LINE PURPOSES AS DISCLOSED BY DEED RECORDED IN BOOK 1515 PAGE 265 OFFICIAL RECORDS AND IN BOOK 4211 PAGE 8 OFFICIAL RECORDS, SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION HOLDER OF AN EASEMENT FOR CONDUIT PURPOSES AS GRANTED BY DOCUMENT RECORDED OCTOBER 30, 1980 AS INSTRUMENT No. 80-1089443 OFFICIAL RECORDS AND LOS ANGELES COUNTY FLOOD CONTROL DISTRICT, A BODY CORPORATE AND POLITIC HOLDER OF AN EASEMENT FOR DRAINAGE PURPOSES AS CREATED BY DOCUMENT RECORDED AUGUST 24, 1982 AS INSTRUMENT NO. 82-851530 OFFICIAL RECORDS, THE INTEREST UNDER SAID EASEMENT ACQUIRED BY QUITCLAIM DEED RECORDED MAY 25, 1983 AS INSTRUMENT NO. 83-587195 OFFICIAL RECORDS, SAID EASEMENT LIES WITHIN STREET BEING DEDICATED BY THIS MAP, ALL RECORDS OF LOS ANGELES COUNTY, HAVE BEEN OMITTED UNDER THE PROVISIONS OF SECTION 66436, SUBSECTION (c)(1) OF THE SUBDIVISION MAP ACT, THEIR INTEREST IS SUCH THAT IT CANNOT RIPEN INTO A FEE TITLE AND SAID SIGNATURES ARE NOT REQUIRED BY THE LOCAL AGENCY.

PURSUANT TO SECTION 66499.20 1/2 OF SUBDIVISION MAP ACT. THE FILING OF THIS TRACT MAP CONSTITUTES ABANDONMENT OF THE EASEMENTS FOR SLOPE PURPOSES AS ACQUIRED BY THE COUNTY OF LOS ANGELES BY DOCUMENTS RECORDED MARCH 24, 1971 AS INSTRUMENT NO. 2646 IN BOOK D-5005 PAGE 522 OFFICIAL RECORDS AND AS INSTRUMENT NO. 2642 IN BOOK D-5005 PAGE 516 OFFICIAL RECORDS ALL RECORDS OF LOS ANGELES COUNTY, NOT SHOWN ON THIS MAP.

IN RE TRACT NO. 43134 IT IS ORDERED THAT THE MAP OF TRACT NO. 43134 IS HEREBY APPROVED.

THIS IS TO CERTIFY THAT THE INTEREST IN REAL PROPERTY CONVEYED BY THE WITHIN DEDICATION OR GRANT TO THE COUNTY OF LOS ANGELES, A GOVERNMENTAL AGENCY, IS HEREBY ACCEPTED AND THE GRANTEE CONSENTS TO THE RECORDATION THEREOF BY ITS AUTHORIZED OFFICER.

I HEREBY CERTIFY THAT THE FOREGOING ORDER WAS ADOPTED BY THE BOARD OF SUPERVISORS AT A MEETING HELD
JUL 3 1984

EXECUTIVE OFFICER-
CLERK OF THE BOARD OF SUPERVISORS
OF THE COUNTY OF LOS ANGELES,
STATE OF CALIFORNIA
BY William J. Stroncynski DEPUTY

039-197

I HEREBY CERTIFY THAT I AM A REGISTERED CIVIL ENGINEER OF THE STATE OF CALIFORNIA; THAT THIS FINAL MAP, CONSISTING OF 2 SHEETS, IS A TRUE AND COMPLETE SURVEY AS SHOWN, AND WAS MADE BY ME OR UNDER MY DIRECTION IN MAY 1984 ; THAT THE MONUMENTS OF THE CHARACTER AND LOCATIONS SHOWN HEREON ARE IN PLACE; THAT SAID MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

C M Leonard
CLARK M. LEONARD R.C.E. 13167

BASIS OF BEARINGS:
THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARING N 0°08'20" W OF THE CENTERLINE OF BERENDO AVENUE AS SHOWN ON TRACT No. 32750 M.B. 950/31 AND 32.

STATE OF CALIFORNIA }
COUNTY OF LOS ANGELES } S.S.
ON THIS 4TH DAY OF JUNE, 1984, BEFORE ME, A NOTARY PUBLIC IN AND FOR SAID STATE, PERSONALLY APPEARED VINCENT GRANT PERSONALLY KNOWN TO ME OR PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON WHO EXECUTED THE WITHIN INSTRUMENT AS THE PRESIDENT AND MAY GRANT PERSONALLY KNOWN TO ME OR PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON WHO EXECUTED THE WITHIN INSTRUMENT AS THE SECRETARY OF VINCENT GRANT, INC., A CALIFORNIA CORPORATION THE CORPORATION THAT EXECUTED THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT SUCH CORPORATION EXECUTED THE WITHIN INSTRUMENT PURSUANT TO ITS BY-LAWS OR A RESOLUTION OF ITS BOARD OF DIRECTORS
WITNESS MY HAND AND OFFICIAL SEAL

Sandra L. Livingstone

LOS ANGELES COUNTY

STATE OF CALIFORNIA }
COUNTY OF LOS ANGELES } SS
ON 6TH DAY OF JUNE, 1984, BEFORE ME A NOTARY PUBLIC IN AND FOR SAID STATE, PERSONALLY APPEARED SHARON D. WOODFORD PERSONALLY KNOWN TO ME OR PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON WHO EXECUTED THE WITHIN INSTRUMENT AS THE VICE PRESIDENT AND BILLIE M. LISTER PERSONALLY KNOWN TO ME OR PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON WHO EXECUTED THE WITHIN INSTRUMENT AS THE VICE PRESIDENT OF CALIFORNIA FEDERAL SAVINGS AND LOAN ASSOCIATION, A CORPORATION THE CORPORATION THAT EXECUTED THE WITHIN INSTRUMENT AND ACKNOWNLEDGED TO ME THAT SUCH CORPORATION EXECUTED THE WITHIN INSTRUMENT PURSUANT TO ITS BY-LAWS OR A RESOLUTION OF ITS BOARD OF DIRECTORS AS BENEFICIARY.
WITNESS MY HAND AND OFFICIAL SEAL.

OFFICIAL SEAL
C. S. BRIGGS
NOTARY PUBLIC CALIFORNIA
PRINCIPAL OFFICE IN
LOS ANGELES COUNTY
My Commission Exp. Nov. 18, 1987

C. S. Briggs

STATE OF CALIFORNIA }
COUNTY OF LOS ANGELES } SS
ON THIS 1ST DAY OF JUNE, 1984, BEFORE ME, A NOTARY PUBLIC IN AND FOR SAID STATE PERSONALLY APPEARED ROLANDO B. ACUNA, ANITA B. ACUNA, ANDRES V. ALZONA AND ALICIA A. ALZONA PERSONALLY KNOWN TO ME OR PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSONS WHOSE NAMES ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT THEY EXECUTED THE SAME.
WITNESS MY HAND AND OFFICIAL SEAL

J. Trombetta
J. TROMBETTA

OFFICIAL SEAL
J. TROMBETTA
NOTARY PUBLIC CALIFORNIA
PRINCIPAL OFFICE IN
LOS ANGELES COUNTY
MY COMMISSION EXPIRES DEC. 31, 1987

1037 / 66

BOOK 1037 PAGE 66

SCALE: 1" = 20'

SHEET 2 OF 2 SHEETS

FILED WITH LOS ANGELES REGISTRAR-RECORDER
JUL 18 1984

TRACT NO. 43134

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

LANCO
LAND CONSULTANTS AND CIVIL ENGINEERS

INDICATES THE BOUNDARY OF THE LAND BEING SUBDIVIDED BY THIS MAP.

* DASHED LINES WITHIN STREET RIGHTS OF WAY INDICATE PROPERTY LINES FOR THE PURPOSE OF COMPUTING REQUIRED AREA AND BUILDING SETBACKS AS PROVIDED IN LOS ANGELES COUNTY CODE, TITLE 22, AND ARE NOT FOR PURPOSE OF CONVEYING.

NORTH
SCALE: 1" = 20'

FD. S&T. PER TRACT No. 24831 M.B. 645/48-50

ACCEPTED AS W'LY LINE OF INST. No. 78-345011 RECORDED APRIL 3, 1978.

450.13'

S'LY LINE INST. No. 78-345011 RECORDED APRIL 3, 1978 EST. AT RECORD ANGLES AND DISTANCES.

N89°40'20"E - 179.12'

1.00'

29.00'

72.00'

141.12'

68.94'

140.94'

SET L&T IN CONC. SIDEWALK

6.0'

30'

30'

77.00'

3
A= 5553 SQ. FT.

4
A= 5369 SQ.FT.

N0°19'40"W - 77.00'

N0°08'20"W - 160.00'

134.96'

N89°40'20"E 146.44'

72.25'
78.00'

74.19'
68.44'

57.96'

2
A= 5510 SQ. FT.

1
A= 5152 SQ. FT.

N0°19'40"W - 71.00'

Δ= 90°11'20"
R= 13.00'
L= 20.46'

6'*

65.19'

63.21'

N89°40'20"E - 128.40'

25.04'

12'

BROADWELL

N89°40'20"E - 141.16'

29'
17'

52'

N89°40'20"E - 219.64'

23'

FD. SW & T PER TRACT No. 32750 M.B. 950/31-32.

BROADWELL

358.00'

N'LY LINE OF CARSON STREET REFERRED TO IN INST. No. 78-345011 RECORDED APRIL 3, 1978.

25'

N89°40'20" E - 343.20'

℄ CARSON STREET

FD. SW & T PER Co. E. F.B. 2920/164 AS SHOWN ON TRACT No. 32750 M.B. 950/31-32.

FD. SW & T PER Co. E. F.B. 2920/166 AS SHOWN ON TRACT No. 32750 M.B. 950/31-32

DETAIL "A"
NO SCALE

FD. 2" I.P. L.S. 3741, FLUSH 0.08' E/O CORNER AS SHOWN ON TRACT No. 32750 M.B. 950/31-32.

125.51'
124.45'

N73°48'52"W - RAD. P.C.C.

Δ= 6°13'09"
R= 112'
L= 12.16'

L=18.63'

1.06'

179.12'
141.12'
140.94'

N80°02'01"W RAD.

Δ= 24°15'31"

8.00'

SET L&T IN CONC. SIDEWALK

0.18'

N80°35'02"W RAD.

R= 112'

BROADWELL AVENUE

N.E. COR., LOT 1, TR. No. 32750, ESTAB. AT RECORD DIST. (82.00) PER SAID TRACT

N'LY LINE LOTS 1 & 2 TRACT No. 32750 M.B. 950/31-32.

N89°36'30"E - 172.00'

82.00'

90.00'

FD L&T "R.C.E. 7091" 0.56'A OF CORNER L 5.0°23'30"E

FD. 2" I.P. 12" DOWN AS SHOWN ON TRACT No. 32750 M.B. 950/31-32

ACCEPTED AS E'LY LINE OF INST. No. 78-345011 RECORDED APRIL 3, 1978.

W'LY LINE LOT 1 TRACT No. 32750 M.B. 950/31-32

285.51'

125.51'
124.45'

5
A= 5400 SQ. FT.

6' WIDE EASEMENT OF SOUTHERN CALIFORNIA EDISON COMPANY FOR CONDUIT PURPOSES PER INST. No. 80-1089443 RECORDED OCTOBER 30, 1980.

N27°11'04"E - 100.92'

91.92'

W'LY LINE OF LOT 2 TRACT No. 32750 M.B. 950/31-32 ESTABLISHED AT RECORD ANGLE RELATIVE TO THE N'LY LINE OF LOTS 1 & 2 PER SAID MAP.

N6°55'55"W RAD.

6'

POINT ESTABLISHED BY INTERSECTION.

9.00'

L=51.35'

Δ= 66°54'57" R= 44' L= 69.98'

Δ= 91°07'28"

6'*

Δ= 24°15'31"
L= 18.63'

8.00'

SET L&T IN CONC. SIDEWALK

N81°55'37"E 21.00'

FD. SW & T PER TRACT No. 32750 M.B. 950/31-32.

SEE DETAIL "A" HEREON

Δ= 97°44'43" R= 20' L= 34.12'

N0°09'00"W - 219.70'

N0°09'00"W

N8°04'23"W - 100.11'

N8°04'23"W - 132.96'

N8°04'23"W - 176.15'

43.35'

56.76'

29'
23'

6'

6'*

AVENUE

W'LY LINE TRACT No. 3612 M.B. 40/5-6 AND E'LY LINE OF TRACT No. 32750 M.B. 950/31-32.

N0°09'00"W - 660.70'

FD. 2" I.P. FLUSH PER TRACT No. 32750 M.B. 950/31-32.

I HEREBY CERTIFY THAT ALL CERTIFICATES HAVE BEEN FILED AND DEPOSITS HAVE BEEN MADE THAT ARE REQUIRED UNDER THE PROVISIONS OF SECTIONS 66492 AND 66493 OF THE SUBDIVISION MAP ACT.

EXECUTIVE OFFICER-CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

BY _____ DEPUTY

I HEREBY CERTIFY THAT I HAVE EXAMINED THIS MAP THAT IT CONFORMS SUBSTANTIALLY TO THE TENTATIVE MAP AND ALL APPROVED ALTERATIONS THEREOF; THAT ALL PROVISIONS OF STATE LAW AND LOCAL SUBDIVISION ORDINANCES APPLICABLE AT THE TIME OF APPROVAL OF THE TENTATIVE MAP HAVE BEEN COMPLIED WITH; AND THAT I AM SATISFIED THAT THIS MAP IS TECHNICALLY CORRECT.

COUNTY ENGINEER

DATE JUL 3 1984 BY _____ DEPUTY

1165/9

BOOK 1165 PAGE 9

VESTING TRACT NO. 46525

SHEET 1 OF 2

90 1804881
90 1804881
FILED
AT REQUEST OF OWNER
OCT 24 1990
31 MIN PAST 4PM
IN BOOK 1165
AT PAGE 9
OF MAPS
LOS ANGELES COUNTY, CA.
Registrar/Recorder
BY _____ Deputy
FEE $ 8.00

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, BEING A SUBDIVISION OF A PORTION OF LOT 24, TRACT NO. 3612 AS PER MAP RECORDED IN BOOK 40, PAGES 5 AND 6 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF LOS ANGELES COUNTY.

RALPH W. GUIDA III, L.S. 5288

FOR CONDOMINIUM PURPOSES

OWNERS STATEMENT:

WE HEREBY STATE THAT WE ARE THE OWNERS OF OR ARE INTERESTED IN THE LANDS INCLUDED WITHIN THE SUBDIVISION SHOWN ON THIS MAP WITHIN THE DISTINCTIVE BORDER LINES, AND WE CONSENT TO THE PREPARATION AND FILING OF SAID MAP AND SUBDIVISION. WE ALSO DEDICATE TO THE COUNTY OF LOS ANGELES THE EASEMENT FOR SANITARY SEWER PURPOSES SO DESIGNATED ON SAID MAP AND ALL USES INCIDENT THERETO, INCLUDING THE RIGHT TO MAKE CONNECTIONS THEREWITH FROM ANY ADJOINING PROPERTIES. FURTHER, AS A DEDICATION TO PUBLIC USE, WHILE ALL OF VERMONT STREET WITHIN OR ADJACENT TO THIS SUBDIVISION REMAINS A PUBLIC STREET, WE HEREBY ABANDON ALL RIGHTS OF DIRECT VEHICULAR INGRESS AND EGRESS TO SAID STREET, EXCEPT FOR ONE DRIVEWAY OPENING FOR LOT ONE. IF ANY PORTION OF SAID STREET ADJACENT TO THIS SUBDIVISION IS VACATED, SUCH VACATION TERMINATES THE ABOVE DEDICATION AS TO THE PART VACATED.

PALMIA CONDOMINIUMS, A CALIFORNIA GENERAL PARTNERSHIP

BY: E.S. DEVELOPMENT, INC., A CALIFORNIA CORPORATION

BY: _____
LUIGI SCHIAPPA, PRESIDENT

BY: _____
SILVANA SCHIAPPA, SECRETARY

STATE OF CALIFORNIA)
COUNTY OF Los Angeles) SS.

On May 23, 1990 before me, the undersigned, a Notary Public in and for said State, personally appeared Luigi Schiappa, personally known to me or proved to me on the basis of satisfactory evidence to be the person who executed the within instrument as the President, and Silvana Schiappa, personally known to me or proved to me on the basis of satisfactory evidence to be the person who executed the within instrument as the Secretary of E.S. DEVELOPMENT, INC., the corporation that executed the within instrument on behalf of PALMIA CONDOMINIUMS, the partnership that executed the within instrument, and acknowledged to me that such corporation executed the same as such partner and that such partnership executed the same.

OFFICIAL SEAL
DEBBIE FILBERT
NOTARY PUBLIC-CALIFORNIA
LOS ANGELES COUNTY
MY COMM. EXP. SEPT 19, 1990

Debbie Filbert
NOTARY PUBLIC

BENEFICIARY:

CITY NATIONAL BANK, A NATIONAL BANKING ASSOCIATION, BENEFICIARY UNDER A DEED OF TRUST RECORDED MAY 29, 1990 AS INSTRUMENT NO. 90-953287, OFFICIAL RECORDS.

BY: _____
CHARLES W. RICE, SENIOR VICE PRESIDENT

BY: _____
OLGA RODRIGUEZ, ADMINISTRATIVE OFFICER

STATE OF CALIFORNIA)
COUNTY OF Orange) SS.

On October 5, 1990 before me, the undersigned, a Notary Public in and for Said State, personally appeared Charles W. Rice, personally known to me or proved to me on the basis of satisfactory evidence to be the person who executed the within instrument as the Senior Vice President and Olga Rodriguez, personally known to me or proved to me on the basis of satisfactory evidence to be the person who executed the within instrument as the Administrative Officer of the Association that executed the within instrument and acknowledged to me that such association executed the within instrument pursuant to its by-laws or a resolution of its board of directors as beneficiary.

Jane Murray
NOTARY PUBLIC

OFFICIAL SEAL
JANE MURRAY
NOTARY PUBLIC - CALIFORNIA
ORANGE COUNTY
My comm. expires JUNE 7, 1993

JANE MURRAY
ORANGE COUNTY
COMM. EXP. 6-7-93

I HEREBY CERTIFY THAT ALL CERTIFICATES HAVE BEEN FILED AND DEPOSITS HAVE BEEN MADE THAT ARE REQUIRED UNDER THE PROVISIONS OF SECTIONS 66492 AND 66493 OF THE SUBDIVISION MAP ACT.

EXECUTIVE OFFICER-CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

BY _____ DEPUTY

COUNTY OF LOS ANGELES 24 CALIFORNIA

SURVEYOR'S STATEMENT

I HEREBY STATE THAT I AM A LICENSED LAND SURVEYOR OF THE STATE OF CALIFORNIA; THAT THIS FINAL MAP, CONSISTING OF 2 SHEETS, IS A TRUE AND COMPLETE SURVEY AS SHOWN, AND WAS MADE BY ME OR UNDER MY DIRECTION IN APRIL, 1989; THAT THE MONUMENTS OF THE CHARACTER AND LOCATIONS SHOWN HEREON ARE IN PLACE OR WILL BE IN PLACE WITHIN TWENTY-FOUR MONTHS FROM THE FILING DATE OF THIS MAP; THAT SAID MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED AND THAT TIE NOTES TO ALL CENTERLINE MONUMENTS SHOWN AS "TO BE SET" WILL BE ON FILE IN THE OFFICE OF THE DIRECTOR OF PUBLIC WORKS WITHIN TWENTY-FOUR MONTHS FROM THE FILING DATE SHOWN HEREON..

Ralph W. Guida III
RALPH W. GUIDA, III
L.S. NO. 5288
DATE: May 17, 1990
EXPIRATION DATE: DEC. 31, 1991

LICENSED LAND SURVEYOR
RALPH W. GUIDA III
No. 5288
EXP. 12-31-91
STATE OF CALIFORNIA

COUNTY SURVEYOR'S CERTIFICATE:

I HEREBY CERTIFY THAT I HAVE EXAMINED THIS MAP, THAT IT CONFORMS SUBSTANTIALLY TO THE TENTATIVE MAP AND ALL APPROVED ALTERATIONS THEREOF; THAT ALL PROVISIONS OF STATE LAW AND LOCAL SUBDIVISION ORDINANCES APPLICABLE AT THE TIME OF APPROVAL OF THE TENTATIVE MAP HAVE BEEN COMPLIED WITH; AND THAT I AM SATISFIED THAT THIS MAP IS TECHNICALLY CORRECT.

COUNTY ENGINEER

BY: _____ DATE: Oct 24, 1990
DEPUTY

R.C.E. NO. 19763 EXP. 9-30-93

SIGNATURE OMISSIONS:

THE SIGNATURES OF THE FOLLOWING PARTIES HAVE BEEN OMITTED UNDER THE PROVISIONS OF SECTION 66436 (a) (3A) (I-VII) OF THE SUBDIVISION MAP ACT AS THEIR INTEREST IS SUCH THAT IT CANNOT RIPEN INTO A FEE TITLE AND SAID SIGNATURES ARE NOT REQUIRED BY THE LOCAL AGENCY:

TICOR TITLE INSURANCE COMPANY, FORMERLY KNOWN AS TITLE INSURANCE AND TRUST COMPANY, EASEMENT HOLDER AS DISCLOSED BY DEED RECORDED IN BOOK 7092, PAGE 201 OF OFFICIAL RECORDS. SAID EASEMENT IS FOR THE PURPOSE OF PIPELINES, ROAD AND RELATED PURPOSES.

DOMINQUEZ WATER COMPANY, A CORPORATION, EASEMENT HOLDER AS DISCLOSED BY DEED RECORDED IN BOOK 1515, PAGE 265 OF OFFICIAL RECORDS. SAID EASEMENT IS FOR THE PURPOSE OF CONSTRUCTING AND MAINTAINING A PIPELINE AND WATER DISTRIBUTION SYSTEM.

SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION, EASEMENT HOLDER AS DISCLOSED BY DEED RECORDED IN BOOK 24164, PAGE 376 OF OFFICIAL RECORDS. SAID EASEMENT IS FOR PUBLIC UTILITIES.

I HEREBY CERTIFY THAT SECURITY IN THE AMOUNT OF $ 12,575.00 HAS BEEN FILED WITH THE CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES AS SECURITY FOR THE PAYMENT OF TAXES AND SPECIAL ASSESSMENTS COLLECTED AS TAXES ON THE LAND SHOWN ON MAP OF TRACT NO./PARCEL MAP NO. 46525 AS REQUIRED BY LAW.

EXECUTIVE OFFICER-CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

BY _____ DEPUTY

COUNTY OF LOS ANGELES 24 CALIFORNIA

CONDOMINIUM NOTE:

THIS SUBDIVISION IS APPROVED AS CONDOMINIUM PROJECT FOR 66 UNITS, WHEREBY THE OWNERS OF THE UNITS OF AIR SPACE WILL HOLD AN UNDIVIDED INTEREST IN THE COMMON AREAS WHICH WILL, IN TURN, PROVIDE THE NECESSARY ACCESS AND UTILITY EASEMENTS FOR THE UNITS.

IN RE TRACT NO: 46525 IT IS ORDERED THAT THE MAP OF TRACT NO. 46525 IS HEREBY APPROVED.

THIS IS TO CERTIFY THAT THE INTEREST IN REAL PROPERTY CONVEYED BY THE WITHIN DEDICATION OR GRANT TO THE COUNTY OF LOS ANGELES, A GOVERNMENTAL AGENCY, IS HEREBY ACCEPTED AND THE GRANTEE CONSENTS TO THE RECORDATION THEREOF BY ITS AUTHORIZED OFFICER.

I HEREBY CERTIFY THAT THE FOREGOING ORDER WAS ADOPTED BY THE BOARD OF SUPERVISORS AT A MEETING HELD.

OCT 23, 1990

EXECUTIVE OFFICER-CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA.

BY _____ DEPUTY

COUNTY OF LOS ANGELES 24 CALIFORNIA

039-197

SCALE: 1" = 40'

VESTING
TRACT NO. 46525

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, BEING A SUBDIVISION OF A PORTION OF LOT 24, TRACT NO. 3612 AS PER MAP RECORDED IN BOOK 40, PAGES 5 AND 6 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF LOS ANGELES COUNTY.

RALPH W. GUIDA III, L.S. 5288

FOR CONDOMINIUM PURPOSES

PRIVATE DRIVE AND FIRE LANE CURVE/BEARING DATA

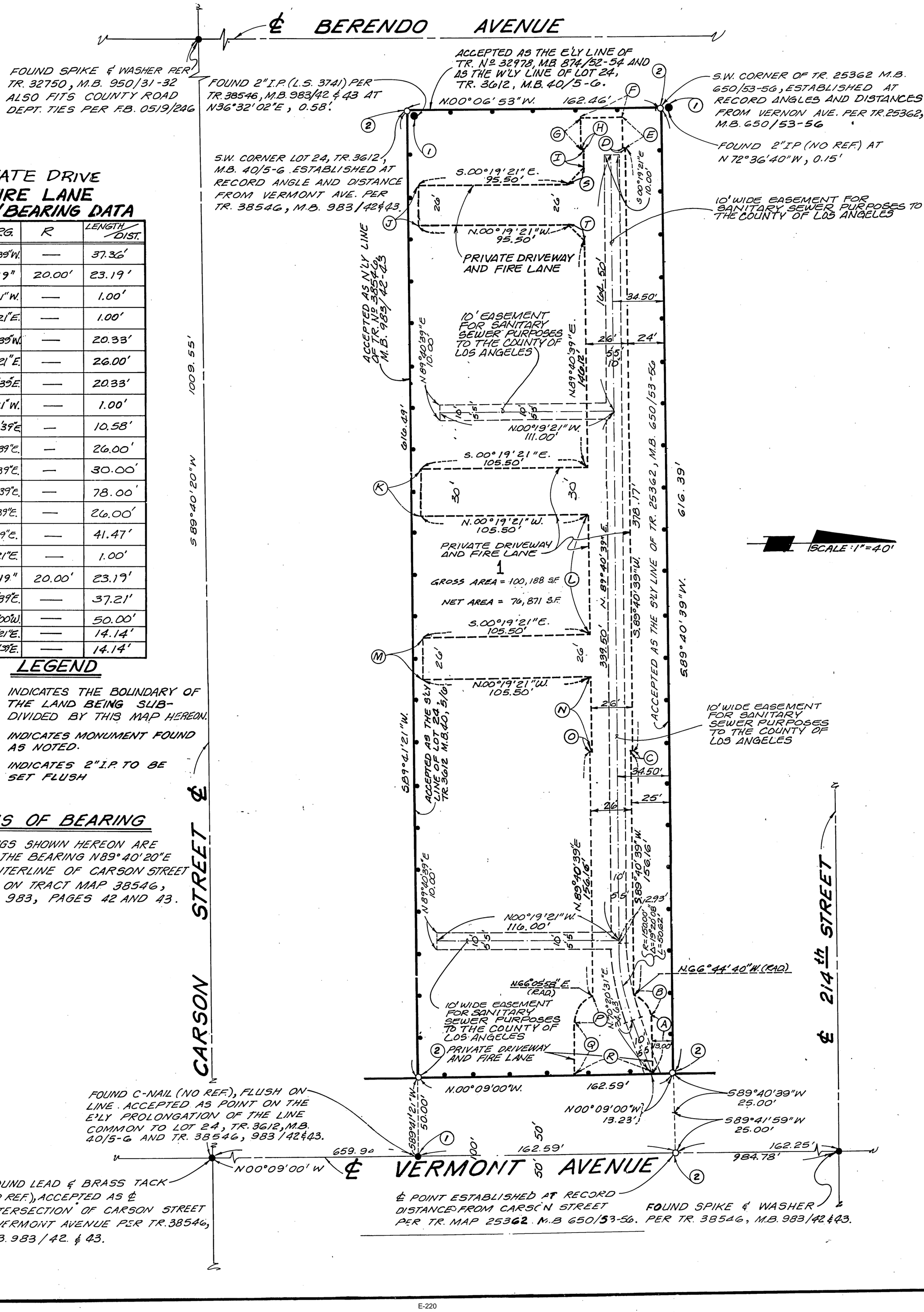
	Δ/BRG.	R	LENGTH/DIST.
A	S.89°40'39"W.	—	37.36'
B	66°25'19"	20.00'	23.19'
C	N.00°19'21"W.	—	1.00'
D	S.00°19'21"E.	—	1.00'
E	S.89°40'39"W.	—	20.33'
F	S.00°19'21"E.	—	26.00'
G	N.89°40'39"E.	—	20.33'
H	N.00°19'21"W.	—	1.00'
I	N.89°40'39"E.	—	10.58'
J	N.89°40'39"E.	—	26.00'
K	N.89°40'39"E.	—	30.00'
L	N.89°40'39"E.	—	78.00'
M	N.89°40'39"E.	—	26.00'
N	N.89°40'39"E.	—	41.47'
O	S.00°19'21"E.	—	1.00'
P	66°25'19"	20.00'	23.19'
Q	N.89°40'39"E.	—	37.21'
R	N.00°09'00"W.	—	50.00'
S	S.45°19'21"E.	—	14.14'
T	N.44°40'39"E.	—	14.14'

LEGEND

- INDICATES THE BOUNDARY OF THE LAND BEING SUB-DIVIDED BY THIS MAP HEREON.
- (1)—● INDICATES MONUMENT FOUND AS NOTED.
- (2)—○ INDICATES 2"I.P. TO BE SET FLUSH

BASIS OF BEARING

THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARING N89°40'20"E OF THE CENTERLINE OF CARSON STREET AS SHOWN ON TRACT MAP 38546, MAP BOOK 983, PAGES 42 AND 43.



MAY 1 1923
20 10 A M
C8
1
map

E Backenman
Deputy

SHEET 1.

TRACT No 6378.

IN THE COUNTY OF LOS ANGELES.

BEING A SUBDIVISION OF A PORTION OF THE 511.65 ACRE TRACT ALLOTTED TO ANA JOSEFA DOMINGUEZ DE GUYER, MADE IN SUPERIOR COURT CASE No. 3284, IN AND FOR LOS ANGELES COUNTY CALIFORNIA.

THE BASIS OF BEARINGS USED FOR THIS MAP, BEING THE EAST LINE OF THE HAMMERTON TRACT, AS RECORDED IN M.B. 40-2-3-4 — S0°34'E.

SURVEYED MARCH 1923.

FRANK R. LEONARD
LICENSED SURVEYOR.

Scale 1" = 300 Ft.

Not a part of this Subdivision.

Found 2" Pipe N.E. Cor. Hammerton Tract. M-B-40-2-3-4

Set 2" Pipe.

Found 2" Pipe S.W. Cor. Lot 90 Tract 4671-M-B-56-30-31

Found 2" Pipe

N.E. Cor. of 511.65 Acre Tract S-C-C-No. 3284.

JAMES ST.

HAMILTON ST.

PINE AVE.

NORTH WALNUT AVE.

VERMONT AVE.

HOOVER ST.

MAIN ST.

ROAD.

EAST

NORMANDIE AVE.

Found 2" Pipe S.E. Cor. Hammerton Tract. M-B-40-2-3-4

Found 2" Pipe N.E. Cor. Lot 2/3. Tr. No. 4983-Sheets 1-2-3-4 M-B-57-6-7-8-9

Found 2" Pipe S.W. Cor. Lot 33-Hammerton Tract. M-B-40-2-3-4.

Found Spike & Washer Tr. No. 4983-Sheets 1-2-3-4-M-B 57-6-7-8-9

Found Cut Spike

Found 2" Pipe N.E. Cor. Lot 1. Tract 3612-MB 40-5-6

Found 2" Pipe N.W. Cor. Lot 4. Tract 3612-M.B. 40. 5-6

Found 2" Pipe N.E. Cor. Lot 6. Tract 3612 M-B-40-5-6

Found Spike & Washer Tract No 5927-M-B-64-58.

Found 2" Pipe S.E. Cor. Lot 91 Tr. No. 4671-M-B-56-30-31

Found Spike

Found 2" Pipe N.W. Cor. Lot 50-Tr. No. 5927 M-B-64-58.

Found 4" Pipe

Found Spike & Washer

Found Spike & Washer Tr. No. 5927-M-B-64-58.

Found 2" Pipe N.W. Cor. Lot 49 Tr. No. 5927-M-B-64-58.

Found 2" Pipe S.W. Cor. of 511.65 Acre Tract. S-C-No. 3284.

S.W. Cor. of 511.65 Acr. Tr.

S.E. Cor. of 511.65 Acr. Tract.

N.E. Cor. Lot 1 Tract 3612

Found 1"x1" C.S. 8218.

Found 2" Pipe N.E. Cor Lot 3 Tr. No. 3612 MB 40-5-6

Found 4" Pipe

Found Spike & Washer

C.S. 8063

C.S. 8218-Sheet 2

E:138-270

E:151-183, O.R. 49688-10

E:151-3

E:145-98

E:145-212

E:138-142

E:145-205

E:138-234

E:157-43, O.R. 50372-219

Set 2" Pipe.

Set 2" Pipe

Set 2" Pipe.

Set 2" Pipe

Set 2" Pipe.

Set 2" Pipe

TRACT Nº 6378

20 Maps 68 2

We hereby certify that we are the owners of, or are interested in the land included within the subdivision shown on the annexed map, and that we are the only persons whose consent is neccessary to pass a clear title to said land, and that we give our consent to the making of said map and subdivision as shown within the colored border lines.

THE DOMINGUEZ LAND CORPORATION

By M R Osburn President

By W.H. McCord Ass't Secretary.

SECURITY TRUST & SAVINGS BANK

By L.H. Roseberry Vice President

By J.H. Griffin Ass't Secretary

State of California } s.s.
County of Los Angeles }

On this 10 day of MARCH in the year 1923 A.D. before me, DONALD FINDLEY a Notary Public in and for the said County of Los Angeles, State of California residing therein, duly commissioned and sworn, personally appeared M.R. OSBURN known to me to be the President and W.H. McCORD known to me to be the Ass't Secretary of the DOMINGUEZ LAND CORPORATION, personally known to me to be the persons whose names are subscribed to the within instrument for said Corporation, and acknowledged to me that said Corporation executed the same.

In witness whereof I have hereto set my hand and affixed my official seal the day and year in this certificate first above written.

Donald Findley

NOTARY PUBLIC IN AND FOR LOS ANGELES COUNTY, STATE OF CALIFORNIA

My commission expires Aug. 14, 1926

State of California } s.s.
County of Los Angeles }

On this 12TH day of March in the year 1923 A.D. before me, Gladys McKee a Notary Public in and for the said County of Los Angeles, State of California, residing therein, duly commissioned and sworn personally appeared L.H. Roseberry known to me to be the Vice President, and J.H. Griffin known to me to be the Ass't Secretary of the SECURITY TRUST & SAVINGS BANK, personally known to me to be the persons whose names are subscribed to the within instrument for said Corporation, and acknowledged tome that said Corporation executed the same, as trustee.

In witness whereof I have hereto set my hand and affixed my official seal, the day and year in this certificate first above written.

Gladys McKee

NOTARY PUBLIC IN AND FOR LOS ANGELES COUNTY, STATE OF CALIFORNIA

My commission expires [illegible]

I, FRANK R. LEONARD, hereby certify that I am a Licensed Surveyor, of the State of California, and that this map consisting of two sheets, correctly represents a survey made under my supervision March 1923, and that all the monuments shown here on actually exist, and that their positions are correctly shown.

Frank R Leonard

Subscribed to and sworn to before me this ___ day of MARCH in the year 1923 A.D.

NOTARY PUBLIC IN AND FOR LOS ANGELES, STATE OF CALIFORNIA

My commission expires _____

Tract No. 6378 (Sheets 1 & 2)
Tract No. 6378 (Sheets 1 & 2)
3000.00

Wright

April 30 - 1923

May 1 1923.
Chas F. Calhoun

SCALE: 1"=60'

TRACT No. 24141

IN UNINCORPORATED TERRITORY OF
THE COUNTY OF LOS ANGELES
BEING A SUBDIVISION OF LOTS 13 TO 16 INCLUSIVE, AND PORTIONS OF LOTS 19 AND 20 OF TRACT NO. 6378 AS PER MAP RECORDED IN BOOK 68, PAGES 1-2 OF MAPS, RECORDS OF LOS ANGELES COUNTY, STATE OF CALIFORNIA.

4186

RECORDED
AT REQUEST OF OWNER
OCT. 9, 1957
MIN. PAST 4 P.M.
IN BOOK 623
AT PAGE 40
OF MAP RECORDS
LOS ANGELES COUNTY, CALIF.
RAY E. LEE
COUNTY RECORDER
DEPUTY
$9.00

BARCLAY SURVEYING COMPANY

BASIS OF BEARINGS

The bearing S. 00°57'30" W. of the centerline of Vermont Avenue as shown on map of Tract No. 6378, M. B. 68/1-2, was taken as the basis of bearings used on this map.

We hereby certify that we are the owners of, or are interested in the lands included within the subdivision shown on this map, and we consent to the preparation and recordation of said map and subdivision as shown within the colored border lines; and we hereby dedicate to the public use all streets, highways and other public ways shown on said map. We further certify that except as shown on a copy of this map on file in the Office of the County Road Commissioner, we know of no easement or structure existing within the easements hereby offered for dedication to the public, other than publicly owned water lines, sewers, or storm drains; that we will grant no right or interest within the boundaries of said easements offered to the public, except where such right or interest is expressly made subject to the said easements.

As a dedication to public use while all of Vermont Avenue within this subdivision remains a public highway for such time only, we hereby abandon all easements of ingress and egress to the said Vermont Avenue so that the owners of lots 1 to 25 inclusive abutting this highway during such time will have no rights of access whatever in this highway as such except the general easement of travel which belongs to the whole public. If any change of alignment or width of such highway results in the vacation of any part thereof within this subdivision, such vacation terminates the above dedication as to the part vacated. We also grant to the County of Los Angeles the easements for sanitary sewer and drainage purposes so designated on said map and all uses incident thereto, including the right to make connections therewith from any adjoining property.

TITLE INSURANCE AND TRUST COMPANY (A corporation)
Trustee under deed of trust recorded September 18, 1957, as instrument numbered 1675

Paul Pfleuger
Vice President

J. A. Willett
Ass't. Secretary

BARCLAY DEVELOPMENT CO. (A partnership)

Richard Barclay
Partner

Robert Barclay
Partner

Walter C. Bradford
Nellie M. Bradford
Donald Findley

Katherine B. Curtiss
Charles A. Curtiss

Blanket Easement Holders per Book 7030 page 49; Book 5621 page 61; Book 4441 page 268; Book 5137 page 80; Book 5177 page 282 all of Official Records.

DOMINGUEZ WATER CORPORATION hereby certifies that it has an interest in the land included within the subdivision shown on the annexed map by virtue of an easement granted in deed recorded in Book 38362 page 377, Official Records, and by virtue of a blanket easement granted in deed recorded in Book 48339 page 359, Official Records, and by virtue of a blanket easement granted to it by deed to DOMINGUEZ WATER COMPANY, its predecessor in interest, recorded in Book 1515 page 265, Official Records, and by virtue of a blanket easement granted to it by deed to DOMINGUEZ ESTATE COMPANY its predecessor in interest, recorded in Book 4575 page 256 Official Records of the County of Los Angeles, and said corporation hereby consents to the making and recordation of said map and subdivision as shown within the colored border lines and hereby dedicates to the public use its said easements within the streets, avenues and other public ways shown on said map within said subdivision, except that said corporation retains such of said easements as are necessary for laying, maintaining, operating, repairing and replacing the water mains, water pipes, and water service connections of said corporation and for making extensions thereto; provided, however that the easements hereby retained by said corporation are subordinate to the easements for streets, avenues and other public ways as offered for dedication as shown on said map; that the public utilities commission of the State of California has granted to said corporation a certificate of public convenience and necessity to serve and distribute water for domestic purposes to the land included within said subdivision; that the subdivider has filed with DOMINGUEZ WATER CORPORATION an application for a water main extension to serve the land within said subdivision and has agreed to deposit with DOMINGUEZ WATER CORPORATION, pursuant to Rule and Regulation No 20 of the tariff of said corporation, the estimated cost of constructing a water distribution system to serve the land within said subdivision with standards of DOMINGUEZ WATER CORPORATION and when completed DOMINGUEZ WATER CORPORATION will serve and distribute water to all parcels of land within said subdivision, pursuant to its tariff on file with said public utilities commission. Said corporation further certifies that except as shown on copy of said map on file in the Office of the County Road Commissioner, it knows of no easements or structures existing within the easements hereby offered for dedication to the public other than water lines owned by said corporation and publicly owned sewers and storm drains; that said DOMINGUEZ WATER CORPORATION will grant no right or interest within the boundaries of said easements offered to the public except where such right or interest is expressly made subject to said easements.

DOMINGUEZ WATER CORPORATION

J. P. Bradley
President

Florence Shrafor
Secretary

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, a public corporation of the State of California, hereinafter in this certificate called "District," is the owner and in possession of certain easements, rights of way and interests conveyed to said District by deed recorded Jan. 5, 1939 in Book 16346 pages 65 to 67, Official Records of Los Angeles County California, the terms of which deed preclude the erection of buildings or structures on the easement area, and said District reserves to itself and its successors and assigns, all easements, rights of way and interests owned or possessed by said District within the subdivision hereinafter mentioned, and said District, subject to the foregoing reservation, hereby consents to the making and recordation of the annexed map and subdivision as shown within the colored border lines on said map and to the dedication to the public use for street purposes of the Streets and Avenues shown on said map within said subdivision it being further understood that the grade of any said Street, Avenue or Lot crossing said easements shall not be less than 3.5 feet above the top of Districts pipe line under or adjacent to such Street or Avenue, and that no fill greater than 3 feet in depth shall be placed on the surface of the ground within the area of any such easement.

ATTEST
A. L. Gram
EXECUTIVE SECRETARY

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
By Robert B. Diemer
GENERAL MANAGER AND CHIEF ENGINEER

APPROVED AS TO FORM
Charles H. Toepfer Jr.
ASST. GENERAL COUNSEL

STATE OF CALIFORNIA } SS:
COUNTY OF LOS ANGELES }

On this 12th day of August 1957 before me, Ruth K. Thiers a notary public in and for said County personally appeared Robert B. Diemer known to me to be the General Manager and Chief Engineer, and A. L. Gram known to me to be the Executive Secretary of The Metropolitan Water District of Southern California, the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged to me that such corporation executed the same

Ruth K. Thiers
My Commission Expires January 21, 1960

I hereby certify that I am a Licensed Surveyor of the State of California; that this map consisting of three sheets correctly represents a true and complete survey made under my supervision in July 1957; that the monuments of character and locations shown hereon will be in place not later than Sept. 1, 1958; that said monuments are sufficient to enable the survey to be readily retraced, and that tie notes to all centerline monuments shown as set by me will be on file in the Office of the County Engineer and Surveyor not later than Oct. 1, 1958.

Robert Barclay
Licensed Surveyor No. 2521

In re Acceptance of Highways, Public Ways, etc., in TRACT NO. 24141

On motion approved by the Board of Supervisors, it is ordered that the map of TRACT NO. 24141 be and the same is hereby approved; that the bond filed in the office of this Board as security for the payment of taxes and special assessments collected as taxes be and the same is also hereby approved in the sum of $1875.00 which is hereby fixed as the required amount of said bond; and that all streets, highways, other public ways and easements shown upon said map and therein offered for dedication be and the same are hereby accepted on behalf of the public. Also the Future Street shown on said map and herein offered for dedication is hereby rejected under the provisions of Section 11616 of the Subdivision Map Act. Also the offer of dedication for abandonment of ingress and egress is hereby rejected.

The Clerk of this Board is directed to endorse on the face of said map a copy of this order authenticated by the seal of the Board of Supervisors.

I hereby certify that the foregoing order was adopted by the Board of Supervisors at a meeting of said Board held October 8, 1957

Harold J. Ostly, County Clerk and Ex-officio Clerk of the Board of Supervisors of the County of Los Angeles, State of California.

By Evelyn Fodor Deputy

State of California } S.S.
County of Los Angeles }

On this 26 day of September 1957 before me THE UNDERSIGNED a notary public in and for said County and State personally appeared PAUL PFLUEGER known to me to be the VICE President and J. A. WILLETT known to me to be the ASS'T Secretary of TITLE INSURANCE AND TRUST COMPANY, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged to me that such corporation executed the same as trustee.

Lola M. Drach
My Commission Expires 7-30-61

We hereby dedicate for public use for street purposes that certain strip of land designated as "Future Street" shown on said map within said subdivision reserving to ourselves for the use of ourselves and successive owners of the respective certain strip shown on said map, any and all ordinary uses of said land except the erection or construction thereon of any structure not ordinarily placed in public streets, until such time as the proper legislative body shall open said street for public use.

State of California } S.S.
County of Los Angeles }

On this 9th day of Sept. 1957, before me John R. Spahn a notary public in and for said County and State personally appeared Charles A. Curtiss and Katherine B. Curtiss husband and wife, Walter C. Bradford and Nellie M. Bradford, husband and wife, and Donald Findley as individual, and known to me to be the persons whose names are subscribed to the within instrument and acknowledged to me that they executed the same.

John R. Spahn
My commission expires 8-6-60

State of California } S.S.
County of Los Angeles }

On this 29th day of JULY 1957, before me Frank Spelios a notary public in and for said County and State personally appeared Richard Barclay and Robert Barclay, known to me to be the partners of the general partnership that executed the within instrument and acknowledged to me that such general partnership executed the same.

Frank Spelios
My Commission Expires November 20, 1959

State of California } S.S.
County of Los Angeles }

On this 27 day of Aug. 1957, before me Marion G. Perrigo a notary public in and for said County and State personally appeared J. P. BRADLEY known to me to be the President, and FLORENCE SHRAFOR known to me to be the Secretary of DOMINGUEZ WATER CORPORATION, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation herein named and acknowledged to me that such corporation executed the same

Marion G. Perrigo
My Commission Expires June 17, 1959

The signature of the present owner of all mineral rights in said property below 500 feet which was reserved in deed recorded September 18, 1957, as instrument No. 1678, has been omitted as a necessary party to sign the Map under the provisions of Section 11587 C.-(1) of the Subdivision Map Act inasmuch as such ownership does not include a right of entry on the surface of the land.

SCALE: 1" = 60'

SHEET 2 OF 3 SHEETS

TRACT No. 24141

IN UNINCORPORATED TERRITORY OF
THE COUNTY OF LOS ANGELES

4180 PG. 2
RECORDED
AT REQUEST OF GRANTEE
OCT. 9, 1957
14 MIN. PAST 4 P.M.
IN BOOK 623
AT PAGE 41
OF MAP RECORDS
LOS ANGELES COUNTY, CALIF.
RAY E. LEE
COUNTY RECORDER
BY [signature] DEPUTY

BARCLAY SURVEYING COMPANY

Fd. L. A. City Eng. Mon. 3/4" Pun. Dural Hex. Rod in 6" conc. well per C.E.F.B. 10635-68

Set P.K. Nail

NO°34'08"W FIGUEROA ℄ STREET 1873.06'

363.07' 323.54' 402.60' 208.10'

Fd. Pun. Bolt & Washer in 4" Sleeve 3" below Surface, per St. Hwy. F.B. A 189.001/67

N89°25'12"E 184.85'

NOT A PART OF THIS

Set 2"I.P.

HARBOR SUBDIVISION

135.49' N10°17'31"E 119.08' N51°55'27"E 158.18'

W'ly Line OR. 44493-337 FREEWAY

52.95' 56.51' 61.10' 52.95' 739.46' 56.52' 61.10' 52.95' 30.81'

Set P.K. Nail

Set 2"I.P.

324.18' N89°24'44"E

South line Lot 19 M.B. 68/1-2 by proportion

Tr. No. G378

39 40 41 38 37 42 44 45 46 47 48 49 50 51

N41°40'08"W 123.82' N86°53'18"W 87.05 Rad.

D=52°46'21" L=35.00 D=52°46'21" L=35.00 D=203°42'24" L=135.10

N15°30'31"E 91.39' N16°05'29"W 146.16' 53.07' 92.19'

Set S.&T. R=30.00 D=145°03'21" L=75.95'

203.42' 70.98' 122.98' 137.42' 192.77' 181.25' 171.27' 160.62' 149.11' 139.13' 122.02'

N89°25'12"E

N0°34'15"W 97.71' 1.78' R=20.00 N17°34'00"E 48.24' D=11°51'12" L=18.62' 36.27' 35.50' 72.56' 415.38' 965.28'

N89°25'12"E 76.28' D=11°51'12" L=18.62' R=90' N78°22'36"W 45.50' D=28°10' L=2.31' N0°34'15"W 98.53' D=10°23'02" L=16.31' 52' N89°25'12"E

R=15' D=89°59'27" L=23.56' T=15' 85'

Set S.&T. 138' Set S.&T. 41.99' 37.99' 43.01' 514.08' N0°34'08"W 2.88' 42.20'

N0°34'15"W 100' 35.27' 55.51' 55.50' 55.51'

North Line Lot 20, Tr. No. G378 M.B. 68/1-2 by proportion

36 35 34 33

N0°34'15"W 557.21' 599.20' 561.20'

MENLO AVENUE

Set S.&T. Set S.&T.

54' 27' 54' 27' 54' 27' 54' 27'

37' 55.50' 60' 52' 55.50' 60' 52' 55.50' 60' 52' 55.50' 60' 69.71'

61 60 59 58 57 56 55 54 53 52

N89°25'12"E 100' 276.02' 120'

STREET 538.25' 200.27' 85'

N0°34'15"W 572.22' 69.72'

52' 55.50' 60' 52' 55.50' 60' 52' 55.50' 60' 52' 55.50' 60' 68.88'

59.51' 52.02' 55.52' 60.02' 52.02' 55.52' 60.02' 52.02' 55.52' 60.02' 48.91'

Set 2"I.P. N.E. Cor. Lot 15 Tr. No. G378 M.B. 68/1-2. by intersection

N.E. Cor. Lot 13 Tr. No. G378 M.B. 68/1-2. by proportion

25' 15' 20' 5' 60' 60' 60

BOOK 623 PAGE 42

SCALE: 1" = 60'

4188 P6.3 SHEET 3 OF 3 SHEETS

TRACT No. 24141

IN UNINCORPORATED TERRITORY OF
THE COUNTY OF LOS ANGELES

RECORDED
AT REQUEST OF BARCLAY
OCT. 9, 1957
14 MIN. 4 P.M.
IN BOOK 623
AT PAGE 42
OF MAP RECORDS
LOS ANGELES COUNTY, CALIF.
RAY E. LEE
COUNTY RECORDER
BY D. Lemm DEPUTY

BARCLAY SURVEYING COMPANY

FIGUEROA STREET

208.10'

Fd. L.A. City Eng. Mon. 3/4" Pun. Dural Hex. Rod in 6" conc. well per C.E.F.B. 10635-67

1873.06' ℄ N0°34'08"W 575.75'

Angle point, intersection of E'ly prolongation of S'ly line Lot 17, Tr. No. 6378 M.B. 68/1-2 Fd. Pun. Bolt & Washer in 4". Sleeve, 3" below Surface per St. Hwy. F.B. 189.001/66

N.00°02'10"W. 946.68'

335.12'

Fd. Pun. S.F. in. per St. Hwy. F.B. A189.001-66.

213 TH STREET

214 TH STREET

Fd. 4 P.K.'s on M.H. rim per St. Hwy. F.B. A189.001-65

I hereby certify that I have examined this map; that it conforms substantially to the tentative map and all approved alterations thereof; that all provisions of applicable State law and local subdivision ordinances have been complied with; and that I am satisfied that this map is technically correct.

Dated: October 9, 1957

JOHN A. LAMBIE
COUNTY ENGINEER
By Ralph V. Kennedy Deputy

NOTE:—
All 2" I.P.'s Set 12" Deep

NOT A PART OF THIS SUBDIVISION

S'ly line Lot 17, Tr. No. 6378 M.B. 68/1-2

N89°52'49"W

600.21'

S.E. Cor. Lot 16 Tr. No. 6378 M.B. 68/1-2 Set 2" I.P. by proportion

East line Lots 15 & 16, Tr. No. 6378 M.B. 68/1-2 by proportion

N0°34'15"W 450.93'

N0°34'15"W 1335.05'

68.88'

30' 28' 5'

Set S&T

611.15'

171.99'

385.32'

5 8

CONRAD AVENUE

Set S.F.T.

N89°25'12"E 254.56'

58' 30' 28'

R = 15' Δ = 86°14'10" L = 22.58'

Δ = 6°46'07" R = 2232.43' L = 264.55'

Set S&T

Set S&T

Set S&T

VAN DEENE AVENUE

Δ = 7°48'40" R = 2211.43' T = 150.28' L = 301.48'

Δ = 8°37'42" R = 2287' L = 344.48'

N 9°57'09"E

Δ = 10°00'02" 353.53' R = 2315' L = 404.07'

T = 202.55'

Set S&T

AVENUE

L = 409.30'

N0°02'53"W 0.55'

N0°02'53"W 0.46'

S.W. Cor. Lot 16 Tr. No. 6378 M.B. 68/1-2

Δ = 2°45'36" R = 2460' L = 427.63'

N0°02'53"W 0.15'

L = 429.38'

N0°02'53"W 0.12'

B.C. - Intersection of W'ly prolongation of S'ly line of Lot 16, Tr. No. 6378 M.B. 68/1-2 Fd. Spk. & Washer with 4 L.&T.'s per L.A. Co. Road Dept. F.B. F.T. 26/30

Δ = 6°33'45" L = 55.74' Δ = 1°27'50"

R = 15' Δ = 93°58'12" L = 24.60'

Δ = 7°59'39" R = 2066.43' L = 324.38'

Δ = 8°59'39" R = 2026.43' T = 159.38' L = 318.11'

Δ = 10°00'02" R = 2345' L = 409.30'

Δ = 10°00'02" R = 2500' T = 218.73' L = 436.36'

N89°52'49"W 418.41'

N89°52'49"W 500.16'

N89°52'49"W 645.16'

954.63'

N0°02'53"W

Fd. 2" I.P. with R.E. 1368 Nothing found or set. No reference.

Fd. Spk. & Washer with 4 L.&T.'s per Co. Surv. F.B. 329/57

N89°52'49"W Easement to the County of Los Angeles for Sanitary Sewer purposes

214TH ℄ STREET

VAN DEENE AVENUE

Set S&T

Set S&T

Set S&T

Set S&T on Tan. line

Set S&T

Set S&T

Set S&T

Set S&T

SCALE: 1" = 60'

SHEET 1 OF 4 SHEETS

TRACT No. 25362

IN UNINCORPORATED TERRITORY OF

THE COUNTY OF LOS ANGELES

BEING A SUBDIVISION OF LOT 13, AND PORTIONS OF LOTS 1, 12, & 24 OF TRACT NO. 3612, AS PER MAP RECORDED IN BOOK 40 PAGES 5 & 6, AND OF PORTIONS OF LOTS 9 & 10 OF TRACT NO. 6378, AS PER MAP RECORDED IN BOOK 68 PAGES 1 & 2 OF MAPS, RECORDS OF LOS ANGELES COUNTY, STATE OF CALIFORNIA, AND GRANT AN EASEMENT OVER A PORTION OF LOT 11, TRACT No 6378 AS PER MAP RECORDED IN BOOK 68, PAGES 1 & 2 OF MAPS, RECORDS OF LOS ANGELES COUNTY, STATE OF CALIFORNIA

BARCLAY - PEARSON CO., INC.

4580

RECORDED
AT REQUEST OF OWNER
DEC. 3, 1959
30 MIN. PAST 3 P.M.
IN BOOK 650
OF PAGE 53
COUNTY RECORDER
BY [illegible] DEPUTY
$11.00

BASIS OF BEARINGS

The bearing N 89° 40' 20" E of the ℄ of Carson Street as shown on map of Tract Nº 24831 M.B. 645/48-50 was taken as the basis of bearings used on this map.

We hereby certify that we are the owners of or are interested in the lands included within the subdivision shown on this map within the colored border lines, and we consent to the preparation and recordation of said map and subdivision and hereby dedicate to the public use all streets, highways and other public ways shown on said map. We further certify that, except as shown on a copy of this map on file in the office of the County Road Commissioner, we know of no easement or structure existing within the easements hereby offered for dedication to the public, other than publicly owned water lines, sewers, or storm drains; that we will grant no right or interest within the boundaries of said easements offered to the public, except where such right or interest is expressly made subject to the said easements. We also grant to the County of Los Angeles, the easements for sanitary sewer, storm drain and drainage purposes so designated on said map and all uses incident thereto including the right to make connections therewith from any adjoining properties, and we hereby dedicate Lots 120, 121, & 122 shown on said map within said subdivision, in fee simple to the County of Los Angeles. As a dedication to public use, while all of Vermont Avenue within this subdivision remains a public highway for such time only, we hereby abandon all easements of ingress and egress to the said avenue so that owners of lots, abutting this highway during such time will have no rights of access whatever in the highway as such except the general easement of travel which belongs to the whole public. If any change of alignment or width of such highway results in the vacation thereof within this subdivision, such vacation terminates the above dedication as to the part vacated.

BAINBRIDGE CORP., a corporation

R A Watt — President

Ralph Garland — Ass't Secretary

CARSON CONSTRUCTION CO., INC. a corporation, (Owner)

Mike Hollander — President

Orest J. Gause Jr. — Secretary

TITLE INSURANCE AND TRUST COMPANY, a corporation, (trustee) under deed of trust recorded November 8, 1959, as instrument No. 1079.

Walter C. Wells — Vice President

Dale L. Dykema — Asst. Secretary

GRAGMONT LAND CO., a corporation

Richard Barclay — President

Lois Barclay — Secretary

UNION BANK, a corporation (Trustee) under deed of trust recorded in book T-850 page 126, Official Records.

[illegible] — President

[illegible] — ASSISTANT ~~SECRETARY~~ CASHIER

State of California } S.S.
County of Los Angeles }

On this 28th day of October 1959, before me John R. Spahn, a notary public in and for said County and State, personally appeared R. A. Watt, known to me to be the President, and Ralph Garland, known to me to be the Ass't Secretary of BAINBRIDGE CORP., the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

John R. Spahn
My Commission Expires Aug. 6, 1960
John R. Spahn

State of California } S.S.
County of Los Angeles }

On this 25th day of Nov. 1959, before me the undersigned, a notary public in and for said County and State, personally appeared R. M. Brown, known to me to be the Asst. ~~President~~, and ~~known to me to be the~~ Secretary of UNION BANK, the corporation that executed the within instrument and known to me to be the person who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same as trustee.

Lorraine Fowler
My Commission Expires 12-23-61
Lorraine Fowler

State of California } S.S.
County of Los Angeles }

On this 24TH day of Nov. 1959, before me John R. Spahn, a notary public in and for said County and State, personally appeared Mike Hollander, known to me to be the President, and Orest J. Gause Jr., known to me to be the Secretary of CARSON CONSTRUCTION CO., INC. the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

John R. Spahn
My Commission Expires Aug 6, 1960
John R. Spahn

I hereby certify that I am a registered Civil Engineer of the State of California; that this map, consisting of four sheets correctly represents a true and complete survey made under my supervision July 1959; that the monuments of character and locations shown hereon will be in place within twenty-four months from recording date of this map; that said monuments are sufficient to enable the survey to be readily retraced, and that tie notes to all centerline monuments shown hereon as set by me will be on file in the office of the County Engineer within twenty-four months from recording date shown hereon.

Edward L Pearson
Registered Civil Engineer No. 9783.

The signatures of DOMINGUEZ ESTATE COMPANY, a corporation, owner of the blanket easement to construct and maintain drainage ditches, all as created by reservation in deed recorded in Book 4575 page 256 of deeds, have been omitted under the provisions of Section 11587(a) of the Subdivision Map Act, since such interest can not ripen into a fee and such signatures are not required by the governing body.

Dominguez Water Corporation hereby certifies that it owns an interest in the land included within the subdivision shown on the annexed map by virtue of easements granted to it by deeds recorded in Book 39383 page 236 of Official Records, and created by reservation in deed recorded in Book 7092 page 201, Official Records of County of Los Angeles and by deed to Dominguez Water Company its predecessor in interest, recorded in Book 1515, page 265, Official Records, and said Dominguez Water Corporation hereby consents to the making and recordation of said map and subdivision as shown within the colored border lines and hereby dedicate to the public use its said easements within the streets, avenues and drives shown on said map within said subdivision, except that said Dominguez Water Corporation retains: a) such of said easements as are necessary for laying, maintaining, operating, repairing, and replacing the water mains, water pipelines and water service connections of said Dominguez Water Corporation and/or making extension thereto and b) the right, without application being first made to or permit and/or license first being obtained from any public body or or official, to lay the water mains and extensions first laid within each of the streets, avenues, and drives within the boundaries of said subdivision, provided, however, that the easements hereby retained by said Dominguez Water Corporation are subordinate to the easements for streets, avenues and drives as offered for dedication as shown on said map; that the Public Utilities Commission of the State of California has granted to said Dominguez Water Corporation a certificate of public convenience and necessity to serve and distribute water for domestic purposes to the land included within said subdivision; that the subdivider has filed with Dominguez Water Corporation an application for a water main extension to serve the land within said subdivision and has agreed to deposit with Dominguez Water Corporation, pursuant to rule and regulation No. 20 of the tariff of said Dominguez Water Corporation, the estimated cost of constructing a water distribution system to serve the land within said subdivision with standards of Dominguez Water Corporation and when completed Dominguez Water Corporation will serve and distribute water to all parcels of land within said subdivision, pursuant to its tariff on file with said Public Utilities Commission, said Dominguez Water Corporation further certifies that, except as shown on a copy of said map on file in the office of the County Road Commissioner, it knows of no easement or structure existing within the easements hereby offered for dedication to the public other than water lines owned by Dominguez Water Corporation and publicly owned sewers and storm drains; that said Dominguez Water Corporation will grant no right or interest within the boundaries of said easements offered to the public except where such right or interest is expressly made subject to said easements.

DOMINGUEZ WATER CORPORATION

J. V. Carson — Vice President.

Carol Stovall — Assistant Secretary.

State of California } S.S.
County of Los Angeles }

On this 5th day of November 1959, before me Alexander Lawrence, a notary public in and for said County and State, personally appeared J. V. Carson, known to me to be the Vice President, and Carol Stovall, known to me to be the Ass't Secretary of DOMINGUEZ WATER CORPORATION, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

Alexander Lawrence
My Commission Expires July 10, 1961
Alexander Lawrence

State of California } S.S.
County of Los Angeles }

On this 25 day of NOV. 1959, before me J. R. STRACHAN, a notary public in and for said County and State, personally appeared WALTER C. WELLS, known to me to be the VICE President, and DALE L. DYKEMA, known to me to be the ASS'T Secretary of TITLE INSURANCE AND TRUST COMPANY, the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same as trustee.

J. R. Strachan
My Commission Expires MAR. 9, 1962
J. R. STRACHAN

State of California } S.S.
County of Los Angeles }

On this 27th day of Nov. 1959, before me John R. Spahn, a notary public in and for said County and State, personally appeared Richard Barclay, Lois Barclay known to me to be the President and Secretary of GRAGMONT LAND CO., the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged to me that such corporation executed the same.

John R. Spahn
My Commission Expires Aug. 6, 1960.
John R. Spahn

NOTE: The signatures of the present owners of that certain oil, minerals and other hydrocarbon substances which was reserved in deed recorded March 28, 1956 in book 50725 page 43, Official Records, in deeds recorded May 13, 1958 in book D-98 page 813, Official Records, and in book D-98 page 812, Official Records, and in deed recorded November 30, 1955 in book 49657 page 215, Official Records have been omitted under the provisions of Section 11587 (c-1) of the Subdivision Map Act inasmuch as said ownership does not include a right of entry on the surface of the land.

SCALE: 1"= 60'

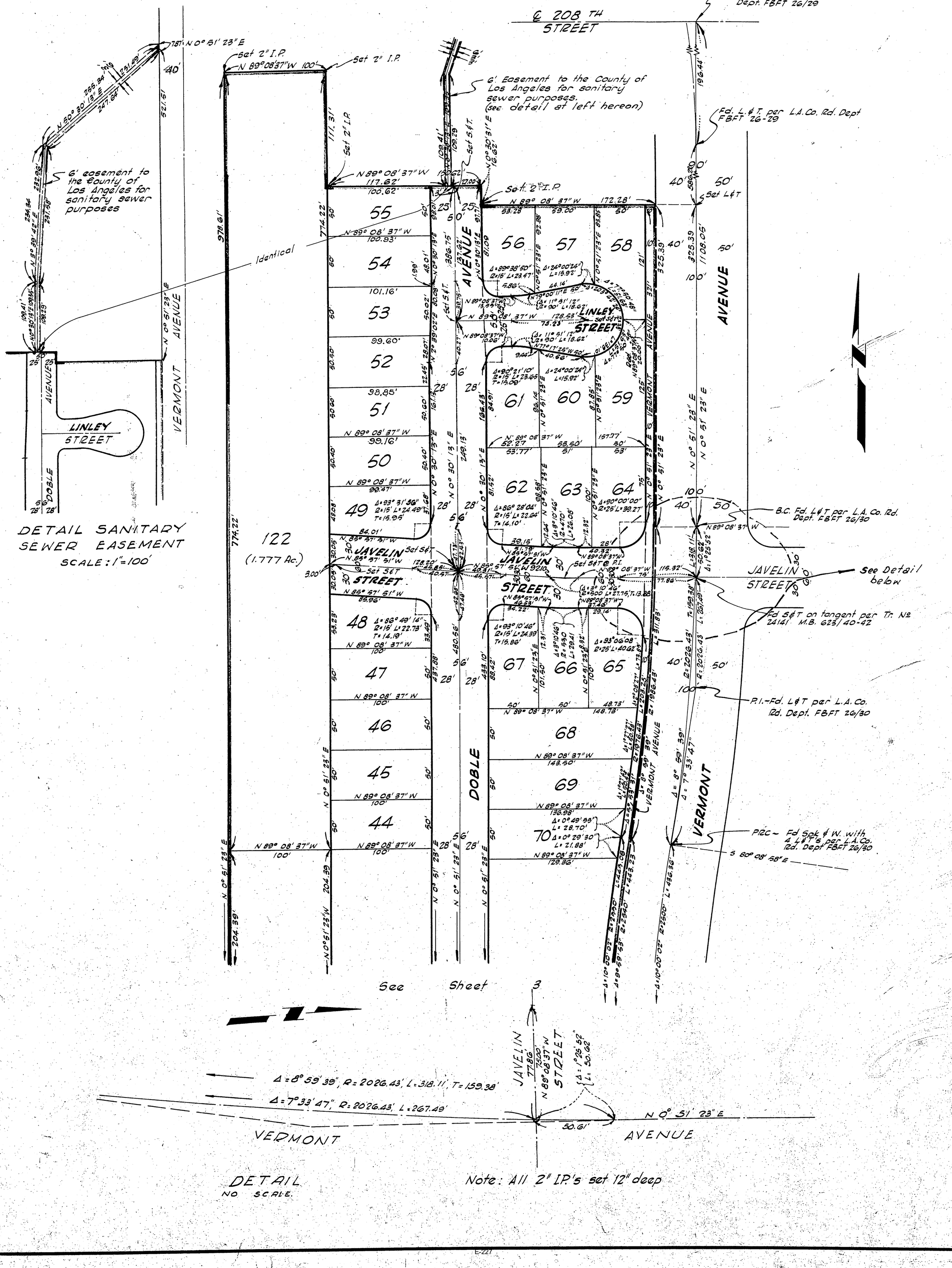
SHEET 2 OF 4 SHEETS 650 - 54

TRACT No. 25362

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

BARCLAY - PEARSON CO., INC.

RECORDED
AT REQUEST OF OWNER
DEC. 3, 1959
30 MIN. 3 P.M.
BK. 650
PAGE 54
OFFICIAL RECORDS
LOS ANGELES COUNTY, CALIF.
FEE $
FRANK LOY
COUNTY RECORDER
S. Solomon
DEPUTY



DETAIL SANITARY SEWER EASEMENT
SCALE: 1"=100'

DETAIL
NO SCALE.

Note: All 2" I.P.'s set 12" deep

650 - 55

SCALE: 1"= 60'

SHEET 3 OF 4 SHEETS

TRACT No. 25362

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

4838 Pg.3

RECORDED
AT REQUEST OF OWNER
DEC. 3, 1959
30 MIN. PAST 3 P.M.
IN BOOK 650
AT PAGE 55
OF MAP RECORDS
LOS ANGELES COUNTY, CALIF.
RAY E. LEE
COUNTY RECORDER
BY D. Moun DEPUTY

BARCLAY - PEARSON CO., INC.

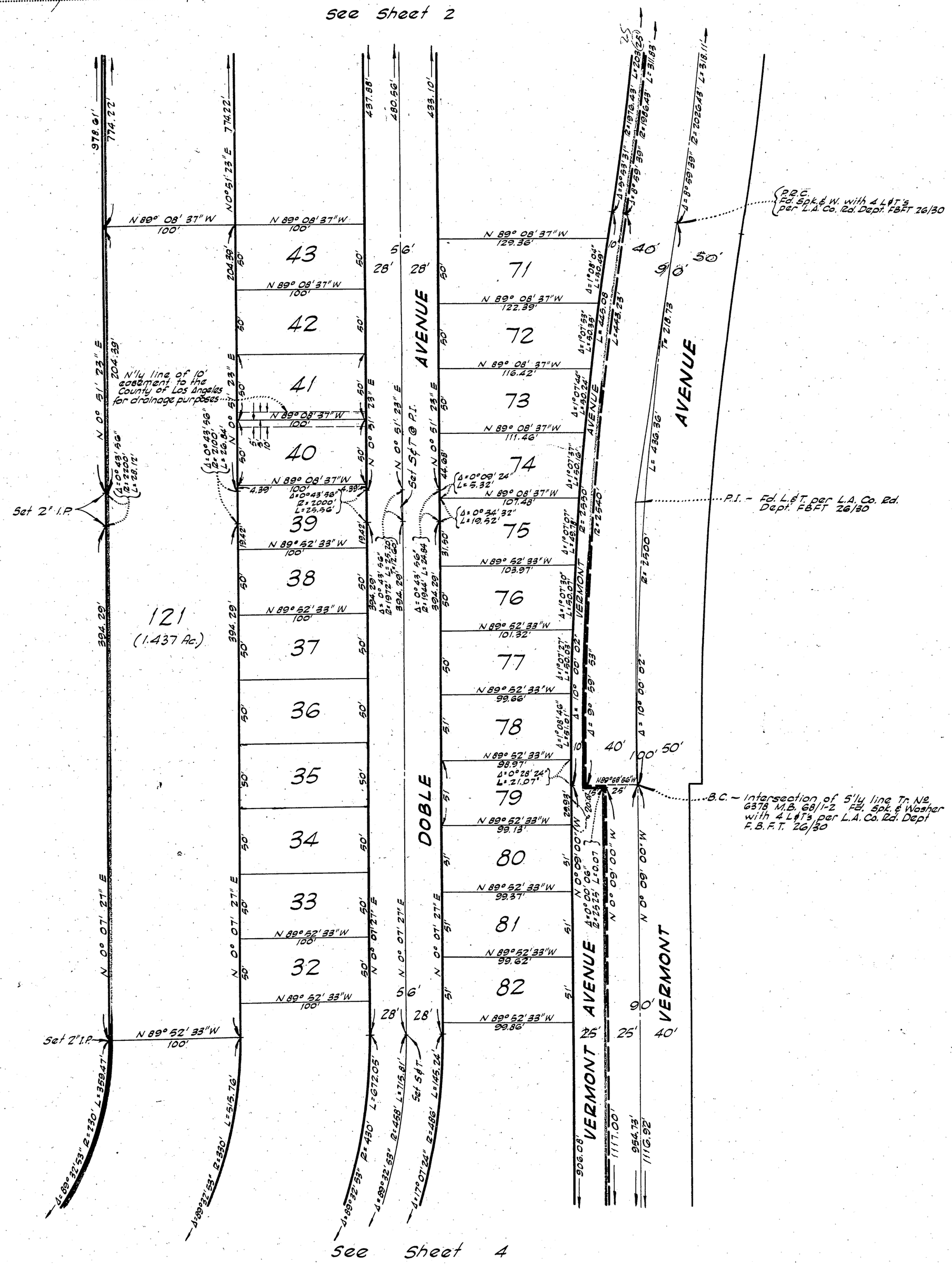
In re Acceptance of Highways, Public Ways, etc., in Tract No 25362 } On motion approved by the Board of Supervisors, It is ordered that the map of Tract No 25362 be and the same is hereby approved; and that all streets, highways, other public ways, and easements shown upon said map and therein offered for dedication be and the same are hereby accepted on behalf of the public.
The grant in fee simple of lots 120, 121 and 122 for storm drain purposes is hereby accepted.
Also the offer of dedication for abandonment of ingress and egress is hereby accepted

The Clerk of this Board is directed to endorse on the face of said map a copy of this order authenticated by the seal of the Board of Supervisors.
I hereby certify that the foregoing order was adopted by the Board of Supervisors at a meeting of said Board held December 1, 1959
Gordon T. Nesvig, Clerk of the Board of Supervisors of the County of Los Angeles, State of California.
By Irene Yamada Deputy

I hereby certify that I have examined this map, that it conforms substantially to the tentative map and all approved alterations thereof; that all provisions of applicable State law and local subdivision ordinances have been complied with; and that I am satisfied that this map is technically correct.
Dated: December 3, 1959

JOHN A. LAMBIE
COUNTY ENGINEER
By Ralph L. Kennedy Deputy

see Sheet 2



see Sheet 4

Note: All 2" I.P.'s set 12" deep

SCALE: 1"= 60'

SHEET 4 OF 4 SHEETS

TRACT No. 25362

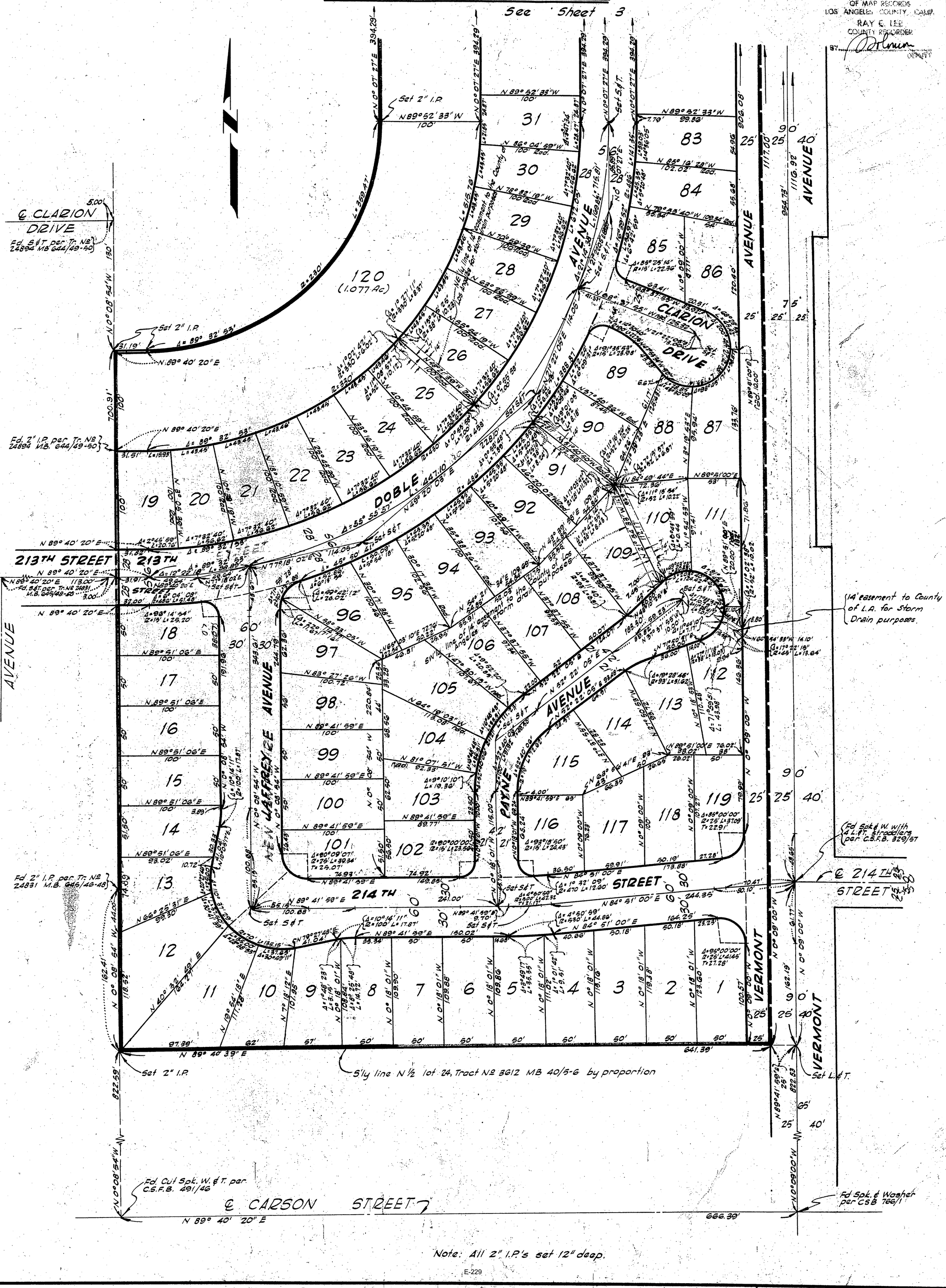
IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

4530 Pg. 4

RECORDED
AT REQUEST OF OWNER
DEC. 3, 1959
MIN. 30 PAST 3 P.M.
IN BOOK 650
AT PAGE 56
OF MAP RECORDS
LOS ANGELES COUNTY, CALIF.
RAY E. LEE
COUNTY RECORDER
BY ____ DEPUTY

BARCLAY - PEARSON CO., INC.

See Sheet 3



Note: All 2" I.P.'s set 12" deep.

SCALE: 1"= 60'

SHEET 1 OF 3 SHEETS

650 - 57

4531

TRACT No. 25150

IN UNINCORPORATED TERRITORY OF

THE COUNTY OF LOS ANGELES

BEING A SUBDIVISION OF PORTIONS OF LOTS 1 AND 12 OF TRACT NO. 3612 AS PER MAP RECORDED IN BOOK 40 PAGES 5 AND 6 OF MAPS AND PORTIONS OF LOTS 9, 10 AND 11 OF TRACT NO 6378 AS PER MAP RECORDED IN BOOK 68 PAGES 1 AND 2 OF MAPS, RECORDS OF LOS ANGELES COUNTY, STATE OF CALIFORNIA.

RECORDED
AT REQUEST OF OWNER
DEC. 3, 1959
30 MIN PAST 3 P.M.
IN BOOK 650
AT PAGE 57
OF MAP RECORDS
LOS ANGELES COUNTY, CALIF.
RAY E. LEE
COUNTY RECORDER
BY [signature] DEPUTY
$9.00

BARCLAY - PEARSON CO., INC.

BASIS OF BEARINGS

The bearing N.89° 40' 20"E. of the centerline of Clarion Drive as shown on map of Tract No. 24894 M.B. 644/49-50 was taken as the basis of bearings used on this map.

We hereby certify that we are the owners of or are interested in the lands included within the subdivision shown on this map within the colored border lines, and we consent to the preparation and recordation of said map and subdivision and hereby dedicate to the public use all streets, highways, walks and other public ways shown on said map. We further certify that, except as shown on a copy of this map on file in the office of the County Road Commissioner, we know of no easement or structure existing within the easements hereby offered for dedication to the public, other than publicly owned water lines, sewers, or storm drains; that we will grant no right or interest within the boundaries of said easements offered to the public, except where such right or interest is expressly made subject to the said easements. We also grant to the County of Los Angeles, ~~the easements for storm drain~~ and drainage purposes so designated on said map and all uses incident thereto, including the right to make connections therewith from any adjoining properties.

GRAGMONT LAND CO., a corporation

Richard Barclay — President

Lois Barclay — Secretary

UNION BANK, a corporation (Trustee)
under deed of trust recorded in book T-850 page 126, Official Records.

R. M. Brown — ASSISTANT ~~Secretary~~ CASHIER

President

I hereby certify that I have examined this map, that it conforms substantially to the tentative map and all approved alterations thereof; that all provisions of applicable State law and local subdivision ordinances have been complied with; and that I am satisfied that this map is technically correct.
Dated: December 3, 1959

JOHN A. LAMBIE
COUNTY ENGINEER
By Ralph L. Kennedy ..... Deputy

State of California } S.S.
County of Los Angeles }

On this 25th day of Nov. 1959, before me Lorraine Towles, a notary public in and for said County and State personally appeared R. M. Brown, known to me to be the Asst. ~~President~~ of UNION BANK, the corporation that executed the within instrument, and known to me to be the person who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same as trustee.

Lorraine Towles
My Commission Expires 12-23-61
Lorraine Towles

State of California } S.S.
County of Los Angeles }

On this 28th day of Oct. 1959, before me John R. Spahn, a notary public in and for said County and State, personally appeared Richard Barclay, known to me to be the President, and Lois Barclay, known to me to be the Secretary of GRAGMONT LAND CO., the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged to me that such corporation executed the same.

John R. Spahn
My Commission Expires Aug. 6, 1960
John R. Spahn

In re Acceptance of Highways, Public Ways, etc., in Tract No. 25150 } On motion approved by the Board of Supervisors, it is ordered that the map of Tract No. 25150 be and the same is hereby approved; and that all streets, highways, other public ways and easements shown upon said map and therein offered for dedication be and the same are hereby accepted on behalf of the public.

The Clerk of this Board is directed to endorse on the face of said map a copy of this order authenticated by the seal of the Board of Supervisors.

I hereby certify that the foregoing order was adopted by the Board of Supervisors at a meeting of said Board held December 1, 1959

Gordon T. Nesvig, Clerk of the Board of Supervisors of the County of Los Angeles, State of California.

By Irene Yamada Deputy

I hereby certify that I am a registered Civil Engineer of the State of California; that this map, consisting of three sheets correctly represents a true and complete survey made under my supervision August 1959; that the monuments of character and locations shown hereon will be in place within twenty-four months from recording date of this map; that said monuments are sufficient to enable the survey to be readily retraced, and that tie notes to all centerline monuments shown hereon as set by me will be on file in the office of the County Engineer within twenty-four months from recording date shown hereon.

Edward L. Powers
Registered Civil Engineer No 9783.

The signatures of DOMINGUEZ ESTATE COMPANY, a corporation, owner of the blanket right to construct and maintain drainage ditches all as created by reservation in deed recorded in Book 4575 page 256 of deeds, have been omitted under the provisions of Section 11587(a) of the Subdivision Map Act since such interest can not ripen into a fee and such signatures are not required by the governing body.

Dominguez Water Corporation hereby certifies that it owns an interest in the land included within the subdivision shown on the annexed map by virtue of easements granted to it by deeds recorded in Book 39383 page 236 of Official Records of County of Los Angeles and by deed to Dominguez Water Company its predecessor in interest, recorded in Book 1515, page 265, Official Records, blanket in nature

and said Dominguez Water Corporation hereby consents to the making and recordation of said map and subdivision as shown within the colored border lines and hereby dedicates to the public use its said easements within the streets, avenues and drives shown on said map within said subdivision, except that said Dominguez Water Corporation retains; a) such of said easements as are necessary for laying, maintaining, operating, repairing, and replacing the water mains, water pipelines and water service connections of said Dominguez Water Corporation and/or making extension thereto and b) the right, without application being first made to or permit and/or license first being obtained from any public body or official, to lay the water mains and extensions first laid within each of the streets, avenues, and drives within the boundaries of said subdivision, provided, however, that the easements hereby retained by said Dominguez Water Corporation are subordinate to the easement for streets, avenues and drives as offered for dedication as shown on said map; that the Public Utilities Commission of the State of California has granted to said Dominguez Water Corporation a certificate of public convenience and necessity to serve and distribute water for domestic purposes to the land included within said subdivision; that the subdivider has filed with Dominguez Water Corporation an application for a water main extension to serve the land within said subdivision and has agreed to deposit with Dominguez Water Corporation, pursuant to rule and regulation No 20 of the tariff of said Dominguez Water Corporation, the estimated cost of constructing a water distribution system to serve the land within said subdivision with standards of Dominguez Water Corporation and when completed Dominguez Water Corporation will serve and distribute water to all parcels of land within said subdivision, pursuant to its tariff on file with said Public Utilities Commission, said Dominguez Water Corporation further certifies that, except as shown on a copy of said map on file in the office of the County Road Commissioner, it knows of no easement or structure existing within the easements hereby offered for dedication to the public other than water lines owned by Dominguez Water Corporation and publicly owned sewers and storm drains; that said Dominguez Water Corporation will grant no right or interest within the boundaries of said easements offered to the public except where such right or interest is expressly made subject to said easements.

and grants to the County of Los Angeles the easements for storm drain and drainage purposes

DOMINGUEZ WATER CORPORATION

J. V. Carson — Vice President

Carol Stovall — Assistant Secretary

State of California } S.S.
County of Los Angeles }

On this 5th day of November 1959, before me Alexander Lawrence, a notary public in and for said County and State, personally appeared J.V. Carson, known to me to be the Vice President and Carol Stovall, known to me to be the Asst. Secretary of DOMINGUEZ WATER CORPORATION, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

Alexander Lawrence
My Commission Expires July 10, 1961
Alexander Lawrence

Southern California Edison Company, a corporation, as the owner of two easements for electric pole lines, consisting of overhanging wires and cross-arms, one of which was recorded in Book 44248, page 47, and one in Book 44262, page 318, both of Official Records, records of Los Angeles County, State of California, does hereby consent to the preparation and recordation of this map and subdivision, subject to its aforesaid easements, and does hereby join in the dedication to the public use of the streets, highways and other public ways shown on said map within the colored border line, subject to the aforesaid easements of Southern California Edison Company.

and grants to the County of Los Angeles the easements for storm drain and drainage purposes

Southern California Edison Company

By J. H. Mead — Vice President

By J. C. Bobek — Assistant Secretary

STATE OF CALIFORNIA } S.S.
COUNTY OF LOS ANGELES }

On this 16th day of November, 1959, before me Ruth M. Elliott, a Notary Public in and for said County of Los Angeles, personally appeared J.H. Mead, known to me to be the Vice President and J.C. Bobek, known to me to be the Assistant Secretary of the Southern California Edison Company, the corporation that executed the within and foregoing instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

WITNESS my hand and official seal the day and year in this certificate first above written.

Ruth M. Elliott
Notary Public in and for said County of Los Angeles.
My commission expires December 3, 1960.
Ruth M. Elliott

NOTE: The signature of the present owners of that certain interest in all oil, minerals and other hydrocarbon substances, which was reserved in deed recorded March 28, 1956, in book 50725 page 43 Official Records, and deeds recorded May 13, 1958, in book D-98 page 812 Official Records, and 813 have been omitted under the provisions of Section 11587(c-1) of the "Subdivision Map Act" inasmuch as said ownership does not include a right of entry on the surface of the land.

SCALE: 1"= 60'

SHEET 2 OF 3 SHEETS

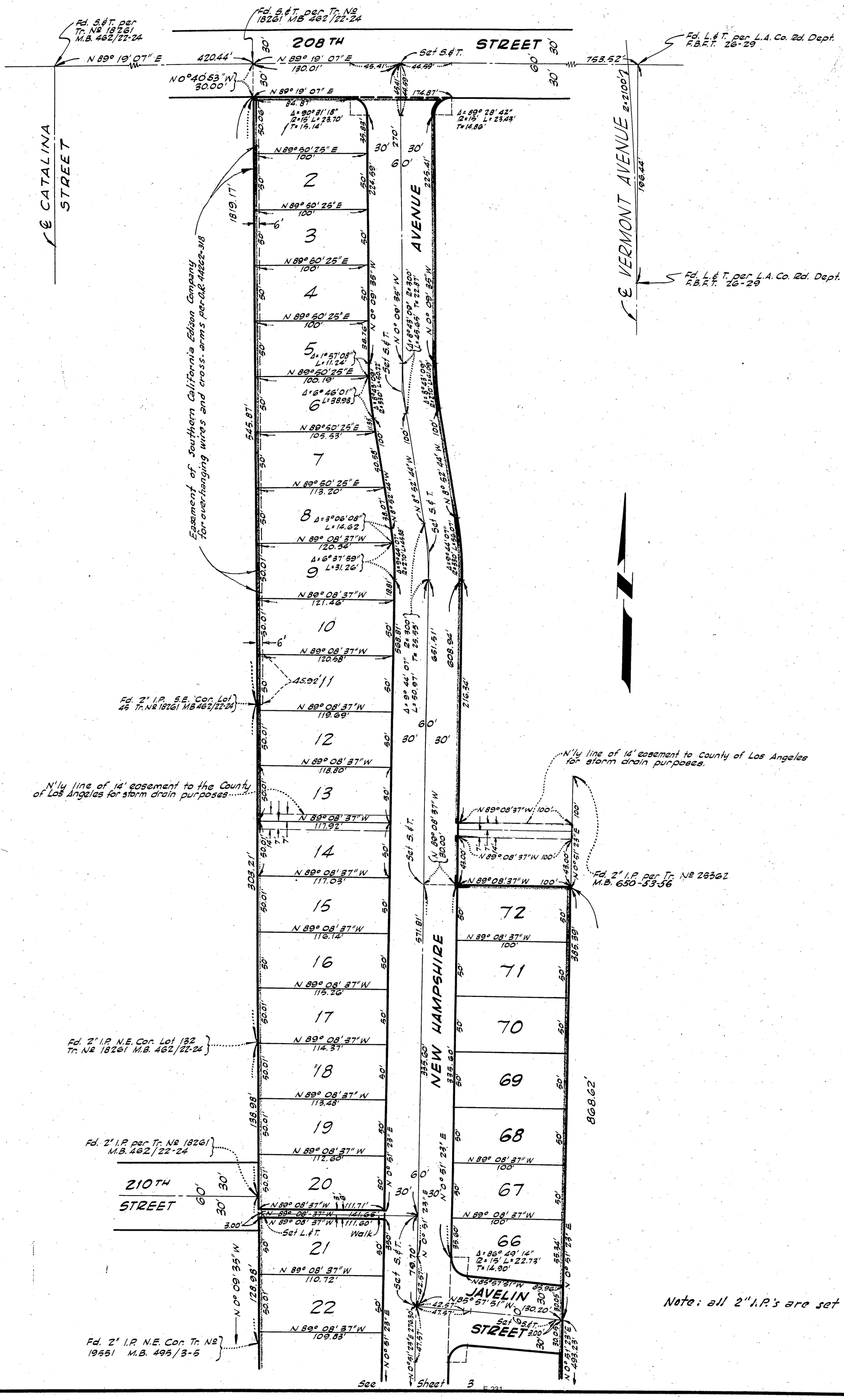
650 - 58

TRACT No. 25150

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

BARCLAY - PEARSON CO., INC.

RECORDED
DEC. 3, 1959
30 min. past 3 P.M.
650
58


208TH STREET
Fd. S.&T. per Tr. No 18261 M.B. 462/22-24
N 89° 19' 07" E 420.44'
N 89° 19' 07" E 130.01'
Set S.&T.
45.41'
44.59'
753.52'
Fd. L.&T. per L.A. Co. Rd. Dept. F.B.F.T. 26-29
N0°40'53"W 30.00'
N 89° 19' 07" E
84.87'
Δ=90° 31' 18" R=15' L=23.70' T=15.14'
174.87'
Δ=89° 28' 42" R=15' L=23.43' T=14.86'
30' 270' 30'
60'
225.41'
N 89° 50' 25" E 100'
2
3
4
5 Δ=1° 57' 08" L=11.24'
6 Δ=6° 46' 01" L=38.98'
7
8 Δ=3° 06' 08" L=14.62'
9 L=31.26'
10
11
12
13
14
15
16
17
18
19
20
21
22
545.87'
1819.17'
1881'
568.81'
651.51'
608.94'
216.34'
303.21'
138.98'
128.98'
N 89° 08' 37" W 120.54'
N 89° 08' 37" W 121.46'
N 89° 08' 37" W 120.58'
N 89° 08' 37" W 119.69'
N 89° 08' 37" W 118.80'
N 89° 08' 37" W 117.92'
N 89° 08' 37" W 117.03'
N 89° 08' 37" W 116.14'
N 89° 08' 37" W 115.26'
N 89° 08' 37" W 114.37'
N 89° 08' 37" W 113.48'
N 89° 08' 37" W 112.60'
N 89° 08' 37" W 111.71'
N 89° 08' 37" W 111.60'
N 89° 08' 37" W 110.72'
N 89° 08' 37" W 109.83'
N 89° 08' 37" W 100'
N 89° 08' 37" W 100'
N 89° 08' 37" W 100

SCALE: 1"= 60'

SHEET 3 OF 3 SHEETS

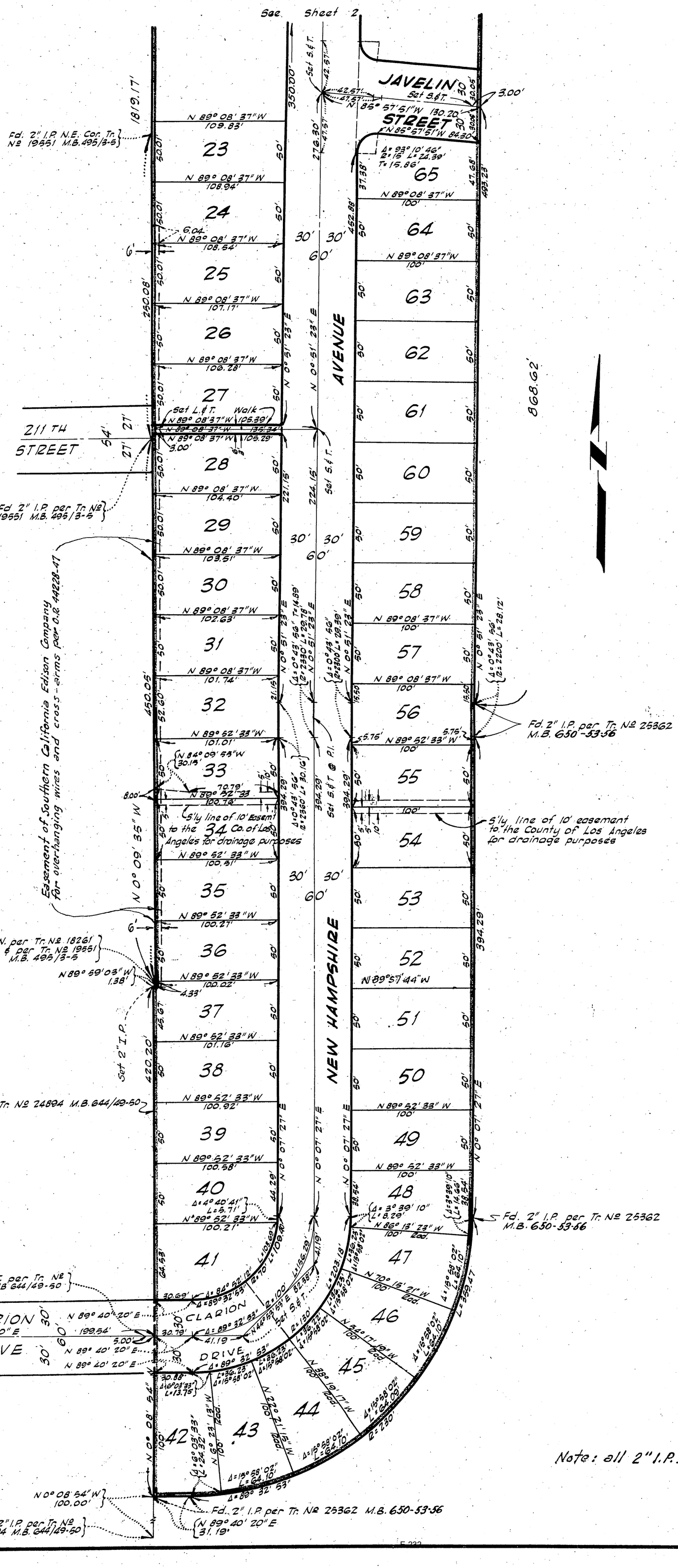
TRACT No. 25150

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

4931 PG. 3

RECORDED
AT REQUEST OF OWNER
DEC. 3, 1959
MIN. 30 PAST 3 P.M.
IN BOOK 650
AT PAGE 59
MAP RECORDS
LOS ANGELES COUNTY, CALIF.
RAY E. LEE
COUNTY RECORDER
BY [signature]
DEPUTY

BARCLAY - PEARSON CO., INC.



SCALE: 1"= 60'

SHEET 1 OF 2 SHEETS

TRACT No. 25289

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

BEING A SUBDIVISION OF PORTIONS OF LOTS 10 AND 11 OF TRACT NO. 6378 AS PER MAP RECORDED IN BOOK 68 PAGES 1 AND 2 OF MAPS, RECORDS OF LOS ANGELES COUNTY, STATE OF CALIFORNIA.

RECORDED
June 1, 1960
40 3 PM
657
12

700

BARCLAY - PEARSON CO., INC.

BASIS OF BEARINGS

The bearing N. 0° 51' 23" E. of the centerline of Vermont Avenue as shown on map of Tract No. 25362, M.B. 650/53-56 was taken as the basis of bearings used on this map.

We hereby certify that we are the owners of, or are interested in the lands included within the subdivision shown on this map, and we consent to the preparation and recordation of said map and subdivision as shown within the colored border lines and we hereby dedicate to the public use all streets, highways and other public ways shown on said map; As a dedication to public use, while all of Vermont Avenue within this subdivision remains a public highway for such time only; we hereby abandon all easements of ingress and egress to the said Avenue so that the owners of lots abutting this highway during such time will have no rights of access whatever in the highway as such except the general easement of travel which belongs to the whole public. If any change of alignment or width of such highway results in the vacation of any part thereof within this subdivision, such vacation terminates the above dedication as to the part vacated.

ERMELITA CORPORATION, a corporation

Mike Hollander — Vice President
Frank Spelley — Ass't Secretary

UNION BANK, a corporation, (trustee)
under deed of trust recorded in book T-850 page 126 Official Records.

Stanley G. Whitney — Asst. Vice-President
Elizabeth Stewart — Assistant Cashier

We also grant to the County of Los Angeles, the easements for drainage purposes so designated on said map and all uses incident thereto, including the right to make connections therewith from any adjoining properties. As a dedication to public use, while all of 208TH Street within this subdivision remains a public highway for such time only, we hereby abandon all easements of vehicular ingress and egress from lots 39 and 44 to the said Street so that owners of lots 39 and 44 abutting this highway during such time will have no rights of vehicular access whatever in the highway as such except the general easement of travel which belongs to the whole public. If any change of alignment or width of such highway results in the vacation of any part thereof within this subdivision, such vacation terminates the above dedication as to the part vacated. We hereby grant to the County of Los Angeles Lot 46 in fee simple.

State of California } S.S.
County of Los Angeles }

On this 17th day of May 1960, before me John R. Spahn, a notary public in and for said County and State personally appeared Mike Hollander, known to me to be the Vice President, and Frank Spelley, known to me to be the Ass't Secretary of ERMELITA CORPORATION the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same

John R. Spahn
My Commission Expires Aug. 6, 1960
John R. Spahn

State of California } S.S.
County of Los Angeles }

On this 24th day of May 1960, before me John R. Spahn, a notary public in and for said County and State, personally appeared Stanley G. Whitney, known to me to be the Asst. Vice President, and Elizabeth Stewart, known to me to be the Assistant Cashier of UNION BANK, the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same as trustee.

John R. Spahn
My Commission Expires Aug. 6, 1960
John R. Spahn.

In re Acceptance of Highways, Public Ways, etc., in Tract No. 25289

On motion approved by the Board of Supervisors, It is ordered that the map of Tract No. 25289 be and the same is hereby approved; that the bond filed in the office of this Board as security for the payment of taxes and special assessments collected as taxes be and the same is also hereby approved in the sum of $.02500 which is hereby fixed as the required amount of said bond; and that all streets, highways, other public ways and easements shown upon said map and therein offered for dedication be and the same are hereby accepted on behalf of the public. Also the offer of dedication for abandonment of ingress and egress is hereby accepted Also the grant of lot 46 in fee simple is hereby accepted

The Clerk of this Board is directed to endorse on the face of said map a copy of this order authenticated by the seal of the Board of Supervisors.

I hereby certify that the foregoing order was adopted by the Board of Supervisors at a meeting of said Board held May 31, 1960

Gordon T. Nesvig, Clerk of the Board of Supervisors of the County of Los Angeles, State of California
By Irene Granada Deputy

I hereby certify that I have examined this map, that it conforms substantially to the tentative map and all approved alterations thereof; that all provisions of applicable State law and local subdivision ordinances have been complied with; and that I am satisfied that this map is technically correct.

Dated: June 1, 1960

JOHN A. LAMBIE
COUNTY ENGINEER
By ..... Deputy

I hereby certify that I am a registered Civil Engineer of the State of California; that this map consisting of two sheets correctly represents a true and complete survey made under my supervision August 1959; that the monuments of the character and locations shown hereon will be in place within twenty-four months from recording date of this map; that said monuments are sufficient to enable the survey to be readily retraced and that the notes to all centerline monuments shown hereon as set by me will be on file in the office of the County Engineer within twenty-four months from recording date shown hereon.

Edward F. Pearson
Registered Civil Engineer No. 9783.

We, DOMINGUEZ WATER CORPORATION, having a record title interest in the land subdivided on the annexed map, certify as follows: We intend to serve water within said area as well as other areas within Los Angeles County. We hereby consent to the making and recordation of said map and subdivision as shown within the colored boundary lines thereof. We hereby dedicate to the public use, for street or highway purposes, our said record title interest within the streets, avenues, cul-de-sacs, and drives shown on said map within said subdivision, except that in making such offer of dedication we retain and reserve forever in us and for the benefit of our successors and assigns: every incident of ownership; all interest in the soil, and our said rights for all purposes necessary to exercise freely, from time to time and forever, any and all of our record title interests now or hereafter at any time existing within the areas so offered for dedication; provided, however, that the said rights hereby so retained and herein offered reserved by us are subordinate to the said easement for street or highway purposes, for dedication In this connection the Public Utilities Commission of the State of California has granted to us a Certificate of Public Convenience and necessity to serve and distribute water for domestic, irrigation and fire-fighting purposes to the lands included within the boundaries of said subdivision as well as to other lands within Los Angeles County. The subdivider hereof has filed with us an application for a water main extension to serve the land within said subdivision and has agreed to deposit with us, pursuant to rule and regulation No. 20 of our Tariff, the estimated cost of constructing a water distribution system to serve the land within said subdivision pursuant to our standards and when completed we, at all times now and hereafter intending to do so, will serve and distribute water to all parcels of land within said subdivision pursuant to our tariff now or hereafter on file with said Public Utilities Commission. We will grant no right or interest within the boundary of the said areas herein offered for dedication, except where such right or interest is expressly made subject to said public use herein offered for dedication.

DOMINGUEZ WATER CORPORATION

By J. V. Carson — J. V. Carson, Vice President
By Carol T. Stovall — Carol T. Stovall, Ass't Secretary

State of California } S.S.
County of Los Angeles }

On this 8th day of FEB 1960, before me Alexander Lawrence, a notary public in and for said County and State, personally appeared J. V. Carson, known to me to be the Vice President, and Carol T. Stovall, known to me to be the Ass't. Secretary of DOMINGUEZ WATER CORPORATION, the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

Alexander Lawrence
My Commission Expires July 10, 1961.
Alexander Lawrence.

Record references for certain easement rights of Dominguez Water Corporation are: Book 1515/265 O.R.

NOTE: the County of Los Angeles is owner of a sewer easement by dedication on the map of Tract No. 25362, recorded in Book 650 pages 53 to 56 inclusive of Maps, and an easement for a storm drain by dedication on the map of Tract No. 25150, recorded in Book 650 pages 57 to 59 inclusive of Maps.

NOTE: The signature of Dominguez Estate Company, a corporation, owner of the blanket right to construct and maintain drainage ditches, all as created by reservation in deed recorded in Book 4575 page 256 of Deeds, has been omitted under the provisions of Section 11587(b) of the Subdivision Map Act, inasmuch as such rights of way or easements, which by reason of changed conditions or long disuse appear to be no longer of practical use or value and which signature it is impossible to obtain, inasmuch as such corporation has refused to sign subject map.

NOTE: The signatures of the present owners of that certain 3/8ths interest in all oils, minerals and hydrocarbon substances which was reserved in deeds recorded May 13, 1958, in book D-98 pages 812 and 813 of Official Records, have been omitted under the provisions of Section 11581(c-1) of the Subdivision Map Act, inasmuch as such ownership does not include a right of entry on the surface of the land.

E-233 NOTE: The signature of Dominguez Estate Company, a corporation, owner of the blanket right to construct and maintain drainage ditches, all as created by reservation in deed recorded in Book 4575 page 256 of Deeds, has been omitted under the provisions of Section 11587(b)

BOOK 65 PAGE 13

SCALE: 1"=60'

SHEET 2 OF 2 SHEETS

TRACT No. 25289

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

BARCLAY - PEARSON CO., INC.

RECORDED
June 1, 1960
40 min past 3 PM
In Book 6571
Page 13
Records
Los Angeles County, Calif
Fee
S. Walters
County Recorder

Pg. 2

NEW HAMPSHIRE AVENUE 60'
ALLEY 20'
VERMONT AVENUE
208TH STREET
DOBLE AVENUE
BRODY AVENUE
MELISSA STREET
JAVELIN STREET
LINLEY STREET

Fd. S. & T. per Tr. No 18261, M.B. 462/22-24
Fd. S. & T. per Tr. No. 25150, M.B. 650/57-59.
Fd. L. & T. per L.A. Co. Rd. Dept. F.B. F.T. 26-29.

N. 89°19'07" E. 753.52'
N. 89°19'07" E. 361.32'
N. 89°19'07" E. 531.47'
N. 89°19'07" E. 186.84'
N. 89°19'07" E. 152.59'
N. 89°19'07" E. 253'
N. 89°19'07" E. 77.22'
N. 89°19'07" E. 75.37'
N. 89°19'07" E. 120.84'
N. 89°19'07" E. 100.53'
N. 89°19'07" E. 82.88'
N. 89°19'07" E. 90'
N. 89°08'37" W. 102'
N. 89°08'37" W. 140.91'
N. 89°08'37" W. 116.99'
N. 89°08'37" W. 102.15'
N. 89°08'37" W. 100'
N. 89°08'37" W. 103.08'
N. 89°08'37" W. 103.39'
N. 89°08'37" W. 103.69'
N. 89°08'37" W. 101.80'
N. 89°08'37" W. 100.31'
N. 89°08'37" W. 100.62'
N. 89°08'37" W. 150.62'
N. 89°08'37" W. 172.28'
N. 89°08'37" W. 168.06'
N. 89°08'37" W. 130.02'
N. 89°08'37" W. 49.22'
N. 89°08'37" W. 20.00'
N. 89°08'37" W. 60.08'
N. 89°08'37" W. 50'
N. 89°08'37" W. 30.00'
N. 89°08'37" W. 378.17'
N. 89°08'37" W. 30.00'
N. 89°08'37" W. 13.98'
N. 89°08'37" W. 13.60'
N. 89°08'37" W. 101.36'
N. 89°08'37" W. 100'
N. 89°08'37" W. 102.87 rad.
N. 89°08'37" W. 102.87 rad.
N. 89°08'37" W. 103.08'
N. 89°08'37" W. 102.87 rad.
N. 89°08'37" W. 102.87 rad.
N. 89°08'37" W. 102.87 rad.

SCALE: 1"= 60'

SHEET 1 OF 2 SHEETS

TRACT No. 25310

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

BEING A SUBDIVISION OF A PORTION OF LOTS 12 & 21, TRACT NO. 6378 AS PER MAP RECORDED IN BOOK 68 PAGES 1 AND 2 OF MAPS, RECORDS OF LOS ANGELES COUNTY, STATE OF CALIFORNIA.

RECORDED
AT REQUEST OF OWNER
April 5 1961
44 MIN. PAST 3 P.M.
669
30
OFFICIAL RECORDS OF LOS ANGELES COUNTY, CALIF.
RAY E. LEE
COUNTY RECORDER
D. Walters
DEPUTY
700

BARCLAY PEARSON CO., INC.

BASIS OF BEARINGS

The bearing N. 89° 25' 24" E. of the centerline of 208TH Street as shown on map of Tract Nº 24141, M.B. 623/40-42 was taken as the basis of hearings used on this map.

We hereby certify that we are the owners of, or are interested in the lands included within the subdivision shown on this map, and we consent to the preparation and recordation of said map and subdivision as shown within the colored border lines and we hereby dedicate to the public use all streets, highways and other public ways shown on said map, and also grant to the County of Los Angeles, the easements for sanitary sewer and drainage purposes so designated on said map and all uses incident thereto, including the right to make connections therewith from any adjoining properties. We further certify that, except as shown on a copy of this map on file in the office of the County Road Commissioner, we know of no easement or structure existing within the easements hereby offered for dedication to the public, other than publicly owned water lines, sewers, or storm drains; that we will grant no right or interest within the boundaries of said easements offered to the public, except where such right or interest is expressly made subject to said easements.

As a dedication to public use, while all of 208th Street within this subdivision remains a public highway for such time only, we hereby abandon all easements of ingress and egress to the said Street so that owners of lots fronting this highway during such time will have no rights of access whatever in the highway as such except the general easement of travel which belongs to the whole public. If any change of alignment or width of such highway or the vacation of any part thereof within this subdivision, such vacation terminates the above dedication as to the part vacated.

TUDOR LAND CO. a corporation,

Robert Barclay
Vice President

Mike Hollander
Ass't. Secretary

UNION BANK a corporation, (trustee)
under deed of trust recorded November 13, 1959, as instrument No. 8.

President

Edward A. Harris
~~Secretary~~
Authorized Signator

GARDENA SERVICE COMPANY, a corporation, (Trustee),
under deed of trust recorded March 16, 1961 as Instrument No 4477.

Teruyuki Fujii
President

Marcella Welsh
Secretary

State of California } S.S.
County of Los Angeles }

On this 20th day of Dec. 1960, before me John R. Spahn, a notary public in and for said County and State, personally appeared Robert Barclay, known to me to be the Vice President, and Mike Hollander, known to me to be the Ass't. Secretary of TUDOR LAND CO. the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same

John R. Spahn
My Commission Expires Aug. 6, 1964
John R. Spahn

State of California } S.S.
County of Los Angeles }

On this 30 day of January 1960, before me Lorraine Towles, a notary public in and for said County and State, personally appeared Edward A. Harris, ~~known to me to be the President, and known to me to be the Secretary~~ Authorized Signator of UNION BANK, the corporation that executed the within instrument, and known to me to be the person who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same as trustee.

Lorraine Towles
My Commission Expires 12-23-61
Lorraine Towles

State of California } S.S.
County of Los Angeles }

On this 28 day of MARCH 1961, before me RALPH GARLAND, a notary public in and for said County and State, personally appeared Teruyuki Fujii, known to me to be the President, and Marcelia Welsh, known to me to be the Secretary of GARDENA SERVICE COMPANY, the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same as trustee.

Ralph Garland
My Commission Expires July 20, 1962
Ralph Garland

State of California } S.S.
County of Los Angeles }

On this 22nd day of December 1960, before me, Paulina Jacobs, a Notary Public in and for said County, personally appeared ROBERT B. DIEMER, known to me to be the General Manager and Chief Engineer, and James J. Marquardt, known to me to be the Executive Secretary of THE METROPOLITAN WATER DISTRICT of SOUTHERN CALIFORNIA, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged to me that such corporation executed the same.

My Commission Expires August 25, 1961

Paulina Jacobs
Notary Public in and for the County of Los Angeles, State of California.
Paulina Jacobs

I hereby certify that I am a registered Civil Engineer of the State of California; that this map consisting of two sheets correctly represents a true and complete survey made under my supervision January 1960; that the monuments of the character and locations shown hereon will be in place within twenty-four months from recording date of this map; that said monuments are sufficient to enable the survey to be readily retraced and that tie notes to all centerline monuments shown hereon as set by me will be on file in the office of the County Engineer within twety-four months from recording date shown hereon.

Edward L Pearson
Registered Civil Engineer No. 9783.

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, a public corporation of the State of California, hereinafter in this certificate called "District," is the owner of and in possession of certain easements, rights of way and interests conveyed to said District by deed recorded in Book 16343 page 37, Official Records, Los Angeles County, California, the terms of which deed preclude the erection of buildings or structures on the easement area, and said District reserves to itself and its successors and assigns all easements, rights of way and interests owned or possessed by said District within the subdivision herein mentioned, and said District, subject to the foregoing reservation, hereby consents to the making and recordation of the map and subdivision as shown within the colored border lines on said map, and to the public use of the Avenue, shown on said map shown on said subdivision; it being further understood that the grade of the ground surface within said easement area shall not be reduced to less than four (4) feet above the top of the District's pipe thereunder, and that no fill greater than three (3) feet shall be placed on the surface of the ground within the area of such easement.

ATTEST: THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

By: James J. Marquardt
Executive Secretary

By: Robert B Diemer
General Manager and Chief Engineer

We, DOMINGUEZ WATER CORPORATION, having a record title interest in the land subdivided on the annexed map certify as follows: We intend to serve water within said area as well as other areas within Los Angeles County. We hereby consent to the making and recordation of said map and subdivision as shown within the colored boundary lines thereof. We hereby dedicate to the public use, for street or highway purposes, our said record title interest within the streets, avenues cul-de-sacs, and drives shown on said map within said subdivision, except that in making such offer of dedication we retain and reserve forever in us and for the benefit of our successors and assigns: every incident of ownership; all interest in the soil, and our said rights for all purposes necessary to exercise freely, from time to time and forever, any and all of our said record title interests now or hereafter at any time existing within the areas so offered for dedication; provided, however, that the said rights hereby so retained and reserved by us are subordinate to the said easement for street or highway purposes herein offered for dedication. In this connection the Public Utilities Commision of the State of California has granted to us a Certificate of Public Convenience and Necessity to serve and distribute water for domestic, irrigation and fire-fighting purposes to the lands included within the boundaries of said subdivision as well as to other lands within Los Angeles County. The subdivider hereof has filed with us an application for a water main extension to serve the land within said subdivision and has agreed to deposit with us, pursuant to rule and regulation No. 20 of our Tariff, the estimated cost of constructing a water distribution system to serve the land within said subdivision pursuant to our standards and when completed we, at all times now and hereafter intending to do so, will serve and distribute water to all parcels of land within said subdivision pursuant to our tariff now or hereafter on file with said Public Utilities Commission. We will grant no right or interest within the boundary of said areas herein offered for dedication, except where such right or interest is expressly made subject to said public use herein offered for dedication.

DOMINGUEZ WATER CORPORATION

By J. V. Carson
J. V. Carson Vice President

By Carol T. Stovall
Carol T. Stovall Ass't Secretary

State of California } S.S.
County of Los Angeles }

On this 8th day of FEB. 1960, before me Alexander Lawrence, a notary public in and for said County and State, personally appeared J. V. Carson, known to me to be the Vice President, and Carol T. Stovall, known to me to be the Ass't. Secretary of DOMINGUEZ WATER CORPORATION, the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

Alexander Lawrence
My Commission Expires July 10, 1961.
Alexander Lawrence.

Record references for certain easement rights of Dominguez Water Corporation are: Deed 1515/265 O.R.

NOTE:- The signature of Dominguez Estate Company, a corporation, owner of the blanket right to construct, maintain and operate a drainage ditch or ditches, by reservation in deed recorded in Book 4575 page 256 of Deeds has been omitted under the provisions of Section 11587 (a) of the Subdivision Map Act inasmuch as such rights of way, cannot ripen into fee title and such signature is not required by the governing body.

NOTE:- The signatures of the present owner of all oil, gas and other hydrocarbon substances and all other minerals in and under said land reserved in the deed recorded July 1, 1955, in book 48230 page 289 Official Records, have been omitted under the provisions of Section 11587 c (1) of the Subdivision Map Act, inasmuch as such ownership does not include a right of entry on the surface of the land.

SCALE: 1" = 60'

SHEET 2 OF 2 SHEETS

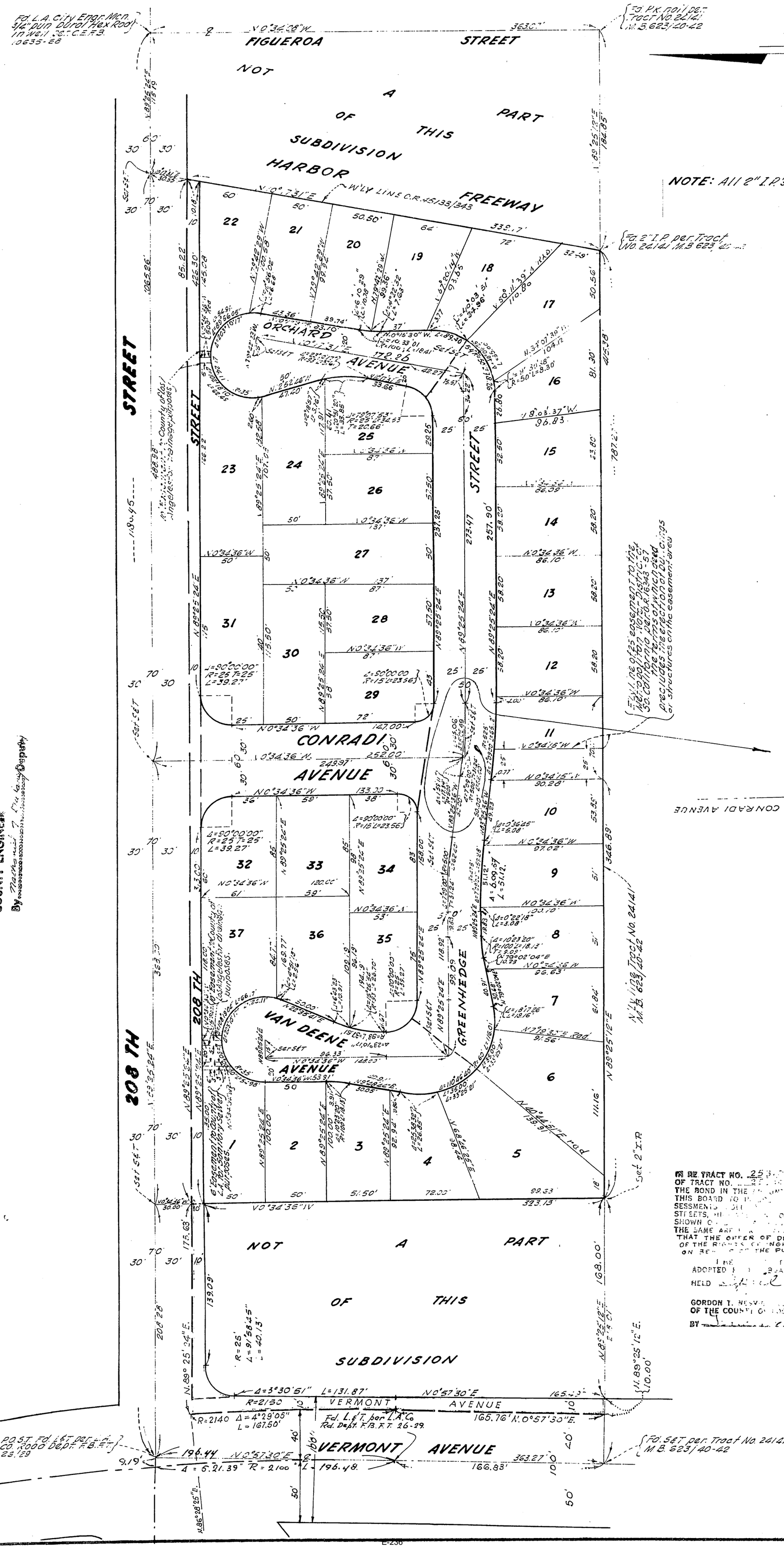
TRACT No. 25310

IN UNINCORPORATED TERRITORY OF THE
COUNTY OF LOS ANGELES

April 5, 1961
44 3 PM
669
31
COUNTY RECORDS
LOS ANGELES COUNTY, CALIF.
R. E. LEE
COUNTY CLERK
By D. Watkins
Dep.

Pg. 2

BARCLAY - PEARSON CO., INC.



I hereby certify that I have examined this map; that it conforms substantially to the tentative map and all approved alterations thereof; that all provisions of the Subdivision Map Act and local subdivision ordinances have been complied with; and that I am satisfied that this map is technically correct.

Dated: April 5, 1961

JOHN A. LAMBIE
COUNTY ENGINEER
By Marvin J. McLaughlin Deputy

IT IS ORDERED THAT THE MAP OF TRACT NO. 25310 IS HEREBY APPROVED; THAT THE BOND IN THE AMOUNT OF $ [illegible] FILED WITH THIS BOARD TO INSURE THE PAYMENT OF SPECIAL ASSESSMENTS [illegible] TAXES BE APPROVED; THAT ALL STREETS, HIGHWAYS, AND OTHER PUBLIC WAYS AND EASEMENTS SHOWN ON SAID MAP BE ACCEPTED OR OFFERED FOR DEDICATION AS SUCH AND THE SAME ARE HEREBY ACCEPTED IN BEHALF OF THE PUBLIC; THAT THE OFFER OF DEDICATION FOR ABANDONMENT OF THE RIGHTS OF INGRESS AND EGRESS BE ACCEPTED ON BEHALF OF THE PUBLIC.

I, [illegible], CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, DO HEREBY CERTIFY THAT THE FOREGOING ORDER WAS ADOPTED BY SAID BOARD OF SUPERVISORS AT A MEETING HELD [illegible] 4, 1961.

GORDON T. NEVINS, [illegible] OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA.

BY [illegible] DEPUTY

SCALE: 1"=60'

SHEET 1 OF 2 SHEETS

TRACT NO. 30353

IN UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

A SUBDIVISION OF THOSE PORTIONS OF LOTS 3 AND 10 OF TRACT NO. 3812 AS SHOWN ON MAP RECORDED IN BOOK 40, PAGES 5 AND 6 OF MAPS, AND PORTIONS OF LOTS 17 AND 18 OF TRACT NO. 6378 AS SHOWN ON MAP RECORDED IN BOOK 68, PAGES 1 AND 2 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

SURVEYED BY SOUTH BAY ENGINEERING CORPORATION

BASIS OF BEARINGS

The bearing N. 89 45' 55" E. of the northerly line of Tract No. 24363 shown on the map of TRACT No. 24363 recorded in Book 633 pages 80-81 of maps, Records of Los Angeles County, was used as the basis of bearings shown on this map.

NOTE: ALL 2" IRON PIPES SHOWN HEREON AS SET ARE 6" BELOW SURFACE OF GROUND

We hereby certify that we are the owners of or are interested in the lands included within the subdivision shown on this map within the colored border lines, and we consent to the preparation and recordation of said map and subdivision, and hereby dedicate to the public use all streets, highways and other public ways shown on said map. ~~and hereby offer to the public use the private and future streets shown on said map which shall have ceased to remain closed or posted and shall have been opened to the public travel for a period of three months or more.~~ We further certify that, except as shown on a copy of this map on file in the office of the County Road Commissioner, we know of no easement or structure existing within the easements hereby offered for dedication to the public, other than publicly owned water lines, sewers, or storm drains; that we will grant no right or interest within the boundaries of said easements offered to the public, except where such rights or interest is expressly made subject to said easements. We hereby certify that all requirements of Section 16251 through 16255 of the Education code of the State of California have been complied with.

Dan E. Butcher

LOS ANGELES UNIFIED SCHOOL DISTRICT OF LOS ANGELES COUNTY
By the BOARD OF EDUCATION of the City of Los Angeles.
Who acquired title as The Los Angeles City School District of Los Angeles County.

President

Director of Real Estate

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) s.s

On this 29th day of July, 1965 before me Walter Henry Kessenich, Jr. a Notary Public in and for said County and State, personally appeared Dan E. Butcher known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

Walter Henry Kessenich Jr
Notary Public

STATE OF CALIFORNIA)
COUNTY OF LOSANGELES) s.s.

On this 8th day of October, 1965, before me the undersigned Notary Public in and for said County and State, personally appeared Ralph Richardson, known to me to be the President and Arol Burns, known to me to be the Director of Real Estate of the Board of Education of the City of Los Angeles for the Los Angeles Unified School District of Los Angeles County, the District that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the District therein named and acknowledged to me that said District executed the same.

John R. Conaghan
Notary Public

NOTE: DOMINGUEZ WATER CORPORATION, a corporation
as successor to Dominguez Water Company, a corporation, are blanket easement holders by reservation in deed recorded in book 1515 page 265, Official Records, and as
successor to Dominguez Estate Company, a corporation, are blanket easement holders by reservation in deed recorded in book 4575 page 256 of Deeds, and are
Present owners of blanket easements created by reservations in deeds recorded in book 7266 page 15, and in book 8130 page 68, Official Records. The interest of Dominguez Water Corporation being that which acquired by deed recorded in book 39383 page 236, Official Records.

DOMINGUEZ WATER CORPORATION
a corporation

We, Dominguez Water Corporation, having a record title interest in the land subdivided on the annexed map, certify as follows: we intend to serve water within said area as well as other areas within Los Angeles County. We hereby consent to the making and recordation of said map and subdivision as shown within the colored boundary lines thereof. We hereby dedicate to the public use, for street or highway purposes, our said record title interest within the avenues, streets, courts and drives shown on said map within said subdivision, except that in making such offer of dedication we retain and reserve forever in us and for the benefit of our successors and assigns: every incident of ownership; all interest in the soil, and our said rights for all purposes necessary to exercise freely, from time to time and forever, any and all of our said record title interest now or hereafter at any time existing within the areas so offered for dedication; provided, however, that the said rights hereby so retained and reserved by us are subordinate to the said easement for street or highway purposes herein offered for dedication. In this connection the Public Utilities Commission of the State of California has granted to us a Certificate of Public Convenience and Necessity to serve and distribute water for domestic, irrigation and fire-fighting purposes to the lands included within the boundaries of said subdivision as well as to other lands within Los Angeles County. The subdivider thereof has filed with us an application for a water main extension to serve the land within said subdivision and has agreed to deposit with us, pursuant to rule and regulation No. 15 of our Tariff, the estimated cost of constructing a water distribution system to serve the land within said subdivision pursuant to our standards and when completed we, at all times now and hereafter intending to do so, will serve and distribute water to all parcels of land within said subdivision pursuant to our tariff now or hereafter on file with said Public Utilities Commission. We will grant no right or interest within the boundary of the said areas herein offered for dedication, except where such right or interest is expressly made subject to said public use herein offered for dedication.

J. P. Bradley
President

Chas Lawrence
Secretary

REMCO-REAL ESTATE MANAGEMENT COMPANY
a corporation
Successor in interest to Dominguez Land Corporation Blanket easement holder by reservation in deeds recorded in book 5132 page 97, book 5777 page 282, book 4490 page 361, Book 7166 page 73, and Book 17091 page 229, official Records.

President

Walter L. Bradford
Secretary

I hereby certify that I am a Registered Civil Engineer of the State of California; that this map, consisting of 2 sheets, correctly represents a true and complete survey made under my supervision May, 1965; that the monuments of the character and locations shown hereon are in place or will be in place within twenty-four months from recording date of this map; that said monuments are sufficient to enable the survey to be readily retraced and that tie notes to all center line monuments shown hereon as set by me will be on file in the office of the County Engineer within twenty-four months from recording date shown hereon.

Raymond L. Quigley
Raymond L. Quigley, R.C.E. No. 7191

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS

On this 8TH day of SEPT., 1965 before me, the undersigned Notary Public in and for said County and State personally appeared J. P. BRADLEY known to me to be the President and ALEX LAWRENCE known to me to be the Secretary of the Dominguez Water Corporation, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation herein named and acknowledged to me that such corporation executed the same.

OFFICIAL SEAL
SHIRLEY A. FURTEECH
NOTARY PUBLIC
LOS ANGELES COUNTY

Shirley A. Furteech
Notary Public
My Commission Expires JULY 10, 1967

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS

On this 3rd day of Sept, 1965 before me, the undersigned Notary Public in and for said County and State, personally appeared CHAS H. CURTIS known to me to be the President and WALTER L. BRADFORD known to me to be the Secretary of the Remco-Real Estate Management Company, the corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the corporation herein named and acknowledged to me that such corporation executed the same.

Donald Whitbeck
Notary Public

The signatures of Aurelio Sancioni and Angelina Sancioni owners of certain oil rights per deed recorded in book 19858 page 63, Official Records and in book 18773 page 215, Official Records and Harry S. Chapman owner of certain oil rights recorded in book 22995 page 287, Official Records have been omitted under provisions of Section 11587 (C-2) of the Subdivision Map Act, inasmuch as the use of the surface of the land in connection with the mineral ownership is prohibited by Zoning and other governmental regulations, and said signatures are not required by the Los Angeles County Board of Supervisors.

The signature of the Metropolitan Water District of Southern California, the owner of easements as recorded by deeds recorded in book 15694 page 269, book 15883 page 322, book 15780 page 152, and book 15571 page 147, Official Records has been omitted under the provisions of Section 11587 (a) of the Subdivision Map Act in as much as their interest is such that it cannot ripen into a fee title and such signatures are not required by the Los Angeles County Board of Supervisors.

The signatures of the present owners of certain mineral rights, oil, natural gas and other hydrocarbons reserved in the deeds recorded in book 48959 page 347, book D-484 page 937, book 43721 page 397, book 44549 page 76, Official Records, and book B-2978 page 305, O.R. have been omitted as necessary parties to sign the map under the provisions of Section 11587 (C-1) of the Subdivision Map Act, inasmuch as such ownership does not include a right of entry on the surface of the land.

IN RE TRACT NO. 22153) IT IS ORDERED THAT THE MAP OF TRACT NO. 30353 IS HEREBY APPROVED; THAT ALL STREETS, HIGHWAYS AND OTHER PUBLIC WAYS AND EASEMENTS SHOWN ON SAID MAP AND OFFERED FOR DEDICATION BE AND THE SAME ARE HEREBY ACCEPTED ON BEHALF OF THE PUBLIC.

I HEREBY CERTIFY THAT THE FOREGOING ORDER WAS ADOPTED BY THE BOARD OF SUPERVISORS AT A MEETING HELD Oct. 11, 1965

GORDON T. NESVIG, CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA.

BY Lorraine L. Beesley DEPUTY

I hereby certify that I have examined this map, that it conforms substantially to the tentative map and all approved alterations thereof; that all provisions of applicable State law and local subdivision ordinances have been complied with; and that I am satisfied that this map is technically correct.

Dated October 20, 1965

JOHN A. LAMBIE
COUNTY ENGINEER
By Ralph X. Kennedy Deputy

RECORDED
AT REQUEST OF OWNER
OCT. 20, 1965
MIN. 12 PAST 4 P.M.
IN BOOK 748
AT PAGE 61
OF MAP RECORDS
LOS ANGELES COUNTY, CALIF.
RAY E. LEE
COUNTY RECORDER
BY ..... Deputy
$7.00

BOOK 748 PAGE 62

SCALE : 1=60

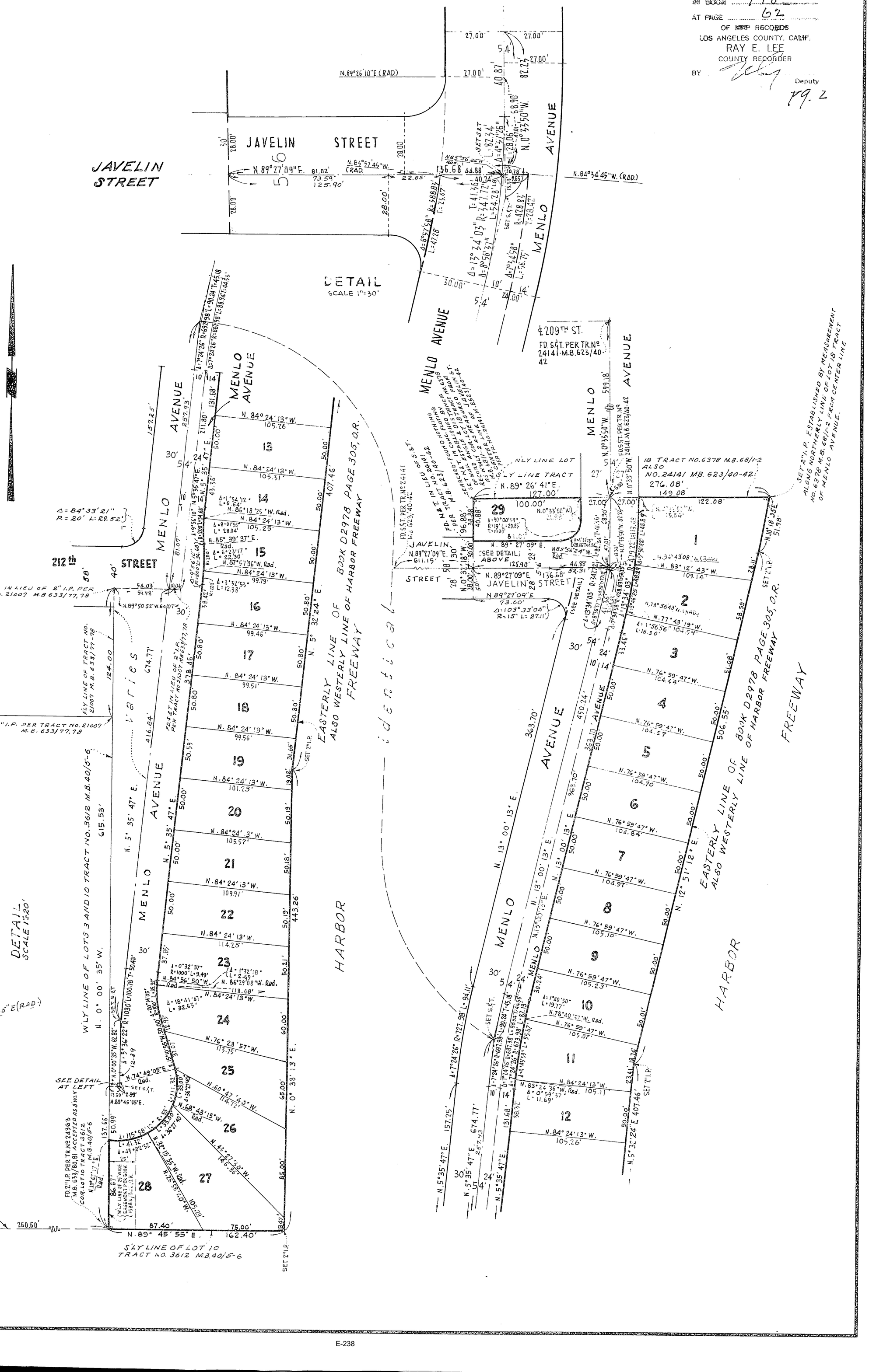
SHEET 2 OF 2 SHEETS

TRACT NO. 30353

IN UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES STATE OF CALIFORNIA

SURVEYED BY SOUTH BAY ENGINEERING CORPORATION

RECORDED
AT REQUEST OF OWNER
OCT. 20, 1965
12 MIN. PAST 4 P.M.
IN BOOK 748
AT PAGE 62
OF MAP RECORDS
LOS ANGELES COUNTY, CALIF.
RAY E. LEE
COUNTY RECORDER
BY _____ Deputy
pg. 2



APPENDIX G:

California DPR-523 Forms

State of California
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial

Other Listings:

Review Code: 3B Reviewer: Jeanette A. McKenna Date: 08/28/16

Page 1 of 16 *Resource Name or # (assigned by recorder) Los Angeles Port Embarkation Station Hospital

P1. Other Identifier: Harbor-UCLA Medical Center

*P2. Location Not for Publication X Unrestricted

*P2a. County: Los Angeles

P2b. USGS 7.5' Quad: Torrance Date: 1981 T4S; R14W; N ½ of NE ¼ of Sec. 13 ; S.B.B.M.

P2c. Address: 1000 w. Carson Street City: Torrance Zip: 90502

P2d. UTMs: See Below Zone: 11 mE mN

P2e. Other Locational Data: (e.g.: parcel #, directions to resource, elevation, etc., as appropriate)

UTMs (NAD 27	UTMs (NAD 83)
NW = 379855E/3744041N	NW = 379773E/3744237N
SW = 379859E/3743672N	SW = 379777E/3743888N
NE = 380671E/3744034N	NE = 380589E/3744230N
SE = 380669E/3743655N	SE = 380587E/3743851N

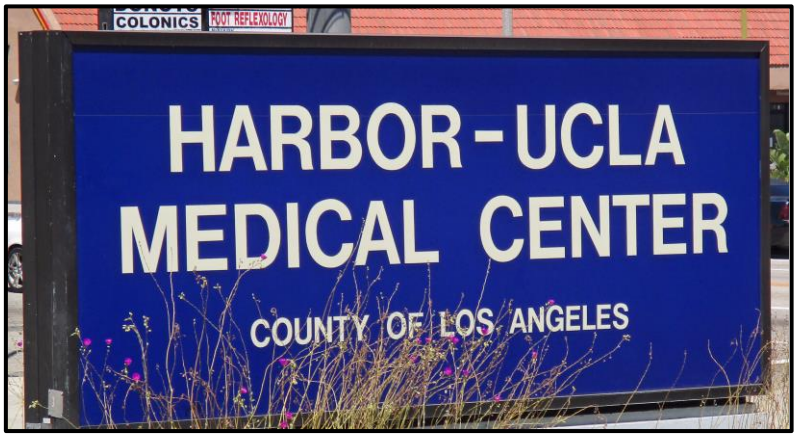
*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.) See Continuation Sheets for Discussion

P3b. Resource Attributes: (List attributes and codes.) HP14 (Government); HP34 (Military;)HP41 (Hospital)

*P4. Resources Present: ☐ Building ☐ Structure ☐ Object ☐ Site

X District ☐ Element of District ☐ Others (Isolate, etc.)

P5a. Photo or Drawing (Photo Required for Buildings, Structures, and Objects.)



P5b: Description of Photo: Signage (2016; NW)

*P6. Date of Construction/Age

X Historic ☐ Prehistoric ☐ Both

*P7. Owner and Address:
County of Los Angeles
1000 W. Carson Street
Torrance, CA 90502

*P8. Recorded by: McKenna et al.
Jeanette A. McKenna
6008 Friends Avenue
Whittier, California 90601

*P9. Date Recorded: 08/28/16

*P10. Survey Type: Assessment

*P11. Report Citation: (Cite survey report and other sources, or enter "None.") McKenna, Jeanette A. (2016) – Cultural Resources Overview and Assessment: The City of Los Angeles, West Carson Transit Oriented District (TOD) Specific Plan Project Area, Los Angeles County, California. On file, McKenna et al., Whittier, California.

Attachments ☐ NONE X Location Map X Sketch Map X Continuation Sheet ☐ BSO Record

☐ Archaeological Record X District Record ☐ Linear Feature Record ☐ Milling Station Record

☐ Rock Art Record ☐ Artifact Record ☐ Photographic Record X Other (List): Photos

*Resource Name or # (assigned by recorder) Los Angeles Port Embarkation Station Hospital

D1. Historic Name: Los Angeles Port Embarkation Station Hospital
D2. Common Name: Harbor-UCLA Medical Center

D3. Detailed Description: (Discuss overall coherence of the district, its setting, visual characteristics, and minor features. List all elements of district.)

Large medical complex on approximately 77 acres of land between Vermont Avenue (east), Normandie Avenue (west), Carson Street (north), and 22th Street (south). Modern hospital buildings and remains of 1943-46 U.S. Army facility (barracks, offices, medical facilities, parking areas, landscaping, etc. (See Continuation Sheets)

D4. Boundary Description: (Describe limits of district and attach map showing boundary and district elements.)

Los Angeles County, within area associated with Torrance, Carson, and unincorporated Los Angeles County. Vermont Avenue (east), Normandie Avenue (west), Carson Street (north), and 22th Street (south).

D5. Boundary Justification: Existing street alignments bounding property.

D6. Significance: **Theme: Military/Medical** **Area: Los Angeles County**
Period of Significance: 1943-1960s **Applicable Criteria: A and C**
(Discuss district's importance in terms of its historical context as defined by theme, period of significance, and geographic scope. Also address the integrity of the district as a whole.)

(See Continuation Sheet for additional details) This complex was developed in 1943 for use by the U.S. Army as both an embarkation station and hospital/medical complex for use during World War II. It was the first of its kind in Southern California and was constructed in a manner consistent with many military facilities. When constructed, the buildings were wood framed on raised foundations and exhibited hipped roof lines. The complex was ordered and symmetrical in it plan. Subsequent to World War II, the government sold the facility to Los Angeles County and it served as a community health complex through the 1950s and into the 1960s. Subsequently, the County demolished some of the buildings to accommodate the 1960s hospital complex and, in the late 1980s/early 1990s, the complex was enlarged again and modernized. Many of the original building remains, resulting in the identification of a district representing the WWII improvements – many of which remain in their original state of development.

D7. References (Give full citations including the names and addresses of any informants, where possible.)

McKenna, Jeanette A. (2016) – Cultural Resources Overview and Assessment: the City of Los Angeles, West Carson Transit Oriented District (TOD) Specific Plan Project Area, Los Angeles County, California. On file, McKenna et al., Whittier, CA

D8. Evaluator: Jeanette A. McKenna, M.A.
Affiliation and Address: McKenna et al., 6008 Friends Avenue, Whittier, CA **Date:** August 28, 2016

State of California
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

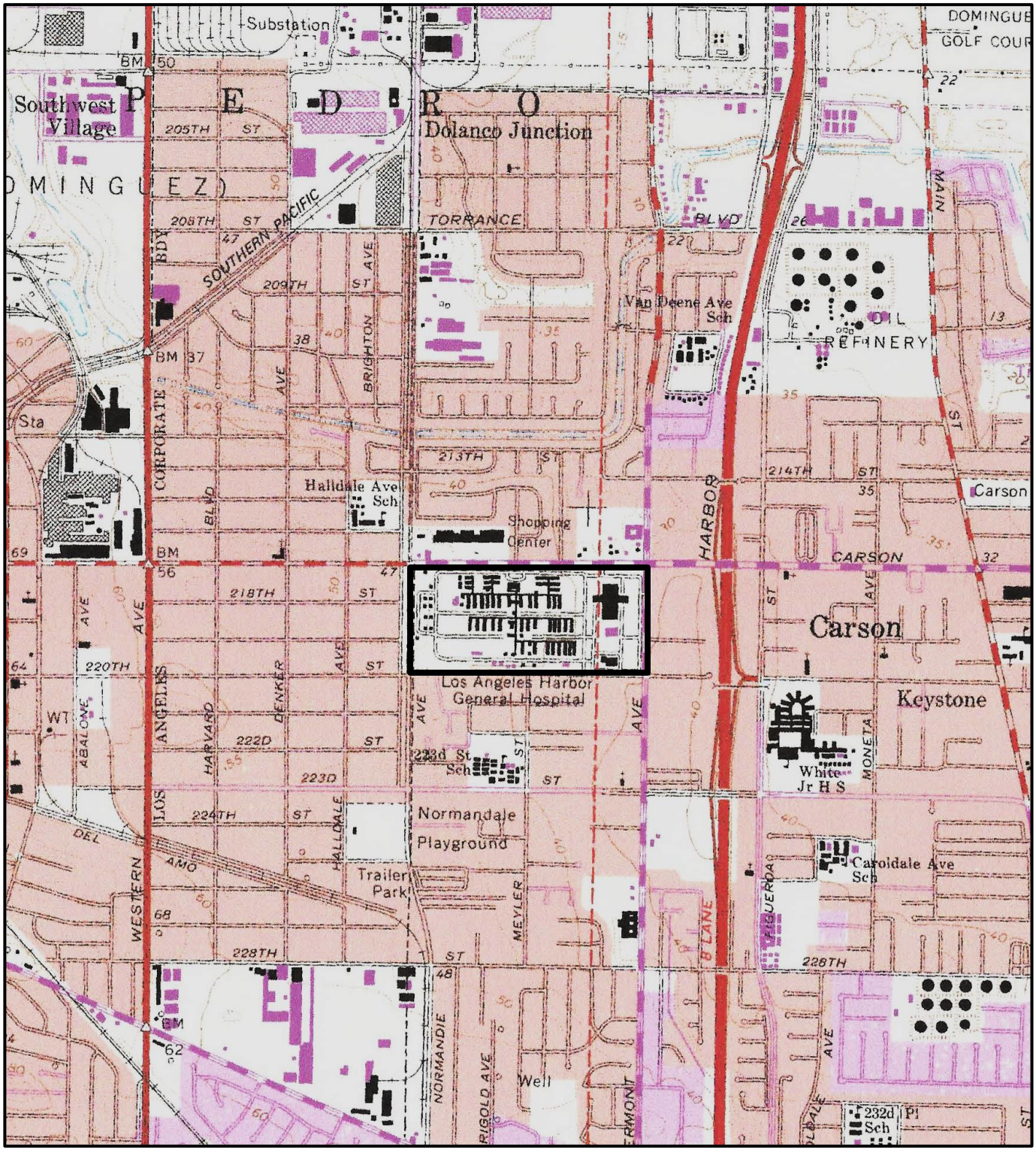
Primary #

HRI #

Trinomial

Page 3 of 16 *Resource Name or # (assigned by recorder) Los Angeles Port of Embarkation Station Hospital

*Map Name: USGS Torrance Quadrangle *Scale 1:24,000 *Date of Map 1981

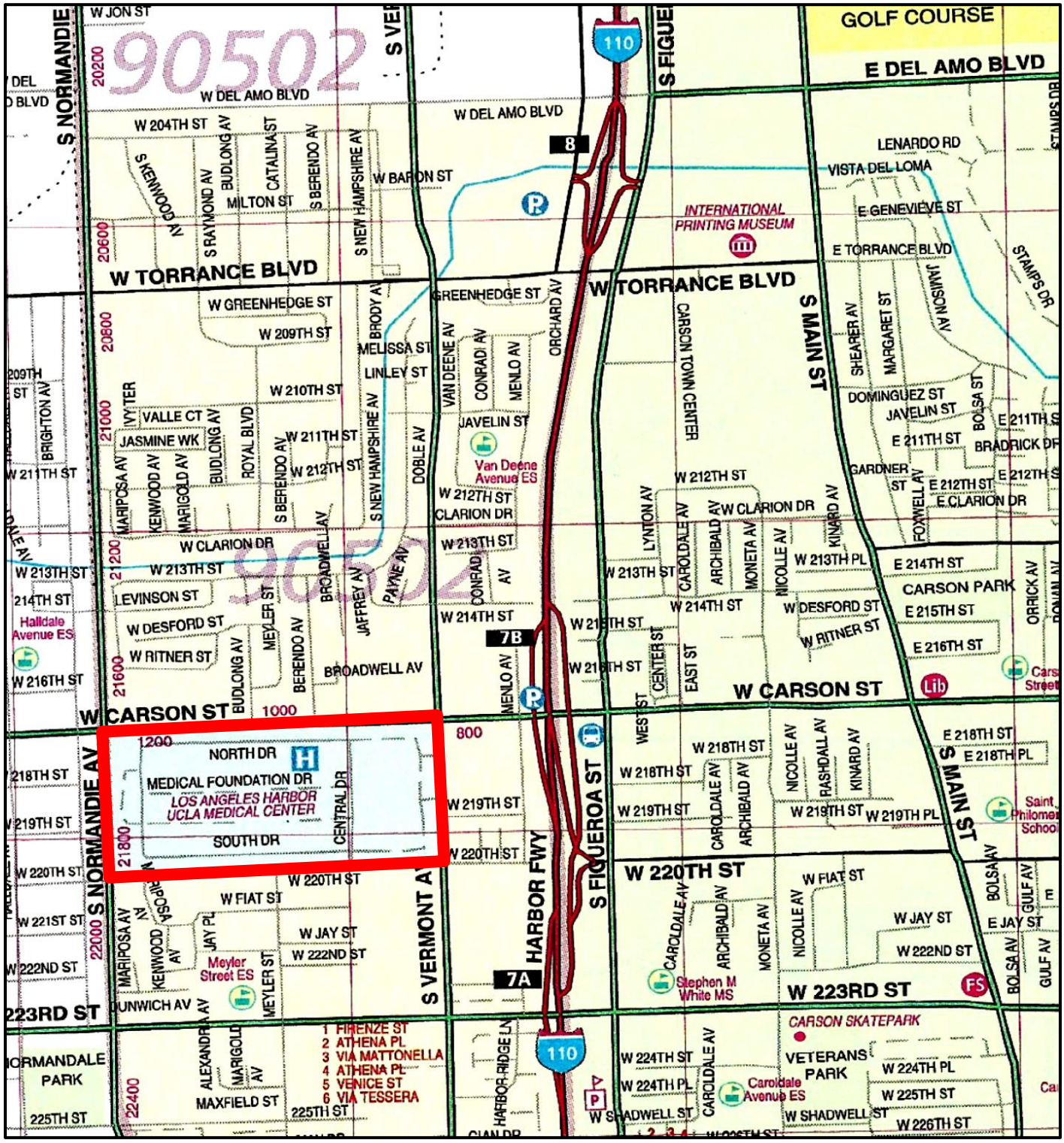


State of California
DEPARTMENT OF PARKS AND RECREATION

SKETCH MAP

Primary #
HRI #
Trinomial

Page 4 of 16 ***Resource Name or # (assigned by recorder) Los Angeles Port of Embarkation Station Hospital**
Drawn by: Thomas Brothers Map ***Date 2016**



The Los Angeles Port Embarkation Station Hospital is within the boundaries of land claimed by the historic Mission San Gabriel de Archangel. Following the Mission Period, lands originally controlled by the Catholic Church (in this case, the Mission San Gabriel de Arcangel) were re-issued as "ranchos" and granted to individuals recognized by the Spanish or Mexican governments. Here, the project area has been identified as being located within the boundaries of the Historic Rancho San Pedro (Dominguez).

The Rancho San Pedro was an early rancho granted in ca. 1822 by Governor Sola top Christobal Dominguez, nephew of Juan Jose Dominquez. Prior to this grant, the rancho was actually granted to Juan Jose Dominquez by Spanish Governor Fages during the Spanish Period. It was only the fourth rancho granted under Spanish rule. The U.S Government confirmed this rancho subsequent to the acquisition of California. Summarizing a brief history of the Rancho San Pedro (Dominguez), Gillingham (1961) reads:

> Juan Jose Dominguez (1736–1809), a Spanish soldier, arrived in San Diego, California, in 1769 with Fernando Rivera y Moncada and served with the Gaspar de Portola, along with Junipero Serra, and traveled to San Juan Capistrano, San Gabriel, and Monterey. In 1784, Dominguez was granted a concession of seventeen Spanish leagues, or 75,000 acres (300 km^2), from the Spanish Empire.
>
> Domínguez's original grazing permission stretched from present-day Compton to the Palos Verdes Peninsula but did not become a title to land until it was "re-granted" in 1822 in the Mexican era to Juan José's nephew and heir, Cristóbal Domínguez. Cristóbal died soon afterward, but his three sons settled on the ranch, building adobe homes. The following year Manuel Dominquez, eldest son of Cristóbal Domínguez, married María Engracia de Cota and commenced a successful career raising cattle and serving in a variety of elected and appointed offices in Los Angeles.
>
> For many years, a portion of the Rancho San Pedro land grant was contested between the Domínguez and Sepulveda families through various appeals to Spanish Governors and lawsuits from 1817–1883 and was eventually partitioned into seventeen parcels in 1882. The Sepúlveda family was awarded 31,629 acres (128 km^2) known as Rancho de los Palos Verdes that later became the cities of the Palos Verdes Peninsula, as well as portions of Torrance and San Pedro.

> With the cession [succession] of California to the United States following the Mexican-American War, the 1848 Treaty of Guadalupe Hidalgo provided that the land grants would be honored. As required by the Land Act of 1851, a claim for Rancho San Pedro was filed with the Public Land Commission in 1852, and a patent for 43,119 acres (170 km^2) was granted to Manuel Domínguez and signed by President James Buchanan on December 18, 1858.
>
> In 1869, Union Army Major General William Starke Rosecrans bought 16,000 acres (65 km^2). The "Rosecrans Rancho" was bordered by what later was Florence Avenue on the north, Redondo Beach Boulevard on the south, Central Avenue on the east, and Arlington Avenue on the west.

Research of the Bureau of Land Management General Land Office Records confirmed the project area is within the Rancho San Perdo (Dominguez, recognized in 1858. This particular area of unincorporated Los Angeles County has been referred to as West Carson, but also associated with nearby Torrance and Dominquez Hills. The Hospital complex is now associated with the City of Torrance. Gillinghams's summary of Torrance (1961), in part, reads:

> **Torrance** is a city in the South Bay (southwestern) region of Los Angeles County … Since its incorporation in 1921, Torrance has grown rapidly ... Torrance was originally part of the Tongva Native American homeland for thousands of years. In 1784 the Spanish land grant for Rancho San Pedro … In the early 1900s, real estate developer Jared Sidney Torrance and other investors saw the value of creating a mixed industrial-residential community south of Los Angeles. They purchased part of an old Spanish land grant and hired landscape architect Frederick Law Olmsted, Jr. to design a new planned community. The resulting town was founded in October 1912 and named after Torrance. The city of Torrance was formally incorporated in May 1921, the townsite being bounded by Western Avenue on the east, Del Amo Boulevard on the north, Crenshaw Boulevard on the west, and on the south by Plaza Del Amo east of where it meets Carson Street, and by Carson Street west of where it meets Plaza Del Amo. The first residential avenue created in Torrance was Gramercy and the second avenue was Andreo. Many of the houses on these avenues turned 100 years of age in 2012. Both avenues are located in the area

> referred to as Old Town Torrance. This section of Torrance is under review to be classified as a historical district … Rapid new growth in Torrance began after World War II as wartime industries transformed into Post-war Aerospace manufacturers and related technology industries. Large housing developments were built in the 1950s and 1960s to accommodate the new population. Torrance moved on after the closure of some aerospace development and oil refinery plants in the 1990s statewide recession.

Historic Subdivisions

A review of County Assessor maps confirmed the project area was covered, in part, by Assessor Book No. 7344. Book 7344, pages 1 through 13, covered the areas north of 223rd Street, south of Carson Street, and between the 110 Freeway and Normandie Avenue. As such, this Book also addressed the large area associated with Harbor-UCLA Medical Center.

It is evident the Rancho San Pedro was still owned, in large part, by the Dominguez family in 1919, when a Superior Court Case (No. 3284) decreed the subdivision of the remaining acreage. In this particular area, the subdivided properties involved the 2463.79 acres of land allotted to Victoria Dominguez de Carson and the 511.65 acres allotted to Ana Josefa Dominguez de Guyer. These tracts were established in 1919 and held as units until after World War II. No subdivision maps were filed between 1923 and 1948, indicating few improvements during the years between World War I and World War II, with a few exceptions (see later discussion on the Harbor-UCLA Medical Center developments).

With respect to the Harbor-UCLA Medical Center, it was apparent the core area of the hospital was a post-1960s improvement cluster. However, in the areas to the west and south of the larger hospital complex, earlier buildings were noted and, in conducting research into the origin of these earlier structures, it was confirmed the area was originally developed as a World War II medical facility. As illustrated, the northern boundary is Carson Street, the west is Normandie Avenue, to the south is 222th Street, and to the east is Vermont Avenue.

The US Army Corps of Engineers, Los Angeles District (2016) described the facility as follows:

Between June 1943 and October 1944, the War Department acquired 32 parcels by fee totalling [sic] 77.81 acres. These parcels were either taken by direct purchase or condemnation from private owners. Three additional parcels, totaling [sic] .77 acres, were acquired by permit from the County of Los Angeles for the construction of culverts across what were then county roads. Thus, 78.58 acres was acquired by fee and permit for the Los Angeles Port of Embarkation Station Hospital. The site was also known as Torrance Station Hospital.

The site was an off-post hospital facility of the Los Angeles Port of Embarkation that was used to care for Army personnel and their dependents. Improvements constructed onsite included approximately 80 buildings, utilities, and several precast concrete and steel underground storage tanks.

The site was declared surplus on 31 March 1946, with custody assumed by the War Assets Administration on 30 September 1946.

Los Angeles County purchased the entire property for the sum of $48,271 on 23 June 1947 by Quitclaim Deed.

The medical buildings became Los Angeles County Harbor General Hospital, and in 1946 the hospital was dedicated to serve the indigent and the emergency medical care needs of the county's exploding postwar population. In 1951, an affiliation between Harbor General Hospital and the newly founded UCLA School of Medicine was realized, predating by several years the opening of the UCLA Medical Center on the Westwood campus. Financed by a $15.4 million bond measure overwhelmingly passed by Los Angeles County voters, construction of a new acute care facility was begun in 1960 and completed in 1963 as a 553-bed hospital that in 1978 was renamed Harbor-UCLA Medical Center. A major addition to the building was completed in 1994. Today, Harbor-UCLA Medical Center serves a catchment area of approximately 2 million citizens and offers a full spectrum of tertiary care in all medical and surgical specialties.

The modern medical complex dominates the eastern portion of the property – necessitating the removal of 1940s-era buildings. The western portion of the property still exhibits numerous structures associated with the 1943-1946 medical facilities, along with some more modern additions and some alterations.

The area still exhibits the general characteristics of the 1940s complex and is representative of a period significant to the War effort and the post-war development of this area of Los Angeles County. Ripton (1973) summarized the modern alterations to the complex:

> Harbor General Hospital's origins were anything but ayspicious. It started in 1943 as the Torrance Port of Embarkation Station Hospital in a cluster of 77 barracks built by the Army.
>
> Some of the barracks are still in use but ten years ago an $11.6 million, eight-story hospital building was erected and in the next decade will give the hospital some of the best medical facilities in the nation …
>
> After the end of World War II, the coounty acquired the 78 acre site of the former Army hospital, including the barracks and theiur equipment, and converted it into a public hospital.

Based on the research for the area of Assessor Book 7344 (limited to the project area), McKenna et al. concluded the Harbor-UCLA Medical Center exhibits elements of the 1940s military hospital and areas to the south and west of the hospital.


COLONICS
FOOT REFLEXOLOGY
HARBOR-UCLA
MEDICAL CENTER
COUNTY OF LOS ANGELES

State of California
DEPARTMENT OF PARKS AND RECREATION

CONTINUATION SHEET

Primary #

HRI #

Trinomial

 *Resource Name or # (assigned by recorder) Los Angeles Port of Embarkation Station Hospital

Recorded by: Jeanette A. McKenna, McKenna et al., Whittier, CA *Date August 28, 2016 X Continuation Update



E-250

* Required Information

State of California
DEPARTMENT OF PARKS AND RECREATION

CONTINUATION SHEET

Primary #

HRI #

Trinomial

Page 12 of 16 *Resource Name or # (assigned by recorder) Los Angeles Port of Embarkation Station Hospital

Recorded by: Jeanette A. McKenna, McKenna et al., Whittier, CA *Date August 28, 2016 X Continuation Update



E-251

State of California
DEPARTMENT OF PARKS AND RECREATION

CONTINUATION SHEET

Primary #
HRI #
Trinomial

 *Resource Name or # (assigned by recorder) Los Angeles Port of Embarkation Station Hospital

Recorded by: Jeanette A. McKenna, McKenna et al., Whittier, CA *Date August 28, 2016 X Continuation Update



* Required Information

State of California
DEPARTMENT OF PARKS AND RECREATION

CONTINUATION SHEET

Primary #
HRI #
Trinomial

 *Resource Name or # (assigned by recorder) Los Angeles Port of Embarkation Station Hospital

Recorded by: Jeanette A. McKenna, McKenna et al., Whittier, CA *Date August 28, 2016 X Continuation Update



* Required Information

State of California
DEPARTMENT OF PARKS AND RECREATION

CONTINUATION SHEET

Primary #

HRI #

Trinomial

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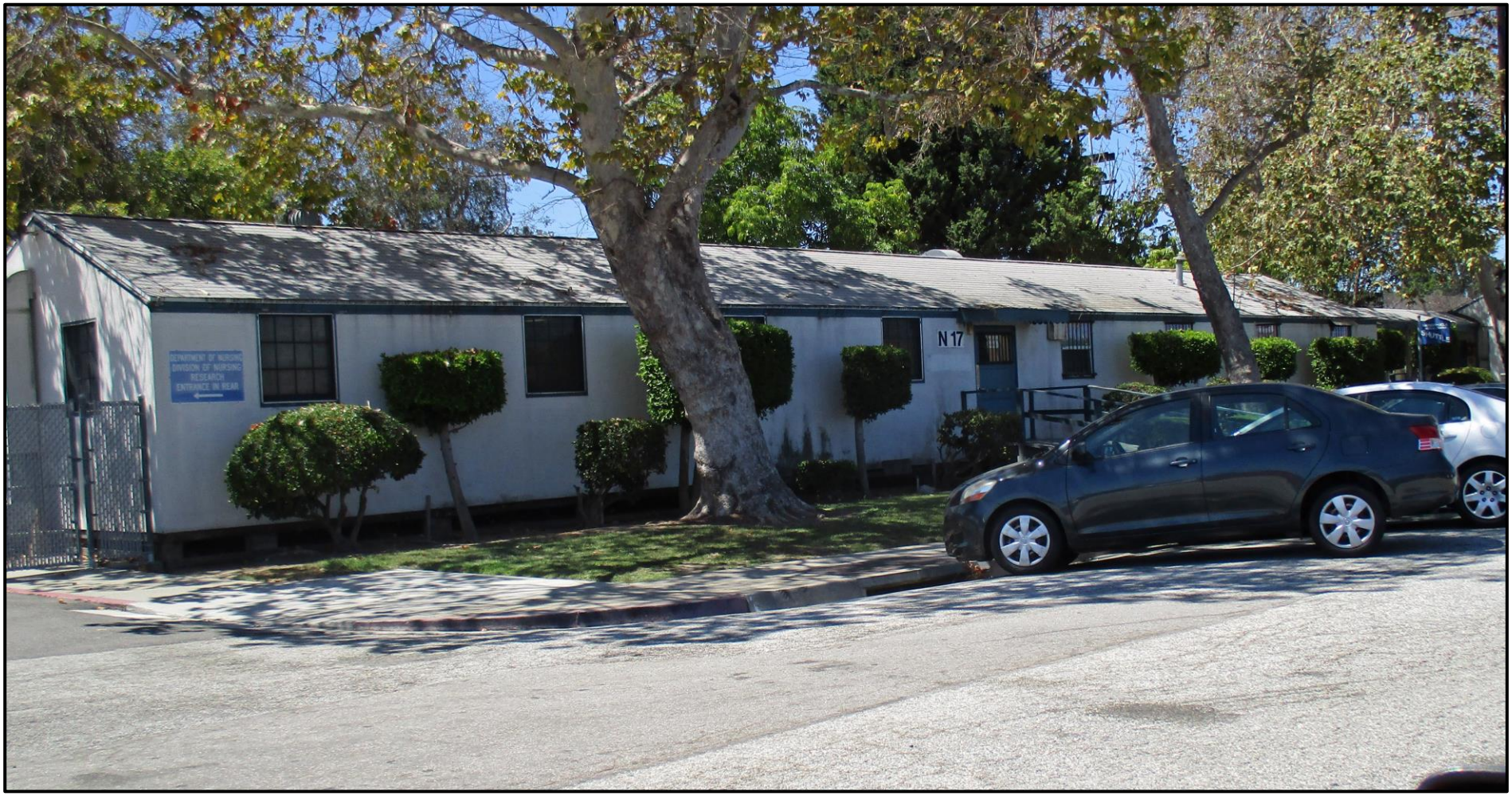
Recorded by: Jeanette A. McKenna, McKenna et al., Whittier, CA *Date August 28, 2016 X Continuation Update



* Required Information

State of California
DEPARTMENT OF PARKS AND RECREATION

CONTINUATION SHEET

Primary #
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 *Resource Name or # (assigned by recorder) Los Angeles Port of Embarkation Station Hospital

Recorded by: Jeanette A. McKenna, McKenna et al., Whittier, CA *Date August 28, 2016 X Continuation Update



* Required Information

Appendix F EDR Radius Map Report

Appendices

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West Carson TOD Specific Plan
1000 West Carson St
Torrance, CA 90502

Inquiry Number: 4778003.11s
November 10, 2016

The EDR Radius Map™ Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	908
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

GeoCheck - Not Requested

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1000 WEST CARSON ST
TORRANCE, CA 90502

COORDINATES

Latitude (North):	33.8314920 - 33° 49' 53.37''
Longitude (West):	118.2930360 - 118° 17' 34.92''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	380349.1
UTM Y (Meters):	3744030.2
Elevation:	40 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5633779 TORRANCE, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140513
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
1000 WEST CARSON ST
TORRANCE, CA 90502

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	LA CO HARBOR UCLA ME	1000 W CARSON ST	UST		TP
A2	LA CO HARBOR-UCLA ME	1000 W CARSON & 1124	EMI, LOS ANGELES CO. HMS		TP
A3	LA COUNTY HARBOR UCL	1000 W CARSON ST	RGA LUST		TP
A4	HARBOR U C L A MEDIC	1000 WEST CARSON	HIST UST		TP
A5	LA HEALTH SERVICES H	1000 W CARSON STREET	RCRA NonGen / NLR		TP
A6	HARBOR UCLA MEDICAL	1000 W CARSON ST	LUST, SWEEPS UST, CA FID UST, EMI, NPDES		TP
A7	LOS ANGELES CO HARBO	1000 W CARSON ST	HAZNET		TP
A8		1000 W. CARSON ST	ERNS		TP
A9	LA CO HARBOR-UCLA ME	1000 W CARSON ST	RCRA-LQG, ICIS, US AIRS		TP
A10	LA HEALTH SERVICES H	1000 W CARSON ST	HAZNET		TP
A11	HARBOR UCLA MEDICAL	1000 WEST CARSON STR	FINDS, ECHO		TP
A12	LA CO DHS HARBOR-UCL	1000 W CARSON ST	LOS ANGELES CO. HMS		TP
A13		1000 CARSON ST (HARB	CHMIRS		TP
A14	LA COUNTY DHS HARBOR	1000 W CARSON ST	RGA LUST		TP
A15		1000 W. CARSON ST	CHMIRS		TP
A16		1000 W. CARSON ST	ERNS		TP
Reg	DEL AMO	DEL AMO BLVD AND VER	NPL, SEMS, US ENG CONTROLS, US INST CONTROL,...	Same	2723, 0.516, North
Reg	MONTROSE CHEMICAL CO	20201 S NORMANDIE AV	NPL, SEMS, RCRA-LQG, US ENG CONTROLS, US INST...	Same	1 ft.
B17	LAUSD - VAN DEENE AV	826 W JAVELIN ST	HAZNET	Lower	1 ft.
18	OSMAR SERRANO	21312 BUDLONG AVE	HAZNET	Lower	1 ft.
19	JUSTIN LEE	21315 BROADWELL AVE	HAZNET	Lower	1 ft.
C20		20802 S. VERMONT AVE	CHMIRS	Lower	1 ft.
D21	FRANCISCO DOLLANTE	717 W. 213TH ST.	HAZNET	Higher	1 ft.
E22		TORRANCE BLVD. AND H	CHMIRS	Lower	1 ft.
23	LISA GENADY	21305 PAYNE AVE	HAZNET	Lower	1 ft.
D24	WILFRED DOMINGO	21248 MENLO AVE	HAZNET	Lower	1 ft.
C25	NICK STORE	20828 S VERMONT AVE	LOS ANGELES CO. HMS	Lower	1 ft.
E26	CATHERINE ALTOBELLO	717 GREENHEDGE ST	HAZNET	Lower	1 ft.
C27		20802 S VERMONT AVE	EDR Hist Auto	Lower	1 ft.
C28		20802 SOUTH VERMONT	CHMIRS	Lower	1 ft.
C29	HARBOR TIRES & AUTO	20802 S VERMONT AVE	LOS ANGELES CO. HMS	Lower	1 ft.
C30		20802 SOUTH VERMONT	CHMIRS	Lower	1 ft.
31	DALE KANESHIRO	941 W. 214TH ST.	HAZNET	Lower	1 ft.
E32	CARL SERVINO	20812 ORCHARD AVE	HAZNET	Higher	1 ft.
F33		708 W 209TH ST	CDL	Lower	1 ft.
C34	M&Y SAFAR BROTHERS I	20802 S VERMONT AVE	LOS ANGELES CO. HMS	Lower	1 ft.
C35	TROY A HOWELL	20802 S VERMONT	HIST UST	Lower	1 ft.
C36	LEO'S MOBIL AUTO REP	20802 S VERMONT AVE	LOS ANGELES CO. HMS	Lower	1 ft.
37	DONNA ASARI	1223 W 213TH ST	HAZNET	Lower	1 ft.

MAPPED SITES SUMMARY

Target Property Address:
1000 WEST CARSON ST
TORRANCE, CA 90502

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
C38	MOBIL #18-MAP	20802 VERMONT AVE S	RGA LUST	Lower	1 ft.
C39	CIRCLE K STORE #2211	20802 S VERMONT AVE	HAZNET	Lower	1 ft.
B40	LAUSD/ VAN DEENE AVE	826 W W JAVELIN ST	HAZNET	Lower	1 ft.
G41		21414 VERMONT AVE, U	CHMIRS	Lower	1 ft.
F42	JANET D'JANILY	704 W 209TH ST	HAZNET	Higher	1 ft.
43	PETE MAMEA	21403 BERENDO AVE	HAZNET	Higher	1 ft.
B44	VAN DEENE AVENUE SCH	826 JAVELIN ST	LOS ANGELES CO. HMS	Lower	1 ft.
45	TAMMY CLARK	818 GREENHEDGE ST	HAZNET	Lower	1 ft.
C46	MOBIL OIL CORP S/S #	20802 S VERMONT AVE	UST	Lower	1 ft.
C47	TROYS MOBIL	20802 S VERMONT	HAZNET	Lower	1 ft.
H48	GARDENA VALLEY DUMP	833 WEST TORRANCE BL	SEMS	Lower	1 ft.
49	BOB MCKEWEN	20811 DOBLE AVE	HAZNET	Lower	1 ft.
B50	VAN DEENE AVE ELEMEN	826 W JAVELIN ST	RCRA-LQG, FINDS, ECHO	Lower	1 ft.
C51	MOBIL OIL CORP S/S #	20802 S VERMONT AVE	LOS ANGELES CO. HMS	Lower	1 ft.
C52	MOBIL #18-MAP	20802 VERMONT	LUST, HIST CORTESE	Lower	1 ft.
F53	VILLAREAL, AARON	708 W. 209TH ST.	HAZNET	Lower	1 ft.
C54	M&Y SAFAR BROTHERS I	20802 S VERMONT AVE	LOS ANGELES CO. HMS	Lower	1 ft.
C55	AECOM GLOBAL II LLC	20802 S VERMONT AVE	LOS ANGELES CO. HMS	Lower	1 ft.
C56	URS CORPORATION	20802 S VERMONT AVE	LOS ANGELES CO. HMS	Lower	1 ft.
C57	CIRCLE K STORES INC	20802 S VERMONT AVE	LOS ANGELES CO. HMS	Lower	1 ft.
C58	VFW POST #10166	20820 S VERMONT AVE	LOS ANGELES CO. HMS	Lower	1 ft.
C59	GARDENA VALLEY DUMP	20800 S VERMONT AVE	LOS ANGELES CO. HMS	Lower	1 ft.
C60	ROWLAND NGYUEN	20800 DOBLE AVE	HAZNET	Lower	1 ft.
C61		#11-MAP 20802 SOUTH	CHMIRS	Lower	1 ft.
D62	RHONDA THIBAULT	712 W 213TH ST	HAZNET	Higher	1 ft.
C63		20802 SOUTH VERMONT	CHMIRS	Lower	1 ft.
C64	CIRCLE K STORES INC.	20802 S VERMONT AVE	FINDS	Lower	1 ft.
65		21127 DOBLE AVE	EDR Hist Auto	Lower	1 ft.
D66	ROXIE JONES	21242 MENLO AVE	HAZNET	Lower	1 ft.
I67	SAL CENATIEMPO	907 JAVELIN ST	HAZNET	Lower	1 ft.
G68	HERITAGE REHABILITAT	21414 S VERMONT AVE	FINDS	Lower	1 ft.
G69	HERITAGE LEGACY LLC	21414 S VERMONT	LA Co. Site Mitigation	Lower	1 ft.
D70	VIVIAN LE	808 CLARION DR.	HAZNET	Higher	1 ft.
71	ROSEMARY ALMANZA	21420 BROADWELL AVE	HAZNET	Lower	1 ft.
C72	MOBIL #11-MAP	20802 VERMONT AVE S	RGA LUST	Lower	1 ft.
J73	JIMMY QUIROZ	1228 DESFORD ST	HAZNET	Higher	1 ft.
E74		110 FRWAY S/B AT TOR	CHMIRS	Lower	1 ft.
H75	GARDENA VALLEY #4 LA	833 W. TORRANCE BLVD	ENVIROSTOR, SWF/LF	Lower	1 ft.
I76	BELMONTE CENATIEMPO	907 JAVELIN ST	HAZNET	Lower	1 ft.

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C77		20802 S. VERMONT	CHMIRS	Lower	1 ft.
C78	EXXONMOBIL OIL CORPO	20802 SO VERMONT AVE	HAZNET	Lower	1 ft.
79	BARBARA HOLLAND	946 W 220TH ST UNIT	HAZNET	Higher	1 ft.
K80	JACK-IN-THE-BOX	835 W CARSON ST	LOS ANGELES CO. HMS	Lower	1 ft.
L81	PRITKIN-FINKEL INVES	826 W 220TH ST	LOS ANGELES CO. HMS	Higher	1 ft.
L82	HARBOR UCLA MEDICAL	826 W 220TH ST	NPDES	Higher	1 ft.
L83	ATANDT INFORMATION S	826 W 220TH STREET	HIST UST	Higher	1 ft.
L84	AT&T	826 W 220TH ST	LOS ANGELES CO. HMS	Higher	1 ft.
L85	LA CO HARBOR-UCLA ME	826 W 220TH ST	SWEEPS UST, CA FID UST, LOS ANGELES CO. HMS	Higher	1 ft.
M86	TONYS UNOCAL	1259 W CARSON ST	LUST, SWEEPS UST, CA FID UST, LOS ANGELES CO. HMS	Higher	1 ft.
N87	THE FOTO FACTORY	21720 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
M88	WIENERSCHNITZEL REST	1125 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
M89	KRAGEN AUTO PARTS ST	1213 W CARSON STREET	HAZNET	Higher	1 ft.
M90	BIOMARIN PHARMACEUTI	1123 W CARSON ST	HAZNET	Higher	1 ft.
N91	EXXONMOBIL OIL CORP	21700 S VERMONT AVE	RCRA-SQG, FINDS, HAZNET, ECHO	Higher	1 ft.
O92		941 W CARSON ST	EDR Hist Auto	Lower	1 ft.
M93	LOS ANGELES BIOMEDIC	1124 W CARSON ST	AST	Higher	1 ft.
P94	FIESTA GRILL MEDITER	1153 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
K95	TESORO (SHELL) #6862	911 W CARSON ST	LOS ANGELES CO. HMS	Lower	1 ft.
96		945 WEST CARSON	ERNS	Lower	1 ft.
Q97	CARL'S JR RESTAURANT	1259 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
L98		802 W 220TH ST	EDR Hist Auto	Higher	1 ft.
L99	BEPO AUTO REPAIR	802 W 220TH ST	HAZNET	Higher	1 ft.
M100		1259 WEST CARSON ST	ERNS	Higher	1 ft.
N101	PHO CONSOMME LLC	21730 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
M102	MERONA ENTERPRISES D	1141 W CARSON ST	HAZNET	Higher	1 ft.
M103	SERVICE STATION 4944	1259 W CARSON	HIST UST	Higher	1 ft.
N104	PHO CONSOMME LLC	21730 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
N105		21700 S. VERMONT	CHMIRS	Higher	1 ft.
N106	INDUSTRIAL TECHNOLOG	21822 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
R107	HAYASHI RESTAURANT	800 W CARSON ST #38	LOS ANGELES CO. HMS	Higher	1 ft.
N108	PHOTO FINEST INC	21720 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
N109	AJRC INC	21700 S VERMONT AVE	RCRA-LQG, FINDS	Higher	1 ft.
K110	FIESTA CAR WASH	21611 S VERMONT AVE	LOS ANGELES CO. HMS	Lower	1 ft.
N111	VIGAN EXPRESS	21720 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
M112		1259 W CARSON ST	EDR Hist Auto	Higher	1 ft.
M113	B M A LOS ANGELES	1123 WEST CARSON ST	HAZNET	Higher	1 ft.
M114	UNOCAL S.S. #4944	1259 CARSON ST. W.	RGA LUST	Higher	1 ft.
M115	NORGE LAUNDRY & DRY	1161 W CARSON ST	EMI	Higher	1 ft.

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R116	SUBWAY SANDWICH #418	800 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
Q117	UNOCAL CORP SS 4944	1259 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
Q118	CARL'S JR RESTAURANT	1259 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
L119	INTEGRATED MEDICAL S	22114 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
A120	C C'S DONUTS	1001 W CARSON ST #C	LOS ANGELES CO. HMS	Lower	1 ft.
Q121	SUNGS BBQ HOUSE	1225 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
122	ECOLOGY CONTROL INDU	VARIOUS LOCATIONS IN	FINDS	Higher	1 ft.
M123	LA BIOMEDICAL RESEAR	1124 WEST CARSON STR	HIST UST, NPDES	Higher	1 ft.
S124	SEMICONDUCTOR MATERI	22108 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
S125	SEMICONDUCTOR MATERI	22108 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
S126	SEMICONDUCTOR MATERI	22108 S VERMONT AVE	FINDS	Higher	1 ft.
T127	DEBRA JOHNSON	1211 W 221ST ST	HAZNET	Higher	1 ft.
S128	DRAKE RACE CARS	22106 S VERMONT AVE	HAZNET	Higher	1 ft.
S129	TRI-MACHINE CO	22106 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
S130	PARAGON ENGINEERING	22106 S VERMONT AVE	RCRA-SQG, FINDS, ECHO	Higher	1 ft.
S131	DRAKE RACE CAR DEVEL	22106 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
S132	PARAGON ENGINEERING	22106 S VERMONT AVE	HAZNET	Higher	1 ft.
M133	CONOCO PHILLIPS #254	1259 W CARSON ST	HAZNET	Higher	1 ft.
S134	SEMICONDUCTOR MATERI	22104 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
S135		22104 S. VERMONT SUI	CHMIRS	Higher	1 ft.
S136	SEMICONDUCTOR MATERI	22104 S VERMONT	HAZNET	Higher	1 ft.
S137		22104 S.VERMONT	ERNS	Higher	1 ft.
M138	GOLDEN PHEASANT CHIN	1077 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
M139	RISING SUN ENTERPRIS	1141 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
S140	X PERT REBUILD & MAC	22102 S VERMONT AVE	RCRA-SQG, FINDS, ECHO	Higher	1 ft.
K141	POLLY'S PIES RESTAUR	819 W CARSON ST	LOS ANGELES CO. HMS	Lower	1 ft.
M142	TOSCO/UNOCAL #30769	1259 W CARSON STREET	RGA LUST	Higher	1 ft.
K143	TESORO SOUTH COAST C	911 W CARSON ST	LOS ANGELES CO. HMS	Lower	1 ft.
M144	BIOMARIN INC	1123 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
N145	EXXONMOBIL OIL CORPO	21700 VERMONT AVE	HAZNET	Higher	1 ft.
R146	AROMA CATERING	800 W CARSON ST #34	LOS ANGELES CO. HMS	Higher	1 ft.
N147	TROPI-CUBA CAFE INC	21730 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
N148	KING S SERVICE STATI	21700 S VERMONT AV	EDR Hist Auto	Higher	1 ft.
U149	CARSON NORMANDIE LLC	1173 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
V150	THE 21600 VERMONT GR	21600 VERMONT	HAZNET	Lower	1 ft.
V151	JOHN BATES	21602 S VERMONT AVE	LOS ANGELES CO. HMS	Lower	1 ft.
V152	TRC/HARBOR UCLA DIAL	21602 S VERMONT AVE	LOS ANGELES CO. HMS	Lower	1 ft.
M153	LOS ANGELES BIOMEDIC	1124 W CARSON ST	HAZNET	Higher	1 ft.
K154	SHELL SERVICE STATIO	911 W CARSON	RCRA-SQG, FINDS, HAZNET	Lower	1 ft.

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M155	LEES SANDWICHES	1145 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
156	JOHN NAITO NURSERY	22102 NORMANDIE AVE	LOS ANGELES CO. HMS	Higher	1 ft.
U157	NE BAKESHOP AND BUFF	1175 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
P158	MANILA MANGO FILIPIN	1153 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
U159	PIZZA HUT RESTAURANT	1173 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
Q160	THE FLAME BROILER	1249 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
N161	MOBIL OIL CORP S/S #	21700 S VERMONT AVE	UST	Higher	1 ft.
S162	BICKERTON IRON WORKS	22118 S VERMONT AVE	HAZNET	Higher	1 ft.
S163		22115 S VERMONT AVE	EDR Hist Auto	Higher	1 ft.
T164	NAWAID RANA	22114 KENWOOD AVE	HAZNET	Higher	1 ft.
M165	MERONA ENTERPRISES D	1141 W CARSON ST	DRYCLEANERS	Higher	1 ft.
Q166	GENKAI GRILL	1249 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
S167	BICKERTON INDUSTRIES	22118 S VERMONT AVE	SWEEPS UST, EMI, LOS ANGELES CO. HMS, NPDES	Higher	1 ft.
S168	AGGRESSIVE ERECTORS	22118 S VERMONT AVE	LOS ANGELES CO. HMS, WDS	Higher	1 ft.
N169	PHO CONSOMME LLC	21730 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
W170	HSU, RUI	1254 220 STREET	HAZNET	Higher	1 ft.
A171	C C DONUTS	1001 W CARSON ST #C	LOS ANGELES CO. HMS	Lower	1 ft.
172	METAL CLEANING IND I	1120 JAY ST	LOS ANGELES CO. HMS	Higher	1 ft.
A173		1012 CARSON ST STORE	ERNS	Higher	1 ft.
Q174	MICHEALS COFFEE SHOP	1249 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
X175	UNITED MICROWAVE PRO	22129 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
X176	UNITED MICROWAVE PRO	22129 S VERMONT AVE	HAZNET	Higher	1 ft.
Q177	CARSON CENTER	1249 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
K178	SHELL	911 CARSON ST.	RGA LUST	Lower	1 ft.
X179	MECHANICAL SEAL REPA	22122 S VERMONT	HAZNET	Higher	1 ft.
X180	VERMONT INDUSTRIAL C	22122 S VERMONT AVE	HAZNET	Higher	1 ft.
X181		22131 S VERMONT AVE	EDR Hist Cleaner	Higher	1 ft.
N182	PHO CONSOMME LLC	21730 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
X183	AUTOCRAFTING FLEET S	22133 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
X184		22133 S VERMONT AVE	EDR Hist Cleaner	Higher	1 ft.
M185	BIOMARIN	1123 CARSON ST	HAZNET	Higher	1 ft.
M186	QUIZNOS SUBS #9388	1141 W CARSON ST #D	LOS ANGELES CO. HMS	Higher	1 ft.
J187	JOHN PIPER	1207 RITNER ST	HAZNET	Higher	1 ft.
M188	RITE AID NO 5492	1237 W CARSON ST	RCRA-LQG, HAZNET, ECHO	Higher	1 ft.
U189	PHILS FISH-GRILL	1175 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
Q190	CHARO CHICKEN-TORRAN	1255 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
N191	CUBAN CUISINE & BAKE	21730 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
Q192	KRAGEN AUTO PARTS	1213 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
A193	C C DONUTS	1001 W CARSON ST #C	LOS ANGELES CO. HMS	Lower	1 ft.

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K194	LIM'S MOBIL MARKET #	21700 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
Q195	CARL'S JR RESTAURANT	1259 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
Q196	TOSCO/UNOCAL #30769	1259 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
U197	PHILS FISH-GRILL	1175 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
M198	WIENERSCHNITZEL #38	1125 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
199	MARTIN BROTHERS E I	22126 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
M200	O'REILLY AUTO PARTS	1213 W CARSON ST	FINDS	Higher	1 ft.
K201	BLUE BASIL ASIAN CUI	819 W CARSON ST	LOS ANGELES CO. HMS	Lower	1 ft.
202	LARRY BILLOUPS	1220 W 222ND ST	HAZNET	Higher	1 ft.
X203	ELLIE'S PLACE	22137 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
X204	ALFRA INDUSTRIES INC	22134 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
X205	OPTICAL PHYSICS ENG	22134 VERMONT #E	HAZNET	Higher	1 ft.
X206	ALFRA INDUSTRIES INC	22134 S VERMONT AVE,	HAZNET	Higher	1 ft.
X207	A I T	22130 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
X208	ALL STAR CUSTOM CABI	22138 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
X209	CUSTOM DESIGN INC	22138 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
X210	CARLILE MANUFACTURIN	22138 S VERMONT #D	HAZNET	Higher	1 ft.
X211	F J DRYWALL INC	22138 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
X212	ZENITRAM ENG MANUFAC	22138 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
X213	U.S. POWER CONVERTIN	22138 S VERMONT AVE	HAZNET	Higher	1 ft.
X214	CUSTOM DESIGN INC	22138 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
X215	CLAUDE P WILLIAMS IN	22138 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
M216	TOSCO/UNOCAL #30769	1259 W CARSON ST	UST	Higher	1 ft.
V217	THE INDUSTRIAL CO	21602 S VERMONT AVE	LOS ANGELES CO. HMS	Lower	1 ft.
N218	MOBIL #11-MAF	21700 VERMONT	HIST CORTESE	Higher	1 ft.
X219	DELTA CONVERSION	22203 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
X220	DELTA CONVERSION SHO	22203 SO VERMONT STE	HAZNET	Higher	1 ft.
X221	G&M AUTO REPAIR	22203 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
X222		22203 S VERMONT AVE	EDR Hist Auto	Higher	1 ft.
X223	KEN BILLINGTON	22203 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
X224	DOYLE BROS INC	22203 SO VERMONT AVE	HIST UST	Higher	1 ft.
X225	DOYLE BROTHERS INC.	22203 VERMONT AVE S	RGA LUST	Higher	1 ft.
X226	RAFAEL ARELLANO UPHO	22203 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
X227	DOYLE BROTHERS INC.	22203 VERMONT AVE S	LUST	Higher	1 ft.
X228	UNIFIED PROPERTY MGM	22203 VERMONT AVE	HAZNET	Higher	1 ft.
M229	S & J PALACE CORPORA	1123 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
X230	DOYLE BROTHERS INC.	22203 VERMONT	HIST CORTESE	Higher	1 ft.
Q231	THE FLAME BROILER	1249 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
R232	VISION AUTO SERVICE	800 W CARSON ST STE	HAZNET	Higher	1 ft.

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Y233	CM AUTO DETAIL	22209 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
Y234		22209 S VERMONT AVE	EDR Hist Auto	Higher	1 ft.
N235		21720 S VERMONT AVE	EDR Hist Cleaner	Higher	1 ft.
Z236	DECOCAL INC	22208 S VERMONT AVE	HAZNET	Higher	1 ft.
Z237	BYROM RADIATOR SERVI	22208 SO VERMONT AVE	RCRA-SQG, FINDS, ECHO	Higher	1 ft.
Z238	DC DECKER CO INC	22208 S VERMONT	HIST UST	Higher	1 ft.
Z239	FINLEY'S TREE & LAND	22208 S VERMONT AVE	PEST LIC	Higher	1 ft.
Z240	DECOCAL INC	22208 SOUTH VERMONT	HAZNET	Higher	1 ft.
Z241	UNITED INSTALLER	22208 S VERMONT AVE	SWEEPS UST, CA FID UST, LOS ANGELES CO. HMS	Higher	1 ft.
Z242	DECOCAL INC	22208 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
Z243	BYROM RADIATOR SERVI	22208 S VERMONT AVE	HAZNET	Higher	1 ft.
Z244	BYRON'S RADIATOR REP	22208 SO. VERMONT	EMI	Higher	1 ft.
Z245	JUAN CARLOS MAILLAND	22208 S VERMONT AVE	HAZNET	Higher	1 ft.
Q246	CONOCOPHILLIPS CO #2	1259 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
M247	CARSON-NORMANDIE PLA	1141 CARSON ST	SLIC, BROWNFIELDS	Higher	1 ft.
V248	JOHN BATES	21600 VERMONT AVE S	RGA LUST	Lower	1 ft.
V249	HERTZ EQUIPMENT RENT	21600 S VERMONT AVE	RCRA-SQG, HIST UST, FINDS, HAZNET, ECHO	Lower	1 ft.
M250	RITE AID NO 5492	1237 W CARSON ST	FINDS	Higher	1 ft.
N251	SPOT SIZZLING SOUP R	21730 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
K252	JACK IN THE BOX #315	835 W CARSON ST	FINDS	Lower	1 ft.
M253	NORGE VILLAGE CLEANE	1161 W CARSON ST	RCRA-SQG, FINDS, ECHO	Higher	1 ft.
W254	NATL SUPPLY CO DUMP	22000 NORMANDIE AVE	LOS ANGELES CO. HMS	Higher	1 ft.
N255	TROPI-CUBA CAFE INC	21730 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
N256	PHO CONSOMME	21730 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
N257	CUBAN CUISINE & BAKE	21730 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
K258	BLUE BASIL ASIAN CUI	819 W CARSON ST	LOS ANGELES CO. HMS	Lower	1 ft.
R259	NEW CARSON TRANSMISS	800 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
260	MIKAMO NURSERY	1029 W 223RD ST	LOS ANGELES CO. HMS	Higher	1 ft.
K261	TORRANCE HARBOR SHEL	911 W CARSON ST	UST	Lower	1 ft.
M262	TOSCO/UNOCAL #30769	1259 CARSON ST. W.	RGA LUST	Higher	1 ft.
M263	TOSCO CORPORATION ST	1259 W CARSON	HAZNET	Higher	1 ft.
Q264	TONY'S UNOCAL	1259 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
M265	RESEARCH & EDUCATION	1124 W CARSON ST	EMI, LOS ANGELES CO. HMS	Higher	1 ft.
N266	CARLOS M V FAUSTO DD	21720 S VERMONT AVE	HAZNET	Higher	1 ft.
K267	TESORO REFINING & MA	911 W CARSON ST	HAZNET	Lower	1 ft.
K268	SHELL	911 CARSON ST. W	LUST	Lower	1 ft.
M269	LOS ANGELES BIOMEDIC	1124 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
P270	FILIPINO RESTAURANT	1153 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
M271	UNOCAL #4944	1259 CARSON ST. W.	RGA LUST	Higher	1 ft.

MAPPED SITES SUMMARY

Target Property Address:
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MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
M272	LONG JOHN SILVER'S #	1145 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
Y273		925 WEST 223RD STREE	CHMIRS	Higher	1 ft.
Y274		925 W. 223RD STREET	ERNS	Higher	1 ft.
V275	MISSION STORAGE	735 W CARSON ST	HAZNET	Lower	1 ft.
P276	FIESTA GRILL MEDITER	1153 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
O277	SMILE CARE DENTAL GR	923 W CARSON ST	HAZNET	Lower	1 ft.
K278	TESORO (SHELL) #6862	911 W CARSON ST	LOS ANGELES CO. HMS	Lower	1 ft.
M279	VITAHUT INVESTMENTS	1123 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
M280	TONY'S 76	1259 W CARSON	HAZNET	Higher	1 ft.
V281	JOHN BATES	21600 VERMONT	HIST CORTESE	Lower	1 ft.
M282	CARSON NORMANDIE PLA	1141-1259 CARSON STR	ENF	Higher	1 ft.
A283	FORTUNE BOWL	1029 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
N284	HONG KONG BAKERY & D	21720 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
R285	AROMA CATERING	800 W CARSON ST #34	LOS ANGELES CO. HMS	Higher	1 ft.
R286	CAR TECH MG AUTO SPE	800 W CARSON ST STE	HAZNET	Higher	1 ft.
M287	C AND S PHOTO EXPRES	1255 W CARSON ST	HAZNET	Higher	1 ft.
A288	LOS ALTOS MARKET	1019 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
N289	SPOT SIZZLING SOUP(#	21730 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
P290	DRY CLEANERS 114-125	1161 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
K291	SHELL SERVICE STATIO	911 WEST CARSON	FINDS, ECHO	Lower	1 ft.
AA292	JR JANSEN INC	22231 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
AA293	JANSEN ANIMAL HOSPIT	22231 S VERMONT AVE	HAZNET	Higher	1 ft.
R294		800 W CARSON ST	EDR Hist Auto	Higher	1 ft.
295	LAUSD/ MEYLER ST ELE	1123 W 223RD ST	HAZNET	Higher	1 ft.
M296	TONY'S UNOCAL #1	1259 W CARSON ST	HAZNET	Higher	1 ft.
AB297	THE SOFT TOUCH PET L	951 W 223RD ST	LOS ANGELES CO. HMS	Higher	1 ft.
AB298	ALL STAR PET RESORT	951 W 223RD ST	LOS ANGELES CO. HMS	Higher	1 ft.
AB299	ALL STAR PET RESORT	951 W 223RD ST	LOS ANGELES CO. HMS	Higher	1 ft.
AA300	CENTURY PARTS INC	913 W 223RD ST	HAZNET	Higher	1 ft.
AA301	CENTURY PARTS INC	913 W 223RD ST	FINDS	Higher	1 ft.
AA302	CENTURY PARTS INC	913 W 223RD ST	LOS ANGELES CO. HMS	Higher	1 ft.
N303		21804 SOUTH VERMONT	CHMIRS	Higher	1 ft.
Q304	SAMURAI SAMS	1249 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
R305	EXPRESS IMPORT & EXP	727 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
N306	SPENCER CHUN/VILLAGE	21730 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
M307	UNOCAL #4944	1259 CARSON ST. W.	LUST	Higher	1 ft.
U308	CARSON NORMANDIE PLA	1173 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
N309	MOBIL OIL CORP	21704 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
U310	NE BAKESHOP AND BUFF	1175 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.

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N311	MOBIL #11-MAF	21700 VERMONT AVE S	LUST	Higher	1 ft.
R312	SUBWAY SANDWICH-CLOS	800 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
K313	HONG KONG GARDEN RES	21718 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
M314	NORGE LAUNDRY & DRY	1161 W. CARSON ST.	EMI	Higher	1 ft.
K315	SHELL OIL #204-7873-	911 W CARSON ST	LOS ANGELES CO. HMS	Lower	1 ft.
P316	PEP'N CHEESE	1157 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
V317	JOHN BATES	21600 VERMONT AVE S	LUST	Lower	1 ft.
Q318	GENKAI GRILL	1249 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
R319	TORRANCE BUSINESS PL	800 W CARSON ST STE	HAZNET	Higher	1 ft.
M320	PETER HORVATH ET AL	1123 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
K321	MOBIL OIL CORP #1016	21700 S VERMONT AVE	LOS ANGELES CO. HMS	Higher	1 ft.
M322	ROGERS K C	1181 CARSON WY	EDR Hist Auto	Higher	1 ft.
Q323	SOUTH BAY WATER INC	1255 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
R324	VIDEOSONIC LABS INC	733 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
K325		911 W CARSON ST	EDR Hist Auto	Lower	1 ft.
P326	LOS PAISAS TACOS Y M	1151 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
M327	COST SAVER MARKET	1141 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
M328	BLANKENSHIP PLOYD CH	1181 CARSON ST	EDR Hist Auto	Higher	1 ft.
M329		1213 W CARSON ST	EDR Hist Auto	Higher	1 ft.
Q330	CARL'S JR RESTAURANT	1259 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
L331	PACIFIC BELL	826 W SECOND HUNDRED	RCRA NonGen / NLR, FINDS, ECHO	Higher	1 ft.
K332	SHELL	911 CARSON ST. W	RGA LUST	Lower	1 ft.
N333	AMERICAN AIRCRAFT PR	21808 SO. VERMONT AV	EMI	Higher	1 ft.
K334	SHELL	911 W CARSON	HAZNET	Lower	1 ft.
O335	GINOS INC	923 W CARSON ST	LOS ANGELES CO. HMS	Lower	1 ft.
M336	UNOCAL #4944	1259 CARSON ST W	RGA LUST	Higher	1 ft.
M337	T SHIRT WAREHOUSE	1101 WEST CARSON	HAZNET	Higher	1 ft.
Q338	THE SEELY CORP	1249 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
K339		VERMONT & CARSON ST	CDL	Lower	1 ft.
N340	ARCO #5108	21704 FIGUEROA ST S	LUST, HIST CORTESE	Higher	1 ft.
K341	R CONTRERAS - CARWAS	21611 S VERMONT AVE	LOS ANGELES CO. HMS	Lower	1 ft.
M342	UNOCAL #4944	1259 CARSON	HIST CORTESE	Higher	1 ft.
M343	MERONA ENTERPRISES D	1141 W CARSON ST	HAZNET	Higher	1 ft.
R344	IN-N-OUT BURGER INC.	730 W CARSON ST	FINDS	Higher	1 ft.
Q345	RITE AID STORE #5492	1237 N CARSON ST	HAZNET	Higher	1 ft.
P346	LOS PAISAS TACOS Y M	1151 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
V347	JOHN BATES	21600 VERMONT AVE S	LUST	Lower	1 ft.
N348	IL-SUN KIM	21700 S VERMONT AVE	HIST UST	Higher	1 ft.
N349		21810 S VERMONT AVE	EDR Hist Auto	Higher	1 ft.

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350	LA PORT O EMB STATIO		ENVIROSTOR	Higher	1 ft.
R351	IN-N-OUT BURGER REST	730 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
U352	STARBUCKS COFFEE #68	1171 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
R353	SUBWAY SANDWICH #418	800 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
V354	US STORAGE CENTERS	735 W CARSON ST	LOS ANGELES CO. HMS	Lower	1 ft.
M355	B M A LOS ANGELES	1123 W CARSON ST	HAZNET	Higher	1 ft.
M356	WIENERSCHNITZEL REST	1125 W CARSON ST	LOS ANGELES CO. HMS	Higher	1 ft.
V357	TIC-THE INDUSTRIAL C	21602 S VERMONT AVE	LOS ANGELES CO. HMS	Lower	1 ft.
H358	BERADA CORPORATION-G	801 TORRANCE	WMUDS/SWAT	Lower	3, 0.001,
AC359	HARBORUCLA PROFESSIO	21840 S NORMANDIE AV	RCRA NonGen / NLR	Higher	12, 0.002, WSW
AC360	HARBOR UCLA DIAGNOST	21828 S NORMANDIE AV	RCRA-SQG, HAZNET	Higher	12, 0.002, WSW
361		21600 NORMANDIE AVE	EDR Hist Cleaner	Higher	14, 0.003, WNW
E362	ALPINE VILLAGE TEXAC	701 TORRANCE BLVD	UST	Lower	50, 0.009, NNE
E363		701 TORRANCE BLVD	EDR Hist Auto	Lower	50, 0.009, NNE
E364	ALPINE VILLAGE TEXAC	701 TORRANCE BLVD.	LUST	Lower	50, 0.009, NNE
E365	ALPINE TEXACO (FORME	701 TORRANCE BLVD W	LUST	Lower	50, 0.009, NNE
E366	WON TAE LEE EXXON	701 W TORRANCE	HIST UST, HAZNET	Lower	50, 0.009, NNE
E367	EXXON SERVICE STATIO	701 W TORRANCE	SWEEPS UST, CA FID UST	Lower	50, 0.009, NNE
AD368	SAM LEUNG A & M PROP	22322 NORMANDIE AVEN	LUST	Higher	174, 0.033, SW
AD369		22322 NORMANDIE AVE	EDR Hist Auto	Higher	174, 0.033, SW
AA370		22315 S VERMONT AVE	EDR Hist Auto	Higher	180, 0.034, SSE
371		924 W 223RD ST	EDR Hist Auto	Higher	185, 0.035, South
AE372		21101 FIGUEROA ST	EDR Hist Auto	Lower	212, 0.040, NE
AF373		21021 FIGUEROA ST	EDR Hist Auto	Lower	216, 0.041, NE
AF374	MUNDORF AUTO SALES &	21023 S FIGUEROA	RCRA-SQG, FINDS, HAZNET, ECHO	Lower	218, 0.041, NE
AF375	MUNDORF AUTO SALES &	21023 S FIGUEROA	RCRA-SQG	Lower	218, 0.041, NE
AE376	D AND N CONCRETE PUM	21125 FIGUEROA ST	RCRA-SQG, FINDS, HAZNET, ECHO	Lower	234, 0.044, NE
377		22300 S VERMONT AVE	EDR Hist Auto	Higher	249, 0.047, SSE
378		22029 FIGUEROA ST	EDR Hist Auto	Higher	278, 0.053, SE
AF379	GOLDEN EAGLE REFININ	21000 S FIGUERORA ST	SEMS, SLIC, SWEEPS UST, LOS ANGELES CO. HMS, HWP	Lower	292, 0.055, NE
AF380	CARSON TANK FARM	21000 FIGUEROA	ENF, HIST CORTESE	Lower	292, 0.055, NE
AE381	DEWEY PEST CONTROL	21111 S FIGUEROA STR	RCRA-SQG, UST, SWEEPS UST, HIST UST, CA FID UST,...	Lower	297, 0.056, NE
AF382	CWD LLC	21046 S FIGUEROA ST	RCRA-LQG	Lower	331, 0.063, NE
AF383	CWD, LLC	21046 SOUTH FIGUEROA	RCRA-LQG	Lower	331, 0.063, NE
AG384	SIMPAL OIL INC	22235 S FIGUEROA ST	SWEEPS UST, CA FID UST, LOS ANGELES CO. HMS	Higher	335, 0.063, SE
AG385	SANDHU'S SHELL	22235 FIGUEROA ST	UST	Higher	335, 0.063, SE
AG386	SHELL SERVICE STATIO	22235 S FIGUEROA ST	RCRA-SQG, FINDS, HAZNET, LOS ANGELES CO. HMS, ECHO	Higher	335, 0.063, SE
AG387	FORMER SHELL STATION	22235 FIGUEROA ST. S	LUST	Higher	335, 0.063, SE
AG388	SHELL	22235 S FIGUEROA	HIST UST, HAZNET	Higher	335, 0.063, SE

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AH389	SERVICE STATION 2529	600 W CARSON	HIST UST	Higher	365, 0.069, East
AH390	UNOCAL CORP SS 2529	600 W CARSON ST	SWEEPS UST, LOS ANGELES CO. HMS	Higher	365, 0.069, East
AI391	SO-CAL	21629 FIGUEROA ST S	LUST	Higher	423, 0.080, East
AI392	SO-CAL RACING FUEL C	21629 S FIGUEROA ST	SWEEPS UST, HIST UST, CA FID UST, LOS ANGELES CO....	Higher	423, 0.080, East
AI393	SO-CAL	21629 FIGUEROA	HIST CORTESE	Higher	423, 0.080, East
394		1022 W 209TH ST	EDR Hist Cleaner	Lower	469, 0.089, North
AI395		21618 FIGUEROA ST	EDR Hist Cleaner	Higher	516, 0.098, East
AG396	LAUSD WHITE JUNIOR H	22102 S FIGUEROA ST	RCRA-SQG, FINDS, ECHO	Higher	518, 0.098, SE
AJ397		22410 NORMANDIE AVE	EDR Hist Auto	Higher	543, 0.103, SSW
AJ398		22414 NORMANDIE AVE	EDR Hist Auto	Higher	569, 0.108, SSW
AJ399	JEFF BIGGS SURFBOARD	22414 S NORMANDIE UN	RCRA-SQG, FINDS, HAZNET, ECHO	Higher	569, 0.108, SSW
AJ400	SOUTH BAY CORVETTE	22414 NORMANDIE	RCRA-SQG, FINDS, ECHO	Higher	569, 0.108, SSW
AJ401	SERVICE TECH	22414 S NORMANDIE AV	RCRA-SQG, FINDS, ECHO	Higher	569, 0.108, SSW
AJ402		22416 NORMANDIE AVE	EDR Hist Auto	Higher	581, 0.110, SSW
403	GARDENA VALLEY 1 & 2	20740 S. FIGUEROA, 2	SWF/LF	Lower	614, 0.116, NNE
AJ404	EOS ENTERPRISES INC	22424 S NORMANDIE AV	RCRA NonGen / NLR, FINDS, ECHO	Higher	631, 0.120, SSW
AJ405		22424 NORMANDIE AVE	EDR Hist Auto	Higher	631, 0.120, SSW
406	SIMPSON SPORTS	22412 SOUTH NORMANDI	RCRA-SQG, FINDS, ECHO	Higher	631, 0.120, SSW
407	AERO ARC	22433 S VERMONT AVE	RCRA-SQG	Higher	873, 0.165, South
408	K & K AUTO PARTS	1407 W CARSON STREET	RCRA-SQG, FINDS, ECHO	Higher	922, 0.175, West
409	ROYAL BOULEVARD CLAS	ROYAL BLVD BTWN 209T	ENVIROSTOR	Lower	931, 0.176, North
AK410	ROYAL BOULEVARD LAND	20950 S. ROYAL BOULE	SWF/LF, LDS	Lower	961, 0.182, North
AK411	ROYAL BLVD. DUMP	20950 S. ROYAL BLVD.	WMUDS/SWAT	Lower	995, 0.188, North
412	M CS UNLIMITED	22517 NORMANDIE AVE	RCRA-SQG, FINDS, ECHO	Higher	1010, 0.191, SSW
AL413	CITY OF CARSON - HUR	329 TORRANCE	SLIC	Lower	1052, 0.199, NE
AM414	NORMANDIE AVE. PROPE	21000 NORMANDIE AVE.	ENVIROSTOR	Higher	1078, 0.204, NW
AM415	MCDONNELL DOUGLAS AE	21000 S NORMANDIE AV	RCRA-SQG, FINDS, ECHO	Higher	1078, 0.204, NW
AL416	CITY OF CARSON - HIC	321 TORRANCE	SLIC	Lower	1106, 0.209, NE
417	ROLLINS LEASING CORP	20425 HAMILTON	HIST CORTESE	Lower	1182, 0.224, NNE
AL418	CITY OF CARSON - HIC	315 TORRANCE BLVD	SLIC	Lower	1195, 0.226, NE
AN419		20425 S HAMILTON AVE	AST	Lower	1246, 0.236, NNE
AN420	PENSKE TRUCK LEASING	20425 S HAMILTON AVE	AST	Lower	1246, 0.236, NNE
AN421	ROLLINS LEASING CORP	20425 HAMILTON AVE	UST	Lower	1246, 0.236, NNE
AN422	PENSKE TRUCK LEASING	20425 SOUTH HAMILTON	RCRA NonGen / NLR, FINDS, ECHO	Lower	1246, 0.236, NNE
AN423	BRITE SOL CLEANING D	20425 S HAMILTON AVE	RCRA NonGen / NLR	Lower	1246, 0.236, NNE
AN424	PENSKE TRUCK LEASING	20425 S HAMILTON AVE	RCRA NonGen / NLR, LOS ANGELES CO. HMS	Lower	1246, 0.236, NNE
AN425	PENSKE TRUCK PARKING	20425 HAMILTON AVE	LUST, NPDES	Lower	1246, 0.236, NNE
AN426	ROLLINS LEASING CORP	20425 HAMILTON AVE	LUST	Lower	1246, 0.236, NNE
AN427	ROLLINS LEASING CORP	20425 S HAMILTON AVE	HIST UST, RCRA NonGen / NLR, FINDS, HAZNET, LOS...	Lower	1246, 0.236, NNE

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428	ROYAL BOULEVARD CLAS	ROYAL BOULEVARD BETW	CA BOND EXP. PLAN	Lower	1248, 0.236, NNW
429	GARDENA VALLEY #5 (G	306 WEST TORRANCE BO	SWF/LF, HAZNET	Lower	1312, 0.248, NE
430	DGLP DEVELOPMENT	1445-1455 WEST 225TH	ENVIROSTOR	Higher	1407, 0.266, SW
AO431	SIMPSON GASOLINE ALL	22628 NORMANDIE AVE	LUST	Higher	1447, 0.274, SSW
AP432	GARDENA VALLEY DUMP	736 WEST DEL AMO BOU	SWF/LF	Lower	1475, 0.279, NNE
AP433	THE EMPTY ATTIC	736 W. DEL AMO BOULE	ENVIROSTOR, VCP	Lower	1475, 0.279, NNE
AO434	SIMPSON GASOLINE ALL	22628 NORMANDIE	HIST CORTESE	Higher	1578, 0.299, SSW
435	DEL AMO HAZ WSTE		ENVIROSTOR	Lower	1604, 0.304, North
AQ436	BERADA CORPORATION-G	100 WEST TORRANCE BO	WMUDS/SWAT	Lower	1761, 0.334, NE
437	UNITED OIL STATION #	300 CARSON ST W	LUST, HIST CORTESE	Lower	1793, 0.340, East
AR438	CITY OF CARSON - REB	20501 MAIN	SLIC	Lower	1842, 0.349, NE
AR439	REBEL MINI STORAGE	20501 S. MAIN STREET	ENVIROSTOR, VCP, DEED	Lower	1842, 0.349, NE
AS440	CITY OF CARSON - THK	20350 S. FIGUEROA ST	SLIC	Lower	1853, 0.351, NNE
AS441	CITY OF CARSON - THK	20350 FIGUEROA	SLIC	Lower	1853, 0.351, NNE
442	DON WILSON BUILDERS	22700 MEYLER ST	ENVIROSTOR, LUST, HIST CORTESE, LA Co. Site...	Higher	1858, 0.352, South
443	ACE ROLL-OFF	22022 MONETA AVE	SWF/LF	Higher	1860, 0.352, ESE
AT444	BLUE DIAMOND MATERIA	20860 NORMANDIE AVE	LUST, HIST CORTESE	Higher	1890, 0.358, NNW
AQ445	GARDENA VALLEY DUMP	100 W TORRANCE BLVD	SEMS-ARCHIVE, LOS ANGELES CO. HMS	Lower	1901, 0.360, NE
AQ446	GARDENA VALLEY NO. 1	101 WEST TORRANCE BO	WMUDS/SWAT	Lower	1901, 0.360, NE
AT447	AKZO COATINGS (SILKE	20846 NORMANDIE AVE	LUST	Higher	1956, 0.370, NNW
AT448	ECOLOGY CONTROL INDU	20846 NORMANDIE AVEN	ENVIROSTOR, HIST CORTESE, HWT, NPDES	Higher	1956, 0.370, NNW
AT449	ECOLOGY CONTROL INDU	20846 S NORMANDIE AV	SEMS-ARCHIVE, RCRA-SQG	Higher	1956, 0.370, NNW
AU450	DEL AMO	1000 WEST 204TH STRE	US BROWNFIELDS	Higher	1996, 0.378, North
AU451	DEL AMO NEIGHBORHOOD	1000 WEST 204TH STRE	ENVIROSTOR, VCP	Higher	1996, 0.378, North
AS452	MB LANDSCAPING AND N	20300 SOUTH FIGUEROA	SWF/LF, SLIC	Lower	2045, 0.387, NNE
AV453	OIL WELL PROPERTY(FO	22800 S.NORMANDIE AV	ENVIROSTOR	Higher	2052, 0.389, SSW
AV454	A-1 MATERIALS	23003 MARIPOSA	HIST CORTESE	Higher	2062, 0.391, SSW
455	GS NURSERY	20331 MAIN STREET	ENVIROSTOR, SWF/LF, VCP, LIENS	Lower	2096, 0.397, NNE
456	WERDIN DUMP	20600 SOUTH MAIN STR	SWF/LF	Lower	2105, 0.399, NE
AW457	WESTERN BRASS	1338 228TH ST W	LUST	Higher	2120, 0.402, SSW
AT458	ECOLOGY CONTROL INDU	20802,20846 AND 2085	ENVIROSTOR, VCP	Lower	2122, 0.402, NNW
AW459	WESTERN BRASS	1338 228TH	HIST CORTESE	Higher	2167, 0.410, SSW
AX460	ALLAN'S ARCO MINI MA	1605 CARSON	HIST CORTESE	Higher	2248, 0.426, West
AX461	ALLAN'S ARCO MINI MA	1605 CARSON ST W	LUST, ENF	Higher	2248, 0.426, West
462	TCE NORMANDIE SITE	VARIOUS SITES EAST A	ENVIROSTOR	Higher	2254, 0.427, NNW
AY463	WERDIN DUMP	20420 S MAIN ST	SEMS-ARCHIVE, LOS ANGELES CO. HMS	Lower	2380, 0.451, NE
AY464	WERDIN DUMP	20402 MAIN	HIST CORTESE	Lower	2451, 0.464, NE
AY465	WERDIN DUMP	20402 S MAIN ST	ENVIROSTOR	Lower	2451, 0.464, NE
AZ466	DEXOL INDUSTRIES INC	1450 W 228TH ST	RCRA-SQG, LUST, SWEEPS UST, HIST UST, CA FID UST,...	Higher	2459, 0.466, SW

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AY467	TETRA TECH	20400 MAIN ST	RESPONSE, ENVIROSTOR, SWF/LF, LDS, Cortese, HIST...	Lower	2460, 0.466, NE
AY468	CARSON RECLAMATION A	20400 MAIN STREET	HIST Cal-Sites, NPDES, WDS	Lower	2460, 0.466, NE
AY469	WERDIN SITE-CARSON	20400 SOUTH MAIN	WMUDS/SWAT	Lower	2460, 0.466, NE
470	A & B AUTO REPAIR	20530 NORMANDIE AVE	LUST	Higher	2495, 0.473, NNW
AZ471	MULTI-TENANT OFFICE-	1500-1510 WEST 228TH	SLIC	Higher	2501, 0.474, SW
BA472	CAL COMPACT LANDFILL	20300 SOUTH MAIN STR	CA BOND EXP. PLAN	Lower	2751, 0.521, NNE
BA473	SOUTHWEST CONSERVATI	20300 MAIN	ENVIROSTOR, LDS, HIST CORTESE	Lower	2751, 0.521, NNE
474	DOW CHEMICALS CO.		ENVIROSTOR	Higher	2995, 0.567, North
BB475	BODY GLOVE INTERNATI	20700 DENKER AVE UNI	SEMS-ARCHIVE, CORRACTS, RCRA-TSDF, RCRA NonGen /...	Higher	3034, 0.575, NW
BB476	NORTHROP CORP. AIRCR	20700 DENKER AVE	ENVIROSTOR, HWP	Higher	3082, 0.584, NW
477	ALFA CORPORATION	1638 W. 227TH ST.	ENVIROSTOR	Higher	3111, 0.589, SW
478	FIRST IMAGE MANAGEME	19701 S. HAMILTON AV	ENVIROSTOR	Lower	3515, 0.666, NNE
479	HYDRO RUBBER AND PLA	1200 FRANCISCO ST	RCRA-SQG, ENVIROSTOR, FINDS, EMI, HAZNET, ECHO	Higher	3683, 0.698, NNW
480	STAR BIOCHEMICALS, S	20916 HIGGING CT	ENVIROSTOR	Higher	3731, 0.707, WNW
481	HALBERT'S LUMBER, IN	2026 ABALONE AVENUE	RESPONSE, ENVIROSTOR, HIST UST, Cortese	Higher	3766, 0.713, WSW
482	DOMINGUEZ GOLF COURS	19800 S. MAIN STREET	ENVIROSTOR, LUST, VCP, HAZNET, HIST CORTESE, LOS...	Lower	3884, 0.736, NNE
BC483	MONTROSE CHEMICAL	20201 NORMANDIE AVEN	CA BOND EXP. PLAN	Higher	3946, 0.747, NNW
BC484	MONTROSE CHEMICAL CO	20201 NORMANDIE AVEN	ENVIROSTOR, HIST Cal-Sites, Cortese, HIST CORTESE	Higher	3946, 0.747, NNW
485	MARTIN ADAMS DUMP	213 ST TO 21111 DOLO	SEMS, ENVIROSTOR, SWF/LF, CHMIRS	Lower	4090, 0.775, ENE
BD486	JCI JONES CHEMICALS	1401 DEL AMO BLVD	HWP	Higher	4121, 0.780, NNW
BD487	JONES CHEMICAL	1401 DEL AMO	ENVIROSTOR, HIST CORTESE, NPDES	Higher	4121, 0.780, NNW
488	LA-405 DOMINGUEZ GOL	RIGHT-OF-WAY BETWEEN	ENVIROSTOR, VCP	Lower	4312, 0.817, NE
489	ARMCO STEEL CORP NAT	1524 BORDER AVE	RESPONSE, ENVIROSTOR, HIST Cal-Sites, FINDS, ECHO	Higher	4319, 0.818, West
490	AMERICAN HONDA MOTOR	1919 TORRANCE BOULEV	ENVIROSTOR, VCP, DEED	Higher	4445, 0.842, WNW
491	REDMAN EQUIPMENT AND	19800 NORMANDIE AVE	RCRA-LQG, ENVIROSTOR, LUST, VCP, SWEEPS UST, ICIS,...	Higher	4497, 0.852, NNW
BE492	AMOCO CHEMICAL CO.	1225 WEST 196TH ST.	RESPONSE, ENVIROSTOR, SLIC, Cortese	Higher	4746, 0.899, North
493	TRICO PACCAR	1206 WEST 196TH STRE	ENVIROSTOR, SLIC, VCP, ENF	Higher	4845, 0.918, NNW
BE494	ECOLOGY CONTROL INDU	19500 NORMANDIE AVE	ENVIROSTOR, SLIC, VCP, ENF, HIST CORTESE, MWMP	Higher	4999, 0.947, North
495	SUNTHETIC RUBBER PLA		ENVIROSTOR	Higher	5180, 0.981, North

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
LA CO HARBOR UCLA ME 1000 W CARSON ST TORRANCE, CA 90502	UST Database: UST, Date of Government Version: 09/12/2016 Facility Id: 1171	N/A
LA CO HARBOR-UCLA ME 1000 W CARSON & 1124 TORRANCE, CA 90063	EMI Facility Id: 800312 Facility Id: 457 LOS ANGELES CO. HMS Facility ID: 001114-039922	N/A
LA COUNTY HARBOR UCL 1000 W CARSON ST TORRANCE, CA	RGA LUST	N/A
HARBOR U C L A MEDIC 1000 WEST CARSON TORRANCE, CA 90063	HIST UST	N/A
LA HEALTH SERVICES H 1000 W CARSON STREET TORRANCE, CA 90509	RCRA NonGen / NLR EPA ID:: CAT080030919	CAT080030919
HARBOR UCLA MEDICAL 1000 W CARSON ST TORRANCE, CA 90502	LUST Database: LUST, Date of Government Version: 09/12/2016 Global Id: T0603754521 Status: Open - Site Assessment SWEEPS UST Status: A Tank Status: A Comp Number: 1171 CA FID UST Facility Id: 19006921 Status: A EMI Facility Id: 800312 NPDES Facility Status: Terminated	N/A
LOS ANGELES CO HARBO 1000 W CARSON ST TORRANCE, CA 90502	HAZNET	N/A

GEPAID: CAD079605366

1000 W. CARSON ST
1000 W. CARSON ST
TORRANCE, CA 90519

ERNS
EDR ID:: 00373716

N/A

LA CO HARBOR-UCLA ME
1000 W CARSON ST
TORRANCE, CA 90502

RCRA-LQG
EPA ID:: CAD079605366

CAD079605366

ICIS
FRS ID:: 110000782975

US AIRS
Database: US AIRS (AFS), Date of Government Version: 06/30/2016
EPA plant ID:: 110000782975

LA HEALTH SERVICES H
1000 W CARSON ST
TORRANCE, CA 90509

HAZNET
GEPAID: CAT080030919

N/A

HARBOR UCLA MEDICAL
1000 WEST CARSON STR
TORRANCE, CA 90502

FINDS
Registry ID:: 110000782975

N/A

ECHO

LA CO DHS HARBOR-UCL
1000 W CARSON ST
TORRANCE, CA 90502

LOS ANGELES CO. HMS
Facility ID: 001114-001171
Facility ID: 001114-045007
Facility ID: 001114-049663
Facility ID: 001114-I01171

N/A

1000 CARSON ST (HARB
1000 CARSON ST (HARB
TORRANCE, CA

CHMIRS
OES Incident Number: 12-5334

N/A

LA COUNTY DHS HARBOR
1000 W CARSON ST
TORRANCE, CA

RGA LUST

N/A

1000 W. CARSON ST
1000 W. CARSON ST
TORRANCE, CA 90519

CHMIRS
OES Incident Number: 974

N/A

1000 W. CARSON ST
1000 W. CARSON ST
TORRANCE, CA 90519

ERNS

N/A

EXECUTIVE SUMMARY

EDR ID:: 00374056

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing
INDIAN UST ---------- Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP ---------- Voluntary Cleanup Priority Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY	Recycler Database
HAULERS	Registered Waste Tire Haulers Listing
INDIAN ODI	Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations
ODI	Open Dump Inventory
IHS OPEN DUMPS	Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL	Delisted National Clandestine Laboratory Register
AOCONCERN	San Gabriel Valley Areas of Concern
SCH	School Property Evaluation Program
Toxic Pits	Toxic Pits Cleanup Act Sites
US CDL	National Clandestine Laboratory Register

Local Land Records

LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PADS	PCB Activity Database System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing

DOT OPS ---- Incident and Accident Data
INDIAN RESERV ---- Indian Reservations
FUSRAP ---- Formerly Utilized Sites Remedial Action Program
UMTRA ---- Uranium Mill Tailings Sites
LEAD SMELTERS ---- Lead Smelter Sites
US MINES ---- Mines Master Index File
UXO ---- Unexploded Ordnance Sites
DOCKET HWC ---- Hazardous Waste Compliance Docket Listing
CUPA Listings ---- CUPA Resources List
Financial Assurance ---- Financial Assurance Information Listing
HWT ---- Registered Hazardous Waste Transporter Database
MINES ---- Mines Site Location Listing
MWMP ---- Medical Waste Management Program Listing
PROC ---- Certified Processors Database
Notify 65 ---- Proposition 65 Records
UIC ---- UIC Listing
WASTEWATER PITS ---- Oil Wastewater Pits Listing
WIP ---- Well Investigation Program Case List
FUELS PROGRAM ---- EPA Fuels Program Registered Listing
ABANDONED MINES ---- Abandoned Mines
ICE ---- ICE

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP ---- EDR Proprietary Manufactured Gas Plants

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF ---- Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: Also known as Superfund, the National Priority List database is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program. The source of this database is the U.S. EPA.

A review of the NPL list, as provided by EDR, and dated 03/07/2016 has revealed that there are 2 NPL sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DEL AMO	***DEL AMO BLVD AND VER***	***N 1/2 - 1 (0.516 mi.)***	***0***	***64***
MONTROSE CHEMICAL CO	***20201 S NORMANDIE AV***	***0 - 1/8 (0.000 mi.)***	***0***	***118***

Federal CERCLIS list

SEMS: SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the SEMS list, as provided by EDR, and dated 03/07/2016 has revealed that there are 3 SEMS sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MONTROSE CHEMICAL CO	***20201 S NORMANDIE AV***	***0 - 1/8 (0.000 mi.)***	***0***	***118***

Lower Elevation	Address	Direction / Distance	Map ID	Page
GARDENA VALLEY DUMP	833 WEST TORRANCE BL	0 - 1/8 (0.000 mi.)	H48	212
GOLDEN EAGLE REFININ	***21000 S FIGUERORA ST***	***NE 0 - 1/8 (0.055 mi.)***	***AF379***	***461***

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

A review of the SEMS-ARCHIVE list, as provided by EDR, and dated 03/07/2016 has revealed that there are 3 SEMS-ARCHIVE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ECOLOGY CONTROL INDU	***20846 S NORMANDIE AV***	***NNW 1/4 - 1/2 (0.370 mi.)***	***AT449***	***577***

Lower Elevation	Address	Direction / Distance	Map ID	Page
GARDENA VALLEY DUMP	***100 W TORRANCE BLVD***	***NE 1/4 - 1/2 (0.360 mi.)***	***AQ445***	***566***
WERDIN DUMP	***20420 S MAIN ST***	***NE 1/4 - 1/2 (0.451 mi.)***	***AY463***	***617***

Federal RCRA CORRACTS facilities list

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 06/27/2016 has revealed that there is 1 CORRACTS site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BODY GLOVE INTERNATI	***20700 DENKER AVE UNI***	***NW 1/2 - 1 (0.575 mi.)***	***BB475***	***744***

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 06/21/2016 has revealed that there are 6 RCRA-LQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MONTROSE CHEMICAL CO	***20201 S NORMANDIE AV***	***0 - 1/8 (0.000 mi.)***	***0***	***118***
AJRC INC	***21700 S VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***N109***	***266***
RITE AID NO 5492	***1237 W CARSON ST***	***0 - 1/8 (0.000 mi.)***	***M188***	***320***

Lower Elevation	Address	Direction / Distance	Map ID	Page
VAN DEENE AVE ELEMEN	***826 W JAVELIN ST***	***0 - 1/8 (0.000 mi.)***	***B50***	***214***
CWD LLC	21046 S FIGUEROA ST	NE 0 - 1/8 (0.063 mi.)	AF382	471
CWD, LLC	21046 SOUTH FIGUEROA	NE 0 - 1/8 (0.063 mi.)	AF383	472

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 06/21/2016 has revealed that there are 22 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
EXXONMOBIL OIL CORP	***21700 S VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***N91***	***254***
PARAGON ENGINEERING	***22106 S VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***S130***	***278***
X PERT REBUILD & MAC	***22102 S VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***S140***	***287***
BYROM RADIATOR SERVI	***22208 SO VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***Z237***	***346***
NORGE VILLAGE CLEANE	***1161 W CARSON ST***	***0 - 1/8 (0.000 mi.)***	***M253***	***357***
HARBOR UCLA DIAGNOST	***21828 S NORMANDIE AV***	***WSW 0 - 1/8 (0.002 mi.)***	***AC360***	***433***
SHELL SERVICE STATIO	***22235 S FIGUEROA ST***	***SE 0 - 1/8 (0.063 mi.)***	***AG386***	***476***
LAUSD WHITE JUNIOR H	***22102 S FIGUEROA ST***	***SE 0 - 1/8 (0.098 mi.)***	***AG396***	***490***
JEFF BIGGS SURFBOARD	***22414 S NORMANDIE UN***	***SSW 0 - 1/8 (0.108 mi.)***	***AJ399***	***493***
SOUTH BAY CORVETTE	***22414 NORMANDIE***	***SSW 0 - 1/8 (0.108 mi.)***	***AJ400***	***496***
SERVICE TECH	***22414 S NORMANDIE AV***	***SSW 0 - 1/8 (0.108 mi.)***	***AJ401***	***497***
SIMPSON SPORTS	***22412 SOUTH NORMANDI***	***SSW 0 - 1/8 (0.120 mi.)***	***406***	***502***
AERO ARC	22433 S VERMONT AVE	S 1/8 - 1/4 (0.165 mi.)	407	503
K & K AUTO PARTS	***1407 W CARSON STREET***	***W 1/8 - 1/4 (0.175 mi.)***	***408***	***504***
M CS UNLIMITED	***22517 NORMANDIE AVE***	***SSW 1/8 - 1/4 (0.191 mi.)***	***412***	***509***
MCDONNELL DOUGLAS AE	***21000 S NORMANDIE AV***	***NW 1/8 - 1/4 (0.204 mi.)***	***AM415***	***512***

Lower Elevation	Address	Direction / Distance	Map ID	Page
SHELL SERVICE STATIO	***911 W CARSON***	***0 - 1/8 (0.000 mi.)***	***K154***	***298***
HERTZ EQUIPMENT RENT	***21600 S VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***V249***	***353***
MUNDORF AUTO SALES &	***21023 S FIGUEROA***	***NE 0 - 1/8 (0.041 mi.)***	***AF374***	***455***
MUNDORF AUTO SALES &	21023 S FIGUEROA	NE 0 - 1/8 (0.041 mi.)	AF375	457
D AND N CONCRETE PUM	***21125 FIGUEROA ST***	***NE 0 - 1/8 (0.044 mi.)***	***AE376***	***458***
DEWEY PEST CONTROL	***21111 S FIGUEROA STR***	***NE 0 - 1/8 (0.056 mi.)***	***AE381***	***467***

Federal institutional controls / engineering controls registries

US ENG CONTROLS: A listing of sites with engineering controls in place.

A review of the US ENG CONTROLS list, as provided by EDR, and dated 05/09/2016 has revealed that there is 1 US ENG CONTROLS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MONTROSE CHEMICAL CO	***20201 S NORMANDIE AV***	***0 - 1/8 (0.000 mi.)***	***0***	***118***

US INST CONTROL: A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

A review of the US INST CONTROL list, as provided by EDR, and dated 05/09/2016 has revealed that there is 1 US INST CONTROL site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MONTROSE CHEMICAL CO	***20201 S NORMANDIE AV***	***0 - 1/8 (0.000 mi.)***	***0***	***118***

Federal ERNS list

ERNS: The Emergency Response Notification System records and stores information on reported releases of oil and hazardous substances. The source of this database is the U.S. EPA.

A review of the ERNS list, as provided by EDR, and dated 03/28/2016 has revealed that there are 5 ERNS sites within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	1259 WEST CARSON ST	0 - 1/8 (0.000 mi.)	M100	261
Not reported	22104 S.VERMONT	0 - 1/8 (0.000 mi.)	S137	286
Not reported	1012 CARSON ST STORE	0 - 1/8 (0.000 mi.)	A173	313
Not reported	925 W. 223RD STREET	0 - 1/8 (0.000 mi.)	Y274	371
Lower Elevation	**Address**	**Direction / Distance**	**Map ID**	**Page**
Not reported	945 WEST CARSON	0 - 1/8 (0.000 mi.)	96	259

State- and tribal - equivalent NPL

RESPONSE: Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

A review of the RESPONSE list, as provided by EDR, has revealed that there are 4 RESPONSE sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HALBERT'S LUMBER, IN	***2026 ABALONE AVENUE***	***WSW 1/2 - 1 (0.713 mi.)***	***481***	***756***
Database: RESPONSE, Date of Government Version: 08/01/2016 Status: Backlog Facility Id: 19240022				
ARMCO STEEL CORP NAT	***1524 BORDER AVE***	***W 1/2 - 1 (0.818 mi.)***	***489***	***846***
Database: RESPONSE, Date of Government Version: 08/01/2016 Status: Certified Facility Id: 19350468				
AMOCO CHEMICAL CO.	***1225 WEST 196TH ST.***	***N 1/2 - 1 (0.899 mi.)***	***BE492***	***886***
Database: RESPONSE, Date of Government Version: 08/01/2016 Status: Active Facility Id: 19290155				
Lower Elevation	**Address**	**Direction / Distance**	**Map ID**	**Page**
TETRA TECH	***20400 MAIN ST***	***NE 1/4 - 1/2 (0.466 mi.)***	***AY467***	***624***
Database: RESPONSE, Date of Government Version: 08/01/2016 Status: Active Facility Id: 19490019				

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 08/01/2016 has revealed that there are 38 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DEL AMO Facility Id: 19300230 Status: Active	***DEL AMO BLVD AND VER***	***N 1/2 - 1 (0.516 mi.)***	***0***	***64***
LA PORT O EMB STATIO Facility Id: 80000293 Status: Inactive - Needs Evaluation		0 - 1/8 (0.000 mi.)	350	426
NORMANDIE AVE. PROPE Facility Id: 19650040 Status: Refer: 1248 Local Agency	21000 NORMANDIE AVE.	NW 1/8 - 1/4 (0.204 mi.)	AM414	511
DGLP DEVELOPMENT Facility Id: 19000026 Status: Refer: 1248 Local Agency	1445-1455 WEST 225TH	SW 1/4 - 1/2 (0.266 mi.)	430	532
DON WILSON BUILDERS Facility Id: 70000144 Status: Refer: 1248 Local Agency	***22700 MEYLER ST***	***S 1/4 - 1/2 (0.352 mi.)***	***442***	***560***
ECOLOGY CONTROL INDU Facility Id: 19300232 Status: Refer: RWQCB	***20846 NORMANDIE AVEN***	***NNW 1/4 - 1/2 (0.370 mi.)***	***AT448***	***571***
DEL AMO NEIGHBORHOOD Facility Id: 60002199 Status: Active	***1000 WEST 204TH STRE***	***N 1/4 - 1/2 (0.378 mi.)***	***AU451***	***582***
OIL WELL PROPERTY(FO Facility Id: 19130120 Status: Refer: 1248 Local Agency	22800 S.NORMANDIE AV	SSW 1/4 - 1/2 (0.389 mi.)	AV453	590
TCE NORMANDIE SITE Facility Id: 60002080 Status: Active	VARIOUS SITES EAST A	NNW 1/4 - 1/2 (0.427 mi.)	462	616
DOW CHEMICALS CO. Facility Id: 80001003 Status: Inactive - Needs Evaluation		N 1/2 - 1 (0.567 mi.)	474	743
NORTHROP CORP. AIRCR Facility Id: 80001740 Status: * Inactive	***20700 DENKER AVE***	***NW 1/2 - 1 (0.584 mi.)***	***BB476***	***747***
ALFA CORPORATION	1638 W. 227TH ST.	SW 1/2 - 1 (0.589 mi.)	477	749

Facility Id: 19990046 Status: Refer: 1248 Local Agency				
HYDRO RUBBER AND PLA Facility Id: 19300238 Status: No Further Action	***1200 FRANCISCO ST***	***NNW 1/2 - 1 (0.698 mi.)***	***479***	***751***
STAR BIOCHEMICALS, S Facility Id: 71003115 Status: Refer: Other Agency	20916 HIGGING CT	WNW 1/2 - 1 (0.707 mi.)	480	755
HALBERT'S LUMBER, IN Facility Id: 19240022 Status: Backlog	***2026 ABALONE AVENUE***	***WSW 1/2 - 1 (0.713 mi.)***	***481***	***756***
MONTROSE CHEMICAL CO Facility Id: 19280024 Status: Active	***20201 NORMANDIE AVEN***	***NNW 1/2 - 1 (0.747 mi.)***	***BC484***	***808***
JONES CHEMICAL Facility Id: 80001566 Facility Id: 19280124 Status: Inactive - Needs Evaluation Status: Refer: EPA	***1401 DEL AMO***	***NNW 1/2 - 1 (0.780 mi.)***	***BD487***	***838***
ARMCO STEEL CORP NAT Facility Id: 19350468 Status: Certified	***1524 BORDER AVE***	***W 1/2 - 1 (0.818 mi.)***	***489***	***846***
AMERICAN HONDA MOTOR Facility Id: 60000736 Status: Certified O&M - Land Use Restrictions Only	***1919 TORRANCE BOULEV***	***WNW 1/2 - 1 (0.842 mi.)***	***490***	***851***
REDMAN EQUIPMENT AND Facility Id: 60001366 Status: Active	***19800 NORMANDIE AVE***	***NNW 1/2 - 1 (0.852 mi.)***	***491***	***858***
AMOCO CHEMICAL CO. Facility Id: 19290155 Status: Active	***1225 WEST 196TH ST.***	***N 1/2 - 1 (0.899 mi.)***	***BE492***	***886***
TRICO PACCAR Facility Id: 19350260 Status: Refer: EPA	***1206 WEST 196TH STRE***	***NNW 1/2 - 1 (0.918 mi.)***	***493***	***892***
ECOLOGY CONTROL INDU Facility Id: 19280680 Status: Refer: EPA	***19500 NORMANDIE AVE***	***N 1/2 - 1 (0.947 mi.)***	***BE494***	***899***
SUNTHETIC RUBBER PLA Facility Id: 80000849 Status: Inactive - Needs Evaluation		N 1/2 - 1 (0.981 mi.)	495	906

Lower Elevation	**Address**	**Direction / Distance**	**Map ID**	**Page**
GARDENA VALLEY #4 LA Facility Id: 60001199 Status: Inactive - Action Required	***833 W. TORRANCE BLVD***	***0 - 1/8 (0.000 mi.)***	***H75***	***236***
ROYAL BOULEVARD CLAS Facility Id: 19490205 Status: No Further Action	ROYAL BLVD BTWN 209T	N 1/8 - 1/4 (0.176 mi.)	409	506
THE EMPTY ATTIC	***736 W. DEL AMO BOULE***	***NNE 1/4 - 1/2 (0.279 mi.)***	***AP433***	***536***

Facility Id: 60000978 Status: No Further Action				
DEL AMO HAZ WSTE Facility Id: 80000628 Status: Inactive - Needs Evaluation		N 1/4 - 1/2 (0.304 mi.)	435	539
REBEL MINI STORAGE Facility Id: 19000020 Status: Certified / Operation & Maintenance	***20501 S. MAIN STREET***	***NE 1/4 - 1/2 (0.349 mi.)***	***AR439***	***550***
GS NURSERY Facility Id: 60000514 Status: Inactive - Action Required	***20331 MAIN STREET***	***NNE 1/4 - 1/2 (0.397 mi.)***	***455***	***592***
ECOLOGY CONTROL INDU Facility Id: 60001994 Status: Active	***20802,20846 AND 2085***	***NNW 1/4 - 1/2 (0.402 mi.)***	***AT458***	***602***
WERDIN DUMP Facility Id: 19490104 Status: Refer: RWQCB	20402 S MAIN ST	NE 1/4 - 1/2 (0.464 mi.)	AY465	618
TETRA TECH Facility Id: 19490019 Status: Active	***20400 MAIN ST***	***NE 1/4 - 1/2 (0.466 mi.)***	***AY467***	***624***
SOUTHWEST CONSERVATI Facility Id: 19490193 Status: Inactive - Needs Evaluation	***20300 MAIN***	***NNE 1/2 - 1 (0.521 mi.)***	***BA473***	***740***
FIRST IMAGE MANAGEME Facility Id: 71003267 Status: Refer: Other Agency	19701 S. HAMILTON AV	NNE 1/2 - 1 (0.666 mi.)	478	750
DOMINGUEZ GOLF COURS Facility Id: 60000597 Status: Active	***19800 S. MAIN STREET***	***NNE 1/2 - 1 (0.736 mi.)***	***482***	***759***
MARTIN ADAMS DUMP Facility Id: 19530002 Status: Inactive - Action Required	***213 ST TO 21111 DOLO***	***ENE 1/2 - 1 (0.775 mi.)***	***485***	***831***
LA-405 DOMINGUEZ GOL Facility Id: 60000633 Status: Inactive - Action Required	***RIGHT-OF-WAY BETWEEN***	***NE 1/2 - 1 (0.817 mi.)***	***488***	***843***

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, has revealed that there are 10 SWF/LF sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ACE ROLL-OFF Database: LOS ANGELES CO. LF, Date of Government Version: 07/15/2016	22022 MONETA AVE	ESE 1/4 - 1/2 (0.352 mi.)	443	563

Site ID: 215
Status: Active

Lower Elevation	Address	Direction / Distance	Map ID	Page
GARDENA VALLEY #4 LA	***833 W. TORRANCE BLVD***	***0 - 1/8 (0.000 mi.)***	***H75***	***236***
Database: SWF/LF (SWIS), Date of Government Version: 08/15/2016 Facility ID: 19-AA-5058 Operational Status: Closed Regulation Status: Unpermitted				
GARDENA VALLEY 1 & 2	20740 S. FIGUEROA, 2	NNE 0 - 1/8 (0.116 mi.)	403	499
Database: SWF/LF (SWIS), Date of Government Version: 08/15/2016 Facility ID: 19-AQ-0010 Operational Status: Closed Regulation Status: To Be Determined				
ROYAL BOULEVARD LAND	***20950 S. ROYAL BOULE***	***N 1/8 - 1/4 (0.182 mi.)***	***AK410***	***507***
Database: SWF/LF (SWIS), Date of Government Version: 08/15/2016 Facility ID: 19-AA-0054 Operational Status: Closed Regulation Status: Unpermitted				
GARDENA VALLEY #5 (G	***306 WEST TORRANCE BO***	***NE 1/8 - 1/4 (0.248 mi.)***	***429***	***530***
Database: SWF/LF (SWIS), Date of Government Version: 08/15/2016 Database: LOS ANGELES CO. LF, Date of Government Version: 07/15/2016 Facility ID: 19-AQ-0011 Site ID: 1942 Status: Closed Operational Status: Closed Regulation Status: Pre-regulations				
GARDENA VALLEY DUMP	736 WEST DEL AMO BOU	NNE 1/4 - 1/2 (0.279 mi.)	AP432	535
Database: LOS ANGELES CO. LF, Date of Government Version: 07/15/2016 Site ID: 1944 Status: Closed				
MB LANDSCAPING AND N	***20300 SOUTH FIGUEROA***	***NNE 1/4 - 1/2 (0.387 mi.)***	***AS452***	***589***
Database: LOS ANGELES CO. LF, Date of Government Version: 07/15/2016 Site ID: 2769 Status: Active				
GS NURSERY	***20331 MAIN STREET***	***NNE 1/4 - 1/2 (0.397 mi.)***	***455***	***592***
Database: SWF/LF (SWIS), Date of Government Version: 08/15/2016 Database: LOS ANGELES CO. LF, Date of Government Version: 07/15/2016 Facility ID: 19-AA-1066 Site ID: 2766 Status: Active Operational Status: Active Regulation Status: Notification				
WERDIN DUMP	20600 SOUTH MAIN STR	NE 1/4 - 1/2 (0.399 mi.)	456	598
Database: SWF/LF (SWIS), Date of Government Version: 08/15/2016 Database: LOS ANGELES CO. LF, Date of Government Version: 07/15/2016 Facility ID: 19-AQ-0017 Site ID: 2056 Status: Closed Operational Status: Closed Regulation Status: Pre-regulations				
TETRA TECH	***20400 MAIN ST***	***NE 1/4 - 1/2 (0.466 mi.)***	***AY467***	***624***
Database: SWF/LF (SWIS), Date of Government Version: 08/15/2016 Database: LOS ANGELES CO. LF, Date of Government Version: 07/15/2016				

Facility ID: 19-AQ-0012
Site ID: 1889
Status: Closed
Operational Status: Closed
Regulation Status: Unpermitted

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, has revealed that there are 25 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
TONYS UNOCAL	***1259 W CARSON ST***	***0 - 1/8 (0.000 mi.)***	***M86***	***248***
Database: LUST REG 4, Date of Government Version: 09/07/2004 Global ID: T0603703067 Facility Id: I-05372 Status: Case Closed				
DOYLE BROTHERS INC.	22203 VERMONT AVE S	0 - 1/8 (0.000 mi.)	X227	339
Database: LUST REG 4, Date of Government Version: 09/07/2004 Database: LUST, Date of Government Version: 09/12/2016 Global Id: T0603704260 Global ID: T0603704260 Status: Completed - Case Closed Facility Id: I-15114 Status: Case Closed				
UNOCAL #4944	1259 CARSON ST. W.	0 - 1/8 (0.000 mi.)	M307	393
Database: LUST, Date of Government Version: 09/12/2016 Global Id: T0603703067 Global Id: T0603714288 Status: Completed - Case Closed				
MOBIL #11-MAF	21700 VERMONT AVE S	0 - 1/8 (0.000 mi.)	N311	399
Database: LUST REG 4, Date of Government Version: 09/07/2004 Database: LUST, Date of Government Version: 09/12/2016 Global Id: T0603704641 Global ID: T0603704641 Status: Open - Remediation Facility Id: R-04331 Status: Leak being confirmed				
ARCO #5108	***21704 FIGUEROA ST S***	***0 - 1/8 (0.000 mi.)***	***N340***	***418***
Database: LUST REG 4, Date of Government Version: 09/07/2004 Database: LUST, Date of Government Version: 09/12/2016 Global Id: T0603702800 Global ID: T0603702800 Status: Completed - Case Closed Facility Id: I-01781 Status: Case Closed				
SAM LEUNG A & M PROP	22322 NORMANDIE AVEN	SW 0 - 1/8 (0.033 mi.)	AD368	451
Database: LUST, Date of Government Version: 09/12/2016				

Global Id: T0603726189
Status: Completed - Case Closed

FORMER SHELL STATION	22235 FIGUEROA ST. S	SE 0 - 1/8 (0.063 mi.)	AG387	479
Database: LUST, Date of Government Version: 09/12/2016 Global Id: T0603707726 Status: Completed - Case Closed				
SO-CAL	21629 FIGUEROA ST S	E 0 - 1/8 (0.080 mi.)	AI391	485
Database: LUST REG 4, Date of Government Version: 09/07/2004 Database: LUST, Date of Government Version: 09/12/2016 Global Id: T0603704563 Global ID: T0603704563 Status: Completed - Case Closed Facility Id: R-01507 Status: Leak being confirmed				
SIMPSON GASOLINE ALL	22628 NORMANDIE AVE	SSW 1/4 - 1/2 (0.274 mi.)	AO431	533
Database: LUST REG 4, Date of Government Version: 09/07/2004 Database: LUST, Date of Government Version: 09/12/2016 Global Id: T0603705486 Global ID: T0603705486 Status: Completed - Case Closed Facility Id: R-25096 Status: Case Closed				
DON WILSON BUILDERS	***22700 MEYLER ST***	***S 1/4 - 1/2 (0.352 mi.)***	***442***	***560***
Database: LUST REG 4, Date of Government Version: 09/07/2004 Database: LUST, Date of Government Version: 09/12/2016 Global Id: T0603705424 Global ID: T0603705424 Status: Completed - Case Closed Facility Id: R-23966 Status: Case Closed				
BLUE DIAMOND MATERIA	***20860 NORMANDIE AVE***	***NNW 1/4 - 1/2 (0.358 mi.)***	***AT444***	***564***
Database: LUST REG 4, Date of Government Version: 09/07/2004 Database: LUST, Date of Government Version: 09/12/2016 Global Id: T0603703630 Global ID: T0603703630 Status: Completed - Case Closed Facility Id: I-10585 Status: Case Closed				
AKZO COATINGS (SILKE	20846 NORMANDIE AVE	NNW 1/4 - 1/2 (0.370 mi.)	AT447	569
Database: LUST REG 4, Date of Government Version: 09/07/2004 Database: LUST, Date of Government Version: 09/12/2016 Global Id: T0603704538 Global ID: T0603704538 Status: Completed - Case Closed Facility Id: R-00715 Status: Case Closed				
WESTERN BRASS	1338 228TH ST W	SSW 1/4 - 1/2 (0.402 mi.)	AW457	599
Database: LUST REG 4, Date of Government Version: 09/07/2004 Database: LUST, Date of Government Version: 09/12/2016 Global Id: T0603701446 Global ID: T0603701446 Status: Completed - Case Closed Facility Id: 905010061				

Status: Case Closed

ALLAN'S ARCO MINI MA ***1605 CARSON ST W*** ***W 1/4 - 1/2 (0.426 mi.)*** ***AX461*** ***606***
Database: LUST REG 4, Date of Government Version: 09/07/2004
Database: LUST, Date of Government Version: 09/12/2016
Global Id: T0603701458
Global ID: T0603701458
Status: Completed - Case Closed
Facility Id: 905020016
Status: Remediation Plan

DEXOL INDUSTRIES INC ***1450 W 228TH ST*** ***SW 1/4 - 1/2 (0.466 mi.)*** ***AZ466*** ***619***
Database: LUST, Date of Government Version: 09/12/2016
Global Id: T0603730842
Status: Completed - Case Closed

A & B AUTO REPAIR 20530 NORMANDIE AVE NNW 1/4 - 1/2 (0.473 mi.) 470 737
Database: LUST, Date of Government Version: 09/12/2016
Global Id: T10000003417
Status: Completed - Case Closed

Lower Elevation	Address	Direction / Distance	Map ID	Page

MOBIL #18-MAP ***20802 VERMONT*** ***0 - 1/8 (0.000 mi.)*** ***C52*** ***216***
Database: LUST REG 4, Date of Government Version: 09/07/2004
Database: LUST, Date of Government Version: 09/12/2016
Global Id: T0603704674
Global ID: T0603704674
Status: Open - Remediation
Facility Id: R-05290
Status: Remedial action (cleanup) Underway

SHELL 911 CARSON ST. W 0 - 1/8 (0.000 mi.) K268 365
Database: LUST, Date of Government Version: 09/12/2016
Global Id: T0603759521
Status: Completed - Case Closed

JOHN BATES 21600 VERMONT AVE S 0 - 1/8 (0.000 mi.) V317 407
Database: LUST REG 4, Date of Government Version: 09/07/2004
Global ID: T0603705399
Facility Id: R-23360
Status: Case Closed

JOHN BATES 21600 VERMONT AVE S 0 - 1/8 (0.000 mi.) V347 424
Database: LUST, Date of Government Version: 09/12/2016
Global Id: T0603705399
Status: Completed - Case Closed

ALPINE VILLAGE TEXAC 701 TORRANCE BLVD. NNE 0 - 1/8 (0.009 mi.) E364 438
Database: LUST, Date of Government Version: 09/12/2016
Global Id: T0603778569
Status: Open - Remediation

ALPINE TEXACO (FORME 701 TORRANCE BLVD W NNE 0 - 1/8 (0.009 mi.) E365 445
Database: LUST REG 4, Date of Government Version: 09/07/2004
Database: LUST, Date of Government Version: 09/12/2016
Global Id: T0603705470
Global ID: T0603705470
Status: Completed - Case Closed
Facility Id: R-24881

Status: Case Closed

PENSKE TRUCK PARKING ***20425 HAMILTON AVE*** ***NNE 1/8 - 1/4 (0.236 mi.)*** ***AN425*** ***521***
Database: LUST, Date of Government Version: 09/12/2016
Global Id: T0603704727
Status: Completed - Case Closed

ROLLINS LEASING CORP 20425 HAMILTON AVE NNE 1/8 - 1/4 (0.236 mi.) AN426 525
Database: LUST REG 4, Date of Government Version: 09/07/2004
Global ID: T0603704727
Facility Id: R-06281
Status: Case Closed

UNITED OIL STATION # ***300 CARSON ST W*** ***E 1/4 - 1/2 (0.340 mi.)*** ***437*** ***541***
Database: LUST REG 4, Date of Government Version: 09/07/2004
Database: LUST, Date of Government Version: 09/12/2016
Global Id: T0603705540
Global ID: T0603705540
Status: Open - Remediation
Facility Id: R-26492
Status: Pollution Characterization

SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the SLIC list, as provided by EDR, has revealed that there are 10 SLIC sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CARSON-NORMANDIE PLA	***1141 CARSON ST***	***0 - 1/8 (0.000 mi.)***	***M247***	***352***
Database: SLIC, Date of Government Version: 09/12/2016 Facility Status: Open - Remediation Global Id: SL0603746736				
MULTI-TENANT OFFICE-	1500-1510 WEST 228TH	SW 1/4 - 1/2 (0.474 mi.)	AZ471	739
Database: SLIC, Date of Government Version: 09/12/2016 Facility Status: Open - Site Assessment Global Id: T10000006519				

Lower Elevation	Address	Direction / Distance	Map ID	Page
GOLDEN EAGLE REFININ	***21000 S FIGUERORA ST***	***NE 0 - 1/8 (0.055 mi.)***	***AF379***	***461***
Database: SLIC REG 4, Date of Government Version: 11/17/2004 Facility Status: Remediation				
CITY OF CARSON - HUR	329 TORRANCE	NE 1/8 - 1/4 (0.199 mi.)	AL413	510
Database: SLIC REG 4, Date of Government Version: 11/17/2004 Database: SLIC, Date of Government Version: 09/12/2016 Facility Status: Open - Inactive Facility Status: Site Assessment Global Id: SLT43310308				
CITY OF CARSON - HIC	321 TORRANCE	NE 1/8 - 1/4 (0.209 mi.)	AL416	514
Database: SLIC REG 4, Date of Government Version: 11/17/2004 Database: SLIC, Date of Government Version: 09/12/2016 Facility Status: Open - Inactive Facility Status: Site Assessment Global Id: SLT43311309				
CITY OF CARSON - HIC	315 TORRANCE BLVD	NE 1/8 - 1/4 (0.226 mi.)	AL418	514
Database: SLIC REG 4, Date of Government Version: 11/17/2004 Database: SLIC, Date of Government Version: 09/12/2016				

Facility Status: Open - Inactive
Facility Status: Site Assessment
Global Id: SLT43312310

CITY OF CARSON - REB | 20501 MAIN | NE 1/4 - 1/2 (0.349 mi.) | AR438 | 549
Database: SLIC REG 4, Date of Government Version: 11/17/2004
Database: SLIC, Date of Government Version: 09/12/2016
Facility Status: Open - Inactive
Facility Status: Site Assessment
Global Id: SLT43315313

CITY OF CARSON - THK | 20350 S. FIGUEROA ST | NNE 1/4 - 1/2 (0.351 mi.) | AS440 | 559
Database: SLIC, Date of Government Version: 09/12/2016
Facility Status: Completed - Case Closed
Global Id: SLT43309307

CITY OF CARSON - THK | 20350 FIGUEROA | NNE 1/4 - 1/2 (0.351 mi.) | AS441 | 560
Database: SLIC REG 4, Date of Government Version: 11/17/2004
Facility Status: Site Assessment

MB LANDSCAPING AND N | 20300 SOUTH FIGUEROA | NNE 1/4 - 1/2 (0.387 mi.) | AS452 | 589
Database: SLIC REG 4, Date of Government Version: 11/17/2004
Database: SLIC, Date of Government Version: 09/12/2016
Facility Status: Open - Inactive
Facility Status: Site Assessment
Global Id: SLT43306304

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, has revealed that there are 8 UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MOBIL OIL CORP S/S #	21700 S VERMONT AVE	0 - 1/8 (0.000 mi.)	N161	302
Database: UST, Date of Government Version: 09/12/2016 Facility Id: 4331				
TOSCO/UNOCAL #30769	1259 W CARSON ST	0 - 1/8 (0.000 mi.)	M216	336
Database: UST, Date of Government Version: 09/12/2016 Facility Id: 25753				
SANDHU'S SHELL	22235 FIGUEROA ST	SE 0 - 1/8 (0.063 mi.)	AG385	476
Database: UST, Date of Government Version: 09/12/2016 Facility Id: 26240				

Lower Elevation	Address	Direction / Distance	Map ID	Page
MOBIL OIL CORP S/S #	20802 S VERMONT AVE	0 - 1/8 (0.000 mi.)	C46	211
Database: UST, Date of Government Version: 09/12/2016 Facility Id: 5290				
TORRANCE HARBOR SHEL	911 W CARSON ST	0 - 1/8 (0.000 mi.)	K261	361
Database: UST, Date of Government Version: 09/12/2016				

Facility Id: 26329

ALPINE VILLAGE TEXAC — 701 TORRANCE BLVD — NNE 0 - 1/8 (0.009 mi.) — E362 — 437
Database: UST, Date of Government Version: 09/12/2016
Facility Id: 24881

DEWEY PEST CONTROL — 21111 S FIGUEROA STR — NE 0 - 1/8 (0.056 mi.) — AE381 — 467
Database: UST, Date of Government Version: 09/12/2016
Facility Id: 10359

ROLLINS LEASING CORP — 20425 HAMILTON AVE — NNE 1/8 - 1/4 (0.236 mi.) — AN421 — 516
Database: UST, Date of Government Version: 09/12/2016
Facility Id: 6281

AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the AST list, as provided by EDR, and dated 07/06/2016 has revealed that there are 3 AST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LOS ANGELES BIOMEDIC	1124 W CARSON ST	0 - 1/8 (0.000 mi.)	M93	258

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	20425 S HAMILTON AVE	NNE 1/8 - 1/4 (0.236 mi.)	AN419	515
PENSKE TRUCK LEASING	20425 S HAMILTON AVE	NNE 1/8 - 1/4 (0.236 mi.)	AN420	516

State and tribal voluntary cleanup sites

VCP: Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

A review of the VCP list, as provided by EDR, and dated 08/01/2016 has revealed that there are 5 VCP sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DEL AMO NEIGHBORHOOD	***1000 WEST 204TH STRE***	***N 1/4 - 1/2 (0.378 mi.)***	***AU451***	***582***
Status: Active Facility Id: 60002199				

Lower Elevation	Address	Direction / Distance	Map ID	Page
THE EMPTY ATTIC	***736 W. DEL AMO BOULE***	***NNE 1/4 - 1/2 (0.279 mi.)***	***AP433***	***536***
Status: No Further Action Facility Id: 60000978				
REBEL MINI STORAGE	***20501 S. MAIN STREET***	***NE 1/4 - 1/2 (0.349 mi.)***	***AR439***	***550***
Status: Certified / Operation & Maintenance Facility Id: 19000020				
GS NURSERY	***20331 MAIN STREET***	***NNE 1/4 - 1/2 (0.397 mi.)***	***455***	***592***
Status: Inactive - Action Required				

Facility Id: 60000514

ECOLOGY CONTROL INDU	***20802,20846 AND 2085***	***NNW 1/4 - 1/2 (0.402 mi.)***	***AT458***	***602***

Status: Active
Facility Id: 60001994

State and tribal Brownfields sites

BROWNFIELDS: A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

A review of the BROWNFIELDS list, as provided by EDR, and dated 02/29/2016 has revealed that there is 1 BROWNFIELDS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CARSON-NORMANDIE PLA	***1141 CARSON ST***	***0 - 1/8 (0.000 mi.)***	***M247***	***352***

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: The EPA's listing of Brownfields properties from the Cleanups in My Community program, which provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

A review of the US BROWNFIELDS list, as provided by EDR, and dated 06/21/2016 has revealed that there is 1 US BROWNFIELDS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DEL AMO	1000 WEST 204TH STRE	N 1/4 - 1/2 (0.378 mi.)	AU450	579

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: The Waste Management Unit Database System is used for program tracking and inventory of waste management units. The source is the State Water Resources Control Board.

A review of the WMUDS/SWAT list, as provided by EDR, and dated 04/01/2000 has revealed that there are 5 WMUDS/SWAT sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BERADA CORPORATION-G	801 TORRANCE	0 - 1/8 (0.001 mi.)	H358	431
ROYAL BLVD. DUMP	20950 S. ROYAL BLVD.	N 1/8 - 1/4 (0.188 mi.)	AK411	508
BERADA CORPORATION-G	100 WEST TORRANCE BO	NE 1/4 - 1/2 (0.334 mi.)	AQ436	540
GARDENA VALLEY NO. 1	101 WEST TORRANCE BO	NE 1/4 - 1/2 (0.360 mi.)	AQ446	568
WERDIN SITE-CARSON	20400 SOUTH MAIN	NE 1/4 - 1/2 (0.466 mi.)	AY469	736

Local Lists of Hazardous waste / Contaminated Sites

HIST Cal-Sites: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there are 4 HIST Cal-Sites sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DEL AMO	***DEL AMO BLVD AND VER***	***N 1/2 - 1 (0.516 mi.)***	***0***	***64***
MONTROSE CHEMICAL CO	***20201 NORMANDIE AVEN***	***NNW 1/2 - 1 (0.747 mi.)***	***BC484***	***808***
ARMCO STEEL CORP NAT	***1524 BORDER AVE***	***W 1/2 - 1 (0.818 mi.)***	***489***	***846***
Lower Elevation	**Address**	**Direction / Distance**	**Map ID**	**Page**
CARSON RECLAMATION A	***20400 MAIN STREET***	***NE 1/4 - 1/2 (0.466 mi.)***	***AY468***	***721***

CDL: A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

A review of the CDL list, as provided by EDR, and dated 12/31/2015 has revealed that there are 2 CDL sites within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported Facility Id: 2000-10-048	708 W 209TH ST	0 - 1/8 (0.000 mi.)	F33	202
Not reported Facility Id: 1999-08-093	VERMONT & CARSON ST	0 - 1/8 (0.000 mi.)	K339	418

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 10 SWEEPS UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LA CO HARBOR-UCLA ME Status: A Comp Number: 3748	***826 W 220TH ST***	***0 - 1/8 (0.000 mi.)***	***L85***	***247***
TONYS UNOCAL Status: A Tank Status: A Comp Number: 5372	***1259 W CARSON ST***	***0 - 1/8 (0.000 mi.)***	***M86***	***248***
BICKERTON INDUSTRIES	***22118 S VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***S167***	***307***

Status: A
Comp Number: 13197

UNITED INSTALLER	***22208 S VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***Z241***	***348***
Status: A Comp Number: 12444				
SIMPAL OIL INC	***22235 S FIGUEROA ST***	***SE 0 - 1/8 (0.063 mi.)***	***AG384***	***474***
Status: A Tank Status: A Comp Number: 32				
UNOCAL CORP SS 2529	***600 W CARSON ST***	***E 0 - 1/8 (0.069 mi.)***	***AH390***	***484***
Status: A Tank Status: A Comp Number: 6264				
SO-CAL RACING FUEL C	***21629 S FIGUEROA ST***	***E 0 - 1/8 (0.080 mi.)***	***AI392***	***488***
Status: A Comp Number: 1507				

Lower Elevation	Address	Direction / Distance	Map ID	Page
EXXON SERVICE STATIO	***701 W TORRANCE***	***NNE 0 - 1/8 (0.009 mi.)***	***E367***	***449***
Status: A Tank Status: A Comp Number: 3024				
GOLDEN EAGLE REFININ	***21000 S FIGUERORA ST***	***NE 0 - 1/8 (0.055 mi.)***	***AF379***	***461***
Status: A Comp Number: 70				
DEWEY PEST CONTROL	***21111 S FIGUEROA STR***	***NE 0 - 1/8 (0.056 mi.)***	***AE381***	***467***
Status: A Tank Status: A Comp Number: 10359				

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 14 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ATANDT INFORMATION S Facility Id: 00000004923	826 W 220TH STREET	0 - 1/8 (0.000 mi.)	L83	246
SERVICE STATION 4944 Facility Id: 00000017446	1259 W CARSON	0 - 1/8 (0.000 mi.)	M103	262
LA BIOMEDICAL RESEAR	***1124 WEST CARSON STR***	***0 - 1/8 (0.000 mi.)***	***M123***	***272***
DOYLE BROS INC Facility Id: 00000006405	22203 SO VERMONT AVE	0 - 1/8 (0.000 mi.)	X224	338
DC DECKER CO INC Facility Id: 00000046934	22208 S VERMONT	0 - 1/8 (0.000 mi.)	Z238	347
IL-SUN KIM Facility Id: 00000039700	21700 S VERMONT AVE	0 - 1/8 (0.000 mi.)	N348	425
SHELL	***22235 S FIGUEROA***	***SE 0 - 1/8 (0.063 mi.)***	***AG388***	***482***
SERVICE STATION 2529	600 W CARSON	E 0 - 1/8 (0.069 mi.)	AH389	483

Facility Id: 00000029439

SO-CAL RACING FUEL C	***21629 S FIGUEROA ST***	***E 0 - 1/8 (0.080 mi.)***	***AI392***	***488***

Lower Elevation	Address	Direction / Distance	Map ID	Page
TROY A HOWELL Facility Id: 00000039975	20802 S VERMONT	0 - 1/8 (0.000 mi.)	C35	203
HERTZ EQUIPMENT RENT Facility Id: 00000068538	***21600 S VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***V249***	***353***
WON TAE LEE EXXON	***701 W TORRANCE***	***NNE 0 - 1/8 (0.009 mi.)***	***E366***	***448***
DEWEY PEST CONTROL Facility Id: 00000029477	***21111 S FIGUEROA STR***	***NE 0 - 1/8 (0.056 mi.)***	***AE381***	***467***
ROLLINS LEASING CORP	***20425 S HAMILTON AVE***	***NNE 1/8 - 1/4 (0.236 mi.)***	***AN427***	***526***

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 7 CA FID UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LA CO HARBOR-UCLA ME Facility Id: 19051058 Status: A	***826 W 220TH ST***	***0 - 1/8 (0.000 mi.)***	***L85***	***247***
TONYS UNOCAL Facility Id: 19002646 Status: A	***1259 W CARSON ST***	***0 - 1/8 (0.000 mi.)***	***M86***	***248***
UNITED INSTALLER Facility Id: 19023494 Status: A	***22208 S VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***Z241***	***348***
SIMPAL OIL INC Facility Id: 19011234 Status: A	***22235 S FIGUEROA ST***	***SE 0 - 1/8 (0.063 mi.)***	***AG384***	***474***
SO-CAL RACING FUEL C Facility Id: 19001284 Status: A	***21629 S FIGUEROA ST***	***E 0 - 1/8 (0.080 mi.)***	***AI392***	***488***

Lower Elevation	Address	Direction / Distance	Map ID	Page
EXXON SERVICE STATIO Facility Id: 19003602 Status: A	***701 W TORRANCE***	***NNE 0 - 1/8 (0.009 mi.)***	***E367***	***449***
DEWEY PEST CONTROL Facility Id: 19029469 Status: A	***21111 S FIGUEROA STR***	***NE 0 - 1/8 (0.056 mi.)***	***AE381***	***467***

Local Land Records

DEED: The use of recorded land use restrictions is one of the methods the DTSC uses to protect the public from unsafe exposures to hazardous substances and wastes .

A review of the DEED list, as provided by EDR, and dated 09/06/2016 has revealed that there is 1 DEED site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
REBEL MINI STORAGE	***20501 S. MAIN STREET***	***NE 1/4 - 1/2 (0.349 mi.)***	***AR439***	***550***
Status: CERTIFIED / OPERATION & MAINTENANCE Envirostor ID: 19000020				

Records of Emergency Release Reports

CHMIRS: The California Hazardous Material Incident Report System contains information on reported hazardous material incidents, i.e., accidental releases or spills. The source is the California Office of Emergency Services.

A review of the CHMIRS list, as provided by EDR, and dated 06/03/2016 has revealed that there are 13 CHMIRS sites within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported OES Incident Number: 1-3516	21700 S. VERMONT	0 - 1/8 (0.000 mi.)	N105	263
Not reported OES Incident Number: 10-5529	22104 S. VERMONT SUI	0 - 1/8 (0.000 mi.)	S135	282
Not reported OES Incident Number: 10-2748	925 WEST 223RD STREE	0 - 1/8 (0.000 mi.)	Y273	370
Not reported OES Incident Number: 6-0542	21804 SOUTH VERMONT	0 - 1/8 (0.000 mi.)	N303	391

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported OES Incident Number: 5-6500	20802 S. VERMONT AVE	0 - 1/8 (0.000 mi.)	C20	193
Not reported OES Incident Number: 0-3489	TORRANCE BLVD. AND H	0 - 1/8 (0.000 mi.)	E22	194
Not reported OES Incident Number: 4-4795	20802 SOUTH VERMONT	0 - 1/8 (0.000 mi.)	C28	198
Not reported OES Incident Number: 7-2259	20802 SOUTH VERMONT	0 - 1/8 (0.000 mi.)	C30	200
Not reported OES Incident Number: 7-5843	21414 VERMONT AVE, U	0 - 1/8 (0.000 mi.)	G41	208
Not reported OES Incident Number: 11817	#11-MAP 20802 SOUTH	0 - 1/8 (0.000 mi.)	C61	227
Not reported OES Incident Number: 6-0798	20802 SOUTH VERMONT	0 - 1/8 (0.000 mi.)	C63	229
Not reported	110 FRWAY S/B AT TOR	0 - 1/8 (0.000 mi.)	E74	234

OES Incident Number: 000800
Date Completed: 22-MAR-90

Not reported OES Incident Number: 08-6812	20802 S. VERMONT	0 - 1/8 (0.000 mi.)	C77	240

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 06/21/2016 has revealed that there are 7 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PACIFIC BELL	***826 W SECOND HUNDRED***	***0 - 1/8 (0.000 mi.)***	***L331***	***414***
HARBORUCLA PROFESSIO	21840 S NORMANDIE AV	WSW 0 - 1/8 (0.002 mi.)	AC359	432
EOS ENTERPRISES INC	***22424 S NORMANDIE AV***	***SSW 0 - 1/8 (0.120 mi.)***	***AJ404***	***500***

Lower Elevation	Address	Direction / Distance	Map ID	Page
PENSKE TRUCK LEASING	***20425 SOUTH HAMILTON***	***NNE 1/8 - 1/4 (0.236 mi.)***	***AN422***	***516***
BRITE SOL CLEANING D	20425 S HAMILTON AVE	NNE 1/8 - 1/4 (0.236 mi.)	AN423	518
PENSKE TRUCK LEASING	***20425 S HAMILTON AVE***	***NNE 1/8 - 1/4 (0.236 mi.)***	***AN424***	***519***
ROLLINS LEASING CORP	***20425 S HAMILTON AVE***	***NNE 1/8 - 1/4 (0.236 mi.)***	***AN427***	***526***

ROD: Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid the cleanup.

A review of the ROD list, as provided by EDR, and dated 11/25/2013 has revealed that there are 2 ROD sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DEL AMO	***DEL AMO BLVD AND VER***	***N 1/2 - 1 (0.516 mi.)***	***0***	***64***
MONTROSE CHEMICAL CO	***20201 S NORMANDIE AV***	***0 - 1/8 (0.000 mi.)***	***0***	***118***

PRP: A listing of verified Potentially Responsible Parties

A review of the PRP list, as provided by EDR, and dated 10/25/2013 has revealed that there is 1 PRP site within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MONTROSE CHEMICAL CO	***20201 S NORMANDIE AV***	***0 - 1/8 (0.000 mi.)***	***0***	***118***

EXECUTIVE SUMMARY

ICIS: The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

A review of the ICIS list, as provided by EDR, and dated 07/27/2016 has revealed that there is 1 ICIS site within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MONTROSE CHEMICAL CO	***20201 S NORMANDIE AV***	***0 - 1/8 (0.000 mi.)***	***0***	***118***

CONSENT: Major Legal settlements that establish responsibility and standards for cleanup at NPL (superfund) sites. Released periodically by U.S. District Courts after settlement by parties to litigation matters.

A review of the CONSENT list, as provided by EDR, and dated 03/31/2016 has revealed that there is 1 CONSENT site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MONTROSE CHEMICAL CO	***20201 S NORMANDIE AV***	***0 - 1/8 (0.000 mi.)***	***0***	***118***

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 07/20/2015 has revealed that there are 20 FINDS sites within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
EXXONMOBIL OIL CORP	***21700 S VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***N91***	***254***
AJRC INC	***21700 S VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***N109***	***266***
ECOLOGY CONTROL INDU	VARIOUS LOCATIONS IN	0 - 1/8 (0.000 mi.)	122	272
SEMICONDUCTOR MATERI	22108 S VERMONT AVE	0 - 1/8 (0.000 mi.)	S126	275
PARAGON ENGINEERING	***22106 S VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***S130***	***278***
X PERT REBUILD & MAC	***22102 S VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***S140***	***287***
O'REILLY AUTO PARTS	1213 W CARSON ST	0 - 1/8 (0.000 mi.)	M200	329
BYROM RADIATOR SERVI	***22208 SO VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***Z237***	***346***
RITE AID NO 5492	1237 W CARSON ST	0 - 1/8 (0.000 mi.)	M250	356
NORGE VILLAGE CLEANE	***1161 W CARSON ST***	***0 - 1/8 (0.000 mi.)***	***M253***	***357***
CENTURY PARTS INC	913 W 223RD ST	0 - 1/8 (0.000 mi.)	AA301	390
PACIFIC BELL	***826 W SECOND HUNDRED***	***0 - 1/8 (0.000 mi.)***	***L331***	***414***
IN-N-OUT BURGER INC.	730 W CARSON ST	0 - 1/8 (0.000 mi.)	R344	423

Lower Elevation	Address	Direction / Distance	Map ID	Page
VAN DEENE AVE ELEMEN	***826 W JAVELIN ST***	***0 - 1/8 (0.000 mi.)***	***B50***	***214***
CIRCLE K STORES INC.	20802 S VERMONT AVE	0 - 1/8 (0.000 mi.)	C64	230
HERITAGE REHABILITAT	21414 S VERMONT AVE	0 - 1/8 (0.000 mi.)	G68	232
SHELL SERVICE STATIO	***911 W CARSON***	***0 - 1/8 (0.000 mi.)***	***K154***	***298***
HERTZ EQUIPMENT RENT	***21600 S VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***V249***	***353***

Lower Elevation	Address	Direction / Distance	Map ID	Page
JACK IN THE BOX #315	835 W CARSON ST	0 - 1/8 (0.000 mi.)	K252	357
SHELL SERVICE STATIO	***911 WEST CARSON***	***0 - 1/8 (0.000 mi.)***	***K291***	***383***

CA BOND EXP. PLAN: Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

A review of the CA BOND EXP. PLAN list, as provided by EDR, and dated 01/01/1989 has revealed that there are 3 CA BOND EXP. PLAN sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MONTROSE CHEMICAL	20201 NORMANDIE AVEN	NNW 1/2 - 1 (0.747 mi.)	BC483	807

Lower Elevation	Address	Direction / Distance	Map ID	Page
ROYAL BOULEVARD CLAS	ROYAL BOULEVARD BETW	NNW 1/8 - 1/4 (0.236 mi.)	428	530
CAL COMPACT LANDFILL	20300 SOUTH MAIN STR	NNE 1/2 - 1 (0.521 mi.)	BA472	740

Cortese: The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

A review of the Cortese list, as provided by EDR, and dated 06/27/2016 has revealed that there is 1 Cortese site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TETRA TECH	***20400 MAIN ST***	***NE 1/4 - 1/2 (0.466 mi.)***	***AY467***	***624***
Envirostor Id: 19490019				
Cleanup Status: ACTIVE				

DRYCLEANERS: A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaners' agents; linen supply; coin-operated laundries and cleaning; drycleaning plants except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

A review of the DRYCLEANERS list, as provided by EDR, and dated 06/02/2016 has revealed that there is 1 DRYCLEANERS site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MERONA ENTERPRISES D	1141 W CARSON ST	0 - 1/8 (0.000 mi.)	M165	305
EPA Id: CAL000340454				
EPA Id: CAL000360511				

EMI: Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies

A review of the EMI list, as provided by EDR, and dated 12/31/2014 has revealed that there are 6 EMI sites within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORGE LAUNDRY & DRY Facility Id: 12394	1161 W CARSON ST	0 - 1/8 (0.000 mi.)	M115	269
BICKERTON INDUSTRIES Facility Id: 8038	***22118 S VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***S167***	***307***
BYRON'S RADIATOR REP Facility Id: 23261	22208 SO. VERMONT	0 - 1/8 (0.000 mi.)	Z244	351
RESEARCH & EDUCATION Facility Id: 78119	***1124 W CARSON ST***	***0 - 1/8 (0.000 mi.)***	***M265***	***362***
NORGE LAUNDRY & DRY Facility Id: 12394	1161 W. CARSON ST.	0 - 1/8 (0.000 mi.)	M314	405
AMERICAN AIRCRAFT PR Facility Id: 3401	21808 SO. VERMONT AV	0 - 1/8 (0.000 mi.)	N333	415

ENF: A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

A review of the ENF list, as provided by EDR, and dated 08/22/2016 has revealed that there is 1 ENF site within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CARSON NORMANDIE PLA Status: Historical Facility Id: 729488	1141-1259 CARSON STR	0 - 1/8 (0.000 mi.)	M282	377

HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency. This database begins with calendar year 1993.

A review of the HAZNET list, as provided by EDR, and dated 12/31/2014 has revealed that there are 83 HAZNET sites within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FRANCISCO DOLLANTE GEPAID: CAC002713761	717 W. 213TH ST.	0 - 1/8 (0.000 mi.)	D21	194
CARL SERVINO GEPAID: CAC002741165	20812 ORCHARD AVE	0 - 1/8 (0.000 mi.)	E32	202
JANET D'JANILY GEPAID: CAC002684170	704 W 209TH ST	0 - 1/8 (0.000 mi.)	F42	209
PETE MAMEA GEPAID: CAC002698080	21403 BERENDO AVE	0 - 1/8 (0.000 mi.)	43	210
RHONDA THIBAULT GEPAID: CAC002764191	712 W 213TH ST	0 - 1/8 (0.000 mi.)	D62	229
VIVIAN LE	808 CLARION DR.	0 - 1/8 (0.000 mi.)	D70	233

GEPAID: CAC002781847				
JIMMY QUIROZ GEPAID: CAC002771096	1228 DESFORD ST	0 - 1/8 (0.000 mi.)	J73	234
BARBARA HOLLAND GEPAID: CAC002715344	946 W 220TH ST UNIT	0 - 1/8 (0.000 mi.)	79	243
KRAGEN AUTO PARTS ST GEPAID: CAL000187971	1213 W CARSON STREET	0 - 1/8 (0.000 mi.)	M89	251
BIOMARIN PHARMACEUTI GEPAID: CAC002349329	1123 W CARSON ST	0 - 1/8 (0.000 mi.)	M90	253
EXXONMOBIL OIL CORP GEPAID: CAR000202457	***21700 S VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***N91***	***254***
BEPO AUTO REPAIR GEPAID: CAL000262120	802 W 220TH ST	0 - 1/8 (0.000 mi.)	L99	260
MERONA ENTERPRISES D GEPAID: CAL000340454	1141 W CARSON ST	0 - 1/8 (0.000 mi.)	M102	261
B M A LOS ANGELES GEPAID: CAC001359520	1123 WEST CARSON ST	0 - 1/8 (0.000 mi.)	M113	269
DEBRA JOHNSON GEPAID: CAC002764490	1211 W 221ST ST	0 - 1/8 (0.000 mi.)	T127	275
DRAKE RACE CARS GEPAID: CAL000126284	22106 S VERMONT AVE	0 - 1/8 (0.000 mi.)	S128	276
PARAGON ENGINEERING GEPAID: CAL000035972	22106 S VERMONT AVE	0 - 1/8 (0.000 mi.)	S132	279
CONOCO PHILLIPS #254 GEPAID: CAL000277138	1259 W CARSON ST	0 - 1/8 (0.000 mi.)	M133	280
SEMICONDUCTOR MATERI GEPAID: CAL000048176	22104 S VERMONT	0 - 1/8 (0.000 mi.)	S136	284
EXXONMOBIL OIL CORPO GEPAID: CAL000056160	21700 VERMONT AVE	0 - 1/8 (0.000 mi.)	N145	290
LOS ANGELES BIOMEDIC GEPAID: CAL000316288	1124 W CARSON ST	0 - 1/8 (0.000 mi.)	M153	296
BICKERTON IRON WORKS GEPAID: CAL000140263	22118 S VERMONT AVE	0 - 1/8 (0.000 mi.)	S162	302
NAWAID RANA GEPAID: CAC002675176	22114 KENWOOD AVE	0 - 1/8 (0.000 mi.)	T164	305
HSU, RUI GEPAID: CAC002743030	1254 220 STREET	0 - 1/8 (0.000 mi.)	W170	312
UNITED MICROWAVE PRO GEPAID: CAD982314700	22129 S VERMONT AVE	0 - 1/8 (0.000 mi.)	X176	314
MECHANICAL SEAL REPA GEPAID: CAD982313892	22122 S VERMONT	0 - 1/8 (0.000 mi.)	X179	316
VERMONT INDUSTRIAL C GEPAID: CAC001470512	22122 S VERMONT AVE	0 - 1/8 (0.000 mi.)	X180	317
BIOMARIN GEPAID: CAC002248897	1123 CARSON ST	0 - 1/8 (0.000 mi.)	M185	319
JOHN PIPER	1207 RITNER ST	0 - 1/8 (0.000 mi.)	J187	320

GEPAID: CAC002722522				
RITE AID NO 5492 GEPAID: CAL000379660 GEPAID: CAR000210260	***1237 W CARSON ST***	***0 - 1/8 (0.000 mi.)***	***M188***	***320***
LARRY BILLOUPS GEPAID: CAC002787601	1220 W 222ND ST	0 - 1/8 (0.000 mi.)	202	329
OPTICAL PHYSICS ENG GEPAID: CAL000016971	22134 VERMONT #E	0 - 1/8 (0.000 mi.)	X205	330
ALFRA INDUSTRIES INC GEPAID: CAL930835676	22134 S VERMONT AVE,	0 - 1/8 (0.000 mi.)	X206	331
CARLILE MANUFACTURIN GEPAID: CAL000011621	22138 S VERMONT #D	0 - 1/8 (0.000 mi.)	X210	334
U.S. POWER CONVERTIN GEPAID: CAL000138795	22138 S VERMONT AVE	0 - 1/8 (0.000 mi.)	X213	335
DELTA CONVERSION SHO GEPAID: CAL000147684	22203 SO VERMONT STE	0 - 1/8 (0.000 mi.)	X220	337
UNIFIED PROPERTY MGM GEPAID: CAC002596133	22203 VERMONT AVE	0 - 1/8 (0.000 mi.)	X228	342
VISION AUTO SERVICE GEPAID: CAL000302620	800 W CARSON ST STE	0 - 1/8 (0.000 mi.)	R232	343
DECOCAL INC GEPAID: CAC002602700	22208 S VERMONT AVE	0 - 1/8 (0.000 mi.)	Z236	345
DECOCAL INC GEPAID: CAC000882224	22208 SOUTH VERMONT	0 - 1/8 (0.000 mi.)	Z240	348
BYROM RADIATOR SERVI GEPAID: CAD981655707	22208 S VERMONT AVE	0 - 1/8 (0.000 mi.)	Z243	350
JUAN CARLOS MAILLAND GEPAID: CAC002656128	22208 S VERMONT AVE	0 - 1/8 (0.000 mi.)	Z245	351
TOSCO CORPORATION ST GEPAID: CAL000139158	1259 W CARSON	0 - 1/8 (0.000 mi.)	M263	361
CARLOS M V FAUSTO DD GEPAID: CAL000100688	21720 S VERMONT AVE	0 - 1/8 (0.000 mi.)	N266	363
TONY'S 76 GEPAID: CAL000062082	1259 W CARSON	0 - 1/8 (0.000 mi.)	M280	374
CAR TECH MG AUTO SPE GEPAID: CAL000362648	800 W CARSON ST STE	0 - 1/8 (0.000 mi.)	R286	380
C AND S PHOTO EXPRES GEPAID: CAD981418841	1255 W CARSON ST	0 - 1/8 (0.000 mi.)	M287	381
JANSEN ANIMAL HOSPIT GEPAID: CAL000068638	22231 S VERMONT AVE	0 - 1/8 (0.000 mi.)	AA293	384
LAUSD/ MEYLER ST ELE GEPAID: CAD982046237	1123 W 223RD ST	0 - 1/8 (0.000 mi.)	295	385
TONY'S UNOCAL #1 GEPAID: CAL000117526	1259 W CARSON ST	0 - 1/8 (0.000 mi.)	M296	387
CENTURY PARTS INC GEPAID: CAL000326009	913 W 223RD ST	0 - 1/8 (0.000 mi.)	AA300	389
TORRANCE BUSINESS PL	800 W CARSON ST STE	0 - 1/8 (0.000 mi.)	R319	408

GEPAID: CAC002640525				
T SHIRT WAREHOUSE GEPAID: CAC001201096	1101 WEST CARSON	0 - 1/8 (0.000 mi.)	M337	417
MERONA ENTERPRISES D GEPAID: CAL000360511	1141 W CARSON ST	0 - 1/8 (0.000 mi.)	M343	422
RITE AID STORE #5492 GEPAID: CAL000153172	1237 N CARSON ST	0 - 1/8 (0.000 mi.)	Q345	423
B M A LOS ANGELES GEPAID: CAC001201264	1123 W CARSON ST	0 - 1/8 (0.000 mi.)	M355	429

Lower Elevation	Address	Direction / Distance	Map ID	Page
LAUSD - VAN DEENE AV GEPAID: CAR000197970	826 W JAVELIN ST	0 - 1/8 (0.000 mi.)	B17	190
OSMAR SERRANO GEPAID: CAC002769077	21312 BUDLONG AVE	0 - 1/8 (0.000 mi.)	18	192
JUSTIN LEE GEPAID: CAC002794580	21315 BROADWELL AVE	0 - 1/8 (0.000 mi.)	19	192
LISA GENADY GEPAID: CAC002727348	21305 PAYNE AVE	0 - 1/8 (0.000 mi.)	23	196
WILFRED DOMINGO GEPAID: CAC002713010	21248 MENLO AVE	0 - 1/8 (0.000 mi.)	D24	196
CATHERINE ALTOBELLO GEPAID: CAC002689048	717 GREENHEDGE ST	0 - 1/8 (0.000 mi.)	E26	197
DALE KANESHIRO GEPAID: CAC002710976	941 W. 214TH ST.	0 - 1/8 (0.000 mi.)	31	201
DONNA ASARI GEPAID: CAC002745152	1223 W 213TH ST	0 - 1/8 (0.000 mi.)	37	204
CIRCLE K STORE #2211 GEPAID: CAL000369728	20802 S VERMONT AVE	0 - 1/8 (0.000 mi.)	C39	205
LAUSD/ VAN DEENE AVE GEPAID: CAL000000640	826 W W JAVELIN ST	0 - 1/8 (0.000 mi.)	B40	206
TAMMY CLARK GEPAID: CAC002686821	818 GREENHEDGE ST	0 - 1/8 (0.000 mi.)	45	210
TROYS MOBIL GEPAID: CAD982314676	20802 S VERMONT	0 - 1/8 (0.000 mi.)	C47	211
BOB MCKEWEN GEPAID: CAC002658599	20811 DOBLE AVE	0 - 1/8 (0.000 mi.)	49	214
VILLAREAL, AARON GEPAID: CAC002769526	708 W. 209TH ST.	0 - 1/8 (0.000 mi.)	F53	224
ROWLAND NGYUEN GEPAID: CAC002781157	20800 DOBLE AVE	0 - 1/8 (0.000 mi.)	C60	227
ROXIE JONES GEPAID: CAC002754490	21242 MENLO AVE	0 - 1/8 (0.000 mi.)	D66	231
SAL CENATIEMPO GEPAID: CAC002771612	907 JAVELIN ST	0 - 1/8 (0.000 mi.)	I67	232
ROSEMARY ALMANZA	21420 BROADWELL AVE	0 - 1/8 (0.000 mi.)	71	233

GEPAID: CAC002789400				
BELMONTE CENATIEMPO GEPAID: CAC002749750	907 JAVELIN ST	0 - 1/8 (0.000 mi.)	I76	239
EXXONMOBIL OIL CORPO GEPAID: CAL000056159	20802 SO VERMONT AVE	0 - 1/8 (0.000 mi.)	C78	241
THE 21600 VERMONT GR GEPAID: CAC001212624	21600 VERMONT	0 - 1/8 (0.000 mi.)	V150	295
SHELL SERVICE STATIO GEPAID: CAR000116954	***911 W CARSON***	***0 - 1/8 (0.000 mi.)***	***K154***	***298***
HERTZ EQUIPMENT RENT GEPAID: CAD981664279 GEPAID: CAL000378275	***21600 S VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***V249***	***353***
TESORO REFINING & MA GEPAID: CAL000322088	911 W CARSON ST	0 - 1/8 (0.000 mi.)	K267	363
MISSION STORAGE GEPAID: CAC002583971	735 W CARSON ST	0 - 1/8 (0.000 mi.)	V275	371
SMILE CARE DENTAL GR GEPAID: CAL000083020	923 W CARSON ST	0 - 1/8 (0.000 mi.)	O277	372
SHELL GEPAID: CAL000162358	911 W CARSON	0 - 1/8 (0.000 mi.)	K334	416

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 19 HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MOBIL #11-MAF Reg Id: R-04331	21700 VERMONT	0 - 1/8 (0.000 mi.)	N218	336
DOYLE BROTHERS INC. Reg Id: I-15114	22203 VERMONT	0 - 1/8 (0.000 mi.)	X230	343
ARCO #5108 Reg Id: I-01781	***21704 FIGUEROA ST S***	***0 - 1/8 (0.000 mi.)***	***N340***	***418***
UNOCAL #4944 Reg Id: I-05372	1259 CARSON	0 - 1/8 (0.000 mi.)	M342	422
SO-CAL Reg Id: R-01507	21629 FIGUEROA	E 0 - 1/8 (0.080 mi.)	AI393	489
SIMPSON GASOLINE ALL Reg Id: R-25096	22628 NORMANDIE	SSW 1/4 - 1/2 (0.299 mi.)	AO434	538
DON WILSON BUILDERS Reg Id: R-23966	***22700 MEYLER ST***	***S 1/4 - 1/2 (0.352 mi.)***	***442***	***560***
BLUE DIAMOND MATERIA Reg Id: I-10585	***20860 NORMANDIE AVE***	***NNW 1/4 - 1/2 (0.358 mi.)***	***AT444***	***564***
ECOLOGY CONTROL INDU	***20846 NORMANDIE AVEN***	***NNW 1/4 - 1/2 (0.370 mi.)***	***AT448***	***571***

Reg Id: R-00715				
A-1 MATERIALS Reg Id: I-21513	23003 MARIPOSA	SSW 1/4 - 1/2 (0.391 mi.)	AV454	591
WESTERN BRASS Reg Id: 905010061	1338 228TH	SSW 1/4 - 1/2 (0.410 mi.)	AW459	606
ALLAN'S ARCO MINI MA Reg Id: 905020016	1605 CARSON	W 1/4 - 1/2 (0.426 mi.)	AX460	606

Lower Elevation	Address	Direction / Distance	Map ID	Page
MOBIL #18-MAP Reg Id: R-05290	***20802 VERMONT***	***0 - 1/8 (0.000 mi.)***	***C52***	***216***
JOHN BATES Reg Id: R-23360	21600 VERMONT	0 - 1/8 (0.000 mi.)	V281	376
CARSON TANK FARM Reg Id: 4B192516001	***21000 FIGUEROA***	***NE 0 - 1/8 (0.055 mi.)***	***AF380***	***465***
ROLLINS LEASING CORP Reg Id: R-06281	20425 HAMILTON	NNE 1/8 - 1/4 (0.224 mi.)	417	514
UNITED OIL STATION # Reg Id: R-26492	***300 CARSON ST W***	***E 1/4 - 1/2 (0.340 mi.)***	***437***	***541***
WERDIN DUMP Reg Id: 19490104	20402 MAIN	NE 1/4 - 1/2 (0.464 mi.)	AY464	618
TETRA TECH Reg Id: 19490019	***20400 MAIN ST***	***NE 1/4 - 1/2 (0.466 mi.)***	***AY467***	***624***

Los Angeles County Industrial Waste and Underground Storage Tank Sites.

A review of the LOS ANGELES CO. HMS list, as provided by EDR, and dated 07/05/2016 has revealed that there are 155 LOS ANGELES CO. HMS sites within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PRITKIN-FINKEL INVES Facility ID: 003625-044893 Facility ID: 003625-I16979	826 W 220TH ST	0 - 1/8 (0.000 mi.)	L81	244
AT&T Facility ID: 003625-003748 Facility ID: 003625-I03748	826 W 220TH ST	0 - 1/8 (0.000 mi.)	L84	246
LA CO HARBOR-UCLA ME Facility ID: 003625-040399	***826 W 220TH ST***	***0 - 1/8 (0.000 mi.)***	***L85***	***247***
TONYS UNOCAL Facility ID: 005173-051651 Facility ID: 005173-054907 Facility ID: 005173-I05372	***1259 W CARSON ST***	***0 - 1/8 (0.000 mi.)***	***M86***	***248***
THE FOTO FACTORY Facility ID: 007392-020040 Facility ID: 007392-045095	21720 S VERMONT AVE	0 - 1/8 (0.000 mi.)	N87	251
WIENERSCHNITZEL REST	1125 W CARSON ST	0 - 1/8 (0.000 mi.)	M88	251

Facility ID: 027677-060125				
FIESTA GRILL MEDITER Facility ID: 031913-053132	1153 W CARSON ST	0 - 1/8 (0.000 mi.)	P94	259
CARL'S JR RESTAURANT Facility ID: 005173-061741	1259 W CARSON ST	0 - 1/8 (0.000 mi.)	Q97	259
PHO CONSOMME LLC Facility ID: 030172-060549	21730 S VERMONT AVE	0 - 1/8 (0.000 mi.)	N101	261
PHO CONSOMME LLC Facility ID: 030172-060378	21730 S VERMONT AVE	0 - 1/8 (0.000 mi.)	N104	263
INDUSTRIAL TECHNOLOG Facility ID: 016315-021490	21822 S VERMONT AVE	0 - 1/8 (0.000 mi.)	N106	265
HAYASHI RESTAURANT Facility ID: 027681-039148 Facility ID: 027681-050786 Facility ID: 027681-054035	800 W CARSON ST #38	0 - 1/8 (0.000 mi.)	R107	265
PHOTO FINEST INC Facility ID: 007392-I07754	21720 S VERMONT AVE	0 - 1/8 (0.000 mi.)	N108	266
VIGAN EXPRESS Facility ID: 028421-039940 Facility ID: 028421-056779	21720 S VERMONT AVE	0 - 1/8 (0.000 mi.)	N111	268
SUBWAY SANDWICH #418 Facility ID: 030206-061184	800 W CARSON ST	0 - 1/8 (0.000 mi.)	R116	270
UNOCAL CORP SS 4944 Facility ID: 005173-005372	1259 W CARSON ST	0 - 1/8 (0.000 mi.)	Q117	270
CARL'S JR RESTAURANT Facility ID: 005173-056637	1259 W CARSON ST	0 - 1/8 (0.000 mi.)	Q118	270
INTEGRATED MEDICAL S Facility ID: 020758-029442	22114 S VERMONT AVE	0 - 1/8 (0.000 mi.)	L119	271
SUNGS BBQ HOUSE Facility ID: 027666-039133 Facility ID: 027666-043645 Facility ID: 027666-050142	1225 W CARSON ST	0 - 1/8 (0.000 mi.)	Q121	272
SEMICONDUCTOR MATERI Facility ID: 020757-029441	22108 S VERMONT AVE	0 - 1/8 (0.000 mi.)	S124	274
SEMICONDUCTOR MATERI Facility ID: 020757-045096	22108 S VERMONT AVE	0 - 1/8 (0.000 mi.)	S125	275
TRI-MACHINE CO Facility ID: 030180-043596	22106 S VERMONT AVE	0 - 1/8 (0.000 mi.)	S129	277
DRAKE RACE CAR DEVEL Facility ID: 030178-043590	22106 S VERMONT AVE	0 - 1/8 (0.000 mi.)	S131	279
SEMICONDUCTOR MATERI Facility ID: 015712-I16766	22104 S VERMONT AVE	0 - 1/8 (0.000 mi.)	S134	282
GOLDEN PHEASANT CHIN Facility ID: 022596-031692 Facility ID: 022596-053855 Facility ID: 022596-058101	1077 W CARSON ST	0 - 1/8 (0.000 mi.)	M138	286
RISING SUN ENTERPRIS	1141 W CARSON ST	0 - 1/8 (0.000 mi.)	M139	286

Facility ID: 005199-051133				
BIOMARIN INC Facility ID: 018679-026654 Facility ID: 018679-045009 Facility ID: 018679-053917 Facility ID: 018679-055447	1123 W CARSON ST	0 - 1/8 (0.000 mi.)	M144	289
AROMA CATERING Facility ID: 033594-057003	800 W CARSON ST #34	0 - 1/8 (0.000 mi.)	R146	292
TROPI-CUBA CAFE INC Facility ID: 030172-051121	21730 S VERMONT AVE	0 - 1/8 (0.000 mi.)	N147	292
CARSON NORMANDIE LLC Facility ID: 028580-040242 Facility ID: 028580-046240 Facility ID: 028580-049304 Facility ID: 028885-050445 Facility ID: 028885-053536 **Additional key fields are available in the Map Findings section*	1173 W CARSON ST	0 - 1/8 (0.000 mi.)	U149	294
LEES SANDWICHES Facility ID: 029341-048691 Facility ID: 029341-058882	1145 W CARSON ST	0 - 1/8 (0.000 mi.)	M155	300
JOHN NAITO NURSERY Facility ID: 033793-057787	22102 NORMANDIE AVE	0 - 1/8 (0.000 mi.)	156	301
NE BAKESHOP AND BUFF Facility ID: 032802-053362	1175 W CARSON ST	0 - 1/8 (0.000 mi.)	U157	301
MANILA MANGO FILIPIN Facility ID: 031913-051909	1153 W CARSON ST	0 - 1/8 (0.000 mi.)	P158	301
PIZZA HUT RESTAURANT Facility ID: 028885-041094	1173 W CARSON ST	0 - 1/8 (0.000 mi.)	U159	302
THE FLAME BROILER Facility ID: 005378-058132	1249 W CARSON ST	0 - 1/8 (0.000 mi.)	Q160	302
GENKAI GRILL Facility ID: 005378-051157	1249 W CARSON ST	0 - 1/8 (0.000 mi.)	Q166	306
BICKERTON INDUSTRIES Facility ID: 012946-028719	***22118 S VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***S167***	***307***
AGGRESSIVE ERECTORS Facility ID: 012946-013197 Facility ID: 012946-058074	***22118 S VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***S168***	***311***
PHO CONSOMME LLC Facility ID: 030172-060972	21730 S VERMONT AVE	0 - 1/8 (0.000 mi.)	N169	312
METAL CLEANING IND I Facility ID: 000700-I00706	1120 JAY ST	0 - 1/8 (0.000 mi.)	172	313
MICHEALS COFFEE SHOP Facility ID: 005378-I05579	1249 W CARSON ST	0 - 1/8 (0.000 mi.)	Q174	313
UNITED MICROWAVE PRO Facility ID: 020759-029445	22129 S VERMONT AVE	0 - 1/8 (0.000 mi.)	X175	314
CARSON CENTER Facility ID: 005378-040841	1249 W CARSON ST	0 - 1/8 (0.000 mi.)	Q177	316
PHO CONSOMME LLC	21730 S VERMONT AVE	0 - 1/8 (0.000 mi.)	N182	318

Facility ID: 030172-060980				
AUTOCRAFTING FLEET S Facility ID: 020760-029446	22133 S VERMONT AVE	0 - 1/8 (0.000 mi.)	X183	318
QUIZNOS SUBS #9388 Facility ID: 031564-049125	1141 W CARSON ST #D	0 - 1/8 (0.000 mi.)	M186	319
PHILS FISH-GRILL Facility ID: 032802-058582	1175 W CARSON ST	0 - 1/8 (0.000 mi.)	U189	325
CHARO CHICKEN-TORRAN Facility ID: 017336-043181 Facility ID: 017336-050668	1255 W CARSON ST	0 - 1/8 (0.000 mi.)	Q190	325
CUBAN CUISINE & BAKE Facility ID: 030172-057071	21730 S VERMONT AVE	0 - 1/8 (0.000 mi.)	N191	326
KRAGEN AUTO PARTS Facility ID: 030214-043644	1213 W CARSON ST	0 - 1/8 (0.000 mi.)	Q192	326
LIM'S MOBIL MARKET # Facility ID: 009028-036201	21700 S VERMONT AVE	0 - 1/8 (0.000 mi.)	K194	327
CARL'S JR RESTAURANT Facility ID: 005173-059970	1259 W CARSON ST	0 - 1/8 (0.000 mi.)	Q195	327
TOSCO/UNOCAL #30769 Facility ID: 005173-025753	1259 W CARSON ST	0 - 1/8 (0.000 mi.)	Q196	327
PHILS FISH-GRILL Facility ID: 032802-058580	1175 W CARSON ST	0 - 1/8 (0.000 mi.)	U197	328
WIENERSCHNITZEL #38 Facility ID: 027677-060126	1125 W CARSON ST	0 - 1/8 (0.000 mi.)	M198	328
MARTIN BROTHERS E I Facility ID: 030151-043559	22126 S VERMONT AVE	0 - 1/8 (0.000 mi.)	199	328
ELLIE'S PLACE Facility ID: 028256-039721	22137 S VERMONT AVE	0 - 1/8 (0.000 mi.)	X203	330
ALFRA INDUSTRIES INC Facility ID: 015705-I16922	22134 S VERMONT AVE	0 - 1/8 (0.000 mi.)	X204	330
A I T Facility ID: 030156-043565	22130 S VERMONT AVE	0 - 1/8 (0.000 mi.)	X207	333
ALL STAR CUSTOM CABI Facility ID: 030149-043557	22138 S VERMONT AVE	0 - 1/8 (0.000 mi.)	X208	333
CUSTOM DESIGN INC Facility ID: 030149-057590	22138 S VERMONT AVE	0 - 1/8 (0.000 mi.)	X209	333
F J DRYWALL INC Facility ID: 030149-057591	22138 S VERMONT AVE	0 - 1/8 (0.000 mi.)	X211	334
ZENITRAM ENG MANUFAC Facility ID: 030149-057592	22138 S VERMONT AVE	0 - 1/8 (0.000 mi.)	X212	334
CUSTOM DESIGN INC Facility ID: 030147-043555	22138 S VERMONT AVE	0 - 1/8 (0.000 mi.)	X214	335
CLAUDE P WILLIAMS IN Facility ID: 001030-I01081	22138 S VERMONT AVE	0 - 1/8 (0.000 mi.)	X215	335
DELTA CONVERSION Facility ID: 014511-029447	22203 S VERMONT AVE	0 - 1/8 (0.000 mi.)	X219	336
G&M AUTO REPAIR	22203 S VERMONT AVE	0 - 1/8 (0.000 mi.)	X221	337

Facility ID: 027066-038006				
KEN BILLINGTON Facility ID: 014511-015114	22203 S VERMONT AVE	0 - 1/8 (0.000 mi.)	X223	338
RAFAEL ARELLANO UPHO Facility ID: 027041-037955	22203 S VERMONT AVE	0 - 1/8 (0.000 mi.)	X226	339
S & J PALACE CORPORA Facility ID: 018679-046017	1123 W CARSON ST	0 - 1/8 (0.000 mi.)	M229	342
THE FLAME BROILER Facility ID: 005378-058131	1249 W CARSON ST	0 - 1/8 (0.000 mi.)	Q231	343
CM AUTO DETAIL Facility ID: 030140-043545	22209 S VERMONT AVE	0 - 1/8 (0.000 mi.)	Y233	344
UNITED INSTALLER Facility ID: 012316-012444 Facility ID: 012316-055749	***22208 S VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***Z241***	***348***
DECOCAL INC Facility ID: 012316-029448 Facility ID: 012316-046565	22208 S VERMONT AVE	0 - 1/8 (0.000 mi.)	Z242	350
CONOCOPHILLIPS CO #2 Facility ID: 005173-038275	1259 W CARSON ST	0 - 1/8 (0.000 mi.)	Q246	352
SPOT SIZZLING SOUP R Facility ID: 030172-058595	21730 S VERMONT AVE	0 - 1/8 (0.000 mi.)	N251	357
NATL SUPPLY CO DUMP Facility ID: 001124-I01182	22000 NORMANDIE AVE	0 - 1/8 (0.000 mi.)	W254	359
TROPI-CUBA CAFE INC Facility ID: 030172-052722	21730 S VERMONT AVE	0 - 1/8 (0.000 mi.)	N255	359
PHO CONSOMME Facility ID: 030172-060377	21730 S VERMONT AVE	0 - 1/8 (0.000 mi.)	N256	359
CUBAN CUISINE & BAKE Facility ID: 030172-057070	21730 S VERMONT AVE	0 - 1/8 (0.000 mi.)	N257	360
NEW CARSON TRANSMISS Facility ID: 030206-050787	800 W CARSON ST	0 - 1/8 (0.000 mi.)	R259	360
MIKAMO NURSERY Facility ID: 023041-032211	1029 W 223RD ST	0 - 1/8 (0.000 mi.)	260	361
TONY'S UNOCAL Facility ID: 005173-044843	1259 W CARSON ST	0 - 1/8 (0.000 mi.)	Q264	362
RESEARCH & EDUCATION Facility ID: 027672-039139	***1124 W CARSON ST***	***0 - 1/8 (0.000 mi.)***	***M265***	***362***
LOS ANGELES BIOMEDIC Facility ID: 027672-049836	1124 W CARSON ST	0 - 1/8 (0.000 mi.)	M269	369
FILIPINO RESTAURANT Facility ID: 031913-050364	1153 W CARSON ST	0 - 1/8 (0.000 mi.)	P270	369
LONG JOHN SILVER'S # Facility ID: 029341-042116	1145 W CARSON ST	0 - 1/8 (0.000 mi.)	M272	369
FIESTA GRILL MEDITER Facility ID: 031913-053134	1153 W CARSON ST	0 - 1/8 (0.000 mi.)	P276	372
VITAHUT INVESTMENTS Facility ID: 018679-037636	1123 W CARSON ST	0 - 1/8 (0.000 mi.)	M279	374
FORTUNE BOWL	1029 W CARSON ST	0 - 1/8 (0.000 mi.)	A283	378

Facility ID: 027662-039128 Facility ID: 027662-050776 Facility ID: 027662-054032				
HONG KONG BAKERY & D Facility ID: 031610-049282 Facility ID: 031610-057908	21720 S VERMONT AVE	0 - 1/8 (0.000 mi.)	N284	379
AROMA CATERING Facility ID: 033594-061064	800 W CARSON ST #34	0 - 1/8 (0.000 mi.)	R285	379
LOS ALTOS MARKET Facility ID: 027670-039137 Facility ID: 027670-056373	1019 W CARSON ST	0 - 1/8 (0.000 mi.)	A288	382
SPOT SIZZLING SOUP(# Facility ID: 030172-052305 Facility ID: 030172-058594	21730 S VERMONT AVE	0 - 1/8 (0.000 mi.)	N289	382
DRY CLEANERS 114-125 Facility ID: 032892-053756	1161 W CARSON ST	0 - 1/8 (0.000 mi.)	P290	383
JR JANSEN INC Facility ID: 000525-046350 Facility ID: 000525-I00528	22231 S VERMONT AVE	0 - 1/8 (0.000 mi.)	AA292	384
THE SOFT TOUCH PET L Facility ID: 006502-I06722	951 W 223RD ST	0 - 1/8 (0.000 mi.)	AB297	388
ALL STAR PET RESORT Facility ID: 006502-046351 Facility ID: 006502-048885	951 W 223RD ST	0 - 1/8 (0.000 mi.)	AB298	388
ALL STAR PET RESORT Facility ID: 006502-037334	951 W 223RD ST	0 - 1/8 (0.000 mi.)	AB299	388
CENTURY PARTS INC Facility ID: 030209-043639	913 W 223RD ST	0 - 1/8 (0.000 mi.)	AA302	390
SAMURAI SAMS Facility ID: 005378-044601	1249 W CARSON ST	0 - 1/8 (0.000 mi.)	Q304	392
EXPRESS IMPORT & EXP Facility ID: 030212-043642	727 W CARSON ST	0 - 1/8 (0.000 mi.)	R305	392
SPENCER CHUN/VILLAGE Facility ID: 030172-043583	21730 S VERMONT AVE	0 - 1/8 (0.000 mi.)	N306	393
CARSON NORMANDIE PLA Facility ID: 028885-048972	1173 W CARSON ST	0 - 1/8 (0.000 mi.)	U308	398
MOBIL OIL CORP Facility ID: 004180-I04331	21704 S VERMONT AVE	0 - 1/8 (0.000 mi.)	N309	398
NE BAKESHOP AND BUFF Facility ID: 032802-053566	1175 W CARSON ST	0 - 1/8 (0.000 mi.)	U310	399
SUBWAY SANDWICH-CLOS Facility ID: 030206-054272	800 W CARSON ST	0 - 1/8 (0.000 mi.)	R312	404
HONG KONG GARDEN RES Facility ID: 028255-039720 Facility ID: 028255-053846	21718 S VERMONT AVE	0 - 1/8 (0.000 mi.)	K313	404
PEP'N CHEESE Facility ID: 027680-039146 Facility ID: 027680-054034	1157 W CARSON ST	0 - 1/8 (0.000 mi.)	P316	406
GENKAI GRILL	1249 W CARSON ST	0 - 1/8 (0.000 mi.)	Q318	408

Facility ID: 005378-051533				
PETER HORVATH ET AL Facility ID: 018679-036329	1123 W CARSON ST	0 - 1/8 (0.000 mi.)	M320	409
MOBIL OIL CORP #1016 Facility ID: 009028-004331 Facility ID: 009028-055108 Facility ID: 009028-055553	21700 S VERMONT AVE	0 - 1/8 (0.000 mi.)	K321	409
SOUTH BAY WATER INC Facility ID: 017336-023488 Facility ID: 017336-045010	1255 W CARSON ST	0 - 1/8 (0.000 mi.)	Q323	410
VIDEOSONIC LABS INC Facility ID: 030218-043654 Facility ID: 030218-050785	733 W CARSON ST	0 - 1/8 (0.000 mi.)	R324	411
LOS PAISAS TACOS Y M Facility ID: 032066-050929 Facility ID: 032066-058911 Facility ID: 032066-058912	1151 W CARSON ST	0 - 1/8 (0.000 mi.)	P326	411
COST SAVER MARKET Facility ID: 005199-043646 Facility ID: 005199-058272 Facility ID: 005199-058679 Facility ID: 005199-I05398	1141 W CARSON ST	0 - 1/8 (0.000 mi.)	M327	412
CARL'S JR RESTAURANT Facility ID: 005173-061735	1259 W CARSON ST	0 - 1/8 (0.000 mi.)	Q330	413
THE SEELY CORP Facility ID: 005378-029424	1249 W CARSON ST	0 - 1/8 (0.000 mi.)	Q338	418
LOS PAISAS TACOS Y M Facility ID: 032066-052927	1151 W CARSON ST	0 - 1/8 (0.000 mi.)	P346	424
IN-N-OUT BURGER REST Facility ID: 000141-039921 Facility ID: 000141-051313 Facility ID: 000141-I00141	730 W CARSON ST	0 - 1/8 (0.000 mi.)	R351	427
STARBUCKS COFFEE #68 Facility ID: 031871-050246	1171 W CARSON ST	0 - 1/8 (0.000 mi.)	U352	428
SUBWAY SANDWICH #418 Facility ID: 030206-043631 Facility ID: 030206-057051	800 W CARSON ST	0 - 1/8 (0.000 mi.)	R353	428
WIENERSCHNITZEL REST Facility ID: 027677-039144 Facility ID: 027677-054033	1125 W CARSON ST	0 - 1/8 (0.000 mi.)	M356	430

Lower Elevation	Address	Direction / Distance	Map ID	Page
NICK STORE Facility ID: 028254-039719	20828 S VERMONT AVE	0 - 1/8 (0.000 mi.)	C25	197
HARBOR TIRES & AUTO Facility ID: 005098-061864	20802 S VERMONT AVE	0 - 1/8 (0.000 mi.)	C29	200
M&Y SAFAR BROTHERS I Facility ID: 005098-043231	20802 S VERMONT AVE	0 - 1/8 (0.000 mi.)	C34	202

Facility ID: 005098-043708				
LEO'S MOBIL AUTO REP Facility ID: 005098-043228	20802 S VERMONT AVE	0 - 1/8 (0.000 mi.)	C36	204
VAN DEENE AVENUE SCH Facility ID: 027789-039254	826 JAVELIN ST	0 - 1/8 (0.000 mi.)	B44	210
MOBIL OIL CORP S/S # Facility ID: 005098-005290	20802 S VERMONT AVE	0 - 1/8 (0.000 mi.)	C51	216
M&Y SAFAR BROTHERS I Facility ID: 005098-044889 Facility ID: 005098-056803 Facility ID: 005098-I05290	20802 S VERMONT AVE	0 - 1/8 (0.000 mi.)	C54	225
AECOM GLOBAL II LLC Facility ID: 005098-061737	20802 S VERMONT AVE	0 - 1/8 (0.000 mi.)	C55	225
URS CORPORATION Facility ID: 005098-059650	20802 S VERMONT AVE	0 - 1/8 (0.000 mi.)	C56	226
CIRCLE K STORES INC Facility ID: 005098-056185	20802 S VERMONT AVE	0 - 1/8 (0.000 mi.)	C57	226
VFW POST #10166 Facility ID: 028253-039718 Facility ID: 028253-056781	20820 S VERMONT AVE	0 - 1/8 (0.000 mi.)	C58	226
GARDENA VALLEY DUMP Facility ID: 004279-I04433	20800 S VERMONT AVE	0 - 1/8 (0.000 mi.)	C59	227
JACK-IN-THE-BOX Facility ID: 027683-039150 Facility ID: 027683-051316	835 W CARSON ST	0 - 1/8 (0.000 mi.)	K80	243
TESORO (SHELL) #6862 Facility ID: 004563-061035	911 W CARSON ST	0 - 1/8 (0.000 mi.)	K95	259
FIESTA CAR WASH Facility ID: 000379-044869	21611 S VERMONT AVE	0 - 1/8 (0.000 mi.)	K110	267
C C'S DONUTS Facility ID: 027661-039127 Facility ID: 027661-054031 Facility ID: 027661-055370	1001 W CARSON ST #C	0 - 1/8 (0.000 mi.)	A120	271
POLLY'S PIES RESTAUR Facility ID: 027658-053238	819 W CARSON ST	0 - 1/8 (0.000 mi.)	K141	288
TESORO SOUTH COAST C Facility ID: 004563-026329 Facility ID: 004563-036198	911 W CARSON ST	0 - 1/8 (0.000 mi.)	K143	289
JOHN BATES Facility ID: 003508-023360	21602 S VERMONT AVE	0 - 1/8 (0.000 mi.)	V151	295
TRC/HARBOR UCLA DIAL Facility ID: 003508-023976 Facility ID: 003508-045094	21602 S VERMONT AVE	0 - 1/8 (0.000 mi.)	V152	295
C C DONUTS Facility ID: 027661-057728	1001 W CARSON ST #C	0 - 1/8 (0.000 mi.)	A171	313
C C DONUTS Facility ID: 027661-057727	1001 W CARSON ST #C	0 - 1/8 (0.000 mi.)	A193	326
BLUE BASIL ASIAN CUI	819 W CARSON ST	0 - 1/8 (0.000 mi.)	K201	329

Facility ID: 027658-060742				
THE INDUSTRIAL CO Facility ID: 003508-I03628	21602 S VERMONT AVE	0 - 1/8 (0.000 mi.)	V217	336
BLUE BASIL ASIAN CUI Facility ID: 027658-039125 Facility ID: 027658-054030	819 W CARSON ST	0 - 1/8 (0.000 mi.)	K258	360
TESORO (SHELL) #6862 Facility ID: 004563-057485	911 W CARSON ST	0 - 1/8 (0.000 mi.)	K278	374
SHELL OIL #204-7873- Facility ID: 004563-004737 Facility ID: 004563-050277 Facility ID: 004563-I04737	911 W CARSON ST	0 - 1/8 (0.000 mi.)	K315	406
GINOS INC Facility ID: 000832-I00869	923 W CARSON ST	0 - 1/8 (0.000 mi.)	O335	417
R CONTRERAS - CARWAS Facility ID: 000379-000381 Facility ID: 000379-028489 Facility ID: 000379-050645 Facility ID: 000379-058300 Facility ID: 000379-I00381	21611 S VERMONT AVE	0 - 1/8 (0.000 mi.)	K341	421
US STORAGE CENTERS Facility ID: 030559-045552 Facility ID: 030559-054442	735 W CARSON ST	0 - 1/8 (0.000 mi.)	V354	429
TIC-THE INDUSTRIAL C Facility ID: 003508-003628	21602 S VERMONT AVE	0 - 1/8 (0.000 mi.)	V357	430

HWP: Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

A review of the HWP list, as provided by EDR, and dated 08/22/2016 has revealed that there are 3 HWP sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORTHROP CORP. AIRCR EPA Id: CAD980665582 Cleanup Status: CLOSED	***20700 DENKER AVE***	***NW 1/2 - 1 (0.584 mi.)***	***BB476***	***747***
JCI JONES CHEMICALS EPA Id: CAD008352205 Cleanup Status: NON-OPERATING	1401 DEL AMO BLVD	NNW 1/2 - 1 (0.780 mi.)	BD486	837

Lower Elevation	Address	Direction / Distance	Map ID	Page
GOLDEN EAGLE REFININ EPA Id: CAD062080064 Cleanup Status: PROTECTIVE FILER	***21000 S FIGUERORA ST***	***NE 0 - 1/8 (0.055 mi.)***	***AF379***	***461***

NPDES: A listing of NPDES permits, including stormwater.

A review of the NPDES list, as provided by EDR, and dated 05/16/2016 has revealed that there are 3 NPDES sites within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HARBOR UCLA MEDICAL	826 W 220TH ST	0 - 1/8 (0.000 mi.)	L82	244
LA BIOMEDICAL RESEAR	***1124 WEST CARSON STR***	***0 - 1/8 (0.000 mi.)***	***M123***	***272***
BICKERTON INDUSTRIES	***22118 S VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***S167***	***307***
Facility Status: Terminated				

PEST LIC: A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

A review of the PEST LIC list, as provided by EDR, and dated 09/06/2016 has revealed that there is 1 PEST LIC site within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FINLEY'S TREE & LAND	22208 S VERMONT AVE	0 - 1/8 (0.000 mi.)	Z239	348

The Los Angeles County Site Mitigation Log comes from Community Health Services.

A review of the LA Co. Site Mitigation list, as provided by EDR, and dated 03/29/2016 has revealed that there is 1 LA Co. Site Mitigation site within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
HERITAGE LEGACY LLC	21414 S VERMONT	0 - 1/8 (0.000 mi.)	G69	232
Case ID: RO0001330				
Site ID: SD0000329				

WDS: California Water Resources Control Board - Waste Discharge System.

A review of the WDS list, as provided by EDR, and dated 06/19/2007 has revealed that there is 1 WDS site within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AGGRESSIVE ERECTORS	***22118 S VERMONT AVE***	***0 - 1/8 (0.000 mi.)***	***S168***	***311***
Facility Status: A				
Facility Id: 4 19I009653				

ECHO: ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

A review of the ECHO list, as provided by EDR, and dated 09/18/2016 has revealed that there are 10 ECHO sites within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
EXXONMOBIL OIL CORP	*21700 S VERMONT AVE*	*0 - 1/8 (0.000 mi.)*	*N91*	*254*
PARAGON ENGINEERING	*22106 S VERMONT AVE*	*0 - 1/8 (0.000 mi.)*	*S130*	*278*
X PERT REBUILD & MAC	*22102 S VERMONT AVE*	*0 - 1/8 (0.000 mi.)*	*S140*	*287*
RITE AID NO 5492	*1237 W CARSON ST*	*0 - 1/8 (0.000 mi.)*	*M188*	*320*
BYROM RADIATOR SERVI	*22208 SO VERMONT AVE*	*0 - 1/8 (0.000 mi.)*	*Z237*	*346*
NORGE VILLAGE CLEANE	*1161 W CARSON ST*	*0 - 1/8 (0.000 mi.)*	*M253*	*357*
PACIFIC BELL	*826 W SECOND HUNDRED*	*0 - 1/8 (0.000 mi.)*	*L331*	*414*

Lower Elevation	Address	Direction / Distance	Map ID	Page
VAN DEENE AVE ELEMEN	*826 W JAVELIN ST*	*0 - 1/8 (0.000 mi.)*	*B50*	*214*
HERTZ EQUIPMENT RENT	*21600 S VERMONT AVE*	*0 - 1/8 (0.000 mi.)*	*V249*	*353*
SHELL SERVICE STATIO	*911 WEST CARSON*	*0 - 1/8 (0.000 mi.)*	*K291*	*383*

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 27 EDR Hist Auto sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	802 W 220TH ST	0 - 1/8 (0.000 mi.)	L98	260
Not reported	1259 W CARSON ST	0 - 1/8 (0.000 mi.)	M112	268
KING S SERVICE STATI	21700 S VERMONT AV	0 - 1/8 (0.000 mi.)	N148	292
Database: EDR Hist Auto, Date of Government Version: 02/20/2007				
Not reported	22115 S VERMONT AVE	0 - 1/8 (0.000 mi.)	S163	304
Not reported	22203 S VERMONT AVE	0 - 1/8 (0.000 mi.)	X222	337
Not reported	22209 S VERMONT AVE	0 - 1/8 (0.000 mi.)	Y234	344
Not reported	800 W CARSON ST	0 - 1/8 (0.000 mi.)	R294	385
ROGERS K C	1181 CARSON WY	0 - 1/8 (0.000 mi.)	M322	410
Database: EDR Hist Auto, Date of Government Version: 02/20/2007				
BLANKENSHIP PLOYD CH	1181 CARSON ST	0 - 1/8 (0.000 mi.)	M328	413
Database: EDR Hist Auto, Date of Government Version: 02/20/2007				
Not reported	1213 W CARSON ST	0 - 1/8 (0.000 mi.)	M329	413
Not reported	21810 S VERMONT AVE	0 - 1/8 (0.000 mi.)	N349	426
Not reported	22322 NORMANDIE AVE	SW 0 - 1/8 (0.033 mi.)	AD369	452
Not reported	22315 S VERMONT AVE	SSE 0 - 1/8 (0.034 mi.)	AA370	453
Not reported	924 W 223RD ST	S 0 - 1/8 (0.035 mi.)	371	453
Not reported	22300 S VERMONT AVE	SSE 0 - 1/8 (0.047 mi.)	377	460
Not reported	22029 FIGUEROA ST	SE 0 - 1/8 (0.053 mi.)	378	460

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	22410 NORMANDIE AVE	SSW 0 - 1/8 (0.103 mi.)	AJ397	492
Not reported	22414 NORMANDIE AVE	SSW 0 - 1/8 (0.108 mi.)	AJ398	493
Not reported	22416 NORMANDIE AVE	SSW 0 - 1/8 (0.110 mi.)	AJ402	499
Not reported	22424 NORMANDIE AVE	SSW 0 - 1/8 (0.120 mi.)	AJ405	501

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	20802 S VERMONT AVE	0 - 1/8 (0.000 mi.)	C27	198
Not reported	21127 DOBLE AVE	0 - 1/8 (0.000 mi.)	65	231
Not reported	941 W CARSON ST	0 - 1/8 (0.000 mi.)	O92	258
Not reported	911 W CARSON ST	0 - 1/8 (0.000 mi.)	K325	411
Not reported	701 TORRANCE BLVD	NNE 0 - 1/8 (0.009 mi.)	E363	437
Not reported	21101 FIGUEROA ST	NE 0 - 1/8 (0.040 mi.)	AE372	454
Not reported	21021 FIGUEROA ST	NE 0 - 1/8 (0.041 mi.)	AF373	455

EDR Hist Cleaner: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there are 6 EDR Hist Cleaner sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	22131 S VERMONT AVE	0 - 1/8 (0.000 mi.)	X181	318
Not reported	22133 S VERMONT AVE	0 - 1/8 (0.000 mi.)	X184	318
Not reported	21720 S VERMONT AVE	0 - 1/8 (0.000 mi.)	N235	344
Not reported	21600 NORMANDIE AVE	WNW 0 - 1/8 (0.003 mi.)	361	436
Not reported	21618 FIGUEROA ST	E 0 - 1/8 (0.098 mi.)	AI395	490

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	1022 W 209TH ST	N 0 - 1/8 (0.089 mi.)	394	490

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LUST: The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

A review of the RGA LUST list, as provided by EDR, has revealed that there are 11 RGA LUST sites

within approximately 0.001 miles of the target property.

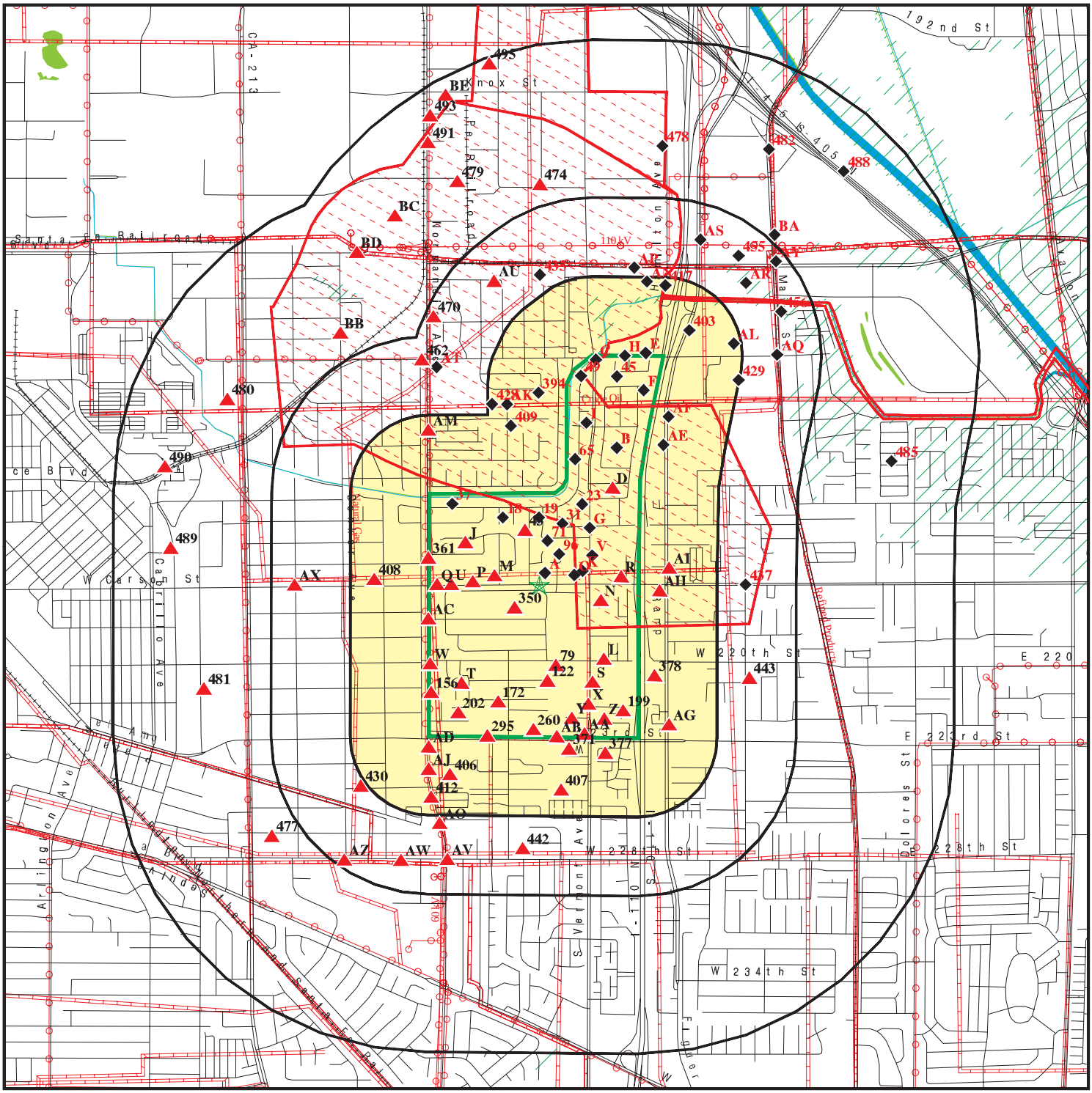
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
UNOCAL S.S. #4944	1259 CARSON ST. W.	0 - 1/8 (0.000 mi.)	M114	269
TOSCO/UNOCAL #30769	1259 W CARSON STREET	0 - 1/8 (0.000 mi.)	M142	289
DOYLE BROTHERS INC.	22203 VERMONT AVE S	0 - 1/8 (0.000 mi.)	X225	339
TOSCO/UNOCAL #30769	1259 CARSON ST. W.	0 - 1/8 (0.000 mi.)	M262	361
UNOCAL #4944	1259 CARSON ST. W.	0 - 1/8 (0.000 mi.)	M271	369
UNOCAL #4944	1259 CARSON ST W	0 - 1/8 (0.000 mi.)	M336	417

Lower Elevation	Address	Direction / Distance	Map ID	Page
MOBIL #18-MAP	20802 VERMONT AVE S	0 - 1/8 (0.000 mi.)	C38	205
MOBIL #11-MAP	20802 VERMONT AVE S	0 - 1/8 (0.000 mi.)	C72	234
SHELL	911 CARSON ST.	0 - 1/8 (0.000 mi.)	K178	316
JOHN BATES	21600 VERMONT AVE S	0 - 1/8 (0.000 mi.)	V248	353
SHELL	911 CARSON ST. W	0 - 1/8 (0.000 mi.)	K332	415

Due to poor or inadequate address information, the following sites were not mapped. Count: 23 records.

Site Name	Database(s)
	CDL
GARDENA VALLEY LANDFILL 1 & 2	ENVIROSTOR, VCP, HIST Cal-Sites, DEED
S. C. EVANS	SWF/LF
GARDENA VALLEY #1 & #2	SWF/LF
KATZ DUMP	SWF/LF
BROWN DUMP	SWF/LF
MARTIN HALLEMAN	SWF/LF
SOUTHWEST STEEL ROLLING MILLS #1	SWF/LF
K & S RUBBISH	SWF/LF
ROSE WILLIAMS LANDFILL	SWF/LF
VERMONT AVENUE & KNOX STREET DUMP	SWF/LF
GREEN HOG RANCH	SWF/LF
ROYAL BOULEVARD LAND RECLAMATION S	SWF/LF
COMET GAS STATION	LUST
CITY OF CARSON - STADEL PROPERTY	SLIC
DOMINGUEZ ENERGY REYES LEASE - ARE	SLIC
CITY OF CARSON	SLIC
GARDENA VALLEY LANDFILL NOS. 1 AND	CA BOND EXP. PLAN
GOLDEN EAGLE REFINERY	CA BOND EXP. PLAN
DEL AMO BOULEVARD	CA BOND EXP. PLAN
TED HAMMETT (CARSON)	ENVIROSTOR
NORTH CARSON AREA SITE DISCOVERY P	ENVIROSTOR
NORTHROP GRUMMAN CORPORATION (K3)	ENVIROSTOR

OVERVIEW MAP - 4778003.11S



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: West Carson TOD Specific Plan	CLIENT: PlaceWorks
ADDRESS: 1000 West Carson St Torrance CA 90502	CONTACT: Michael Milroy INQUIRY #: 4778003.11s
LAT/LONG: 33.831492 / 118.293036	DATE: November 10, 2016 3:03 pm

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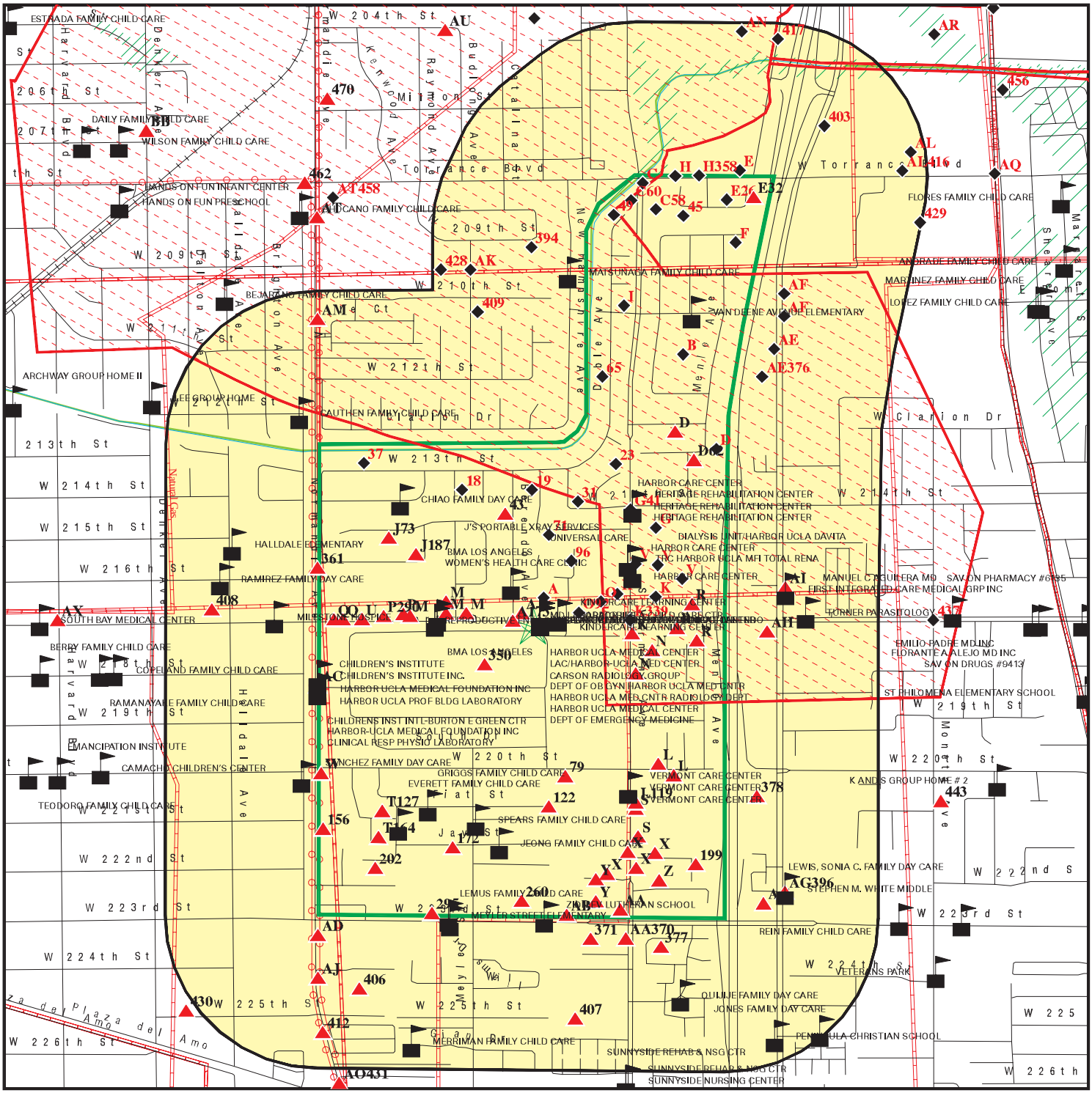
DETAIL MAP - 4778003.11S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: West Carson TOD Specific Plan	CLIENT: PlaceWorks
ADDRESS: 1000 West Carson St Torrance CA 90502	CONTACT: Michael Milroy
LAT/LONG: 33.831492 / 118.293036	INQUIRY #: 4778003.11s
	DATE: November 10, 2016 3:09 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		1	0	0	1	NR	2
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		3	0	0	NR	NR	3
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	3	NR	NR	3
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	1	NR	1
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250	1	6	0	NR	NR	NR	7
RCRA-SQG	0.250		18	4	NR	NR	NR	22
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		1	0	0	NR	NR	1
US INST CONTROL	0.500		1	0	0	NR	NR	1
Federal ERNS list								
ERNS	0.001	2	5	NR	NR	NR	NR	7
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	1	3	NR	4
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		2	2	13	21	NR	38
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		2	2	6	NR	NR	10
State and tribal leaking storage tank lists								
LUST	0.500	1	14	2	9	NR	NR	26

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
SLIC	0.500		2	3	5	NR	NR	10
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250	1	7	1	NR	NR	NR	9
AST	0.250		1	2	NR	NR	NR	3
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	5	NR	NR	5
State and tribal Brownfields sites								
BROWNFIELDS	0.500		1	0	0	NR	NR	1
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	1	NR	NR	1
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		1	1	3	NR	NR	5
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
AOCONCERN	1.000		0	0	0	0	NR	0
HIST Cal-Sites	1.000		0	0	1	3	NR	4
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		2	NR	NR	NR	NR	2
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250	1	10	0	NR	NR	NR	11
HIST UST	0.250	1	13	1	NR	NR	NR	15
CA FID UST	0.250	1	7	0	NR	NR	NR	8
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	1	NR	NR	1

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001	2	13	NR	NR	NR	NR	15
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250	1	3	4	NR	NR	NR	8
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		1	0	0	1	NR	2
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		1	NR	NR	NR	NR	1
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001	1	1	NR	NR	NR	NR	2
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		1	0	0	0	NR	1
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001	1	0	NR	NR	NR	NR	1
US MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001	1	20	NR	NR	NR	NR	21
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	1	0	2	NR	3
Cortese	0.500		0	0	1	NR	NR	1
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		1	0	NR	NR	NR	1
EMI	0.001	2	6	NR	NR	NR	NR	8
ENF	0.001		1	NR	NR	NR	NR	1
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001	2	83	NR	NR	NR	NR	85

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
HIST CORTESE	0.500		8	1	10	NR	NR	19
LOS ANGELES CO. HMS	0.001	2	155	NR	NR	NR	NR	157
HWP	1.000		1	0	0	2	NR	3
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.001		0	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001	1	3	NR	NR	NR	NR	4
PEST LIC	0.001		1	NR	NR	NR	NR	1
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
LA Co. Site Mitigation	0.001		1	NR	NR	NR	NR	1
UIC	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		1	NR	NR	NR	NR	1
WIP	0.250		0	0	NR	NR	NR	0
ECHO	0.001	1	10	NR	NR	NR	NR	11
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	TP		NR	NR	NR	NR	NR	0
ICE	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		27	NR	NR	NR	NR	27
EDR Hist Cleaner	0.125		6	NR	NR	NR	NR	6
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001	2	11	NR	NR	NR	NR	13
- Totals --		24	452	24	59	34	0	593

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **LA CO HARBOR UCLA MEDICAL CTR** **UST** **U003775866**
Target **1000 W CARSON ST** **N/A**
Property **TORRANCE, CA 90502**

Site 1 of 22 in cluster A

Actual:
40 ft.

UST:
Facility ID: 1171
Permitting Agency: LOS ANGELES COUNTY
Latitude: 33.8317754
Longitude: -118.2926731

A2 **LA CO HARBOR-UCLA MEDICAL CENT** **EMI** **U001562311**
Target **1000 W CARSON & 1124 W CARSON** **LOS ANGELES CO. HMS** **N/A**
Property **TORRANCE, CA 90063**

Site 2 of 22 in cluster A

Actual:
40 ft.

EMI:
Year: 1987
County Code: 19
Air Basin: SC
Facility ID: 457
Air District Name: SC
SIC Code: 8062
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 3
Reactive Organic Gases Tons/Yr: 3
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 8
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0

Year: 1990
County Code: 19
Air Basin: SC
Facility ID: 457
Air District Name: SC
SIC Code: 8062
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 29
Reactive Organic Gases Tons/Yr: 21
Carbon Monoxide Emissions Tons/Yr: 76
NOX - Oxides of Nitrogen Tons/Yr: 6
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0

Year: 1995
County Code: 19
Air Basin: SC
Facility ID: 800312
Air District Name: SC
SIC Code: 8062
Air District Name: SOUTH COAST AQMD

LA CO HARBOR-UCLA MEDICAL CENT (Continued) **U001562311**

Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	4
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	4
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1996
County Code:	19
Air Basin:	SC
Facility ID:	800312
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	27
Reactive Organic Gases Tons/Yr:	24
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	5
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1997
County Code:	19
Air Basin:	SC
Facility ID:	800312
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	41
Reactive Organic Gases Tons/Yr:	26
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	4
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1998
County Code:	19
Air Basin:	SC
Facility ID:	800312
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	34
Reactive Organic Gases Tons/Yr:	23
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	4

LA CO HARBOR-UCLA MEDICAL CENT (Continued) **U001562311**

SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1999
County Code:	19
Air Basin:	SC
Facility ID:	800312
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	41
Reactive Organic Gases Tons/Yr:	26
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	4
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2000
County Code:	19
Air Basin:	SC
Facility ID:	800312
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	41
Reactive Organic Gases Tons/Yr:	26
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	4
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2001
County Code:	19
Air Basin:	SC
Facility ID:	800312
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	B
Total Organic Hydrocarbon Gases Tons/Yr:	23
Reactive Organic Gases Tons/Yr:	12
Carbon Monoxide Emissions Tons/Yr:	3
NOX - Oxides of Nitrogen Tons/Yr:	5
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2002
County Code:	19

LA CO HARBOR-UCLA MEDICAL CENT (Continued) **U001562311**

Air Basin:	SC
Facility ID:	800312
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	14
Reactive Organic Gases Tons/Yr:	11
Carbon Monoxide Emissions Tons/Yr:	4
NOX - Oxides of Nitrogen Tons/Yr:	8
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers and Smllr Tons/Yr:	1

Year:	2003
County Code:	19
Air Basin:	SC
Facility ID:	800312
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	14
Reactive Organic Gases Tons/Yr:	11
Carbon Monoxide Emissions Tons/Yr:	4
NOX - Oxides of Nitrogen Tons/Yr:	8
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers and Smllr Tons/Yr:	1

Year:	2004
County Code:	19
Air Basin:	SC
Facility ID:	800312
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	14.2851933
Reactive Organic Gases Tons/Yr:	11.04
Carbon Monoxide Emissions Tons/Yr:	3.74
NOX - Oxides of Nitrogen Tons/Yr:	8.45
SOX - Oxides of Sulphur Tons/Yr:	0.1001
Particulate Matter Tons/Yr:	0.618
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.61

Year:	2005
County Code:	19
Air Basin:	SC
Facility ID:	800312
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported

LA CO HARBOR-UCLA MEDICAL CENT (Continued) **U001562311**

Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2.3254
Reactive Organic Gases Tons/Yr:	1.603452921
Carbon Monoxide Emissions Tons/Yr:	2.9744
NOX - Oxides of Nitrogen Tons/Yr:	5.2591
SOX - Oxides of Sulphur Tons/Yr:	.05274
Particulate Matter Tons/Yr:	.38836
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.38439136

Year:	2006
County Code:	19
Air Basin:	SC
Facility ID:	800312
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	6.091862539352770935
Reactive Organic Gases Tons/Yr:	4.342
Carbon Monoxide Emissions Tons/Yr:	2.952
NOX - Oxides of Nitrogen Tons/Yr:	4.557
SOX - Oxides of Sulphur Tons/Yr:	.04
Particulate Matter Tons/Yr:	.34
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.34

Year:	2007
County Code:	19
Air Basin:	SC
Facility ID:	800312
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	6.091862539352770935
Reactive Organic Gases Tons/Yr:	4.342
Carbon Monoxide Emissions Tons/Yr:	2.952
NOX - Oxides of Nitrogen Tons/Yr:	4.557
SOX - Oxides of Sulphur Tons/Yr:	.04
Particulate Matter Tons/Yr:	.34
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.34

Year:	2008
County Code:	19
Air Basin:	SC
Facility ID:	800312
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.911787454986109644
Reactive Organic Gases Tons/Yr:	1.630697
Carbon Monoxide Emissions Tons/Yr:	3.26
NOX - Oxides of Nitrogen Tons/Yr:	5.02
SOX - Oxides of Sulphur Tons/Yr:	.04

LA CO HARBOR-UCLA MEDICAL CENT (Continued) **U001562311**

Particulate Matter Tons/Yr: .44
Part. Matter 10 Micrometers and Smllr Tons/Yr: .416

Year: 2009
County Code: 19
Air Basin: SC
Facility ID: 800312
Air District Name: SC
SIC Code: 8062
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 1.65590165365251
Reactive Organic Gases Tons/Yr: 1.3681099999999999
Carbon Monoxide Emissions Tons/Yr: 2.98
NOX - Oxides of Nitrogen Tons/Yr: 4.3099999999999996
SOX - Oxides of Sulphur Tons/Yr: 0.02
Particulate Matter Tons/Yr: 0.37
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0.35032000000000002

Year: 2010
County Code: 19
Air Basin: SC
Facility ID: 800312
Air District Name: SC
SIC Code: 8062
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.95139026208364397
Reactive Organic Gases Tons/Yr: 0.59948999999999997
Carbon Monoxide Emissions Tons/Yr: 1.14713
NOX - Oxides of Nitrogen Tons/Yr: 5.2976900000000002
SOX - Oxides of Sulphur Tons/Yr: 7.6009999999999994E-2
Particulate Matter Tons/Yr: 1.45444
Part. Matter 10 Micrometers and Smllr Tons/Yr: 1.16943826

Year: 2011
County Code: 19
Air Basin: SC
Facility ID: 800312
Air District Name: SC
SIC Code: 8062
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.50601092967
Reactive Organic Gases Tons/Yr: 0.2773
Carbon Monoxide Emissions Tons/Yr: 0.34879
NOX - Oxides of Nitrogen Tons/Yr: 1.81521
SOX - Oxides of Sulphur Tons/Yr: 0.0321
Particulate Matter Tons/Yr: 1.20472
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0.9265822

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported

LA CO HARBOR-UCLA MEDICAL CENT (Continued) **U001562311**

Facility Id: 001114-039922
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

A3 **LA COUNTY HARBOR UCLA MEDICAL CENTER** **RGA LUST** **S114641655**
Target **1000 W CARSON ST** **N/A**
Property **TORRANCE, CA**

Site 3 of 22 in cluster A

Actual:
40 ft.

RGA LUST:

2010	LA COUNTY HARBOR UCLA MEDICAL CENTER	1000 W CARSON ST
2009	LA COUNTY HARBOR UCLA MEDICAL CENTER	1000 W CARSON ST
2008	LA COUNTY HARBOR UCLA MEDICAL CENTER	1000 W CARSON ST
2007	LA COUNTY HARBOR UCLA MEDICAL CENTER	1000 W CARSON ST
2006	LA COUNTY HARBOR UCLA MEDICAL CENTER	1000 W CARSON ST
2005	LA COUNTY HARBOR UCLA MEDICAL CENTER	1000 W CARSON ST

A4 **HARBOR U C L A MEDICAL CENTER** **HIST UST** **S118410923**
Target **1000 WEST CARSON** **N/A**
Property **TORRANCE, CA 90063**

Site 4 of 22 in cluster A

Actual:
40 ft.

HIST UST:

File Number:	00027705
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00027705.pdf
Region:	Not reported
Facility ID:	Not reported
Facility Type:	Not reported
Other Type:	Not reported
Contact Name:	Not reported
Telephone:	Not reported
Owner Name:	Not reported
Owner Address:	Not reported
Owner City,St,Zip:	Not reported
Total Tanks:	Not reported
Tank Num:	Not reported
Container Num:	Not reported
Year Installed:	Not reported
Tank Capacity:	Not reported
Tank Used for:	Not reported
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	Not reported

Click here for Geo Tracker PDF:

A5 **LA HEALTH SERVICES HARBOR/UCLA MED CTR** **RCRA NonGen / NLR** **1000240202**
Target **1000 W CARSON STREET** **CAT080030919**
Property **TORRANCE, CA 90509**

Site 5 of 22 in cluster A

Actual:
40 ft.

RCRA NonGen / NLR:

Date form received by agency:	09/29/1993
Facility name:	LA HEALTH SERVICES HARBOR/UCLA MED CTR
Facility address:	1000 W CARSON STREET TORRANCE, CA 90509
EPA ID:	CAT080030919
Mailing address:	W CARSON STREET TORRANCE, CA 90509
Contact:	MIGUEL ORTIZ MARROQUIN
Contact address:	1000 W CARSON STREET TORRANCE, CA 90509
Contact country:	US
Contact telephone:	(310) 222-2152
Contact email:	Not reported
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	MUNICIPAL GOVERNMENT
Owner/operator address:	1000 W CARSON ST TORRANCE, CA 90509
Owner/operator country:	Not reported
Owner/operator telephone:	(310) 222-2152
Legal status:	Municipal
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No

LA HEALTH SERVICES HARBOR/UCLA MED CTR (Continued) **1000240202**

Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

A6 **HARBOR UCLA MEDICAL CENTER** **LUST** **S101583864**
Target **1000 W CARSON ST** **SWEEPS UST** **N/A**
Property **TORRANCE, CA 90502** **CA FID UST**
EMI
Site 6 of 22 in cluster A **NPDES**

Actual:
40 ft.

LUST:
Region: STATE
Global Id: T0603754521
Latitude: 33.830444
Longitude: -118.291748
Case Type: LUST Cleanup Site
Status: Open - Site Assessment
Status Date: 03/17/2015
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: JC
Local Agency: LOS ANGELES COUNTY
RB Case Number: R-01171
LOC Case Number: TT001114-001171
File Location: Not reported
Potential Media Affect: Under Investigation
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603754521
Contact Type: Local Agency Caseworker
Contact Name: JOHN AWUJO
Organization Name: LOS ANGELES COUNTY
Address: 900 S FREMONT AVE
City: ALHAMBRA
Email: jawujo@dpw.lacounty.gov
Phone Number: 6264583507

Global Id: T0603754521
Contact Type: Regional Board Caseworker
Contact Name: JOSHUA CWIKLA
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4th Street, Suite 200
City: LOS ANGELES
Email: joshua.cwikla@waterboards.ca.gov
Phone Number: 2135766713

Status History:
Global Id: T0603754521
Status: Open - Case Begin Date
Status Date: 04/21/1999

Global Id: T0603754521
Status: Open - Eligible for Closure
Status Date: 12/12/2013

HARBOR UCLA MEDICAL CENTER (Continued) **S101583864**

Global Id: T0603754521
Status: Open - Site Assessment
Status Date: 01/17/2002

Global Id: T0603754521
Status: Open - Site Assessment
Status Date: 03/17/2015

Regulatory Activities:

Global Id: T0603754521
Action Type: ENFORCEMENT
Date: 08/18/2016
Action: Referral to Regional Board

Global Id: T0603754521
Action Type: RESPONSE
Date: 07/15/2015
Action: Soil and Water Investigation Workplan

Global Id: T0603754521
Action Type: ENFORCEMENT
Date: 03/18/2015
Action: Referral to Regional Board

Global Id: T0603754521
Action Type: ENFORCEMENT
Date: 04/16/2015
Action: Staff Letter

Global Id: T0603754521
Action Type: RESPONSE
Date: 04/10/1995
Action: Site Assessment Report

Global Id: T0603754521
Action Type: RESPONSE
Date: 10/01/1994
Action: Site Assessment Report

Global Id: T0603754521
Action Type: RESPONSE
Date: 04/29/1996
Action: Remedial Progress Report

Global Id: T0603754521
Action Type: Other
Date: 04/21/1999
Action: Leak Discovery

Global Id: T0603754521
Action Type: RESPONSE
Date: 07/26/1995
Action: CAP/RAP - Other Report

Global Id: T0603754521
Action Type: RESPONSE
Date: 11/07/1995

HARBOR UCLA MEDICAL CENTER (Continued) **S101583864**

Action:	CAP/RAP - Other Report
Global Id:	T0603754521
Action Type:	RESPONSE
Date:	02/26/1996
Action:	Pilot Study/ Treatability Report
Global Id:	T0603754521
Action Type:	RESPONSE
Date:	11/30/1995
Action:	Pilot Study/ Treatability Report
Global Id:	T0603754521
Action Type:	RESPONSE
Date:	05/30/1995
Action:	CAP/RAP - Other Report
Global Id:	T0603754521
Action Type:	RESPONSE
Date:	09/21/1999
Action:	Tank Removal Report / UST Sampling Report
Global Id:	T0603754521
Action Type:	RESPONSE
Date:	01/17/2000
Action:	Tank Removal Report / UST Sampling Report
Global Id:	T0603754521
Action Type:	RESPONSE
Date:	08/01/1994
Action:	Site Assessment Report
Global Id:	T0603754521
Action Type:	RESPONSE
Date:	09/02/1994
Action:	Soil and Water Investigation Workplan
Global Id:	T0603754521
Action Type:	RESPONSE
Date:	08/01/1994
Action:	Unknown
Global Id:	T0603754521
Action Type:	RESPONSE
Date:	05/26/1994
Action:	Tank Removal Report / UST Sampling Report
Global Id:	T0603754521
Action Type:	RESPONSE
Date:	06/30/1994
Action:	Soil and Water Investigation Workplan
Global Id:	T0603754521
Action Type:	RESPONSE
Date:	11/29/1994
Action:	Site Assessment Report

HARBOR UCLA MEDICAL CENTER (Continued) **S101583864**

Global Id: T0603754521
Action Type: RESPONSE
Date: 05/01/1995
Action: Soil and Water Investigation Workplan

Global Id: T0603754521
Action Type: RESPONSE
Date: 11/07/1994
Action: CAP/RAP - Feasibility Study Report

Global Id: T0603754521
Action Type: Other
Date: 04/21/1999
Action: Leak Reported

Global Id: T0603754521
Action Type: RESPONSE
Date: 05/19/1994
Action: Other Report / Document

SWEEPS UST:
Status: Active
Comp Number: 1171
Number: 9
Board Of Equalization: Not reported
Referral Date: 02-01-91
Action Date: 02-01-91
Created Date: 02-01-91
Owner Tank Id: FOT-1
SWRCB Tank Id: 19-000-001171-000001
Tank Status: A
Capacity: 2500
Active Date: 02-01-91
Tank Use: UNKNOWN
STG: P
Content: Not reported
Number Of Tanks: 2

Status: Active
Comp Number: 1171
Number: 9
Board Of Equalization: Not reported
Referral Date: 02-01-91
Action Date: 02-01-91
Created Date: 02-01-91
Owner Tank Id: FOT-2
SWRCB Tank Id: 19-000-001171-000002
Tank Status: A
Capacity: 2500
Active Date: 02-01-91
Tank Use: UNKNOWN
STG: P
Content: Not reported
Number Of Tanks: Not reported

HARBOR UCLA MEDICAL CENTER (Continued) **S101583864**

CA FID UST:
Facility ID: 19006921
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2135333303
Mail To: Not reported
Mailing Address: 1000 W CARSON AVE
Mailing Address 2: Not reported
Mailing City,St,Zip: TORRANCE 90509
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

EMI:
Year: 2012
County Code: 19
Air Basin: SC
Facility ID: 800312
Air District Name: SC
SIC Code: 8062
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 1.7354411408
Reactive Organic Gases Tons/Yr: 1.17178
Carbon Monoxide Emissions Tons/Yr: 1.43317
NOX - Oxides of Nitrogen Tons/Yr: 2.95646
SOX - Oxides of Sulphur Tons/Yr: 0.03829
Particulate Matter Tons/Yr: 1.4664
Part. Matter 10 Micrometers and Smllr Tons/Yr: 1.17668442

Year: 2013
County Code: 19
Air Basin: SC
Facility ID: 800312
Air District Name: SC
SIC Code: 8062
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 1.3944719132
Reactive Organic Gases Tons/Yr: 1.10744
Carbon Monoxide Emissions Tons/Yr: 1.74692
NOX - Oxides of Nitrogen Tons/Yr: 3.14995
SOX - Oxides of Sulphur Tons/Yr: 0.01978
Particulate Matter Tons/Yr: 1.33277
Part. Matter 10 Micrometers and Smllr Tons/Yr: 1.0515158

NPDES:
Npdes Number: Not reported

HARBOR UCLA MEDICAL CENTER (Continued) **S101583864**

Facility Status:	Not reported
Agency Id:	Not reported
Region:	4
Regulatory Measure Id:	400899
Order No:	Not reported
Regulatory Measure Type:	Construction
Place Id:	Not reported
WDID:	4 19C356791
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	11/16/2009
PROCESSED DATE:	11/25/2009
STATUS CODE NAME:	Active
STATUS DATE:	11/25/2009
PLACE SIZE:	11.01
PLACE SIZE UNIT:	52
FACILITY CONTACT NAME:	Kevin Martin
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	310-618-6899
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	kmartin@henselphelps.com
OPERATOR NAME:	Los Angeles Cnty Chief Executive Office
OPERATOR ADDRESS:	1000 W Carson St Box 500
OPERATOR CITY:	Torrance
OPERATOR STATE:	California
OPERATOR ZIP:	90509
OPERATOR CONTACT NAME:	Stuart Brehm
OPERATOR CONTACT TITLE:	Sr Capital Projects Mgr
OPERATOR CONTACT PHONE:	626-300-2331
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	stbrehm@dpw.lacounty.gov
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Hensel Phelps Construction Co
DEVELOPER ADDRESS:	18850 Von Karman Ave Ste 100
DEVELOPER CITY:	Irvine
DEVELOPER STATE:	California
DEVELOPER ZIP:	92612
DEVELOPER CONTACT NAME:	Kelly Crawford
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	N
EMERGENCY PHONE NO:	949-439-5935
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported

HARBOR UCLA MEDICAL CENTER (Continued) **S101583864**

CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Y
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Dominguez Channel Estuary
CERTIFIER NAME:	Stuart Brehm III
CERTIFIER TITLE:	Sr Capital Proj Mgr
CERTIFICATION DATE:	29-JUN-10
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	4
Regulatory Measure Id:	401702
Order No:	Not reported
Regulatory Measure Type:	Construction
Place Id:	Not reported
WDID:	4 19C357186
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	8/29/2011
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	1/12/2010
PROCESSED DATE:	1/21/2010
STATUS CODE NAME:	Terminated
STATUS DATE:	3/16/2012
PLACE SIZE:	2
PLACE SIZE UNIT:	52
FACILITY CONTACT NAME:	Kevin Martin
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	424-222-7200
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	kmartin@henselphelps.com
OPERATOR NAME:	Los Angeles Cnty Chief Executive Office
OPERATOR ADDRESS:	1000 W Carson St Box 500
OPERATOR CITY:	Torrance
OPERATOR STATE:	California
OPERATOR ZIP:	90509
OPERATOR CONTACT NAME:	Stuart Brehm
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	626-300-2331
OPERATOR CONTACT PHONE EXT:	Not reported

HARBOR UCLA MEDICAL CENTER (Continued) **S101583864**

OPERATOR CONTACT EMAIL:	stbrehm@dpw.lacounty.gov
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Hensel Phelps Construction Company
DEVELOPER ADDRESS:	PO Box 149
DEVELOPER CITY:	Torrance
DEVELOPER STATE:	California
DEVELOPER ZIP:	90507
DEVELOPER CONTACT NAME:	Kevin Martin
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	N
EMERGENCY PHONE NO:	949-439-5935
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Institutional
CONSTYPE OTHER IND:	Y
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Domiguez Channel Estuary
CERTIFIER NAME:	Stuart Brehm III
CERTIFIER TITLE:	senior capital proj mngr
CERTIFICATION DATE:	29-JUN-10
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	4
Regulatory Measure Id:	266620
Order No:	Not reported
Regulatory Measure Type:	Construction
Place Id:	Not reported
WDID:	4 19C335039
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	7/1/2010
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008

HARBOR UCLA MEDICAL CENTER (Continued) **S101583864**

PROCESSED DATE:	6/27/2005
STATUS CODE NAME:	Terminated
STATUS DATE:	9/2/2010
PLACE SIZE:	11
PLACE SIZE UNIT:	52
FACILITY CONTACT NAME:	Tecla Mickoseff
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	310-222-2298
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Los Angeles Cnty
OPERATOR ADDRESS:	1000 W Carson St
OPERATOR CITY:	Torrance
OPERATOR STATE:	California
OPERATOR ZIP:	90502
OPERATOR CONTACT NAME:	Tecla Mickoseff
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	310-222-2298
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Other
DEVELOPER NAME:	Los Angeles Cnty
DEVELOPER ADDRESS:	1000 W Carson St
DEVELOPER CITY:	Torrance
DEVELOPER STATE:	California
DEVELOPER ZIP:	90502
DEVELOPER CONTACT NAME:	Tecla Mickoseff
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	310-222-2298
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Y
CONSTYPE RECONS IND:	Y
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Machado Lake Port Of L A
CERTIFIER NAME:	Amjad Sitti
CERTIFIER TITLE:	Project Engr
CERTIFICATION DATE:	21-JUN-05
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	CAS000002

HARBOR UCLA MEDICAL CENTER (Continued) **S101583864**

Facility Status:	Terminated
Agency Id:	0
Region:	4
Regulatory Measure Id:	400899
Order No:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	4 19C356791
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	11/25/2009
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	03/10/2014
Discharge Name:	Los Angeles Cnty Chief Executive Office
Discharge Address:	1000 W Carson St Box 500
Discharge City:	Torrance
Discharge State:	California
Discharge Zip:	90509
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported

HARBOR UCLA MEDICAL CENTER (Continued) **S101583864**

CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

A7 **LOS ANGELES CO HARBOR-UCLA MEDICAL CENTER** **HAZNET** **S113001864**
Target **1000 W CARSON ST** **N/A**
Property **TORRANCE, CA 90502**

Site 7 of 22 in cluster A

Actual:
40 ft.

HAZNET:

envid:	S113001864
Year:	2014
GEPAID:	CAD079605366
Contact:	LOUISE FLOWERS, SAFETY DIR
Telephone:	3102222835
Mailing Name:	Not reported
Mailing Address:	1000 W CARSON ST BLDG N32
Mailing City,St,Zip:	TORRANCE, CA 905092004
Gen County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County:	99
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.0495
Cat Decode:	Off-specification, aged or surplus organics
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Los Angeles

envid:	S113001864
Year:	2014
GEPAID:	CAD079605366
Contact:	LOUISE FLOWERS, SAFETY DIR
Telephone:	3102222835
Mailing Name:	Not reported
Mailing Address:	1000 W CARSON ST BLDG N32
Mailing City,St,Zip:	TORRANCE, CA 905092004
Gen County:	Los Angeles
TSD EPA ID:	CAD981429673
TSD County:	Marin
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	Metals Recovery Including Retoring,Smelting,Chemicals,Ect

LOS ANGELES CO HARBOR-UCLA MEDICAL CENTER (Continued) **S113001864**

Tons: 0.12927
Cat Decode: Photochemicals/photoprocessing waste
Method Decode: Metals Recovery Including Retoring,Smelting,Chemicals,Ect
Facility County: Los Angeles

envid: S113001864
Year: 2014
GEPAID: CAD079605366
Contact: LOUISE FLOWERS, SAFETY DIR
Telephone: 3102222835
Mailing Name: Not reported
Mailing Address: 1000 W CARSON ST BLDG N32
Mailing City,St,Zip: TORRANCE, CA 905092004
Gen County: Los Angeles
TSD EPA ID: CAD008252405
TSD County: Los Angeles
Waste Category: Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.6255
Cat Decode: Liquids with halogenated organic compounds >= 1,000 Mg./L
Method Decode: Fuel Blending Prior To Energy Recovery At Another Site
Facility County: Los Angeles

envid: S113001864
Year: 2014
GEPAID: CAD079605366
Contact: LOUISE FLOWERS, SAFETY DIR
Telephone: 3102222835
Mailing Name: Not reported
Mailing Address: 1000 W CARSON ST BLDG N32
Mailing City,St,Zip: TORRANCE, CA 905092004
Gen County: Los Angeles
TSD EPA ID: CAD008252405
TSD County: Los Angeles
Waste Category: Laboratory waste chemicals
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.04
Cat Decode: Laboratory waste chemicals
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Los Angeles

envid: S113001864
Year: 2014
GEPAID: CAD079605366
Contact: LOUISE FLOWERS, SAFETY DIR
Telephone: 3102222835
Mailing Name: Not reported
Mailing Address: 1000 W CARSON ST BLDG N32
Mailing City,St,Zip: TORRANCE, CA 905092004
Gen County: Los Angeles
TSD EPA ID: CAD008252405
TSD County: Los Angeles
Waste Category: Waste oil and mixed oil
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.209

LOS ANGELES CO HARBOR-UCLA MEDICAL CENTER (Continued) **S113001864**

Cat Decode: Waste oil and mixed oil
Method Decode: Fuel Blending Prior To Energy Recovery At Another Site
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
1108 additional CA_HAZNET: record(s) in the EDR Site Report.

A8 **ERNS** **94373716**
Target Property **1000 W. CARSON ST** **N/A**
TORRANCE, CA 90519

Site 8 of 22 in cluster A

Actual: 40 ft.

Click this hyperlink while viewing on your computer to access
additional ERNS detail in the EDR Site Report.

A9 **LA CO HARBOR-UCLA MEDICAL CENTER** **RCRA-LQG** **1000102042**
Target Property **1000 W CARSON ST** **ICIS** **CAD079605366**
TORRANCE, CA 90502 **US AIRS**

Site 9 of 22 in cluster A

Actual: 40 ft.

RCRA-LQG:
Date form received by agency: 03/01/2014
Facility name: LA COUNTY, HARBOR - UCLA MEDICAL CENTER
Facility address: 1000 W CARSON ST
TORRANCE, CA 90502
EPA ID: CAD079605366
Mailing address: W CARSON ST
TORRANCE, CA 90502
Contact: LOUISE FLOWERS
Contact address: W CARSON ST
TORRANCE, CA 90502
Contact country: Not reported
Contact telephone: (310) 222-2835
Contact email: LFLOWERS@DHS.LACOUNTY.GOV
EPA Region: 09
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: LOS ANGELES COUNTY
Owner/operator address: 1000 W CARSON
TORRANCE, CA 90509
Owner/operator country: Not reported

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

Owner/operator telephone: (310) 222-2101
Legal status: County
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: LOUISE FLOWERS
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: County
Owner/Operator Type: Operator
Owner/Op start date: 01/01/2002
Owner/Op end date: Not reported

Owner/operator name: HARBOR-UCLA MEDICAL CENTER
Owner/operator address: W CARSON ST
TORRANCE, CA 90502
Owner/operator country: Not reported
Owner/operator telephone: (310) 222-2835
Legal status: County
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1946
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): Yes
Recycler of hazardous waste: Yes
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Universal Waste Summary:
Waste type: Batteries
Accumulated waste on-site: Yes
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: Yes
Generated waste on-site: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

. Waste name: CORROSIVE WASTE

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: U021
. Waste name: [1,1'-BIPHENYL]-4,4'-DIAMINE (OR) BENZIDINE

. Waste code: U112
. Waste name: ACETIC ACID, ETHYL ESTER (I) (OR) ETHYL ACETATE (I)

. Waste code: U123
. Waste name: FORMIC ACID (C,T)

. Waste code: U181
. Waste name: 5-NITRO-O-TOLUIDINE (OR) BENZENAMINE, 2-METHYL-5-NITRO

Historical Generators:
Date form received by agency: 03/31/2008
Site name: LA COUNTY HARBOR - UCLA MEDICAL CENTER
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D009
. Waste name: MERCURY

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

. Waste code: D010
. Waste name: SELENIUM

. Waste code: D011
. Waste name: SILVER

. Waste code: D028
. Waste name: 1,2-DICHLOROETHANE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: P042
. Waste name: 1,2-BENZENEDIOL, 4-[1-HYDROXY-2-(METHYLAMINO)ETHYL]-, (R)- (OR) EPINEPHRINE

. Waste code: P081
. Waste name: 1,2,3-PROPANETRIOL, TRINITRATE (R) (OR) NITROGLYCERINE (R)

. Waste code: U001
. Waste name: ACETALDEHYDE (I) (OR) ETHANAL (I)

. Waste code: U010
. Waste name: AZIRINO [2',3':3,4]PYRROLO[1,2-A]INDOLE-4,7-DIONE, 6-AMINO-8-[[(AMINOCARBONYL)OXY]METHYL]-1,1A,2,8,8A,8B-HEXAHYDRO-8A-METOXY-5-METHYL-, [1AS-(1AALPHA, 8BETA, 8AALPHA, 8BALPHA)]- (OR) MITOMYCIN C

. Waste code: U122
. Waste name: FORMALDEHYDE

Date form received by agency: 02/17/2006
Site name: LA COUNTY HARBOR-UCLA MEDICAL CENTER
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D005

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D011
. Waste name: SILVER

. Waste code: D022
. Waste name: CHLOROFORM

Date form received by agency: 03/19/2004
Site name: LA COUNTY HARBOR-UCLA MEDICAL CENTER
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D011
. Waste name: SILVER

. Waste code: D018
. Waste name: BENZENE

. Waste code: D019
. Waste name: CARBON TETRACHLORIDE

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

. Waste code: D040
. Waste name: TRICHLORETHYLENE

. Waste code: P030
. Waste name: CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED

. Waste code: P081
. Waste name: 1,2,3-PROPANETRIOL, TRINITRATE (R) (OR) NITROGLYCERINE (R)

. Waste code: P087
. Waste name: OSMIUM OXIDE OSO4, (T-4)- (OR) OSMIUM TETROXIDE

. Waste code: P105
. Waste name: SODIUM AZIDE

. Waste code: U117
. Waste name: ETHANE, 1,1'-OXYBIS-(I) (OR) ETHYL ETHER (I)

. Waste code: U122
. Waste name: FORMALDEHYDE

. Waste code: U227
. Waste name: 1,1,2-TRICHLOROETHANE (OR) ETHANE, 1,1,2-TRICHLORO-

Date form received by agency: 10/12/2000
Site name: HARBOR-UCLA MEDICAL CENTER
Classification: Large Quantity Generator

Date form received by agency: 01/13/1998
Site name: HARBOR U C L A MEDICAL CTR
Classification: Large Quantity Generator

. Waste code: D000
. Waste name: Not Defined

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: F001

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: P048
. Waste name: 2,4-DINITROPHENOL (OR) PHENOL, 2,4-DINITRO-

. Waste code: P087
. Waste name: OSMIUM OXIDE OSO4, (T-4)- (OR) OSMIUM TETROXIDE

. Waste code: P105
. Waste name: SODIUM AZIDE

. Waste code: P106
. Waste name: SODIUM CYANIDE (OR) SODIUM CYANIDE NA(CN)

. Waste code: P120
. Waste name: VANADIUM OXIDE V2O5 (OR) VANADIUM PENTOXIDE

. Waste code: U122

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

. Waste name: FORMALDEHYDE

. Waste code: U136
. Waste name: ARSINIC ACID, DIMETHYL- (OR) CACODYLIC ACID

. Waste code: U188
. Waste name: PHENOL

Date form received by agency: 09/01/1996
Site name: HARBOR U C L A MEDICAL CTR
Classification: Large Quantity Generator

Date form received by agency: 07/08/1996
Site name: HARBOR-UCLA MEDICAL CENTER
Classification: Large Quantity Generator

Date form received by agency: 03/31/1994
Site name: HARBOR-UCLA MED. CENT. BLDG. N-32
Classification: Large Quantity Generator

Date form received by agency: 06/07/1990
Site name: LOS ANGELES CO MEDICAL CENTER
Classification: Large Quantity Generator

Date form received by agency: 08/18/1980
Site name: HARBOR U C L A MEDICAL CTR
Classification: Large Quantity Generator

Violation Status: No violations found

ICIS:
Enforcement Action ID: CASCAA000006037C221300037
FRS ID: 110000782975
Action Name: LA CO HARBOR-UCLA MEDICAL CENTER 06037C221300037
Facility Name: LA CO HARBOR-UCLA MEDICAL CENTER
Facility Address: 1000 W CARSON ST
TORRANCE, CA 905020000
Enforcement Action Type: Administrative Order
Facility County: LOS ANGELES
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAAO
Facility SIC Code: Not reported
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.83158
Longitude in Decimal Degrees: -118.29353
Permit Type Desc: Not reported
Program System Acronym: CASCA00006037C2213
Facility NAICS Code: 623311
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA000006037C221300036
FRS ID: 110000782975
Action Name: LA CO HARBOR-UCLA MEDICAL CENTER 06037C221300036
Facility Name: LA CO HARBOR-UCLA MEDICAL CENTER
Facility Address: 1000 W CARSON ST
TORRANCE, CA 905020000
Enforcement Action Type: Notice of Violation

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

Facility County: LOS ANGELES
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: Not reported
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.83158
Longitude in Decimal Degrees: -118.29353
Permit Type Desc: Not reported
Program System Acronym: CASCA00006037C2213
Facility NAICS Code: 623311
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA000006037C221300012
FRS ID: 110000782975
Action Name: LA CO HARBOR-UCLA MEDICAL CENTER 06037C221300012
Facility Name: LA CO HARBOR-UCLA MEDICAL CENTER
Facility Address: 1000 W CARSON ST
TORRANCE, CA 905020000
Enforcement Action Type: Administrative Order
Facility County: LOS ANGELES
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAAO
Facility SIC Code: Not reported
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.83158
Longitude in Decimal Degrees: -118.29353
Permit Type Desc: Not reported
Program System Acronym: CASCA00006037C2213
Facility NAICS Code: 623311
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA000006037C221300011
FRS ID: 110000782975
Action Name: LA CO HARBOR-UCLA MEDICAL CENTER 06037C221300011
Facility Name: LA CO HARBOR-UCLA MEDICAL CENTER
Facility Address: 1000 W CARSON ST
TORRANCE, CA 905020000
Enforcement Action Type: Notice of Violation
Facility County: LOS ANGELES
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: Not reported
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.83158
Longitude in Decimal Degrees: -118.29353
Permit Type Desc: Not reported
Program System Acronym: CASCA00006037C2213
Facility NAICS Code: 623311
Tribal Land Code: Not reported

US AIRS (AFS):
Envid: 1000102042
Region Code: 09

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

County Code: CA037
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
D and B Number: Not reported
Facility Site Name: LA CO HARBOR-UCLA MEDICAL CENTER
Primary SIC Code: Not reported
NAICS Code: 623311
Default Air Classification Code: MAJ
Facility Type of Ownership Code: CNG
Air CMS Category Code: TVM
HPV Status: Not reported

US AIRS (AFS):
Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2006-01-25 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2009-02-13 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2015-08-26 00:00:00
Activity Status Date: 2015-10-16 19:30:59
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2015-08-26 00:00:00
Activity Status Date: 2015-10-16 19:32:55
Activity Group: Compliance Monitoring

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2004-09-24 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2004-12-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2005-09-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2005-09-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

Activity Date: 2006-03-28 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2006-08-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2006-12-20 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2007-01-08 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2007-05-18 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2007-12-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-03-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-08-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-12-29 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-02-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-06-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-06-17 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-12-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2010-02-04 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2010-02-16 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2010-02-17 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2010-02-18 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-02-23 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-04-28 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

Activity Date: 2011-04-29 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-01-20 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-03-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-03-20 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-10-10 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-12-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-02-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-05-29 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-05-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-11-16 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-02-25 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-05-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-05-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2005-12-22 00:00:00
Activity Status Date: 2005-12-22 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-11-07 00:00:00
Activity Status Date: 2008-11-07 00:00:00
Activity Group: Enforcement Action

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2005-09-14 00:00:00
Activity Status Date: 2005-09-14 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-08-21 00:00:00
Activity Status Date: 2008-08-21 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2006-01-25 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2009-02-13 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

Activity Date:	2015-02-19 00:00:00
Activity Status Date:	2015-10-16 19:32:01
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active
Region Code:	09
Programmatic ID:	AIR CASCA00006037C2213
Facility Registry ID:	110000782975
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2015-08-26 00:00:00
Activity Status Date:	2015-10-16 19:30:59
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active
Region Code:	09
Programmatic ID:	AIR CASCA00006037C2213
Facility Registry ID:	110000782975
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2015-08-26 00:00:00
Activity Status Date:	2015-10-16 19:32:55
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active
Region Code:	09
Programmatic ID:	AIR CASCA00006037C2213
Facility Registry ID:	110000782975
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2016-02-05 00:00:00
Activity Status Date:	2016-05-11 19:05:18
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active
Region Code:	09
Programmatic ID:	AIR CASCA00006037C2213
Facility Registry ID:	110000782975
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2001-07-10 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported
Region Code:	09
Programmatic ID:	AIR CASCA00006037C2213
Facility Registry ID:	110000782975

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2004-09-24 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2004-12-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2005-09-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2005-09-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2006-03-28 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2006-08-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2006-12-20 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2007-01-08 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2007-05-18 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2007-12-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-03-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-08-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-12-29 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-02-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

Activity Date:	2009-06-15 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported
Region Code:	09
Programmatic ID:	AIR CASCA00006037C2213
Facility Registry ID:	110000782975
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2009-06-17 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported
Region Code:	09
Programmatic ID:	AIR CASCA00006037C2213
Facility Registry ID:	110000782975
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2009-12-30 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported
Region Code:	09
Programmatic ID:	AIR CASCA00006037C2213
Facility Registry ID:	110000782975
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2010-02-04 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported
Region Code:	09
Programmatic ID:	AIR CASCA00006037C2213
Facility Registry ID:	110000782975
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2010-02-16 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported
Region Code:	09
Programmatic ID:	AIR CASCA00006037C2213
Facility Registry ID:	110000782975

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2010-02-17 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2010-02-18 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-02-23 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-04-28 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-04-29 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-01-20 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-03-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-03-20 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-10-10 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-12-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-02-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-05-29 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-05-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-11-16 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C2213
Facility Registry ID: 110000782975
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

Activity Date:	2014-02-25 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported
Region Code:	09
Programmatic ID:	AIR CASCA00006037C2213
Facility Registry ID:	110000782975
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2014-05-13 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported
Region Code:	09
Programmatic ID:	AIR CASCA00006037C2213
Facility Registry ID:	110000782975
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2014-05-14 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported
Region Code:	09
Programmatic ID:	AIR CASCA00006037C2213
Facility Registry ID:	110000782975
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2005-12-22 00:00:00
Activity Status Date:	2005-12-22 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Formal
Activity Status:	Final Order Issued
Region Code:	09
Programmatic ID:	AIR CASCA00006037C2213
Facility Registry ID:	110000782975
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2008-11-07 00:00:00
Activity Status Date:	2008-11-07 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Formal
Activity Status:	Final Order Issued
Region Code:	09
Programmatic ID:	AIR CASCA00006037C2213
Facility Registry ID:	110000782975

LA CO HARBOR-UCLA MEDICAL CENTER (Continued) **1000102042**

Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2005-09-14 00:00:00
Activity Status Date:	2005-09-14 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved
Region Code:	09
Programmatic ID:	AIR CASCA00006037C2213
Facility Registry ID:	110000782975
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2008-08-21 00:00:00
Activity Status Date:	2008-08-21 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved

A10 **LA HEALTH SERVICES HARBOR/UCLA MED CTR** **HAZNET** **S113180189**
Target **1000 W CARSON ST** **N/A**
Property **TORRANCE, CA 90509**

Site 10 of 22 in cluster A

Actual:
40 ft.

HAZNET:

envid:	S113180189
Year:	1997
GEPAID:	CAT080030919
Contact:	MUNICIPAL GOVERNMENT
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	1000 W CARSON ST
Mailing City,St,Zip:	TORRANCE, CA 905022004
Gen County:	Not reported
TSD EPA ID:	FLD980711071
TSD County:	Not reported
Waste Category:	Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
Disposal Method:	Recycler
Tons:	1.6170
Cat Decode:	Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
Method Decode:	Recycler
Facility County:	Los Angeles
envid:	S113180189
Year:	1995
GEPAID:	CAT080030919
Contact:	MUNICIPAL GOVERNMENT
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	1000 W CARSON ST
Mailing City,St,Zip:	TORRANCE, CA 905022004
Gen County:	Not reported
TSD EPA ID:	FLD980711071
TSD County:	Not reported

LA HEALTH SERVICES HARBOR/UCLA MED CTR (Continued) **S113180189**

Waste Category: Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
Disposal Method: Recycler
Tons: .9000
Cat Decode: Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
Method Decode: Recycler
Facility County: Los Angeles

envid: S113180189
Year: 1994
GEPAID: CAT080030919
Contact: MUNICIPAL GOVERNMENT
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 1000 W CARSON ST
Mailing City,St,Zip: TORRANCE, CA 905022004
Gen County: Not reported
TSD EPA ID: FLD980711071
TSD County: Not reported
Waste Category: Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
Disposal Method: Recycler
Tons: .4440
Cat Decode: Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
Method Decode: Recycler
Facility County: Los Angeles

envid: S113180189
Year: 1993
GEPAID: CAT080030919
Contact: MUNICIPAL GOVERNMENT
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 1000 W CARSON ST
Mailing City,St,Zip: TORRANCE, CA 905022004
Gen County: Not reported
TSD EPA ID: FLD980711071
TSD County: Not reported
Waste Category: Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
Disposal Method: Recycler
Tons: 1.3165
Cat Decode: Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
Method Decode: Recycler
Facility County: Los Angeles

envid: S113180189
Year: 1993
GEPAID: CAT080030919
Contact: MUNICIPAL GOVERNMENT
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 1000 W CARSON ST
Mailing City,St,Zip: TORRANCE, CA 905022004
Gen County: Not reported
TSD EPA ID: FLD980711071
TSD County: Not reported
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Not reported
Tons: 1.3165

LA HEALTH SERVICES HARBOR/UCLA MED CTR (Continued) **S113180189**

Cat Decode: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Method Decode: Not reported
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access additional CA_HAZNET: detail in the EDR Site Report.

A11 **HARBOR UCLA MEDICAL CENTER** **FINDS** **1016053099**
Target **1000 WEST CARSON STREET** **ECHO** **N/A**
Property **TORRANCE, CA 90502**

Site 11 of 22 in cluster A

Actual: 40 ft.

FINDS:

Registry ID: 110000782975

Environmental Interest/Information System

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

AIR EMISSIONS CLASSIFICATION UNKNOWN

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

HAZARDOUS AIR POLLUTANT MAJOR

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

AIR MAJOR

HAZARDOUS WASTE BIENNIAL REPORTER

ECHO:
Envid: 1016053099
Registry ID: 110000782975
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110000782975

A12 **LA CO DHS HARBOR-UCLA MED CTR** **LOS ANGELES CO. HMS** **S102057196**
Target **1000 W CARSON ST** **N/A**
Property **TORRANCE, CA 90502**

Site 12 of 22 in cluster A

Actual:
40 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: T
Facility Id: 001114-001171
Facility Type: 0
Facility Status: Permit
Area: 2
Permit Number: 00005992T
Permit Status: Permit

Region: LA
Permit Category: I
Facility Id: 001114-045007
Facility Type: 04
Facility Status: Permit
Area: 2
Permit Number: 000515952
Permit Status: Permit

Region: LA
Permit Category: Not reported
Facility Id: 001114-049663
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

Region: LA
Permit Category: I
Facility Id: 001114-I01171
Facility Type: 02
Facility Status: Permit
Area: 2
Permit Number: 000002980
Permit Status: Permit

Region: LA
Permit Category: I
Facility Id: 001114-I01171
Facility Type: 02
Facility Status: Permit
Area: 2
Permit Number: 000011262
Permit Status: Permit

Region: LA
Permit Category: I
Facility Id: 001114-I01171
Facility Type: 02
Facility Status: Permit
Area: 2
Permit Number: 000011714

LA CO DHS HARBOR-UCLA MED CTR (Continued) **S102057196**

Permit Status: Permit

Region: LA
Permit Category: I
Facility Id: 001114-I01171
Facility Type: 02
Facility Status: Permit
Area: 2
Permit Number: 000011715
Permit Status: Permit

Region: LA
Permit Category: I
Facility Id: 001114-I01171
Facility Type: 02
Facility Status: Permit
Area: 2
Permit Number: 000013289
Permit Status: Closed

Region: LA
Permit Category: I
Facility Id: 001114-I01171
Facility Type: S4
Facility Status: Permit
Area: 2
Permit Number: 000327615
Permit Status: Permit

Region: LA
Permit Category: I
Facility Id: 001114-I01171
Facility Type: 02
Facility Status: Permit
Area: 2
Permit Number: 000553594
Permit Status: Permit

Region: LA
Permit Category: I
Facility Id: 001114-I01171
Facility Type: 02
Facility Status: Permit
Area: 2
Permit Number: 000611324
Permit Status: Permit

Region: LA
Permit Category: I
Facility Id: 001114-I01171
Facility Type: S4
Facility Status: Permit
Area: 2
Permit Number: 000759015
Permit Status: Permit

Region: LA

LA CO DHS HARBOR-UCLA MED CTR (Continued) **S102057196**

Permit Category: I
Facility Id: 001114-I01171
Facility Type: 02
Facility Status: Permit
Area: 2
Permit Number: 000764010
Permit Status: Permit

Region: LA
Permit Category: I
Facility Id: 001114-I01171
Facility Type: 04
Facility Status: Permit
Area: 2
Permit Number: 000764026
Permit Status: Permit

A13 **CHMIRS** **S112830168**
Target Property **1000 CARSON ST (HARBOR UCLA MED CNTR)** **N/A**
TORRANCE, CA

Site 13 of 22 in cluster A

Actual: 40 ft.

CHMIRS:

OES Incident Number:	12-5334
OES notification:	09/05/2012
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Merchant/Business
Cleanup By:	Reporting Party
Containment:	Not reported

(Continued) **S112830168**

What Happened:	Not reported
Type:	Not reported
Measure:	Gal(s)
Other:	Not reported
Date/Time:	1245
Year:	2012
Agency:	LA Co PW
Incident Date:	9/5/2012
Admin Agency:	Torrance Fire Department
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Sewage - Raw
Quantity Released:	80
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Blockage in lateral caused release, material flowed onto concrete, RP handled containment and clean up.

A14 **LA COUNTY DHS HARBOR-UCLA MED CTR** **RGA LUST** **S114641619**
Target Property **1000 W CARSON ST** **N/A**
TORRANCE, CA

Site 14 of 22 in cluster A

Actual: 40 ft.

RGA LUST:

2012	LA COUNTY DHS HARBOR-UCLA MED CTR	1000 W CARSON ST
2011	LA COUNTY DHS HARBOR-UCLA MED CTR	1000 W CARSON ST

A15 **CHMIRS** **S105635985**
Target Property **1000 W. CARSON ST** **N/A**
TORRANCE, CA 90519

Site 15 of 22 in cluster A

Actual: 40 ft.

CHMIRS:

OES Incident Number:	974
OES notification:	Not reported
OES Date:	4/29/1994
OES Time:	12:59:57 PM

(Continued) **S105635985**

Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	YES
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	united pumping co
Containment:	Not reported
What Happened:	Not reported
Type:	PETROLEUM
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1994
Agency:	harbor ucla med center
Incident Date:	4/29/94 1000
Admin Agency:	Not reported
Amount:	est 30gals
Contained:	NO
Site Type:	OTHER
E Date:	Not reported
Substance:	gasoline
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	NO
Number of Injuries:	NO
Number of Fatalities:	NO
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported

(Continued) **S105635985**

Injuries: Not reported
Fatals: Not reported
Comments: Not reported
Description: leaked from storage tank during removal of tank.

A16
Target Property
Actual: 40 ft.

1000 W. CARSON ST
TORRANCE, CA 90519

Site 16 of 22 in cluster A

ERNS **94374056**
N/A

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

NPL
Region North
1/2-1
2723 ft.

DEL AMO
DEL AMO BLVD AND VERMONT AVE
LOS ANGELES, CA 90006

NPL **1000483853**
SEMS **CAD029544731**
US ENG CONTROLS
US INST CONTROL
ENVIROSTOR
HIST Cal-Sites
DEED
ROD
PRP
Cortese
HIST CORTESE

NPL:
EPA ID: CAD029544731
Cerclis ID: 901293
EPA Region: 9
Federal: N
Final Date: 2002-09-05 00:00:00
Site Score: 47.119999999999997
Latitude: 33.846629999999998
Longitude: -118.28946999999999

Site Details:
Site Name: DEL AMO
Site Status: Final
Site Zip: 90006
Site City: LOS ANGELES
Site State: CA
Federal Site: No
Site County: LOS ANGELES
EPA Region: 09
Date Proposed: 12/01/00
Date Deleted: Not reported
Date Finalized: 09/05/02

Substance Details:
NPL Status: Currently on the Final NPL
Substance ID: Not reported
Substance: Not reported
CAS #: Not reported
Pathway: Not reported
Scoring: Not reported

DEL AMO (Continued) **1000483853**

NPL Status: Currently on the Final NPL
Substance ID: C049
Substance: ETHYLBENZENE
CAS #: 100-41-4
Pathway: GROUND WATER PATHWAY
Scoring: 2

NPL Status: Currently on the Final NPL
Substance ID: U019
Substance: BENZENE
CAS #: 71-43-2
Pathway: GROUND WATER PATHWAY
Scoring: 2

NPL Status: Currently on the Final NPL
Substance ID: U019
Substance: BENZENE
CAS #: 71-43-2
Pathway: GROUND WATER PATHWAY
Scoring: 4

NPL Status: Currently on the Final NPL
Substance ID: U135
Substance: HYDROGEN SULFIDE
CAS #: 7783-06-4
Pathway: GROUND WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: U165
Substance: NAPHTHALENE
CAS #: 91-20-3
Pathway: GROUND WATER PATHWAY
Scoring: 2

NPL Status: Currently on the Final NPL
Substance ID: U165
Substance: NAPHTHALENE
CAS #: 91-20-3
Pathway: GROUND WATER PATHWAY
Scoring: 4

Summary Details:

Conditions at Proposal December 1, 2000): The Del Amo site should be placed on the National Priorities List NPL) because contaminated ground water beneath the site could effect water that people drink. The Del Amo site is located within the LosAngeles city limits, Los Angeles County, California, in proximity to the Cities of Torrance and Carson. From the early 1940s to the early 1970s, a 280-acre synthetic rubber manufacturing facility operated on the property. The facility consisted ofthe following three plants: a butidiene plant, a styrene plant, and a copolymer plant. The facility was dismantled in the early to mid 1970s, and the property is currently occupied by a business park. The Montrose Chemical Corporation NPL site islocated approximately 600 feet west of the Del Amo site. The 1998 Final Groundwater Remedial Investigation Report identified the following 12 areas of concern for ground water contamination on the Del Amo site: 1) cyclohexane tanks associatedwith the former copolymer plant in the northern portion of the site, 2) pits and

DEL AMO (Continued) **1000483853**

trenches in the former copolymer plant area, 3) XMW-20 non-aqueous phase liquid NAPL) in the former styrene plant area in the western portion of the site, 4) volatileorganic compound VOC) tanks associated with the former styrene finishing/ben ene purification unit, 5) VOC tanks and/or pipelines associated with the former styrene finishing unit, 6) tank farm in the former styrene plant area, 7) VOC storage tanksassociated with the former ethylben ene production unit number 1, 8) VOC storage tanks associated with the former ethylben ene production unit number 2, 9) utility tanks in the former styrene plant area, 10) waste pit area and underground petroleumpipelines in the southern portion of the site, 11) underground ben ene pipeline in the southeast portion of the site, and 12) laboratory underground pipelines in the former butadiene plant area in the eastern portion of the site. The Del Amo HRS Documentation Record focuses on two of these 12 areas of concern the XMW-20 NAPL and the waste pit area). The XMW-20 NAPL is composed primarily of ben ene 90 percent) with lesser quantities of toluene, ethylben ene, and styrene. It is locatedapproximately 50 feet from the historic location of a 500,000-gallon crude ben ene storage tank and extends laterally over an area of approximately 17,500 feet. The NAPL is limited to the saturated one, occurring as isolated blobs in a smear onethat extends vertically from the water table, at approximately 60 feet below ground surface, to 30 feet below the water table. The waste pit area occupies approximately 3.7 acres in the southern portion of the site and consists of six disposalpits Pits 2A through 2F) and two evaporation ponds Ponds 1B and 1C). The pits and ponds received process wastes from the styrene manufacturing plant. The pits and ponds are currently covered with fill material, weeds, and miscellaneous debris, and the 3.7-acre parcel is surrounded by a double row of fences. Ha ardous substances in the waste remaining in the pits and ponds include ben ene, ethylben ene, and naphthalene. The pits and ponds are evaluated as two separate sources in the Del Amo HRS Documentation Record. Ground water proximal to the XMW-20 NAPL is contaminated with ben ene at concentrations up to 1,200,000 ug/L. Soils located beneath the waste pit area have come to be located below the top of the water table, dueto rising ground water levels. These soils are contaminated with the same ha ardous substances that are found in the waste remaining in the pits e.g., ben ene, ethylben ene, and naphthalene). There are 17 municipal drinking water wells within 4 miles of the Del Amo site. Status September 2002): EPA is considering various alternatives for this site. The description of the site release) is based on information available at the time the site was evaluated with the HRS. The description may change as additional information is gathered on the sources and extent of contamination. See 56 FR 5600, February 11, 1991, or subsequent FR notices. For more information about the ha ardous substances identified in this narrative summary, including general information regarding the effects of exposure to these substances on human health, please see the Agency for Toxic Substances and Disease Registry ATSDR) ToxFAQs. ATSDR ToxFAQs can be found on the Internet at http://www.atsdr.cdc.gov/toxfaq.html or by telephone at 1- 888-42-ATSDR or 1-888-422-8737.

Site Status Details:

NPL Status:	Final
Proposed Date:	12/01/2000
Final Date:	09/05/2002
Deleted Date:	Not reported

Narratives Details:

NPL Name:	DEL AMO
City:	LOS ANGELES

DEL AMO (Continued) **1000483853**

State: CA

SEMS:
Site ID: 901293
EPA ID: CAD029544731
Federal Facility: N
NPL: Currently on the Final NPL
Non NPL Status: Not reported

Following information was gathered from the prior CERCLIS update completed in 10/2013:
Site ID: 0901293
EPA ID: CAD029544731
Facility County: LOS ANGELES
Short Name: DEL AMO
Congressional District: 37
IFMS ID: 0936
SMSA Number: 4480
USGC Hydro Unit: 18070104
Federal Facility: Not a Federal Facility
DMNSN Number: 285.02000
Site Orphan Flag: N
RCRA ID: Not reported
USGS Quadrangle: Torrance, CA
Site Init By Prog: Not reported
NFRAP Flag: Not reported
Parent ID: Not reported
RST Code: Not reported
EPA Region: 09
Classification: Not reported
Site Settings Code: CL
NPL Status: Currently on the Final NPL
DMNSN Unit Code: ACRE
RBRAC Code: Not reported
RResp Fed Agency Code: Not reported
Non NPL Status: Not reported
Non NPL Status Date: / /
Site Fips Code: 06037
CC Concurrence Date: / /
CC Concurrence FY: Not reported
Alias EPA ID: Not reported
Site FUDS Flag: Not reported

CERCLIS Site Contact Name(s):
Contact ID: 13003791.00000
Contact Name: Dante Rodriguez
Contact Tel: (415) 972-3166
Contact Title: Remedial Project Manager (RPM)
Contact Email: Not reported

Contact ID: 13003854.00000
Contact Name: Leslie Ramirez
Contact Tel: (415) 972-3978
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

DEL AMO (Continued) **1000483853**

Contact ID: 13003858.00000
Contact Name: Sharon Murray
Contact Tel: (415) 972-4250
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Contact ID: 13004003.00000
Contact Name: Carl Brickner
Contact Tel: Not reported
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Contact ID: 9271138.00000
Contact Name: Richard Hiett
Contact Tel: (415) 972-3170
Contact Title: Remedial Project Manager (RPM)
Contact Email: Not reported

Contact ID: 9270063.00000
Contact Name: Kevin Mayer
Contact Tel: (415) 972-3176
Contact Title: Remedial Project Manager (RPM)
Contact Email: Not reported

CERCLIS Site Alias Name(s):
Alias ID: 101
Alias Name: SHELL OIL CO TORRANCE
Alias Address: 19821 S HAMILTON
TORRANCE, CA 90220
Alias ID: 201
Alias Name: TORRANCE CHEM PLT
Alias Address: N OF DEL AMO BET NORM & HAMILT
LOS ANGELES, CA 90026
Alias ID: 301
Alias Name: RECONSTRUCTION FINANCE CORP DOW
Alias Address: VERMONT & DEL AMO
TORRANCE, CA 90503
Alias ID: 401
Alias Name: CADILLAC FAIRVIEW INC
Alias Address: Not reported
CA
Alias ID: 501
Alias Name: WESTERN WASTE INDUSTRIES
Alias Address: Not reported
CA
Alias ID: 601
Alias Name: WESTERN REFUSE HAULING
Alias Address: Not reported
CA
Alias ID: 701
Alias Name: DEL AMO BLVD
Alias Address: Not reported
CA
Alias ID: 801
Alias Name: DEL ALMO
Alias Address: Not reported
CA

DEL AMO (Continued) **1000483853**

Alias ID: 802
Alias Name: DEL AMO FACILITY
Alias Address: Not reported
Not reported
Alias ID: 803
Alias Name: DEL AMO
Alias Address: DEL AMO BLVD & VERMONT AVE
LOS ANGELES, CA 90502
Alias ID: 804
Alias Name: DEL AMO
Alias Address: W DEL AMO BLVD & S VERMONT AVE
LOS ANGELES, CA 90502
Alias ID: 805
Alias Name: DEL AMO
Alias Address: DEL AMO BLVD AND VERMONT AVE
LOS ANGELES, CA 90502
Alias ID: 401
Alias ID: 501
Alias ID: 801
Alias ID: 701
Alias ID: 601
Alias Comments: PREVIOUS EPA ID# AZD 981 416 977PREVIOUS EPA ID# AZD 981 416 977PREVIOUS EPA ID# AZD 981 416 977PREVIOUS EPA ID# AZD 981 416 977PREVIOUS EPA ID# AZD 981 416 977

Site Description: This record of decision (ROD) documents and establishes the dual-site operable unit remedy for ground water at the Montrose Chemical and Del Amo Superfund Sites in Los Angeles, California (near the Cities of Torrance and Carson). The Environmental Protection Agency (EPA) Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) identification numbers for these sites are CAD008242711 and CAD029544731, respectively. These separate, but adjacent Superfund sites have commingled groundwater contamination. Groundwater contamination at these two sites originated primarily from (1) the former Montrose Chemical plant and property, which manufactured the pesticide dichlorodiphenyltrichloroethane (DDT) between 1947 and 1982, and (2) the former Del Amo Synthetic Rubber plant and property, which operated between 1942 and 1972. There are other sources of groundwater contamination which are discussed in later sections of this ROD and in the remedial investigation reports. The "Harbor Gateway" is a half-mile-wide strip of the City of Los Angeles that extends south from Los Angeles proper and provides the City a contiguous jurisdiction to Los Angeles Harbor. The former Montrose Chemical and Del Amo plants were located in the Harbor Gateway between the Cities of Torrance and Carson. The former Montrose plant property is at 20201 Normandie Avenue, lying on the west side of Normandie Avenue between Del Amo Boulevard on the south and Francisco Street (extended) on the north. The former Del Amo plant property lies in an area roughly bounded by Normandie Avenue on the west, Interstate 110 on the east, 190th Street on the north, and Del Amo boulevard on the south. The area surrounding the former plants contains portions of the cities of Carson, Gardena, and Torrance. A strip of land immediately east of the former Del Amo plant, and the residential area directly south of the former Del Amo plant, are part of unincorporated Los Angeles County. Overall, groundwater contamination associated with these two sites has come to be located over an area extending more than 1.3 miles in length, but its extent differs widely with the depth of the water-bearing unit as well as the lateral location being considered. The United States War Assets Administration (this former federal agency was succeeded by the United Stated (U.S.) General Services Administration [GSA]), owned a synthetic rubber manufacturing facility in Harbor Gateway, between the cities of Torrance and

DEL AMO (Continued) **1000483853**

Carson, beginning in 1942. The War Assets Administration entered into operating agreements with Shell Oil Company (Shell), Dow Chemical Company, and several other companies, to operate the plant and to produce synthetic rubber for the United States during World War II. In 1955, Shell purchased the facility and began operating it directly. Shell operated the facility until 1972, at which time operations ceased, the plant was dismantled, and the plant buildings were razed. The plant property has been entirely redeveloped with light industrial and commercial enterprises, with the exception of the area at the south-central border of the former plant property, which is owned by Shell and is the location of the "Del Amo Waste Pits". The site did not take on the name "Del Amo" until later. The former Del Amo synthetic rubber plant property covered 270 acres, roughly 21 times the size of the neighboring Montrose plant property. The Del Amo plant had three sub-plants within it, commonly called "plancors." The styrene and butadiene plancors produced styrene and butadiene, respectively, and the rubber plancor chemically combined styrene and butadiene to make synthetic rubber. Of the three plancors, it has been shown that the majority of the contamination (there are exceptions) is found in the area of the former styrene plancor, in which large quantities of liquid benzene and ethylbenzene were stored and used. Over the years of its operation, the Del Amo plant released hazardous substances, pollutants, or contaminants into the surrounding environment. There are, at a minimum, eleven areas at the former Del Amo plant, nine of which are in the styrene plancor, which are under investigation as sources of benzene Non Aqueous Phase Liquid (NAPL) to the subsurface. In some of these areas, the evidence of NAPL is conclusive because NAPL has been directly encountered. In the other areas, the evidence of NAPL presence is very strong, but based on deduction from indirect indicators. These areas remain under further investigation by Shell Oil Company and Dow Chemical Company under the oversight of EPA. All of these NAPL sources lie within or close to the distribution, or "footprint", of the observed groundwater contamination. The "MW-20 area," so-named because it is near monitoring well MW-20, lies near a former benzene storage tank of at least a half-million gallons capacity. South of MW-20 is a tank farm which stored benzene and ethylbenzene. At the southern boundary of the former Del Amo plant property are the unlined "waste pits," in which both tarry and aqueous wastes were discharged, including wastes containing benzene, ethylbenzene, and naphthalene. The Montrose Chemical and Del Amo Superfund Sites March 1999 waste pits also received surfactants which may account for unusual contaminant migration patterns under the pits. While the pits have a thick soil cover, there is still 55,000 cubic yards of viscous waste remaining in the pits underground. In September 1997, EPA signed a ROD for an operable unit remedy for the waste pits. Pursuant to that selected remedy, an engineered impervious cap complying with requirements of the Resource, Conservation and Recovery Act (RCRA) will be constructed over the waste, which will be left in place. In addition, soil vapor extraction (SVE) will be performed on the soils under the waste. This remedial action is currently in the remedial design phase. On the eastern end of the former rubber plant lies another area with extensive benzene contamination in soils and groundwater. Plant history indicates the presence of laboratories, above-ground pipelines, chemical storage and processing areas, and wastewater treatment areas. All of these have been the subject of the Superfund remedial investigation effort, and some remain under investigation. Enough information is known, however, to select the remedial actions set out in the ROD for groundwater. In the southeastern area of the former Del Amo plant site, directly east of the waste pits, is another area with confirmed benzene NAPL contamination. The source of this benzene is not immediately apparent, though there was a major pipeline in this area while the plant was in operation. On May 7, 1992, EPA, Shell OH Company (Shell), and Dow Chemical Corporation (Dow) entered into an Administrative Order on Consent (AOC) which

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required Shell and Dow, acting as "the Del Amo Respondents," to perform a remedial investigation and feasibility study for the Del Amo site, including the entire 270-acre former plant site. Among the requirements of this AOC was that the Del Amo Respondents perform a 2-phase remedial investigation, a feasibility study, and several focused investigations, including the NAPL near well MW-20, as well as a focused investigation/feasibility study for the Del Amo Waste Pits. To date the Del Amo Respondents have produced a draft Phase I remedial investigation report, a final groundwater remedial investigation (RI) report, a final focused feasibility study for the waste pits area, a series of reports and documents related to its investigation of the NAPL at MW-20 and a pilot NAPL hydraulic extraction test (treatability study) for that area, a report on NAPL near monitoring well P-I and the transmission pipelines, and numerous other satellite documents. The Phase 1 RI report was never finalized by the Respondents, with the agreement that EPA's comments on that document would be addressed in the final RI and that the draft Phase I RI would not be referenced. Phase II work is now in progress. Montrose Chemical and Del Amo Superfund Sites March 1999 When the joint groundwater work was initiated, EPA acknowledged that a separate remedial investigation report would be needed for the Del Amo Site which addressed groundwater only, while all remaining aspects of the remedial investigation would need to be documented in a separate report which would be issued later. The Del Amo Respondents voluntarily agreed to produce a "Del Amo Groundwater Remedial Investigation Report," which was completed to EPA's satisfaction in May of 1998. Because the investigation of the Montrose Chemical Site had begun earlier than that for the Del Amo Site, originally there had been insufficient data to determine (1) the degree to which groundwater contamination from the Montrose and Del Amo Sites were commingled, and (2) the degree to which contamination from the Montrose Chemical Site might be affected by remedial actions that were being considered in feasibility studies for groundwater at the Montrose Chemical Site. The Montrose remedial investigation had identified the existence of extensive Del Amo-related groundwater contamination, but initially the remedial investigation at the Del Amo Site had not progressed to the point that this contamination was adequately defined. Accordingly, EPA considered selecting limited interim groundwater remedies for the Montrose Chemical Site until these factors could be resolved. However, by late 1995, sufficient data had been obtained from the Del Amo groundwater investigation to determine that (1) the groundwater contamination from the two sites was commingled, and (2) the evaluation of remedial alternatives related to groundwater contamination at one site was inseparable from the same evaluation at the other site. Groundwater contamination at both sites had to be considered together in order to properly evaluate and select groundwater alternatives for the two sites. In late 1995 and early 1996, EPA informed and opened a dialogue with Montrose Chemical and the Del Amo Respondents (Shell Oil Company and Dow Chemical Company) that EPA intended to unite the remedial selection processes with respect to groundwater, thereby leading to a single feasibility study and a dual-site groundwater ROD. EPA initiated a process to generate a single feasibility study, called a Joint Groundwater Feasibility Study (JGWFS) to provide analysis for this ROD. While the separate AOC documents did not directly discuss a JGWFS, the parties agreed to proceed with the joint work as envisioned by EPA on a voluntary basis. In March of 1996, a joint groundwater modeling effort was initiated. This technical effort was intensely overseen by EPA and was carried out by technical consultants to both parties. A series of meetings occurred from one to three times per month for six months in which a sophisticated Montrose Chemical and Del Amo Superfund Sites March 1999 groundwater flow and contaminant transport model was developed. The model was run and results compiled in late 1996. Summary details, results, and limitations of this model are discussed in a later section of this document. While the draft JGWFS was due on March 10,

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1997, the joint parties did not submit the draft document to EPA until May 20, 1997. Upon reviewing this document, EPA found it highly deficient and misleading in numerous respects. EPA formally took over the work to complete the JGWFS on August 14, 1997. EPA found that while the modeling effort was technically sound and usable, the draft JGWFS report required wholesale revision. EPA took over the work and rewrote the JGWFS, and released the public comment draft on June 26, 1998. The JGWFS is considered final with the issuance of this ROD. In January, 1998, EPA took over the effort to complete the Montrose Site RI Report after Montrose did not produce an acceptable draft after almost a decade of multiple iterations of Montrose drafts and comments by EPA. EPA completed its revision to this draft document on June 26, 1998. This was referred to as the "Public Comment Draft." The Del Amo Respondents completed the Groundwater Remedial Investigation Report pertaining to the Del Amo Site on May 18, 1998, in accordance with EPA's comments and EPA has approved that document. Both Montrose Chemical and the Del Amo Respondents completed the Joint Groundwater Risk Assessment in accordance with EPA comments in February, 1998. This document was approved by EPA as amended by EPA's Supplement to Joint Groundwater Risk Assessment. Within the Joint Site, there are several actual or potential sources of benzene and chlorinated solvents in addition to the former Montrose Chemical plant and former Del Amo plant. Montrose Chemical is the only known source of chlorobenzene, DDT, and para-chlorobenzene sulfonic acid (pCBSA) to groundwater at the Joint Site. As part of the Joint Site, these sources are by definition either entirely within the current area of groundwater contamination from the Montrose Chemical and Del Amo Sites, partly within it, or sufficiently close that contamination will have to be addressed as part of the remedial action selected in this ROD. This section is intended for the purposes of providing background and does not necessarily identify all such sources. -Petroleum transmission pipelines (benzene). A series of petroleum transmission pipelines, unrelated to the former Montrose and Del Amo plants, have been and still are used to transfer petroleum products from the port to the refineries in the area. There are several locations directly under these pipelines where groundwater concentrations are indicative of the likely presence of benzene NAPL and which may be related to these pipelines. The pipelines occur in separate bundles. Most of these bundles run in an east-west direction just south of both the former Montrose Chemical and Del Amo plant properties. One suspect location along this pipeline is south of Montrose along the pipeline, and east of the Jones Chemicals facility. Another bundle is a feeder line that runs in a north-south direction into the east-west transmission line, parallel to Berendo Avenue south of the former Del Amo plant. Petroleum NAPL containing benzene has been directly observed along this feeder line near historical groundwater monitoring well P-I. -Stauffer Chemical (benzene). A potential source of benzene in groundwater near the former Montrose plant is Stauffer Chemical, which historically operated a chemical plant on the Montrose property that manufactured benzene hexachloride (BHC), another pesticide. BHC manufacture requires benzene as a feedstock. In the process, benzene is chlorinated to form BHC. The gamma isomer of BHC is known as lindane. -Montrose (benzene). A potential source of benzene in groundwater near the former Montrose plant is the benzene that occurred in raw chlorobenzene, most likely at a rate of less than 1 percent. Because of the copious quantities of chlorobenzene released, this could account for some of the benzene contamination in groundwater. -The Jones Chemicals, Inc. plant (trichloroethane [TCE], perchloroethylene [PCE], dichlorethylene [DCE], and benzene). This plant manufactures bleach and sells other chemical products in bulk and has been in operation immediately south of the former Montrose plant since the mid-1950s. Based on investigations by EPA and the State of California, Jones Chemicals, Inc. is known to have discharged chlorinated solvents to a dry well on their

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property. Likewise, there are fuel tanks which may have leaked petroleum products into the subsurface. Jones also stored PCE on its property in bulk, packaged PCE in drums, and sold PCE for a number of years. Jones also operated a drum washing facility which was also a likely source of chlorinated aliphatic solvents released to the subsurface. -Solvent-handling Facilities (TCE, PCE) There are facilities near 196th Street at the western border of the former Del Amo plant which have handled chlorinated solvents and have soils with significant concentrations of these solvents. The operations at these facilities occurred or continue to occur subsequent to the closure of the Del Amo plant. A Record of Decision addressing Operable Unit 03 at the Del Amo site was completed in March 1999. The Del Amo site is located in Los Angeles County, California, with portions of the site within the City of Los Angeles, and adjacent to the City of Torrance, California. The Del Amo site and the Montrose Chemical Corporation site are separate, but adjacent, Superfund sites that have commingled groundwater contamination. The United States War Assets Administration owned a synthetic rubber manufacturing facility in Harbor Gateway, between the cities of Torrance and Carson, beginning in 1942. The War Assets Administration entered into operating agreements with Shell Oil Company (Shell), Dow Chemical Company, and several other companies, to operate the plant and to produce synthetic rubber for the United States during World War II. In 1955, Shell purchased the facility and began operating it directly. Shell operated the facility until 1972, at which time operations ceased, the plant was dismantled, and the plant buildings were razed. The plant property has been entirely redeveloped with light industrial and commercial enterprises, with the exception of the area at the south-central border of the former plant property, which is owned by Shell and is the location of the "Del Amo Waste Pits." The site did not take on the name "Del Amo" until later. The former Del Amosynthetic rubber plant property covered 270 acres, roughly 21 times the size of the neighboring Montrose plant property. In May 1992, EPA, Shell, and Dow Chemical Corporation (Dow) entered into an AOC which required Shell and Dow, acting as "the Del Amo Respondents," to perform a remedial investigation and feasibility study for the Del Amo site, including the entire 270-acre former plant site. Among the requirements of this AOC was that the Del Amo Respondents perform a 2-phase remedial investigation, a feasibility study, and several focused investigations, including the non-aqueous phase liquid (NAPL) near well MW-20, as well as focused investigation/feasibility study for the Del Amo Waste Pits. By late 1995 sufficient data had been obtained from the Del Amo groundwater investigation to determine that (1) the groundwater contamination from the Del Amo and Montrose Chemical Superfund sites was was commingled, and (2) the evaluation of remedial alternatives related to groundwater contamination at one site was inseparable from the same evaluation at the other site. Groundwater contamination at both sites had to be considered together in order to properly evaluate and select groundwater alternatives for the two sites. In later 1995 and early 1996, EPA informed and opened a dialogue with Montrose Chemical and the Del Amo Respondents that EPA intended to unite the remedial selection processes with respect to groundwater, thereby leading to a single feasibility study and a dual-site groundwater Record of Decision (ROD). EPA initiated a process to generate a single feasibility study, called a Joint Groundwater Feasibility Study (JGWFS) to provide analysis for this ROD. While the separate AOC documents did not directly discuss a JGWFS, the parties agreed to proceed with the joint work as envisioned by EPA on a voluntary basis. A ROD addressing the groundwater operable unit at the Montrose Chemical and Del Amo Superfund sites was completed in March 1999. At the southern edge of the facility, a set of six waste disposal pits and four evaporation ponds were created across a five acre area. The 9/97 Record of Decision (ROD) pertains only to the waste pits and ponds area, as does this Explanation of Significant Differences (ESD). The

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waste pits and evaporation pond area (collectively known as the "waste pits area") is currently covered with a Resource Conservation and Recovery Act (RCRA)-equivalent cap and the Soil Vapor Extraction (SVE) extraction wells are installed, per the 9/97 ROD. Remedial Investigations revealed that one of the evaporation ponds does not have any residual contamination. However, the six pits and three remaining ponds all contain significant quantities of contaminated material. In addition, the soil and groundwater beneath the waste pits material remains heavily contaminated. The majority of the contamination found in and beneath the waste pits and ponds consists of volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). The most significant VOC present is benzene, and the most significant SVOC present is naphthalene. Hydrogen sulfide is also present. Contamination from the waste pits and ponds has and continues to migrate downward and has contaminated the underlying groundwater. Contamination from the pits and ponds has and continues to diffuse upward towards the ground surface, but in very small amounts that are now captured in the gas collection layer of the cap. The 9/97 ROD selected SVE as a component of the remedy, but did not specify the type of vapor treatment technology that would be used to treat the extracted vapors. For purposes of selecting the Applicable or Relevant and Appropriate Requirements ("ARARs"), the 9/97 ROD identified ARARs for a thermal or catalytic oxidizer vapor treatment technology. During the remedial design process, EPA worked cooperatively with the Responsible Parties, other agencies, and interested members of the public to examine a broad range of vapor treatment technologies in addition to thermal oxidation. Upon completing this examination, EPA decided to evaluate an adsorption technology with on-site regeneration as the vapor treatment technology. The goal of this technology is to remove contaminants from the extracted vapor stream. Extracted vapors would be run through and adhere to the surface of an adsorbent. Contaminants would then be recovered from the adsorbent and transported offsite for reuse. Prior to full scale implementation, a pilot test will be performed. EPA will pursue reuse of the recovered chemicals from the adsorption process as recycled products in industrial processes. An ESD addressing operable unit 2 (OU2) was completed in August 2002. In 2002, EPA issued ESD #1, identifying additional applicable or relevant and appropriate requirements (ARARs) for the adsorption, on-site regeneration and off-site reuse of benzene. However, pilot studies indicated that re-use of the benzene was not feasible. Therefore, the Respondents proposed a system that would utilize enhanced in-situ biodegradation of contamination, in addition to extraction and carbon adsorption. In September 2005, EPA approved the final SVE system Remedial Design for this approach. ESD #2 addressing the SVE component of the selected remedy was completed in August 2006. A Record of Decision addressing Operable Unit 03 at the Del Amo site was completed in March 1999. OU-1: Soil and NAPL: - 1996-1997: Removed NAPL accumulated in groundwater monitoring well monitoring well (MW) 3, located near the western edge of the former plant property in the area now designated as source area (SA) 3 [OU-1].- 1999: Oversaw removal of contaminated soil by an owner during redevelopment activities of a property in the northwest corner of the former plant property, now designated as "Area 3" [OU-1]. - 2005-2006: Removed contaminated soil to facilitate renovation activities on properties in the western and southern areas, designated Area 24 and Area 28 [OU-1]. - 2008: Instituted a Building Permit Review Institutional Control (IC) as a pilot program with the City of Los Angeles Department of City Planning and Department of Building and Safety, to review construction plans involving excavation on any property within the former plant property [OU-1]. - 2010: Oversaw removal of contaminated soil by an owner during tenant changeover at a property in the southwestern area of the former plant property, designated as Area 22 [OU-1]. This ROD addresses soil outside the OU-2 Waste Pits Area, and

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includes capping select areas, implementation of soil vapor extraction (SVE) in shallow soil in select areas, implementation of institutional controls, implementation of SVE in the deep soil in select areas, and implementation of in-situ chemical oxidation (ISCO) in select areas. This ROD also addresses any additional site-related contamination that is encountered in the future during redevelopment or construction activities. A Record of Decision addressing Operable Unit 01 of the Del Amo Site was completed in September, 2011.

CERCLIS Assessment History:

Action Code: 001
Action: DISCOVERY
Date Started: / /
Date Completed: 11/01/79
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 04/01/80
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: SITE INSPECTION
Date Started: 06/01/81
Date Completed: 01/01/84
Priority Level: Higher priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: HAZARD RANKING SYSTEM PACKAGE
Date Started: / /
Date Completed: 01/01/84
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001

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Action: EXPANDED SITE INSPECTION
Date Started: / /
Date Completed: 08/07/89
Priority Level: Recommended for HRS Scoring
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: PROPOSAL TO NATIONAL PRIORITIES LIST
Date Started: / /
Date Completed: 07/29/91
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: Notice Letters Issued
Date Started: / /
Date Completed: 08/23/91
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: Special Notice Issued
Date Started: / /
Date Completed: 12/04/91
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: Notice Letters Issued
Date Started: / /
Date Completed: 01/21/92
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

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Action Code: 001
Action: NATIONAL PRIORITIES LIST RESPONSIBLE PARTY SEARCH
Date Started: 09/30/91
Date Completed: 04/03/92
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMEDIAL INVESTIGATION/FEASIBILITY STUDY NEGOTIATIONS
Date Started: 12/04/91
Date Completed: 05/07/92
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: / /
Date Completed: 05/07/92
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMOVAL ASSESSMENT
Date Started: / /
Date Completed: 09/01/92
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: PROPOSAL TO NATIONAL PRIORITIES LIST
Date Started: / /
Date Completed: 06/17/96
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

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Action Code: 003
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 10/28/95
Date Completed: 08/14/97
Priority Level: Not reported
Operable Unit: GROUNDWATER
Primary Responsibility: Responsible Party
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Original Action Take Over

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 05/07/92
Date Completed: 09/05/97
Priority Level: Not reported
Operable Unit: PITS
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: RECORD OF DECISION
Date Started: / /
Date Completed: 09/05/97
Priority Level: Not reported
Operable Unit: PITS
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: FINAL LISTING ON NATIONAL PRIORITIES LIST
Date Started: / /
Date Completed: 09/25/97
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 05/05/98
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported

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Action Anomaly: Not reported

Action Code: 001
Action: ADMINISTRATIVE RECORDS
Date Started: 06/02/98
Date Completed: 06/02/98
Priority Level: Admin Record Compiled for an Order
Operable Unit: GROUNDWATER
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: Special Notice Issued
Date Started: / /
Date Completed: 01/25/99
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: WITHDRAWN FROM THE NATIONAL PRIORITIES LIST
Date Started: / /
Date Completed: 02/19/99
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 08/14/97
Date Completed: 03/30/99
Priority Level: Not reported
Operable Unit: GROUNDWATER
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: New Action Resulting from Take Over

Action Code: 003
Action: RECORD OF DECISION
Date Started: / /
Date Completed: 03/30/99
Priority Level: Not reported
Operable Unit: GROUNDWATER
Primary Responsibility: Federal Enforcement

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Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN
Date Started: 05/26/98
Date Completed: 05/03/99
Priority Level: Not reported
Operable Unit: PITS
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Phased Completion

Action Code: 002
Action: REMEDIAL DESIGN/REMEDIAL ACTION NEGOTIATIONS
Date Started: 01/25/99
Date Completed: 05/03/99
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 05/03/99
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL ACTION
Date Started: 05/18/99
Date Completed: 05/16/00
Priority Level: Not reported
Operable Unit: PITS
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Long Term Action
Action Anomaly: Phased Completion

Action Code: 003
Action: PROPOSAL TO NATIONAL PRIORITIES LIST
Date Started: / /
Date Completed: 12/01/00
Priority Level: Not reported
Operable Unit: SITEWIDE

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Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: Explanation Of Significant Differences
Date Started: / /
Date Completed: 08/13/02
Priority Level: Not reported
Operable Unit: PITS
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: FINAL LISTING ON NATIONAL PRIORITIES LIST
Date Started: / /
Date Completed: 09/05/02
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: TECHNICAL ASSISTANCE GRANT
Date Started: 09/28/01
Date Completed: 03/31/03
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 004
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 09/03/03
Priority Level: Not reported
Operable Unit: GROUNDWATER
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMEDIAL DESIGN
Date Started: 08/01/99
Date Completed: 09/18/03

DEL AMO (Continued) **1000483853**

Priority Level: Not reported
Operable Unit: GROUNDWATER
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Original Action Take Over

Action Code: 001
Action: Notice of Intent by All Parties
Date Started: / /
Date Completed: 09/18/03
Priority Level: Not reported
Operable Unit: GROUNDWATER
Primary Responsibility: Not reported
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: FIVE-YEAR REVIEW
Date Started: / /
Date Completed: 09/22/05
Priority Level: Not reported
Operable Unit: PITS
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN
Date Started: 05/26/98
Date Completed: 09/28/05
Priority Level: Not reported
Operable Unit: PITS
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Phased Start

Action Code: 002
Action: Explanation Of Significant Differences
Date Started: / /
Date Completed: 08/24/06
Priority Level: Not reported
Operable Unit: PITS
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 005
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 02/20/08

DEL AMO (Continued) **1000483853**

Priority Level: Multi-Site-Subsequent Site
Operable Unit: GROUNDWATER
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: Notice of Intent by All Parties
Date Started: / /
Date Completed: 05/21/08
Priority Level: Not reported
Operable Unit: GROUNDWATER
Primary Responsibility: Not reported
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: FIVE-YEAR REVIEW
Date Started: / /
Date Completed: 09/24/10
Priority Level: Not reported
Operable Unit: PITS
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 05/07/92
Date Completed: 09/30/11
Priority Level: Not reported
Operable Unit: SOIL AND NAPL
Primary Responsibility: Mixed Funding Federal/RP
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 004
Action: RECORD OF DECISION
Date Started: / /
Date Completed: 09/30/11
Priority Level: Final Remedy Selected at Site
Operable Unit: SOIL AND NAPL
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: CONSENT DECREE

DEL AMO (Continued) **1000483853**

Date Started: 06/29/12
Date Completed: 08/22/12
Priority Level: Not reported
Operable Unit: GROUNDWATER
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 004
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN
Date Started: 09/18/03
Date Completed: 09/19/12
Priority Level: Not reported
Operable Unit: GROUNDWATER
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: New Action Resulting from Take Over

Action Code: 003
Action: Special Notice Issued
Date Started: / /
Date Completed: 03/29/13
Priority Level: Not reported
Operable Unit: SOIL AND NAPL
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: OPERATIONS AND MAINTENANCE
Date Started: 05/16/00
Date Completed: / /
Priority Level: Not reported
Operable Unit: PITS
Primary Responsibility: Responsible Party
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 004
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL ACTION
Date Started: 09/28/05
Date Completed: / /
Priority Level: Not reported
Operable Unit: PITS
Primary Responsibility: Responsible Party
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Phased Start

Action Code: 003
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL ACTION

DEL AMO (Continued) **1000483853**

Date Started: 09/19/12
Date Completed: / /
Priority Level: Not reported
Operable Unit: GROUNDWATER
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Federal Register Details:
Fed Register Date: 09/05/02
Fed Register Volume: 67
Page Number: 56757

Fed Register Date: 09/25/97
Fed Register Volume: 62
Page Number: 50442

Fed Register Date: 06/17/96
Fed Register Volume: 61
Page Number: 30575

Fed Register Date: 07/29/91
Fed Register Volume: 56
Page Number: 35840

Fed Register Date: 12/01/00
Fed Register Volume: 65
Page Number: 75215

Fed Register Date: 02/19/99
Fed Register Volume: Not reported
Page Number: Not reported

US ENG CONTROLS:
EPA ID: CAD029544731
Site ID: 0901293
Name: DEL AMO
Address: DEL AMO BLVD AND VERMONT AVE
LOS ANGELES, CA 90006
EPA Region: 09
County: LOS ANGELES
Event Code: Not reported
Actual Date: 09/30/2011
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 001
Action Name: Explanation Of Significant Differences
Action Completion date: 08/13/2002
Operable Unit: 02

DEL AMO (Continued) **1000483853**

Contaminated Media : Soil
Engineering Control: Soil Vapor Extraction (in-situ)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 002
Action Name: Explanation Of Significant Differences
Action Completion date: 08/24/2006
Operable Unit: 02
Contaminated Media : Soil
Engineering Control: Soil Vapor Extraction (in-situ)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/05/1997
Operable Unit: 02
Contaminated Media : Air
Engineering Control: Air Monitoring
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/05/1997
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Monitoring
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/05/1997
Operable Unit: 02
Contaminated Media : Soil

DEL AMO (Continued) **1000483853**

Engineering Control: Cap
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/05/1997
Operable Unit: 02
Contaminated Media : Soil
Engineering Control: Impermeable Barrier
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/05/1997
Operable Unit: 02
Contaminated Media : Soil
Engineering Control: Monitoring
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/05/1997
Operable Unit: 02
Contaminated Media : Soil
Engineering Control: Operations & Maintenance (O&M)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/05/1997
Operable Unit: 02
Contaminated Media : Soil
Engineering Control: Soil Vapor Extraction (in-situ)

DEL AMO (Continued) **1000483853**

Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/05/1997
Operable Unit: 02
Contaminated Media : Soil
Engineering Control: Surface Drainage Control
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/05/1997
Operable Unit: 02
Contaminated Media : Surface Water
Engineering Control: Surface Water Control
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Air Stripping
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Carbon Adsorption
Contact Name: Not reported

DEL AMO (Continued) **1000483853**

Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Containment, (N.O.S.)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Discharge
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Extraction
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Monitoring
Contact Name: Not reported
Contact Phone and Ext: Not reported

DEL AMO (Continued) **1000483853**

Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Natural Attenuation
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Precipitation
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Reinjection
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 004
Action Name: RECORD OF DECISION
Action Completion date: 09/30/2011
Operable Unit: 01
Contaminated Media : Free-phase NAPL
Engineering Control: In-Situ Chemical Oxidation (ISCO)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported

DEL AMO (Continued) **1000483853**

Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 004
Action Name: RECORD OF DECISION
Action Completion date: 09/30/2011
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Cap
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 004
Action Name: RECORD OF DECISION
Action Completion date: 09/30/2011
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Impermeable Barrier
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 004
Action Name: RECORD OF DECISION
Action Completion date: 09/30/2011
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Operations & Maintenance (O&M)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 004
Action Name: RECORD OF DECISION
Action Completion date: 09/30/2011
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Soil Vapor Extraction (in-situ)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

DEL AMO (Continued) **1000483853**

Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 004
Action Name: RECORD OF DECISION
Action Completion date: 09/30/2011
Operable Unit: 01
Contaminated Media : Soil Gas
Engineering Control: Vapor Intrusion Pathway Mitigation, (N.O.S)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

US INST CONTROL:
EPA ID: CAD029544731
Site ID: 0901293
Name: DEL AMO
Action Name: RECORD OF DECISION
Address: DEL AMO BLVD AND VERMONT AVE
LOS ANGELES, CA 90006
EPA Region: 09
County: LOS ANGELES
Event Code: Not reported
Inst. Control: Access Restriction, Fencing
Actual Date: 09/30/1997
Complet. Date: 09/05/1997
Operable Unit: 02
Contaminated Media : Soil
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

EPA ID: CAD029544731
Site ID: 0901293
Name: DEL AMO
Action Name: RECORD OF DECISION
Address: DEL AMO BLVD AND VERMONT AVE
LOS ANGELES, CA 90006
EPA Region: 09
County: LOS ANGELES
Event Code: Not reported
Inst. Control: Deed Restriction
Actual Date: 09/30/1997
Complet. Date: 09/05/1997
Operable Unit: 02
Contaminated Media : Soil
Contact Name : Not reported

DEL AMO (Continued) **1000483853**

Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

EPA ID: CAD029544731
Site ID: 0901293
Name: DEL AMO
Action Name: RECORD OF DECISION
Address: DEL AMO BLVD AND VERMONT AVE
LOS ANGELES, CA 90006
EPA Region: 09
County: LOS ANGELES
Event Code: Not reported
Inst. Control: Deed Restriction
Actual Date: 03/31/1999
Complet. Date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

EPA ID: CAD029544731
Site ID: 0901293
Name: DEL AMO
Action Name: RECORD OF DECISION
Address: DEL AMO BLVD AND VERMONT AVE
LOS ANGELES, CA 90006
EPA Region: 09
County: LOS ANGELES
Event Code: Not reported
Inst. Control: Drilling Restriction
Actual Date: 03/31/1999
Complet. Date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

EPA ID: CAD029544731
Site ID: 0901293
Name: DEL AMO
Action Name: RECORD OF DECISION
Address: DEL AMO BLVD AND VERMONT AVE
LOS ANGELES, CA 90006

DEL AMO (Continued) **1000483853**

EPA Region: 09
County: LOS ANGELES
Event Code: Not reported
Inst. Control: Notices to State Regulators Before Changes in Land Ownership
Actual Date: 03/31/1999
Complet. Date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

EPA ID: CAD029544731
Site ID: 0901293
Name: DEL AMO
Action Name: RECORD OF DECISION
Address: DEL AMO BLVD AND VERMONT AVE
LOS ANGELES, CA 90006
EPA Region: 09
County: LOS ANGELES
Event Code: Not reported
Inst. Control: Water Supply Use Restriction
Actual Date: 03/31/1999
Complet. Date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

EPA ID: CAD029544731
Site ID: 0901293
Name: DEL AMO
Action Name: RECORD OF DECISION
Address: DEL AMO BLVD AND VERMONT AVE
LOS ANGELES, CA 90006
EPA Region: 09
County: LOS ANGELES
Event Code: Not reported
Inst. Control: Covenant
Actual Date: 09/30/2011
Complet. Date: 09/30/2011
Operable Unit: 01
Contaminated Media : Groundwater
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported
Event Code Description: Not reported

DEL AMO (Continued) **1000483853**

GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

EPA ID: CAD029544731
Site ID: 0901293
Name: DEL AMO
Action Name: RECORD OF DECISION
Address: DEL AMO BLVD AND VERMONT AVE
LOS ANGELES, CA 90006
EPA Region: 09
County: LOS ANGELES
Event Code: Not reported
Inst. Control: Building, demolition, or excavation regulation
Actual Date: 09/30/2011
Complet. Date: 09/30/2011
Operable Unit: 01
Contaminated Media : Soil
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

EPA ID: CAD029544731
Site ID: 0901293
Name: DEL AMO
Action Name: RECORD OF DECISION
Address: DEL AMO BLVD AND VERMONT AVE
LOS ANGELES, CA 90006
EPA Region: 09
County: LOS ANGELES
Event Code: Not reported
Inst. Control: Covenant
Actual Date: 09/30/2011
Complet. Date: 09/30/2011
Operable Unit: 01
Contaminated Media : Soil
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

EPA ID: CAD029544731
Site ID: 0901293
Name: DEL AMO
Action Name: RECORD OF DECISION
Address: DEL AMO BLVD AND VERMONT AVE
LOS ANGELES, CA 90006
EPA Region: 09
County: LOS ANGELES
Event Code: Not reported
Inst. Control: Internet Announcement

DEL AMO (Continued) **1000483853**

Actual Date: 09/30/2011
Complet. Date: 09/30/2011
Operable Unit: 01
Contaminated Media : Soil
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

ENVIROSTOR:
Facility ID: 19300230
Status: Active
Status Date: 04/22/1996
Site Code: 401628
Site Type: Federal Superfund
Site Type Detailed: State Response or NPL
Acres: 280
NPL: YES
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Safouh Sayed
Supervisor: Robert Senga
Division Branch: Cleanup Cypress
Assembly: 64
Senate: 35
Special Program: Not reported
Restricted Use: YES
Site Mgmt Req: REM, DAY, ELD, HOS, LUC, FEN, MON, NUSE, RES
Funding: Responsible Party
Latitude: 33.8497
Longitude: -118.292
APN: NONE SPECIFIED
Past Use: MANUFACTURING - OTHER
Potential COC: * HYDROCARBON SOLVENTS * UNSPECIFIED AQUEOUS SOLUTION * UNSPECIFIED SOLVENT MIXTURES
Confirmed COC: NONE SPECIFIED
Potential Description: AQUI, WELL
Alias Name: CADILLAC-FAIRVIEW
Alias Type: Alternate Name
Alias Name: DEL AMO BOULEVARD
Alias Type: Alternate Name
Alias Name: 110033617548
Alias Type: EPA (FRS #)
Alias Name: P41013
Alias Type: PCode
Alias Name: 400048
Alias Type: Project Code (Site Code)
Alias Name: 400851
Alias Type: Project Code (Site Code)
Alias Name: 401628
Alias Type: Project Code (Site Code)
Alias Name: 19300230
Alias Type: Envirostor ID Number

DEL AMO (Continued) **1000483853**

Completed Info:

Completed Area Name:	OU 1
Completed Sub Area Name:	Not reported
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	11/22/2013
Comments:	Complete
Completed Area Name:	OU 3
Completed Sub Area Name:	Dual Phase Montrose/Del Amo
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	11/22/2013
Comments:	Completed
Completed Area Name:	OU 2
Completed Sub Area Name:	Not reported
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	11/19/2014
Comments:	Not reported
Completed Area Name:	OU 3
Completed Sub Area Name:	Dual Phase Montrose/Del Amo
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	11/19/2014
Comments:	Not reported
Completed Area Name:	OU 1
Completed Sub Area Name:	Not reported
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	11/19/2014
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	12/04/2015
Comments:	Not reported
Completed Area Name:	OU 2
Completed Sub Area Name:	Not reported
Completed Document Type:	Land Use Restriction
Completed Date:	09/27/2000
Comments:	Land Use Covenant signed and recorded on 9/27/00 for the Pits operable unit.
Completed Area Name:	OU 2
Completed Sub Area Name:	Not reported
Completed Document Type:	Unilateral Order (I/SE, RAO, CAO, EPA AO)
Completed Date:	05/03/1999
Comments:	Not reported
Completed Area Name:	OU 2
Completed Sub Area Name:	Not reported
Completed Document Type:	Unilateral Order (I/SE, RAO, CAO, EPA AO)
Completed Date:	05/05/1998
Comments:	Unilateral Administrative Order for Remedial Design for the Del Amo Superfund site. The Pits are an operable unit of the larger 280 acre site.

DEL AMO (Continued) **1000483853**

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Consent Order
Completed Date: 05/07/1992
Comments: U.S. EPA Consent Order signed. Collected $440,000 as cost recovery for past costs and all future oversight costs, to be billed to RP.

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Consent Order
Completed Date: 03/31/1988
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 12/17/2003
Comments: Completed PEA-equivalent document for proposed park area adjacent to the Del Amo Study Area.

Completed Area Name: OU 2
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/15/2009
Comments: U.S. EPA filed an Explanation of Significant Difference (ESD) for the Del Amo Pits treatment technology for the SVE System.

Completed Area Name: OU 2
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 09/15/1997
Comments: Based on U.S. EPA decision to conduct a pilot test on an alternative SVE treatment technology, RP submitted workplan.

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Record of Decision
Completed Date: 10/10/2011
Comments: Not reported

Completed Area Name: OU 2
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 05/03/1999
Comments: Dropped RAO commitment because U.S. EPA is taking over enforcement.

Completed Area Name: OU 3
Completed Sub Area Name: Dual Phase Montrose/Del Amo
Completed Document Type: Remedial Action Plan
Completed Date: 03/30/1999
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Feasibility Study Report
Completed Date: 02/28/2010
Comments: Completed

DEL AMO (Continued) **1000483853**

Completed Area Name:	OU 3
Completed Sub Area Name:	Dual Phase Montrose/Del Amo
Completed Document Type:	Remedial Investigation / Feasibility Study
Completed Date:	05/20/1998
Comments:	Completion of Remedial Investigation for the Groundwater Operable Unit, dated 5/5/98; and the Joint Groundwater Feasibility Study, dated 5/18/98, for the Del Amo Study Area, Groundwater Operable Unit, U.S. EPA Superfund site.
Completed Area Name:	OU 2
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Investigation / Feasibility Study
Completed Date:	12/11/1996
Comments:	The RI/FS for the Del Amo Pits Area (OU1) was approved. (U.S. EPA lead).
Completed Area Name:	OU 3
Completed Sub Area Name:	Dual Phase Montrose/Del Amo
Completed Document Type:	Removal Action Completion Report
Completed Date:	01/15/1993
Comments:	Not reported
Completed Area Name:	OU 1
Completed Sub Area Name:	Not reported
Completed Document Type:	*Engineering Evaluation / Cost Analysis - Non-Time Critical
Completed Date:	12/31/1991
Comments:	Not reported
Completed Area Name:	OU 1
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Assessment Report
Completed Date:	06/30/1989
Comments:	Site Screening Done: U.S. EPA Lead. U.S. EPA will list site. Former synthetic rubber manufacturing plant. Contaminants include PAH's such as benzene, toluene, ethylbenzene, and PNAs.
Completed Area Name:	OU 1
Completed Sub Area Name:	Not reported
Completed Document Type:	Public Participation Plan / Community Relations Plan
Completed Date:	03/31/1988
Comments:	Not reported
Completed Area Name:	OU 1
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Investigation Report
Completed Date:	08/04/2007
Comments:	The purposes of the RI were to evaluate the nature and extent of NAPL and soils contaminants at the site and to provide sufficient data for completion of the Baseline Risk Assessment and Feasibility study. Also, the objective of the RI was to identify and evaluate likely contaminant sources areas. Based on those investigations, it was concluded that Benzene is a primary contaminant at some of the sources areas.
Completed Area Name:	OU 1
Completed Sub Area Name:	Not reported
Completed Document Type:	Proposed Plan

DEL AMO (Continued) **1000483853**

Completed Date: 09/09/2011
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 05/05/2012
Comments: Complete

Completed Area Name: OU 3
Completed Sub Area Name: Dual Phase Montrose/Del Amo
Completed Document Type: Feasibility Study Report
Completed Date: 03/26/2013
Comments: Complete

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 01/30/2013
Comments: Complete

Completed Area Name: OU 3
Completed Sub Area Name: Dual Phase Montrose/Del Amo
Completed Document Type: Health & Safety Plan
Completed Date: 02/25/2013
Comments: Complete

Completed Area Name: OU 3
Completed Sub Area Name: Dual Phase Montrose/Del Amo
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 06/09/2013
Comments: Completed

Completed Area Name: OU 2
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 04/01/2015
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: 11/18/2015
Comments: Not reported

Completed Area Name: OU 2
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: 11/18/2015
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/26/2009
Comments: Not reported

DEL AMO (Continued) **1000483853**

Completed Area Name: OU 2
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 11/01/2011
Comments: Complete

Completed Area Name: OU 2
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 09/14/2011
Comments: Complete

Completed Area Name: OU 2
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 08/23/2005
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 11/01/2011
Comments: Complete

Completed Area Name: OU 3
Completed Sub Area Name: Dual Phase Montrose/Del Amo
Completed Document Type: Consent Decree
Completed Date: 06/22/2012
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 11/29/2012
Comments: Not reported

Completed Area Name: OU 3
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 12/26/2012
Comments: Complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 12/26/2012
Comments: Complete

Completed Area Name: OU 2
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 11/22/2013
Comments: Complete

Completed Area Name: OU 2
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate

DEL AMO (Continued) **1000483853**

Completed Date:	11/22/2013
Comments:	Completed
Future Area Name:	OU 1
Future Sub Area Name:	Not reported
Future Document Type:	Remedial Action Completion Report
Future Due Date:	2017
Future Area Name:	OU 1
Future Sub Area Name:	Not reported
Future Document Type:	Operations and Maintenance Report
Future Due Date:	2020
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	5 Year Review Reports
Future Due Date:	2025
Future Area Name:	OU 1
Future Sub Area Name:	Not reported
Future Document Type:	Certification
Future Due Date:	2019
Future Area Name:	OU 1
Future Sub Area Name:	Not reported
Future Document Type:	Land Use Restriction
Future Due Date:	2018
Schedule Area Name:	OU 1
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Consent Decree
Schedule Due Date:	09/30/2016
Schedule Revised Date:	Not reported

Calsite:

Region:	CYPRESS
Facility ID:	19300230
Facility Type:	NPRP
Type:	NPL SITE, RP-FUNDED
Branch:	SB
Branch Name:	SO CAL - CYPRESS
File Name:	Not reported
State Senate District:	04221996
Status:	ANNUAL WORKPLAN (AWP) - ACTIVE SITE
Status Name:	ANNUAL WORKPLAN - ACTIVE SITE
Lead Agency:	DEPT OF TOXIC SUBSTANCES CONTROL
NPL:	Listed
SIC Code:	30
SIC Name:	MANU - RUBBER & MISC PLASTICS PRODUCTS
Access:	Not reported
Cortese:	Not reported
Hazardous Ranking Score:	Not reported
Date Site Hazard Ranked:	Not reported
Groundwater Contamination:	Confirmed
Staff Member Responsible for Site:	SSAYED
Supervisor Responsible for Site:	Not reported
Region Water Control Board:	LA
Region Water Control Board Name:	LOS ANGELES
Lat/Long Direction:	Not reported
Lat/Long (dms):	0 0 0 / 0 0 0
Lat/long Method:	Not reported
Lat/Long Description:	Not reported

DEL AMO (Continued) **1000483853**

State Assembly District Code:	55
State Senate District Code:	28
Facility ID:	19300230
Activity:	ORDER
Activity Name:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code:	CNSNT
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	03311988
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	PPP
Activity Name:	PUBLIC PARTICIPATION PLAN
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	03311988
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	SS
Activity Name:	SITE SCREENING
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported

DEL AMO (Continued) **1000483853**

Comments Date:	06301989
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	FRIFS
Activity Name:	FOCUSED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
AWP Code:	SOIL
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	12311991
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	ORDER
Activity Name:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code:	I&SE
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	05071992
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported

DEL AMO (Continued) **1000483853**

Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	GW
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	01151993
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	REMOVAL OF BENZENE PRODUCT FROM A GROUNDWATER WELL BEGAN IN FALL 1992.PUMP TESTING, OPERATION AND MAINTENANCE OF THIS WELL WILL CONTINUEUNTIL DATA INDICATES THAT THE OPERATION CAN CEASE.
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	PITS
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	12111996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0

DEL AMO (Continued) **1000483853**

Unknown Type:	0
Facility ID:	19300230
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	GW
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	05201998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	STUDY
Proposed Budget:	0
AWP Completion Date:	06302005
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	DES
Activity Name:	DESIGN
AWP Code:	STUDY
Proposed Budget:	0
AWP Completion Date:	06302006
Revised Due Date:	Not reported
Comments Date:	Not reported

DEL AMO (Continued) **1000483853**

Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	GW1
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	03301999
Est Person-Yrs to complete:	0.20000
Estimated Size:	L
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	DES
Activity Name:	DESIGN
AWP Code:	PITS
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	05031999
Est Person-Yrs to complete:	0
Estimated Size:	L
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported

DEL AMO (Continued) **1000483853**

Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	STUDY
Proposed Budget:	0
AWP Completion Date:	09302005
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	PITS
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	09151997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	ORDER

DEL AMO (Continued) **1000483853**

Activity Name:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code:	PITS
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	05051998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	DES
Activity Name:	DESIGN
AWP Code:	GW1
Proposed Budget:	0
AWP Completion Date:	06302005
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	RMDL
Activity Name:	REMEDIAL ACTION (RAP REQUIRED)
AWP Code:	GW1
Proposed Budget:	0
AWP Completion Date:	06302006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported

DEL AMO (Continued) **1000483853**

Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	RMDL
Activity Name:	REMEDIAL ACTION (RAP REQUIRED)
AWP Code:	STUDY
Proposed Budget:	0
AWP Completion Date:	12302007
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	RMDL
Activity Name:	REMEDIAL ACTION (RAP REQUIRED)
AWP Code:	PITS
Proposed Budget:	0
AWP Completion Date:	06302005
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported

DEL AMO (Continued) **1000483853**

For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	ORDER
Activity Name:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code:	PITOU
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	05031999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	DEED
Activity Name:	DEED RESTRICTIONS
AWP Code:	PITOU
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	09272000
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	OM
Activity Name:	OPERATION & MAINTENANCE
AWP Code:	PITS
Proposed Budget:	0

DEL AMO (Continued) **1000483853**

AWP Completion Date:	06302036
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	OM
Activity Name:	OPERATION & MAINTENANCE
AWP Code:	STUDY
Proposed Budget:	0
AWP Completion Date:	06302036
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	OM
Activity Name:	OPERATION & MAINTENANCE
AWP Code:	GW1
Proposed Budget:	0
AWP Completion Date:	12312036
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0

DEL AMO (Continued) **1000483853**

Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	06302008
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19300230
Activity:	PEA
Activity Name:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Code:	PARK
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	12172003
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0

DEL AMO (Continued) **1000483853**

Unknown Type: 0
Alternate Address: DEL AMO BLVD BTN VERMONT & NORMANDIE
Alternate City,St,Zip: LOS ANGELES, CA 90502
Alternate Address: DEL AMO BLVD & VERMONT AVE
Alternate City,St,Zip: LOS ANGELES, CA 90020
Background Info: The site consists of waste disposal ponds that were used by a former synthetic rubber manufacturing complex. The site operated from the 1940's to 1972, when the disposal areas were covered over with soil and later sold to a series of land development corporations. Currently, the site is fenced and posted.
Not reported
The unlined pits were used for chemical waste disposal. Soils and groundwater are contaminated with high concentrations of volatile aromatic hydrocarbons (VAHs) such as benzene, toluene, and ethylbenzene; and polynuclear aromatic hydrocarbons (PNAs). The highest concentrations of these contaminants are found in the soils from the waste pit area. The contaminants in the shallow aquifer, which is not a drinking water source, may possibly migrate to and contaminate the deeper drinking water aquifer.
Not reported
A Consent Order was issued in March 1988, and three potentially responsible parties have completed the remedial investigation and are currently conducting the feasibility study. The Consent Order only addresses the onsite soil contamination and not the groundwater contamination. U.S. EPA has completed a groundwater investigation for the site which concluded that there is hydraulic continuity between the uppermost contaminated aquifer and the local drinking water aquifer within two miles of the site.
Not reported
The site has been split into two operable units. One addresses the pits only, the other addresses the larger study area comprising of soils and groundwater contamination.
Not reported
U.S. EPA approved the dual site groundwater ROD on 3/30/1999 for both the Montrose and Del Amo sites. This ROD addresses the dissolved Monochlorobenzene plume emanating from the Montrose site to approximately Torrance Blvd. to the south. It also addresses the dissolved benzene groundwater plume emanating from the Del Amo site to just south of the Del Amo Pits. The plumes from both sites overlap each other to the east of Montrose and to the west of Del Amo, approximately around Normandie Avenue. These dissolved plumes are referred to as "GW1" in this report. The Montrose remedy consists of a pump and treat system with reinjection of treated water into the groundwater aquifer. The Del Amo remedy consists of intrinsic bioremediation with pumping for containment from the lower unit and subsequent discharge. The LNAPL at the Del Amo site will be dealt with along with the soils remedy, and is noted in this report as the Study Area. The DNAPL at the Montrose site will be evaluated separately and is noted as "GW2" in this report.
Comments Date: 01162003
Comments: Based on U.S. EPA decision to conduct a pilot test on an
Comments Date: 01162003
Comments: alternative SVE treatment technology, RP submitted workplan.
Comments Date: 02112000

DEL AMO (Continued) **1000483853**

Comments:	The Pits Cap and SVE System has been implemented. The treatment
Comments Date:	02112000
Comments:	technology for the SVE system has not yet been decided upon.
Comments Date:	03011997
Comments:	The Remedial Investigation/Feasibility Study Report, "for the
Comments Date:	03011997
Comments:	Pits only," was approved on 12/11/1996. A proposed plan was
Comments Date:	03011997
Comments:	presented to the community on 12/14/96, and the comment
Comments Date:	03011997
Comments:	period ended on 02/13/97. U.S. EPA is preparing the ROD and
Comments Date:	03011997
Comments:	expecting to be completed by 06/30/1997.
Comments Date:	04091999
Comments:	A joint groundwater ROD was signed on 03/30/1999. It addresses
Comments Date:	04091999
Comments:	the dissolved phase contamination (benzene and chlorobenzene)
Comments Date:	04091999
Comments:	for the Del Amo and Montrose sites.
Comments Date:	05051998
Comments:	Unilateral Administrative Order for Remedial Design for the
Comments Date:	05051998
Comments:	Del Amo Superfund site. The Pits are an operable unit of the
Comments Date:	05051998
Comments:	larger 280 acre site.
Comments Date:	05071992
Comments:	U.S. EPA Consent Order signed. Collected $440,000 as cost
Comments Date:	05071992
Comments:	recovery for past costs and all future oversight costs, to be
Comments Date:	05071992
Comments:	billed to RP.
Comments Date:	05071999
Comments:	U.S. EPA has approved the Del Amo Pits Cap Final Design.
Comments Date:	05081999
Comments:	U.S. EPA issued a Unilateral Administrative Order for Remedial
Comments Date:	05081999
Comments:	Action, U.S. EPA Docket #99-08, to Shell Oil Co., Dow Chemical
Comments Date:	05081999
Comments:	Co., Michelin North America and the U.S. General Services
Comments Date:	05081999
Comments:	Administration to implement the Pits remedy.
Comments Date:	05201998
Comments:	Completion of Remedial Investigation for the Groundwater Operable
Comments Date:	05201998
Comments:	Unit, dated 5/5/98; and the Joint Groundwater Feasibility Study,
Comments Date:	05201998
Comments:	dated 5/18/98, for the Del Amo Study Area, Groundwater Operable
Comments Date:	05201998
Comments:	Unit, U.S. EPA Superfund site.
Comments Date:	06301989
Comments:	Site Screening Done: U.S. EPA Lead. U.S. EPA will list site.
Comments Date:	06301989
Comments:	Former synthetic rubber manufacturing plant. Contaminants
Comments Date:	06301989
Comments:	include PAH's such as benzene, toluene, ethylbenzene, and PNAs.
Comments Date:	07122002
Comments:	U.S. EPA filed an Explanation of Significant Difference (ESD)

DEL AMO (Continued) **1000483853**

Comments Date:	07122002
Comments:	for the Del Amo Pits treatment technology for the SVE System.
Comments Date:	07231991
Comments:	Site proposed for NPL.
Comments Date:	07241991
Comments:	The site size now encompasses 280 acres rather than the
Comments Date:	07241991
Comments:	former 3.7 acres.
Comments Date:	09051997
Comments:	The final remedy of the Del Amo Pits Operable Unit consists of a
Comments Date:	09051997
Comments:	RCRA-equivalent cap, surface water controls, soil vapor
Comments Date:	09051997
Comments:	extraction beneath the pits, fencing, deed restrictions pro-
Comments Date:	09051997
Comments:	hibiting future residental use, and long-term operation and
Comments Date:	09051997
Comments:	maintenance.
Comments Date:	09271991
Comments:	Dropped RAO commitment because U.S. EPA is taking over
Comments Date:	09271991
Comments:	enforcement.
Comments Date:	09272000
Comments:	Land Use Covenant signed and recorded on 9/27/00 for the Pits
Comments Date:	09272000
Comments:	operable unit.
Comments Date:	12012001
Comments:	The Health Risk Assessment has been received for review.
Comments Date:	12111996
Comments:	The RI/FS for the Del Amo Pits Area (OU1) was approved.
Comments Date:	12111996
Comments:	(U.S. EPA lead).
Comments Date:	12172003
Comments:	Completed PEA-equivalent document for proposed park area
Comments Date:	12172003
Comments:	adjacent to the Del Amo Study Area.
ID Name:	CALSTARS CODE
ID Value:	400048
ID Name:	BEP DATABASE PCODE
ID Value:	P41013
Alternate Name:	DEL AMO BOULEVARD
Alternate Name:	DEL AMO FACILITY
Alternate Name:	CADILLAC-FAIRVIEW
Alternate Name:	Not reported
Special Programs Code:	Not reported
Special Programs Name:	Not reported

DEED:

Envirostor ID:	19300230
Area:	OU 2
Sub Area:	Not reported
Site Type:	FEDERAL SUPERFUND
Status:	ACTIVE
Agency:	Not reported
Covenant Uploaded:	Not reported
Deed Date(s):	09/27/2000

DEL AMO (Continued) **1000483853**

Envirostor ID: 19300230
Area: OU 2
Sub Area: Not reported
Site Type: FEDERAL SUPERFUND
Status: ACTIVE
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): 08/23/2005

ROD:

Full-text of USEPA Record of Decision(s) is available from EDR.

PRP:

PRP name:
CABOT, CABOT, & FORBES
CADILLAC FAIRVIEW/CALIFORNIA INC.
CADILLAC FAIRVIEW/CALIFORNIA INC.
DOW CHEMICAL COMPANY
DOW CHEMICAL COMPANY
GENERAL SERVICES ADMINISTRATION
GENERAL SERVICES ADMINISTRATION
GOODYEAR SYNTHETIC RUBBER CORPORATION
GOODYEAR TIRE & RUBBER CO.
GOODYEAR TIRE COMPANY OF CALIFORNIA
GOODYEAR TIRE COMPANY OF CALIFORNIA
HARDIN, COOK, LOPER, ENGEL & BERGEZ, LLP
MICHELIN NORTH AMERIC INC.
MINNESOTA MINING AND MFG COMPANY
MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
SHELL CHEMICAL COMPANY/SHELL UNION OIL CORPORATION
SHELL CHEMICAL CORPORATION
SHELL CHEMICAL CORPORATION
SHELL OIL COMPANY
SHELL OIL COMPANY
SHELL OIL COMPANY
SHELL OIL COMPANY
SHELL OIL COMPANY
SHELL OIL COMPANY
SHELL OIL COMPANY
SHELL OIL COMPANY
U.S. GENERAL SERVICE ADMINISTRATION
U.S. GENERAL SERVICE ADMINISTRATION
U.S. GOVERNMENT
U.S. GOVERNMENT
UNIROYAL GOODRICH TIRE COMPANY
UNITED STATES GENERAL SERVICES ADMINISTRATION
UNITED STATES GENERAL SERVICES ADMINISTRATION
USA WASTE SERVICES INC.
WRH INDUSTRIES, INC.

CORTESE:

Region: CORTESE
Envirostor Id: 19300230
Site/Facility Type: FEDERAL SUPERFUND - LISTED
Cleanup Status: ACTIVE - LAND USE RESTRICTIONS
Status Date: 04/22/1996
Site Code: 400048, 400851, 401628

DEL AMO (Continued) **1000483853**

Latitude:	33.8497
Longitude:	-118.292
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	envirostor
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	CALSI
Reg Id:	19300230

NPL **MONTROSE CHEMICAL CORP.** **NPL** **1000420366**
Region **20201 S NORMANDIE AVE** **SEMS** **CAD008242711**
TORRANCE, CA 90502 **RCRA-LQG**
< 1/8 **US ENG CONTROLS**
1 ft. **US INST CONTROL**
ROD
PRP
ICIS
CONSENT

NPL:

EPA ID:	CAD008242711
Cerclis ID:	900993
EPA Region:	9
Federal:	N
Final Date:	1989-10-04 00:00:00
Site Score:	32.100000000000001
Latitude:	33.848329999999997
Longitude:	-118.2983

Category Details:

NPL Status:	Currently on the Final NPL
Category Description:	Depth To Aquifer-> 100 Feet
Category Value:	400

NPL Status:	Currently on the Final NPL
Category Description:	Distance To Nearest Population-> 0 And <= 1/4 Mile
Category Value:	100

Site Details:

Site Name:	MONTROSE CHEMICAL CORP.
Site Status:	Final
Site Zip:	90502
Site City:	TORRANCE
Site State:	CA
Federal Site:	No

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Site County: LOS ANGELES
EPA Region: 09
Date Proposed: 10/15/84
Date Deleted: Not reported
Date Finalized: 10/04/89

Substance Details:

NPL Status: Currently on the Final NPL
Substance ID: Not reported
Substance: Not reported
CAS #: Not reported
Pathway: Not reported
Scoring: Not reported

NPL Status: Currently on the Final NPL
Substance ID: A023
Substance: DDE
CAS #: 72-55-9
Pathway: AIR PATHWAY
Scoring: 2

NPL Status: Currently on the Final NPL
Substance ID: U060
Substance: DDD
CAS #: 72-54-8
Pathway: AIR PATHWAY
Scoring: 2

NPL Status: Currently on the Final NPL
Substance ID: U061
Substance: DDT
CAS #: 50-29-3
Pathway: AIR PATHWAY
Scoring: 4

NPL Status: Currently on the Final NPL
Substance ID: U061
Substance: DDT
CAS #: 50-29-3
Pathway: GROUND WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: U061
Substance: DDT
CAS #: 50-29-3
Pathway: SURFACE WATER PATHWAY
Scoring: 3

Summary Details:

Conditions at proposal October 15, 1984): Montrose Chemical Corp. manufactured DDT on a l3-acre site in a light industrial/residential area of Torrance, Los Angeles County, California, from 1947 until 1982. About 3,000 people live or work within 0.25 mile of the site. The company s operations included formulation, grinding, packaging, and distribution of DDT. According to analyses conducted by EPA, Montrose, and various State and

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

local agencies, on- and off-site soils, surface water, and sediments are contaminated with DDT. The major transport mechanisms identified were storm water run-off and aerial emissions. On May 6, 1983, EPA issued an Administrative Order under CERCLA Section 106 requiring Montrose Chemical to cease all discharges of DDT and to initiate a study to determine the nature and extent of contamination. After a more detailed review of the Montrose site, EPA determined that further work was necessary to characteri e the site andevaluate alternatives. Therefore, EPA prepared a workplan for a remedial investigation/feasibility study RI/FS). This second phase of investigation will assess all areas of contamination, both on- and off-site, and any public health and environmental impacts. Status June 1986): In February 1985, Montrose installed a temporary asphalt cover over the site. EPA did not endorse this activity. In the summer of 1985, EPA conducted Part I of the RI. On-site sampling foundhigh levels of contamination at 77-foot depths in soil and in shallow ground water. In October 1985, Montrose and EPA signed an Administrative Order under CERCLA Section 106 requiring Montrose to conduct Part II of the RI, which includes on-site sampling of ground water and off-site sampling of soil, sediments, surface water, and ground water. Status November 1988): During July 1986, EPA sampled off-site dust and soil and verified that DDT migrated off-site via aerial dispersion.In November 1986, Montrose completed Phase I sampling under Part II of the RI. Results indicated that soils near the site are contaminated with high levels of DDT, and that the two shallower aquifers in the four-aquifer system underlying the site are contaminated with DDT and monochloroben ene. In October 1987, EPA and Montrose signed an amendment to the October 1985 Administrative Order, calling for both on- and off-site sampling of the two deeper aquifers in the four-aquifer system. Status October 4, 1989): In July 1989, EPA and Montrose signed a second amendment to the original order, under which Montrose will conduct the FS for the overall site and evaluate options for removing DDT-contaminated sediments in the sanitary sewer lines near the site. Sampling conducted under the first amended order indicates that ground water is contaminated with high levels of monochloroben ene 0.25 mile downgradient from the site. Deep wells and additional downgradient wells will be constructed and sampled.

Site Status Details:

NPL Status:	Final
Proposed Date:	10/15/1984
Final Date:	10/04/1989
Deleted Date:	Not reported

Narratives Details:

NPL Name:	MONTROSE CHEMICAL CORP.
City:	TORRANCE
State:	CA

SEMS:

Site ID:	900993
EPA ID:	CAD008242711
Federal Facility:	N
NPL:	Currently on the Final NPL
Non NPL Status:	Not reported

Following information was gathered from the prior CERCLIS update completed in 10/2013:

Site ID:	0900993
EPA ID:	CAD008242711

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Facility County:	LOS ANGELES
Short Name:	MONTROSE CHEMICAL CORP
Congressional District:	43
IFMS ID:	0926
SMSA Number:	4480
USGC Hydro Unit:	18070104
Federal Facility:	Not a Federal Facility
DMNSN Number:	13.00000
Site Orphan Flag:	N
RCRA ID:	Not reported
USGS Quadrangle:	Not reported
Site Init By Prog:	Not reported
NFRAP Flag:	Not reported
Parent ID:	Not reported
RST Code:	P
EPA Region:	09
Classification:	Manufacturing Plant
Site Settings Code:	UR
NPL Status:	Currently on the Final NPL
DMNSN Unit Code:	ACRE
RBRAC Code:	Not reported
RResp Fed Agency Code:	Not reported
Non NPL Status:	Not reported
Non NPL Status Date:	/ /
Site Fips Code:	06037
CC Concurrence Date:	/ /
CC Concurrence FY:	Not reported
Alias EPA ID:	Not reported
Site FUDS Flag:	Not reported

CERCLIS Site Contact Name(s):

Contact ID:	9271140.00000
Contact Name:	Jason Musante
Contact Tel:	(213) 244-1818
Contact Title:	On-Scene Coordinator (OSC)
Contact Email:	Not reported
Contact ID:	9270421.00000
Contact Name:	Russell Mechem
Contact Tel:	(415) 972-3192
Contact Title:	Remedial Project Manager (RPM)
Contact Email:	Not reported
Contact ID:	9271118.00000
Contact Name:	Carolyn dAlmeida
Contact Tel:	(415) 972-3150
Contact Title:	Remedial Project Manager (RPM)
Contact Email:	Not reported
Contact ID:	13003791.00000
Contact Name:	Dante Rodriguez
Contact Tel:	(415) 972-3166
Contact Title:	Remedial Project Manager (RPM)
Contact Email:	Not reported
Contact ID:	13003854.00000
Contact Name:	Leslie Ramirez

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Contact Tel: (415) 972-3978
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Contact ID: 13003858.00000
Contact Name: Sharon Murray
Contact Tel: (415) 972-4250
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Contact ID: 13004003.00000
Contact Name: Carl Brickner
Contact Tel: Not reported
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Contact ID: 9271193.00000
Contact Name: Judy Huang
Contact Tel: (415) 972-3681
Contact Title: Remedial Project Manager (RPM)
Contact Email: Not reported

Contact ID: 13004194.00000
Contact Name: Yarissa Martinez-Leon
Contact Tel: (213) 244-1806
Contact Title: Remedial Project Manager (RPM)
Contact Email: Not reported

Contact ID: 9271138.00000
Contact Name: Richard Hiett
Contact Tel: (415) 972-3170
Contact Title: Remedial Project Manager (RPM)
Contact Email: Not reported

Contact ID: 9270408.00000
Contact Name: Phillip Ramsey
Contact Tel: (415) 972-3006
Contact Title: Remedial Project Manager (RPM)
Contact Email: Not reported

Contact ID: 9270063.00000
Contact Name: Kevin Mayer
Contact Tel: (415) 972-3176
Contact Title: Remedial Project Manager (RPM)
Contact Email: Not reported

CERCLIS Site Alias Name(s):
Alias ID: 101
Alias Name: MONTROSE CHEMICAL CORP
Alias Address: Not reported
Not reported
Alias ID: 102
Alias Name: MONTROSE CHEMICAL CORP.
Alias Address: 20201 S NORMANDIE AVE
TORRANCE, CA 90502
Alias Comments: Not reported
Site Description: The Montrose Chemical Corporation site is located in Los Angeles County,

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

California, with portions of the site within the City of Los Angeles, and adjacent to the City of Torrance, California. The Montrose site and the Del Amo site are separate, but adjacent, Superfund sites that have commingled groundwater contamination. The Harbor Gateway is a half-mile-wide strip of the City of Los Angeles that extends south from Los Angeles proper and provides the City a contiguous jurisdiction to Los Angeles Harbor. The former Montrose Chemical and Del Amo plants were located in the Harbor Gateway between the Cities of Torrance and Carson. Overall groundwater contamination associated with these two sites has come to be located over an area extending more than 1.3 miles in length, but its extent differs widely with the depth of the water-bearing unit as well as the lateral location being considered.

Montrose Chemical Corporation operated a technical grade dichloro-diphenyltrichloroethane (DDT) pesticide manufacturing plant in Los Angeles, California from 1947 to 1982. During its 35 years of operation, the Montrose plant released hazardous substances, pollutants or contaminants, into the surrounding environment, including surface soils, surface drainage and storm water pathways, sanitary sewers, the Pacific Ocean, and groundwater.

In 1982, the Environmental Protection Agency (EPA) conducted an inspection of the Montrose property and determined that DDT was present in surface drainages leading from the Montrose property. In 1983, EPA and the State issued enforcement orders to Montrose, requiring them to cease and desist their discharge of hazardous wastes to the storm drain and surface water drainages. The site was listed final on the National Priorities List in October 1989. In October 1985 Montrose and EPA entered into an Administrative Order on Consent (AOC) which obligated Montrose to perform a remedial investigation and feasibility study (RI/FS) of the entire Montrose Chemical site. This AOC was subsequently amended twice, once in 1987 and again in 1989. Because the investigation of the Montrose Chemical Site had begun earlier than that for the Del Amo Site, originally there had been insufficient data to determine (1) the degree to which groundwater contamination from the Montrose and Del Amo sites were commingled, and (2) the degree to which contamination from the Montrose Chemical Site might be affected by remedial actions that were being considered in feasibility studies for groundwater at the Montrose Chemical Site. The Montrose remedial investigation had identified the existence of extensive Del Amo-related groundwater contamination, but initially the remedial investigation at the Del Amo Site had not progressed to the point that this contamination was adequately defined. Accordingly, EPA considered selecting limited interim groundwater remedies for the Montrose Chemical Site until these factors could be resolved. Operable Unit 3 (OU3): By late 1995 sufficient data had been obtained from the Del Amo groundwater investigation to determine that (1) the groundwater contamination from the Del Amo and Montrose Chemical Superfund sites was commingled, and (2) the evaluation of remedial alternatives related to groundwater contamination at one site was inseparable from the same evaluation at the other site. Groundwater contamination at both sites had to be considered together in order to properly evaluate and select groundwater alternatives for the two sites. In later 1995 and early 1996, EPA informed and opened a dialogue with Montrose Chemical and the Del Amo Respondents that EPA intended to unite the remedial selection processes with respect to groundwater, thereby leading to a single feasibility study and a dual-site groundwater Record of Decision (ROD). EPA initiated a process to generate a single feasibility study, called a Joint Groundwater Feasibility Study (JGWFS) to provide analysis for this ROD. While the separate AOC documents did not directly discuss a JGWFS, the parties agreed to proceed with the joint work as envisioned by EPA on a voluntary basis. A ROD addressing the groundwater operable unit at the Montrose Chemical and Del Amo Superfund sites was completed in March 1999. The Montrose Chemical Corporation site is located in Los Angeles County, California, with portions of the site within the City of

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Los Angeles, and adjacent to the City of Torrance, California. The Montrose site and the Del Amo site are separate, but adjacent, Superfund sites that have commingled groundwater contamination. The Harbor Gateway is a half-mile-wide strip of the City of Los Angeles that extends south from Los Angeles proper and provides the City a contiguous jurisdiction to Los Angeles Harbor. The former Montrose Chemical and Del Amo plants were located in the Harbor Gateway between the Cities of Torrance and Carson. Overall groundwater contamination associated with these two sites has come to be located over an area extending more than 1.3 miles in length, but its extent differs widely with the depth of the water-bearing unit as well as the lateral location being considered.

Montrose Chemical Corporation operated a technical grade dichloro-diphenyltrichloroethane (DDT) pesticide manufacturing plant in Los Angeles, California from 1947 to 1982. During its 35 years of operation, the Montrose plant released hazardous substances, pollutants or contaminants, into the surrounding environment, including surface soils, surface drainage and storm water pathways, sanitary sewers, the Pacific Ocean, and groundwater.

In 1982, the Environmental Protection Agency (EPA) conducted an inspection of the Montrose property and determined that DDT was present in surface drainages leading from the Montrose property. In 1983, EPA and the State issued enforcement orders to Montrose, requiring them to cease and desist their discharge of hazardous wastes to the storm drain and surface water drainages. The site was listed final on the National Priorities List in October 1989. In October 1985 Montrose and EPA entered into an Administrative Order on Consent (AOC) which obligated Montrose to perform a remedial investigation and feasibility study (RI/FS) of the entire Montrose Chemical site. This AOC was subsequently amended twice, once in 1987 and again in 1989. Because the investigation of the Montrose Chemical Site had begun earlier than that for the Del Amo Site, originally there had been insufficient data to determine (1) the degree to which groundwater contamination from the Montrose and Del Amo sites were commingled, and (2) the degree to which contamination from the Montrose Chemical Site might be affected by remedial actions that were being considered in feasibility studies for groundwater at the Montrose Chemical Site. The Montrose remedial investigation had identified the existence of extensive Del Amo-related groundwater contamination, but initially the remedial investigation at the Del Amo Site had not progressed to the point that this contamination was adequately defined. Accordingly, EPA considered selecting limited interim groundwater remedies for the Montrose Chemical Site until these factors could be resolved. Operable Unit 3 (OU3): By late 1995 sufficient data had been obtained from the Del Amo groundwater investigation to determine that (1) the groundwater contamination from the Del Amo and Montrose Chemical Superfund sites was commingled, and (2) the evaluation of remedial alternatives related to groundwater contamination at one site was inseparable from the same evaluation at the other site. Groundwater contamination at both sites had to be considered together in order to properly evaluate and select groundwater alternatives for the two sites. In later 1995 and early 1996, EPA informed and opened a dialogue with Montrose Chemical and the Del Amo Respondents that EPA intended to unite the remedial selection processes with respect to groundwater, thereby leading to a single feasibility study and a dual-site groundwater Record of Decision (ROD). EPA initiated a process to generate a single feasibility study, called a Joint Groundwater Feasibility Study (JGWFS) to provide analysis for this ROD. While the separate AOC documents did not directly discuss a JGWFS, the parties agreed to proceed with the joint work as envisioned by EPA on a voluntary basis. A ROD addressing the groundwater operable unit at the Montrose Chemical and Del Amo Superfund sites was completed in March 1999. Operable Unit 5: The Palos Verdes Shelf Superfund site (PV Shelf) is an 88 square kilometer (km2) area of sediment on the continental shelf and slope off the coast of the Palos Verdes Peninsula,

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Los Angeles County, California, that has been contaminated with DDT and polychlorinated biphenyls (PCBs). PV Shelf is Operable Unit 5 of the Montrose Chemical Corporation Superfund site. Its national Superfund electronic database (i.e., CERCLIS) identification number is CAD008242711. EPA Region 9 is the lead agency for site remediation, and is using special account funds from various Consent Decrees entered into with the potentially responsible parties to clean up the site. The California coast from Pt. Conception to the Mexican border curves inward, forming a large bay called the "Southern California Bight." The Palos Verdes Peninsula is a small but prominent land mass extending into the Southern California Bight (SCB). It is bordered by Santa Monica Bay to the north and the San Pedro Shelf to the south. The Channel Islands lie to the west and northwest. The narrow underwater shelf off the Palos Verdes Peninsula is called the Palos Verdes Shelf. It is approximately 14.5 kilometers (km) long and 2.4 km wide. The seabed over most of the shelf slopes at a gentle 1 to 3 degrees. The shelf breaks at a depth of 70 to 100 meters (m), then drops steeply over 800 m to the ocean floor. The primary historical source of chemical contaminants on the PV Shelf is effluent discharged through submarine outfalls at White Point on the Palos Verdes Peninsula. Since 1937, wastewaters have been discharged to the ocean off Palos Verdes Peninsula from submarine outfalls of the JWPCP, operated by the Sanitation Districts of Los Angeles County (LACSD). Contaminants in the effluent included chlorinated hydrocarbons (e.g., DDTs and PCBs) as well as trace metals (e.g., cadmium, copper, lead, zinc, and other metals), and organic matter. The total discharge of suspended solids from 1937 to 1995 has been estimated to be 4.1 million metric tons. It is estimated that approximately 1,000 metric tons (mtons) of DDT were discharged from the outfalls from the 1950s through 1971. Traces of DDT can be found throughout the Southern California Bight; however, approximately 10 percent of the discharge settled on PV Shelf, forming an identifiable layer of contaminated sediment from 5 centimeters (cm) to 60 cm thick over a 44 km2 area. From 1947 until 1982, Montrose Chemical Corp. of California, Inc. (Montrose) operated a DDT-manufacturing plant on 13 acres at 20201 Normandie Avenue in Los Angeles County, California. The land was owned by Stauffer Chemical Company. The Montrose plant operated 24 hours a day, seven days a week, 365 days a year. During its 35 years of operation, Montrose produced approximately 800,000 tons of DDT. When the plant first opened, it discharged DDT-contaminated wastewater from its production operations to a city sewer line via a private pressure sewer line owned by Stauffer Chemical. This connecting line periodically clogged, resulting in the discharge of Montrose DDT-contaminated wastewater to the natural stormwater drainage. When EPA investigated the natural stormwater drain in the 1990s, residual levels of DDT in the drainage immediately downstream of the Montrose plant property were in excess of 8,000 parts per million (ppm). The Normandie Avenue plant property itself was contaminated by Montrose operations. Investigations directed by EPA beginning in 1985 found significant contamination (primarily DDT and chlorobenzene) in the shallow and deep soil at the Montrose plant property, groundwater beneath and downgradient from the Montrose plant property, soil adjacent to and in the vicinity of the property, the sewer line adjacent to and downstream of the Montrose plant property, and, as mentioned above, portions of the stormwater pathway leading from the Montrose plant to the Consolidated Slip in Los Angeles Harbor. Groundwater at the Montrose site is contaminated with monochlorobenzene and other contaminants across six hydrostratigraphic units and to distances up to 1.3 miles from the former Montrose plant site. From 1953 until 1971, Montrose discharged DDT-contaminated wastewater from its operations at the Montrose plant to two sewers operated by the LACSD. These sewers conveyed the wastewater to the JWPCP, where it received primary treatment and was discharged through the White Point outfalls located on the PV Shelf. In the early

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1970s, LACSD initiated an investigation to identify and eliminate discharge of DDTs and PCBs into their sewer system. LACSD identified the Montrose plant as the only significant source of DDT in sewer flows to the JWPCP. PCBs entered the LACSD sewer system from several industrial sources in the Los Angeles area, most notably from the Westinghouse Electric Corporation, which manufactured and repaired electrical equipment at its Los Angles County plant; from a paper-manufacturing plant in Pomona owned by Potlatch Corporation; and from Simpson Paper Company. Like DDT from the Montrose plant, PCBs from these plants were sent to the JWPCP and, after treatment, were discharged from the White Point outfalls onto the PV Shelf. LACSD estimated that the discharge from the Montrose plant was contributing 654 pounds (lbs) of DDT per day to the LACSD system. The peak annual mass emissions of effluent solids (167,000 metric tons [mt]), DDT (21.1 mt), and PCBs (5.2 mt) occurred in 1971. Montrose ceased discharging waste into the county sewer system in 1971. LACSD conducted cleaning operations in the two sewer lines adjacent to and downstream of the Montrose property. Sediments in the two sewer lines contained in excess of 7,700 lbs of DDT, according to LACSD. Despite these efforts by LACSD, significant quantities of DDT-contaminated sediment remained in the sewer line. After the plant closure in 1983, under EPA order, Montrose removed approximately 162,000 lbs of sediment from the sewer line downstream from the plant. Sewer sediment samples from this removal operation showed levels of DDT in the sediment at 490,000 milligrams per kilogram (mg/kg) and chlorobenzene at 2,200 mg/kg. PV Shelf enforcement activities occurred along two parallel paths: litigation and response actions. In 1989, CERCLA natural resource trustees1 determined that DDT and PCB contamination of the marine environment off the southern California coast, including the Palos Verdes Shelf, could be causing significant damage to natural resources. In June 1990, the United States and the State of California filed suit in the case of United States v. Montrose et al. The suit contained two claims: - A claim by the natural resource trustees ("Trustees") for natural resource damages caused by the release of DDT and PCBs, through sanitary sewer and stormwater runoff pathways, into the environment off the Los Angeles coast, i.e., the Natural Resource Damage (NRD) site, and - EPA's claim for response costs with respect to the Montrose NPL Site. The named defendants in the Montrose case were Potlatch Corporation and Simpson Paper Corporation, owners and operators of a paper mill that released PCBs into the LACSD sewer system; Westinghouse Electric Corporation, owner and operator of a facility that released PCBs into the LACSD sewer system; the Los Angeles County Sanitation Districts, owners and operators of the municipal sewer system that discharges wastewater to the PV Shelf through the White Point outfalls; and Montrose Chemical Corporation, owner and operator of the facility at the Montrose plant property. Named along with Montrose were several other corporations that were related to Montrose as corporate parents, successors and/or owners of the real property EPA entered into Consent Decrees with LACSD/Municipalities in 1997, with Central Broadcasting System (CBS) Corporation in 1998, with Potlatch Simpson Paper in 1998, and Montrose offshore in 2000. The first Consent Decree established a special account to be used for response and remedial actions on PV Shelf. Monies from the other settlements were added to the special account. Funds from the consent decrees were also allotted to the natural resource trustees. The Trustees formed the Montrose Settlements Restoration Program (MSRP) to restore or replace injured resources and lost services Federal and state natural resource trustees, with NOAA as the lead trustee, completed a CERCLA natural resource damage assessment (NRDA) for the Southern California Bight, including PV Shelf. As part of the NRDA, the U.S. Geological Survey (USGS) collected sediment cores in 1992-1993 from 56 stations at the PV Shelf. Core samples from discrete 2 or 4 cm intervals were analyzed for total DDT and total PCBs, as well as several physical parameters. The results of this sampling indicated

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that DDT and PCBs were present throughout the effluent-affected sediment deposit and that trends in PCB levels tended to follow trends in DDT concentrations. The NRDA also found that the DDT and PCBs in contaminated sediment were entering the food chain and posed a variety of threats to sediment dwelling organisms, fish and higher predator species, including some protected by state or federal endangered species laws. The NRDA expert reports were issued in October 1994, confirming that DDT and PCBs in sediment on the PV Shelf have caused and continue to cause major damage to the marine environment. Given the breadth and depth of information contained in these reports, EPA decided in December 1994 to consider whether to initiate EPA Superfund response actions with regard to DDT and PCB contamination on the PV Shelf. In July 1996, EPA initiated a noontime critical removal action to evaluate risks posed by the DDT and PCB effluent-affected sediment on PV Shelf and the feasibility of response actions that could reduce threats to human health and the environment. In July 1996, EPA determined that the elevated concentrations of DDT and PCBs in sediment on the PV Shelf represented a threat to human health, welfare and the environment, and initiated a non-time-critical removal action under CERCLA to further investigate the threats. Non-time critical removal actions are defined in the National Oil and Hazardous Substances Pollution Contingency Plan as response actions that can start later than six months after the need for action has been established. 40 CFR subsection 300.415(b) (4). The National Contingency Plan requires an EE/CA for all non-time critical removal actions. The EE/CA for PV Shelf was issued in 2000. As an initial step in the EE/CA process, EPA identified and screened possible response action technologies for contaminated sediment on the PV Shelf. Based on the results of the initial screening, a subset of actions was selected for further evaluation and comparison in the EE/CA. Response actions were screened using three criteria: effectiveness, implementability, and cost. The EE/CA Proposed Plan identified Institutional Controls (ICs) as the preferred alternative. In September 2001, EPA issued an Action Memorandum to implement the ICs program. Public comment on the proposed plan shaped the ICs program to rely more substantively on outreach and education. Institutional Controls (ICs) would serve as an interim removal action (with a limited duration of 10 years) while EPA completed its investigation of PV Shelf. As an interim removal action, EPA waived the applicable or relevant and appropriate requirements (ARARs) for surface water quality standards for DDT and PCBs. In 2000, EPA conducted a pilot study to assess the feasibility of using capping to clean up the site. Three 45-acre cells at different depths were capped with sand from two different sources, using different placement methods. Post-cap monitoring in 2002 showed that contaminant levels over the capped areas were comparable to uncapped areas. Additionally, the LACSD collected sediment cores across the PV Shelf in 2001 and noted that the peak concentration of contaminated sediment in one core collected from a capped cell was closer to the surface than it had been historically. The surface recontamination and possible sediment scouring prompted EPA to conduct four field studies in 2004 to evaluate 1) sediment geotechnical properties, 2) impacts of large, deep-burrowing worms and shrimp, 3) resuspension of sediment from capping, and 4) oceanographic conditions during winter storms. The study reports were completed in 2005 and posted on EPA's website under "Site Documents and Reports." The results of these and other studies were used to develop the Remedial Investigation and Feasibility Study for PV Shelf. EPA issued a Human Health Risk Evaluation for PV Shelf in 1999. The EE/CA acknowledged the need to gather additional information on the extent of contaminants of concern in fishes. From 2002 to 2004, EPA and MSRP collected 23 species of fish from 30 locations along the Southern California coast and analyzed them for DDT, PCBs and other contaminants. White croaker from the vicinity of PV Shelf was generally the most highly contaminated species. In

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most cases, DDT concentrations were higher than PCBs, particularly in the PV Shelf area. EPA used the survey to recalculate the health hazards from consumption of certain species of fish. An Interim ROD for OU5 was completed in September 2009.

CERCLIS Assessment History:

Action Code: 001
Action: DISCOVERY
Date Started: / /
Date Completed: 01/01/80
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 05/06/83
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 04/01/84
Priority Level: Higher priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: SITE INSPECTION
Date Started: / /
Date Completed: 04/01/84
Priority Level: Higher priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORKPLAN APPROVAL BY HQ
Date Started: / /

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Date Completed: 10/01/84
Priority Level: Not reported
Operable Unit: ON/NEAR PROPERTY SOIL
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: PROPOSAL TO NATIONAL PRIORITIES LIST
Date Started: / /
Date Completed: 10/15/84
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMEDIAL INVESTIGATION/FEASIBILITY STUDY NEGOTIATIONS
Date Started: 02/15/84
Date Completed: 11/15/84
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: NATIONAL PRIORITIES LIST RESPONSIBLE PARTY SEARCH
Date Started: / /
Date Completed: 02/15/85
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Alternate
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: / /
Date Completed: 10/28/85
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Alternate
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Action: PREPARATION OF COST DOCUMENT PACKAGE
Date Started: / /
Date Completed: 10/28/85
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: PREPARATION OF COST DOCUMENT PACKAGE
Date Started: / /
Date Completed: 10/28/85
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: PREPARATION OF COST DOCUMENT PACKAGE
Date Started: / /
Date Completed: 10/28/85
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMEDIAL INVESTIGATION
Date Started: 01/01/85
Date Completed: 04/30/86
Priority Level: Not reported
Operable Unit: ON/NEAR PROPERTY SOIL
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 02/19/88
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: HAZARD RANKING SYSTEM PACKAGE

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Date Started: / /
Date Completed: 06/01/88
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY REMOVAL
Date Started: 02/19/88
Date Completed: 06/21/89
Priority Level: Cleaned up
Operable Unit: SITEWIDE
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: FINAL LISTING ON NATIONAL PRIORITIES LIST
Date Started: / /
Date Completed: 10/04/89
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMOVAL ASSESSMENT
Date Started: 08/01/90
Date Completed: 08/01/90
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: ADMINISTRATIVE RECORDS
Date Started: 06/05/91
Date Completed: 06/05/91
Priority Level: Admin Record Compiled for a Removal Event
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Action Code: 002
Action: REMOVAL ASSESSMENT
Date Started: 12/11/91
Date Completed: 12/11/91
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: Lodged By DOJ
Date Started: / /
Date Completed: 11/05/92
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: CONSENT DECREE
Date Started: / /
Date Completed: 04/26/93
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 06/22/94
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: ADMINISTRATIVE RECORDS
Date Started: 06/28/94
Date Completed: 06/28/94
Priority Level: Admin Record Compiled for a Removal Event
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Action Code: 001
Action: TREATABILITY STUDY
Date Started: 06/01/92
Date Completed: 08/12/94
Priority Level: Not reported
Operable Unit: ON/NEAR PROPERTY SOIL
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 004
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 06/07/95
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 005
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 10/16/96
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: SECTION 107 LITIGATION
Date Started: 06/13/90
Date Completed: 02/27/97
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: ALTERNATIVE DISPUTE RESOLUTION
Date Started: 10/01/95
Date Completed: 03/03/97
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Action Code: 002
Action: Lodged By DOJ
Date Started: / /
Date Completed: 03/25/97
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: POTENTIALLY RESPONSIBLE PARTY FEASIBILITY STUDY
Date Started: 10/28/85
Date Completed: 08/14/97
Priority Level: Not reported
Operable Unit: GROUNDWATER/NAPL
Primary Responsibility: Responsible Party
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Original Action Take Over

Action Code: 002
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 10/10/86
Date Completed: 01/08/98
Priority Level: Not reported
Operable Unit: ON/NEAR PROPERTY SOIL
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Original Action Take Over

Action Code: 002
Action: REMEDIAL INVESTIGATION
Date Started: 01/08/98
Date Completed: 05/18/98
Priority Level: Not reported
Operable Unit: ON/NEAR PROPERTY SOIL
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: New Action Resulting from Take Over

Action Code: 003
Action: ADMINISTRATIVE RECORDS
Date Started: 05/01/98
Date Completed: 06/30/98
Priority Level: Admin Record Compiled for a Remedial Event
Operable Unit: GROUNDWATER/NAPL
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Action Code: 001
Action: REMOVAL COMMUNITY RELATIONS
Date Started: 04/11/94
Date Completed: 09/24/98
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: Lodged By DOJ
Date Started: / /
Date Completed: 11/16/98
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 004
Action: Lodged By DOJ
Date Started: / /
Date Completed: 11/16/98
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: FEASIBILITY STUDY
Date Started: 08/14/97
Date Completed: 03/30/99
Priority Level: Not reported
Operable Unit: GROUNDWATER/NAPL
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: New Action Resulting from Take Over

Action Code: 002
Action: RECORD OF DECISION
Date Started: / /
Date Completed: 03/30/99
Priority Level: Not reported
Operable Unit: GROUNDWATER/NAPL
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Action Code: 002
Action: POTENTIALLY RESPONSIBLE PARTY REMOVAL
Date Started: 06/17/96
Date Completed: 03/31/99
Priority Level: Cleaned up
Operable Unit: SITEWIDE
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Time Critical
Action Anomaly: Not reported

Action Code: 001
Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 08/14/97
Date Completed: 03/31/99
Priority Level: Not reported
Operable Unit: GROUNDWATER/NAPL
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Other Start and Completion Anomaly

Action Code: 001
Action: REMOVAL
Date Started: 04/11/94
Date Completed: 06/30/99
Priority Level: Cleaned up
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Time Critical
Action Anomaly: Not reported

Action Code: 004
Action: CONSENT DECREE
Date Started: / /
Date Completed: 08/20/99
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: CONSENT DECREE
Date Started: / /
Date Completed: 08/20/99
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Action Code: 003
Action: CONSENT DECREE
Date Started: / /
Date Completed: 08/20/99
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 005
Action: Lodged By DOJ
Date Started: / /
Date Completed: 10/19/00
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 006
Action: CONSENT DECREE
Date Started: / /
Date Completed: 10/20/00
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 006
Action: Lodged By DOJ
Date Started: / /
Date Completed: 12/19/00
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 004
Action: PREPARATION OF COST DOCUMENT PACKAGE
Date Started: / /
Date Completed: 12/30/00
Priority Level: Not reported
Operable Unit: ON/NEAR PROPERTY SOIL
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Action Anomaly: Not reported

Action Code: 005
Action: CONSENT DECREE
Date Started: 12/14/00
Date Completed: 03/15/01
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 008
Action: Lodged By DOJ
Date Started: / /
Date Completed: 07/19/01
Priority Level: Not reported
Operable Unit: RESIDENTIAL SOILS
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: ENGINEERING EVALUATION/COST ANALYSIS
Date Started: 07/09/96
Date Completed: 09/28/01
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 007
Action: Lodged By DOJ
Date Started: / /
Date Completed: 12/21/01
Priority Level: Not reported
Operable Unit: STORMWATER PATHWAY
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 004
Action: REMOVAL
Date Started: 04/12/01
Date Completed: 03/06/02
Priority Level: Cleaned up
Operable Unit: RESIDENTIAL SOILS
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Urgency Indicator: Time Critical
Action Anomaly: Not reported

Action Code: 008
Action: CONSENT DECREE
Date Started: 07/19/01
Date Completed: 06/24/02
Priority Level: Not reported
Operable Unit: RESIDENTIAL SOILS
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 007
Action: CONSENT DECREE
Date Started: 12/20/01
Date Completed: 06/24/02
Priority Level: Not reported
Operable Unit: STORMWATER PATHWAY
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: REMOVAL
Date Started: 05/08/01
Date Completed: 09/26/02
Priority Level: Cleaned up
Operable Unit: RESIDENTIAL SOILS
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Time Critical
Action Anomaly: Not reported

Action Code: 006
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 05/08/03
Priority Level: Not reported
Operable Unit: GROUNDWATER/NAPL
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: REMEDIAL DESIGN
Date Started: 08/01/99
Date Completed: 05/27/03
Priority Level: Not reported
Operable Unit: GROUNDWATER/NAPL

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Original Action Take Over

Action Code: 001
Action: Notice of Intent by All Parties
Date Started: / /
Date Completed: 05/27/03
Priority Level: Not reported
Operable Unit: GROUNDWATER/NAPL
Primary Responsibility: Not reported
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: NATIONAL PRIORITIES LIST RESPONSIBLE PARTY SEARCH
Date Started: 10/26/04
Date Completed: 08/29/05
Priority Level: Not reported
Operable Unit: GROUNDWATER/NAPL
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 007
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 11/21/05
Priority Level: Not reported
Operable Unit: HISTORIC SW PATHWAY SOUTH
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: Notice of Intent by All Parties
Date Started: / /
Date Completed: 12/19/05
Priority Level: Not reported
Operable Unit: HISTORIC SW PATHWAY SOUTH
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 008
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 06/23/06
Priority Level: Not reported

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Operable Unit: HISTORIC SW PATHWAY SOUTH
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: / /
Date Completed: 11/02/07
Priority Level: Not reported
Operable Unit: RESIDENTIAL SOILS
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 009
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 02/20/08
Priority Level: Multi-Site-First Site
Operable Unit: GROUNDWATER/NAPL
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 005
Action: REMOVAL
Date Started: 12/03/07
Date Completed: 02/21/08
Priority Level: Cleaned up
Operable Unit: RESIDENTIAL SOILS
Primary Responsibility: EPA Fund-Financed
Planning Status: Approved
Urgency Indicator: Time Critical
Action Anomaly: Not reported

Action Code: 003
Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: / /
Date Completed: 09/24/08
Priority Level: Not reported
Operable Unit: JONES CHEMICALS
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 07/17/03

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Date Completed: 05/27/09
Priority Level: Not reported
Operable Unit: PALOS VERDES SHELF
Primary Responsibility: Special Account Financed Action - EPA
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: REMOVAL
Date Started: 12/18/01
Date Completed: 09/30/09
Priority Level: Stabilized
Operable Unit: SITEWIDE
Primary Responsibility: Special Account Financed Action - EPA
Planning Status: Primary
Urgency Indicator: Non-Time Critical
Action Anomaly: Not reported

Action Code: 004
Action: RECORD OF DECISION
Date Started: / /
Date Completed: 09/30/09
Priority Level: Not reported
Operable Unit: PALOS VERDES SHELF
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMEDIAL DESIGN/REMEDIAL ACTION NEGOTIATIONS
Date Started: 01/20/11
Date Completed: 06/29/12
Priority Level: Not reported
Operable Unit: GROUNDWATER/NAPL
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 009
Action: Lodged By DOJ
Date Started: / /
Date Completed: 07/09/12
Priority Level: Not reported
Operable Unit: GROUNDWATER/NAPL
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 009
Action: CONSENT DECREE

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Date Started: 06/29/12
Date Completed: 08/22/12
Priority Level: Not reported
Operable Unit: GROUNDWATER/NAPL
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN
Date Started: 05/27/03
Date Completed: 09/19/12
Priority Level: Not reported
Operable Unit: GROUNDWATER/NAPL
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: New Action Resulting from Take Over

Action Code: 003
Action: REMEDIAL INVESTIGATION
Date Started: 01/01/85
Date Completed: / /
Priority Level: Not reported
Operable Unit: STORMWATER PATHWAY
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 03/02/94
Date Completed: / /
Priority Level: Not reported
Operable Unit: RESIDENTIAL SOILS
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: ENGINEERING EVALUATION/COST ANALYSIS
Date Started: 03/02/94
Date Completed: / /
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Other Completion Anomaly

Action Code: 004
Action: POTENTIALLY RESPONSIBLE PARTY FEASIBILITY STUDY
Date Started: 01/08/98

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Date Completed: / /
Priority Level: Not reported
Operable Unit: GROUNDWATER/NAPL
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: New Action Resulting from Take Over

Action Code: 003
Action: POTENTIALLY RESPONSIBLE PARTY FEASIBILITY STUDY
Date Started: 01/08/98
Date Completed: / /
Priority Level: Not reported
Operable Unit: ON/NEAR PROPERTY SOIL
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: New Action Resulting from Take Over

Action Code: 007
Action: OPERATIONS AND MAINTENANCE
Date Started: 03/06/02
Date Completed: / /
Priority Level: Not reported
Operable Unit: ON/NEAR PROPERTY SOIL
Primary Responsibility: Responsible Party
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 004
Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 10/01/05
Date Completed: / /
Priority Level: Not reported
Operable Unit: HISTORIC SW PATHWAY SOUTH
Primary Responsibility: Special Account Financed Action - EPA
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: POTENTIALLY RESPONSIBLE PARTY REMOVAL
Date Started: 01/17/06
Date Completed: / /
Priority Level: Stabilized
Operable Unit: HISTORIC SW PATHWAY SOUTH
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Time Critical
Action Anomaly: Not reported

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL INVESTIGATION
Date Started: 07/05/06
Date Completed: / /

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Priority Level: Not reported
Operable Unit: HISTORIC SW PATHWAY SOUTH
Primary Responsibility: Responsible Party
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: ENGINEERING EVALUATION/COST ANALYSIS
Date Started: 06/04/08
Date Completed: / /
Priority Level: Not reported
Operable Unit: STORMWATER PATHWAY
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: SITE SECURITY AND MAINTENANCE
Date Started: 08/29/08
Date Completed: / /
Priority Level: Not reported
Operable Unit: RESIDENTIAL SOILS
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 09/24/08
Date Completed: / /
Priority Level: Not reported
Operable Unit: JONES CHEMICALS
Primary Responsibility: Responsible Party
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 005
Action: REMEDIAL DESIGN
Date Started: 07/22/09
Date Completed: / /
Priority Level: Not reported
Operable Unit: PALOS VERDES SHELF
Primary Responsibility: Special Account Financed Action - EPA
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL ACTION
Date Started: 09/19/12
Date Completed: / /
Priority Level: Not reported

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Operable Unit: GROUNDWATER/NAPL
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Federal Register Details:
Fed Register Date: 10/04/89
Fed Register Volume: 54
Page Number: 41015

Fed Register Date: 10/15/84
Fed Register Volume: 49
Page Number: 40320

RCRA-LQG:
Date form received by agency: 03/01/2014
Facility name: MONTROSE CHEMICAL COMPANY OF CALIFORNIA
Facility address: 20201 SOUTH NORMANDIE AVENUE
LOS ANGELES, CA 90502
EPA ID: CAD008242711
Mailing address: SOUTH NORMANDIE AVENUE
LOS ANGELES, CA 90502
Contact: MICHAEL A PALMER
Contact address: SCOTT STREET, SUITE 104
SAN DIEGO, CA 92106
Contact country: Not reported
Contact telephone: (619) 546-8377
Contact email: MPALMER@DEMAXIMIS.COM
EPA Region: 09
Land type: Private
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: MONTROSE CHEMICAL COMPANY OF CALIFORNIA
Owner/operator address: ERICKSEN AVENUE NE, SUITE 380
BAINBRIDGE ISLAND, WA 98110
Owner/operator country: Not reported
Owner/operator telephone: (619) 546-8377
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1947
Owner/Op end date: Not reported

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Owner/operator name: MONTROSE CHEMICAL COMPANY OF CALIFORNIA
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1947
Owner/Op end date: Not reported

Owner/operator name: MONTROSE CHEMICAL CORP. OF CALIFORNIA
Owner/operator address: P O BOX E
CITY NOT REPORTED, NJ 99999
Owner/operator country: Not reported
Owner/operator telephone: (201) 964-3250
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 611
. Waste name: 611

. Waste code: 741
. Waste name: 741

. Waste code: D018
. Waste name: BENZENE

. Waste code: D021
. Waste name: CHLOROBENZENE

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: U060
. Waste name: BENZENE, 1,1'-(2,2-DICHLOROETHYLIDENE)BIS[4-CHLORO- (OR) DDD

. Waste code: U061
. Waste name: BENZENE, 1,1'-(2,2,2-TRICHLOROETHYLIDENE)BIS[4-CHLORO- (OR) DDT

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Historical Generators:
Date form received by agency: 06/15/2010
Site name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
Classification: Large Quantity Generator

. Waste code: 135
. Waste name: 135

. Waste code: 343
. Waste name: 343

. Waste code: 351
. Waste name: 351

. Waste code: 611
. Waste name: 611

. Waste code: D018
. Waste name: BENZENE

. Waste code: D021
. Waste name: CHLOROBENZENE

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: U060
. Waste name: BENZENE, 1,1'-(2,2-DICHLOROETHYLIDENE)BIS[4-CHLORO- (OR) DDD

. Waste code: U061
. Waste name: BENZENE, 1,1'-(2,2,2-TRICHLOROETHYLIDENE)BIS[4-CHLORO- (OR) DDT

Date form received by agency: 09/01/1996
Site name: MONTROSE CHEM CORP OF CA
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Site name: MONTROSE CHEM CORP OF CA
Classification: Small Quantity Generator

Date form received by agency: 08/07/1980
Site name: MONTROSE CHEM CORP OF CA
Classification: Large Quantity Generator

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 05/17/1982
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA

Evaluation date: 12/22/1980
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Date achieved compliance: Not reported
Evaluation lead agency: EPA

US ENG CONTROLS:
EPA ID: CAD008242711
Site ID: 0900993
Name: MONTROSE CHEMICAL CORP.
Address: 20201 S NORMANDIE AVE
TORRANCE, CA 90502
EPA Region: 09
County: LOS ANGELES
Event Code: Not reported
Actual Date: 09/30/2015
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

EPA ID: CAD008242711
Site ID: 0900993
Name: MONTROSE CHEMICAL CORP.
Address: 20201 S NORMANDIE AVE
TORRANCE, CA 90502
EPA Region: 09
County: LOS ANGELES
Event Code: Not reported
Actual Date: 09/30/2015
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: Not reported
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Aeration
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Air Stripping

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Carbon Adsorption
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Containment, (N.O.S.)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Discharge
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Extraction
Contact Name: Not reported

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Monitoring
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Natural Attenuation
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Precipitation
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 004
Action Name: RECORD OF DECISION
Action Completion date: 09/30/2009
Operable Unit: 05
Contaminated Media : Fish Tissue
Engineering Control: Monitored Natural Attenuation
Contact Name: Not reported
Contact Phone and Ext: Not reported

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 004
Action Name: RECORD OF DECISION
Action Completion date: 09/30/2009
Operable Unit: 05
Contaminated Media : Sediment
Engineering Control: Cap
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 004
Action Name: RECORD OF DECISION
Action Completion date: 09/30/2009
Operable Unit: 05
Contaminated Media : Sediment
Engineering Control: Monitored Natural Recovery
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 004
Action Name: RECORD OF DECISION
Action Completion date: 09/30/2009
Operable Unit: 05
Contaminated Media : Sediment
Engineering Control: Monitoring
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 004
Action Name: RECORD OF DECISION
Action Completion date: 09/30/2009
Operable Unit: 05
Contaminated Media : Sediment
Engineering Control: Subaqueous Sediment Cap
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

Action ID: 004
Action Name: RECORD OF DECISION
Action Completion date: 09/30/2009
Operable Unit: 05
Contaminated Media : Surface Water
Engineering Control: Monitoring
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

US INST CONTROL:
EPA ID: CAD008242711
Site ID: 0900993
Name: MONTROSE CHEMICAL CORP.
Action Name: RECORD OF DECISION
Address: 20201 S NORMANDIE AVE
TORRANCE, CA 90502
EPA Region: 09
County: LOS ANGELES
Event Code: Not reported
Inst. Control: Access Restriction
Actual Date: 09/30/2015
Complet. Date: Not reported
Operable Unit: 01
Contaminated Media : Groundwater
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

EPA ID: CAD008242711
Site ID: 0900993
Name: MONTROSE CHEMICAL CORP.
Action Name: RECORD OF DECISION
Address: 20201 S NORMANDIE AVE
TORRANCE, CA 90502
EPA Region: 09
County: LOS ANGELES
Event Code: Not reported
Inst. Control: Deed Restriction
Actual Date: 03/31/1999
Complet. Date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

EPA ID: CAD008242711
Site ID: 0900993
Name: MONTROSE CHEMICAL CORP.
Action Name: RECORD OF DECISION
Address: 20201 S NORMANDIE AVE
TORRANCE, CA 90502
EPA Region: 09
County: LOS ANGELES
Event Code: Not reported
Inst. Control: Drilling Restriction
Actual Date: 03/31/1999
Complet. Date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

EPA ID: CAD008242711
Site ID: 0900993
Name: MONTROSE CHEMICAL CORP.
Action Name: RECORD OF DECISION
Address: 20201 S NORMANDIE AVE
TORRANCE, CA 90502
EPA Region: 09
County: LOS ANGELES
Event Code: Not reported
Inst. Control: Notices to State Regulators Before Changes in Land Ownership
Actual Date: 03/31/1999
Complet. Date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

EPA ID: CAD008242711
Site ID: 0900993
Name: MONTROSE CHEMICAL CORP.
Action Name: RECORD OF DECISION
Address: 20201 S NORMANDIE AVE

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

TORRANCE, CA 90502
EPA Region: 09
County: LOS ANGELES
Event Code: Not reported
Inst. Control: Water Supply Use Restriction
Actual Date: 03/31/1999
Complet. Date: 03/30/1999
Operable Unit: 03
Contaminated Media : Groundwater
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

EPA ID: CAD008242711
Site ID: 0900993
Name: MONTROSE CHEMICAL CORP.
Action Name: RECORD OF DECISION
Address: 20201 S NORMANDIE AVE
TORRANCE, CA 90502
EPA Region: 09
County: LOS ANGELES
Event Code: Not reported
Inst. Control: Fishing Restriction
Actual Date: 09/30/2009
Complet. Date: 09/30/2009
Operable Unit: 05
Contaminated Media : Sediment
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported
Event Code Description: Not reported
GIS Lat/Long Sequence: Not reported
GIS Sequence: Not reported

ROD:
Full-text of USEPA Record of Decision(s) is available from EDR.

PRP name:
ATKEMIX THIRTY-SEVEN, INC.
ATKEMIX THIRTY-SEVEN, INC.
ATKEMIX THIRTY-SEVEN, INC.
ATKEMIX THIRTY-SEVEN, INC.
AVENTIS CROPSCIENCE USA, INC
AVENTIS CROPSCIENCE USA, INC
AVENTIS CROPSCIENCE USA, INC
AVENTIS CROPSCIENCE USA, INC
CBS CORPORATION
CHRIS-CRAFT CORPORATION OF CALIFORNIA
CHRIS-CRAFT CORPORATION OF CALIFORNIA
CHRIS-CRAFT CORPORATION OF CALIFORNIA
CHRIS-CRAFT CORPORATION OF CALIFORNIA
CITY OF LOS ANGELES
CITY OF LOS ANGELES

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

ECOLOGY CONTROL INDUSTRIES, INC.
ICI AMERICAN HOLDINGS, INC.
ICI AMERICAN HOLDINGS, INC.
ICI AMERICAN HOLDINGS, INC.
IMPERIAL CHEMICAL INDUSTRIES PLC
IMPERIAL CHEMICAL INDUSTRIES PLC
IMPERIAL CHEMICAL INDUSTRIES PLC
JCI JONES CHEMICALS INC
MONTROSE CHEMICAL CORP.
MONTROSE CHEMICAL CORP.
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MONTROSE CHEMICAL CORP.
MONTROSE CHEMICAL CORP.
MONTROSE CHEMICAL CORP.
MONTROSE CHEMICAL CORP. OF CALIFORNIA, INC.
POTLATCH CORPORATION
RHODIA INC
RHODIA INC
RONALD FLURY
SHELL OIL COMPANY
SIMPSON INVESTMENT CO
SIMPSON PAPER COMPANY
STAUFFER MANAGEMENT COMPANY
STAUFFER MANAGEMENT COMPANY
STAUFFER MANAGEMENT COMPANY
STAUFFER MANAGEMENT COMPANY
ZENECA HOLDINGS INC
ZENECA HOLDINGS INC
ZENECA HOLDINGS INC

ICIS:

Enforcement Action ID:	09-2010-2518
FRS ID:	110002630608
Action Name:	Montrose/Del Amo Superfund Sites Dual Site Groundwater OU RD/RA
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address:	20201 SOUTH NORMANDIE AVENUE TORRANCE, CA 90502
Enforcement Action Type:	Civil Judicial Action
Facility County:	LOS ANGELES
Program System Acronym:	CERCLIS
Enforcement Action Forum Desc:	Judicial
EA Type Code:	CIV
Facility SIC Code:	Not reported
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	33.84833
Longitude in Decimal Degrees:	-118.2983
Permit Type Desc:	Not reported

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Program System Acronym: CAD008242711
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: 09-2008-2530
FRS ID: 110002630608
Action Name: Montrose Chemical AOC with JCI Jones for RI/FS
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address: 20201 SOUTH NORMANDIE AVENUE
TORRANCE, CA 90502
Enforcement Action Type: CERCLA 122A/104A Agrmt For RI/FS
Facility County: LOS ANGELES
Program System Acronym: CERCLIS
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: 122/104
Facility SIC Code: Not reported
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.84833
Longitude in Decimal Degrees: -118.2983
Permit Type Desc: Not reported
Program System Acronym: CAD008242711
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: 09-2008-2501
FRS ID: 110002630608
Action Name: Montrose Chemical - Shell Oil
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address: 20201 SOUTH NORMANDIE AVENUE
TORRANCE, CA 90502
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz
Facility County: LOS ANGELES
Program System Acronym: CERCLIS
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: 106
Facility SIC Code: Not reported
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.84833
Longitude in Decimal Degrees: -118.2983
Permit Type Desc: Not reported
Program System Acronym: CAD008242711
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: 09-2008-0009
FRS ID: 110002630608
Action Name: Montrose Cemical - Kenwood
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address: 20201 SOUTH NORMANDIE AVENUE
TORRANCE, CA 90502
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz
Facility County: LOS ANGELES
Program System Acronym: CERCLIS
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: 106
Facility SIC Code: Not reported
Federal Facility ID: Not reported

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Latitude in Decimal Degrees: 33.84833
Longitude in Decimal Degrees: -118.2983
Permit Type Desc: Not reported
Program System Acronym: CAD008242711
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: 09-2006-0133
FRS ID: 110002630608
Action Name: Montrose Chemical - Normandie (#2)
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address: 20201 SOUTH NORMANDIE AVENUE
TORRANCE, CA 90502
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz
Facility County: LOS ANGELES
Program System Acronym: ICIS
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: 106
Facility SIC Code: 5191
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.84833
Longitude in Decimal Degrees: -118.2983
Permit Type Desc: Not reported
Program System Acronym: 10849
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: 09-2006-0133
FRS ID: 110002630608
Action Name: Montrose Chemical - Normandie (#2)
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address: 20201 SOUTH NORMANDIE AVENUE
TORRANCE, CA 90502
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz
Facility County: LOS ANGELES
Program System Acronym: ICIS
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: 106
Facility SIC Code: 2879
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.84833
Longitude in Decimal Degrees: -118.2983
Permit Type Desc: Not reported
Program System Acronym: 10849
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: 09-2006-0133
FRS ID: 110002630608
Action Name: Montrose Chemical - Normandie (#2)
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address: 20201 SOUTH NORMANDIE AVENUE
TORRANCE, CA 90502
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz
Facility County: LOS ANGELES
Program System Acronym: ICIS
Enforcement Action Forum Desc: Administrative - Formal

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

EA Type Code: 106
Facility SIC Code: 2869
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.84833
Longitude in Decimal Degrees: -118.2983
Permit Type Desc: Not reported
Program System Acronym: 10849
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: 09-2006-0025
FRS ID: 110002630608
Action Name: Montrose Chemical - Normandie (#1)
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address: 20201 SOUTH NORMANDIE AVENUE
TORRANCE, CA 90502
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz
Facility County: LOS ANGELES
Program System Acronym: ICIS
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: 106
Facility SIC Code: 2869
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.84833
Longitude in Decimal Degrees: -118.2983
Permit Type Desc: Not reported
Program System Acronym: 10849
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: 09-2006-0025
FRS ID: 110002630608
Action Name: Montrose Chemical - Normandie (#1)
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address: 20201 SOUTH NORMANDIE AVENUE
TORRANCE, CA 90502
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz
Facility County: LOS ANGELES
Program System Acronym: ICIS
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: 106
Facility SIC Code: 2879
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.84833
Longitude in Decimal Degrees: -118.2983
Permit Type Desc: Not reported
Program System Acronym: 10849
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: 09-2006-0025
FRS ID: 110002630608
Action Name: Montrose Chemical - Normandie (#1)
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address: 20201 SOUTH NORMANDIE AVENUE
TORRANCE, CA 90502
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Facility County: LOS ANGELES
Program System Acronym: ICIS
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: 106
Facility SIC Code: 5191
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.84833
Longitude in Decimal Degrees: -118.2983
Permit Type Desc: Not reported
Program System Acronym: 10849
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: 09-2003-0114
FRS ID: 110002630608
Action Name: Montrose Chemical / Del Amo (#2)
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address: 20201 SOUTH NORMANDIE AVENUE
TORRANCE, CA 90502
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz
Facility County: LOS ANGELES
Program System Acronym: ICIS
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: 106
Facility SIC Code: 2879
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.84833
Longitude in Decimal Degrees: -118.2983
Permit Type Desc: Not reported
Program System Acronym: 10849
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: 09-2003-0114
FRS ID: 110002630608
Action Name: Montrose Chemical / Del Amo (#2)
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address: 20201 SOUTH NORMANDIE AVENUE
TORRANCE, CA 90502
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz
Facility County: LOS ANGELES
Program System Acronym: ICIS
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: 106
Facility SIC Code: 2869
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.84833
Longitude in Decimal Degrees: -118.2983
Permit Type Desc: Not reported
Program System Acronym: 10849
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: 09-2003-0114
FRS ID: 110002630608
Action Name: Montrose Chemical / Del Amo (#2)
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Facility Address:	20201 SOUTH NORMANDIE AVENUE TORRANCE, CA 90502
Enforcement Action Type:	CERCLA 106 AO For Resp Action/Imm Haz
Facility County:	LOS ANGELES
Program System Acronym:	ICIS
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	106
Facility SIC Code:	5191
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	33.84833
Longitude in Decimal Degrees:	-118.2983
Permit Type Desc:	Not reported
Program System Acronym:	10849
Facility NAICS Code:	Not reported
Tribal Land Code:	Not reported

Enforcement Action ID:	09-2003-0060
FRS ID:	110002630608
Action Name:	Montrose Chemical / Del Amo (#1)
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address:	20201 SOUTH NORMANDIE AVENUE TORRANCE, CA 90502
Enforcement Action Type:	CERCLA 106 AO For Resp Action/Imm Haz
Facility County:	LOS ANGELES
Program System Acronym:	ICIS
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	106
Facility SIC Code:	5191
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	33.84833
Longitude in Decimal Degrees:	-118.2983
Permit Type Desc:	Not reported
Program System Acronym:	10849
Facility NAICS Code:	Not reported
Tribal Land Code:	Not reported

Enforcement Action ID:	09-2003-0060
FRS ID:	110002630608
Action Name:	Montrose Chemical / Del Amo (#1)
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address:	20201 SOUTH NORMANDIE AVENUE TORRANCE, CA 90502
Enforcement Action Type:	CERCLA 106 AO For Resp Action/Imm Haz
Facility County:	LOS ANGELES
Program System Acronym:	ICIS
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	106
Facility SIC Code:	2869
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	33.84833
Longitude in Decimal Degrees:	-118.2983
Permit Type Desc:	Not reported
Program System Acronym:	10849
Facility NAICS Code:	Not reported
Tribal Land Code:	Not reported

Enforcement Action ID:	09-2003-0060

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

FRS ID:	110002630608
Action Name:	Montrose Chemical / Del Amo (#1)
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address:	20201 SOUTH NORMANDIE AVENUE TORRANCE, CA 90502
Enforcement Action Type:	CERCLA 106 AO For Resp Action/Imm Haz
Facility County:	LOS ANGELES
Program System Acronym:	ICIS
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	106
Facility SIC Code:	2879
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	33.84833
Longitude in Decimal Degrees:	-118.2983
Permit Type Desc:	Not reported
Program System Acronym:	10849
Facility NAICS Code:	Not reported
Tribal Land Code:	Not reported

Enforcement Action ID:	09-1998-0169
FRS ID:	110002630608
Action Name:	MONTROSE - CBS/POTLATCH/SIMPSON
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address:	20201 SOUTH NORMANDIE AVENUE TORRANCE, CA 90502
Enforcement Action Type:	Civil Judicial Action
Facility County:	LOS ANGELES
Program System Acronym:	ICIS
Enforcement Action Forum Desc:	Judicial
EA Type Code:	CIV
Facility SIC Code:	2869
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	33.84833
Longitude in Decimal Degrees:	-118.2983
Permit Type Desc:	Not reported
Program System Acronym:	10849
Facility NAICS Code:	Not reported
Tribal Land Code:	Not reported

Enforcement Action ID:	09-1998-0169
FRS ID:	110002630608
Action Name:	MONTROSE - CBS/POTLATCH/SIMPSON
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address:	20201 SOUTH NORMANDIE AVENUE TORRANCE, CA 90502
Enforcement Action Type:	Civil Judicial Action
Facility County:	LOS ANGELES
Program System Acronym:	ICIS
Enforcement Action Forum Desc:	Judicial
EA Type Code:	CIV
Facility SIC Code:	2879
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	33.84833
Longitude in Decimal Degrees:	-118.2983
Permit Type Desc:	Not reported
Program System Acronym:	10849
Facility NAICS Code:	Not reported

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Tribal Land Code: Not reported

Enforcement Action ID: 09-1998-0169
FRS ID: 110002630608
Action Name: MONTROSE - CBS/POTLATCH/SIMPSON
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address: 20201 SOUTH NORMANDIE AVENUE
TORRANCE, CA 90502
Enforcement Action Type: Civil Judicial Action
Facility County: LOS ANGELES
Program System Acronym: ICIS
Enforcement Action Forum Desc: Judicial
EA Type Code: CIV
Facility SIC Code: 5191
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.84833
Longitude in Decimal Degrees: -118.2983
Permit Type Desc: Not reported
Program System Acronym: 10849
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: 09-1997-0048
FRS ID: 110002630608
Action Name: MONTROSE - LOS ANGELES COUNTY SANITATION DISTRICT
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address: 20201 SOUTH NORMANDIE AVENUE
TORRANCE, CA 90502
Enforcement Action Type: Civil Judicial Action
Facility County: LOS ANGELES
Program System Acronym: ICIS
Enforcement Action Forum Desc: Judicial
EA Type Code: CIV
Facility SIC Code: 5191
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.84833
Longitude in Decimal Degrees: -118.2983
Permit Type Desc: Not reported
Program System Acronym: 10849
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: 09-1997-0048
FRS ID: 110002630608
Action Name: MONTROSE - LOS ANGELES COUNTY SANITATION DISTRICT
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address: 20201 SOUTH NORMANDIE AVENUE
TORRANCE, CA 90502
Enforcement Action Type: Civil Judicial Action
Facility County: LOS ANGELES
Program System Acronym: ICIS
Enforcement Action Forum Desc: Judicial
EA Type Code: CIV
Facility SIC Code: 2879
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.84833
Longitude in Decimal Degrees: -118.2983

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Permit Type Desc: Not reported
Program System Acronym: 10849
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: 09-1997-0048
FRS ID: 110002630608
Action Name: MONTROSE - LOS ANGELES COUNTY SANITATION DISTRICT
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address: 20201 SOUTH NORMANDIE AVENUE
TORRANCE, CA 90502
Enforcement Action Type: Civil Judicial Action
Facility County: LOS ANGELES
Program System Acronym: ICIS
Enforcement Action Forum Desc: Judicial
EA Type Code: CIV
Facility SIC Code: 2869
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.84833
Longitude in Decimal Degrees: -118.2983
Permit Type Desc: Not reported
Program System Acronym: 10849
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: 09-1997-0009
FRS ID: 110002630608
Action Name: MONTROSE - UAO
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address: 20201 SOUTH NORMANDIE AVENUE
TORRANCE, CA 90502
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz
Facility County: LOS ANGELES
Program System Acronym: ICIS
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: 106
Facility SIC Code: 2869
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.84833
Longitude in Decimal Degrees: -118.2983
Permit Type Desc: Not reported
Program System Acronym: 10849
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: 09-1997-0009
FRS ID: 110002630608
Action Name: MONTROSE - UAO
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address: 20201 SOUTH NORMANDIE AVENUE
TORRANCE, CA 90502
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz
Facility County: LOS ANGELES
Program System Acronym: ICIS
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: 106
Facility SIC Code: 2879

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.84833
Longitude in Decimal Degrees: -118.2983
Permit Type Desc: Not reported
Program System Acronym: 10849
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: 09-1997-0009
FRS ID: 110002630608
Action Name: MONTROSE - UAO
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address: 20201 SOUTH NORMANDIE AVENUE
TORRANCE, CA 90502
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz
Facility County: LOS ANGELES
Program System Acronym: ICIS
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: 106
Facility SIC Code: 5191
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.84833
Longitude in Decimal Degrees: -118.2983
Permit Type Desc: Not reported
Program System Acronym: 10849
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: 09-1990-0012
FRS ID: 110002630608
Action Name: MONTROSE CHEMCIAL CORPORATION OF CALIFORNIA
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address: 20201 SOUTH NORMANDIE AVENUE
TORRANCE, CA 90502
Enforcement Action Type: Civil Judicial Action
Facility County: LOS ANGELES
Program System Acronym: ICIS
Enforcement Action Forum Desc: Judicial
EA Type Code: CIV
Facility SIC Code: 2879
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.84833
Longitude in Decimal Degrees: -118.2983
Permit Type Desc: Not reported
Program System Acronym: 10849
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: 09-1990-0012
FRS ID: 110002630608
Action Name: MONTROSE CHEMCIAL CORPORATION OF CALIFORNIA
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address: 20201 SOUTH NORMANDIE AVENUE
TORRANCE, CA 90502
Enforcement Action Type: Civil Judicial Action
Facility County: LOS ANGELES
Program System Acronym: ICIS

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Enforcement Action Forum Desc: Judicial
EA Type Code: CIV
Facility SIC Code: 2869
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.84833
Longitude in Decimal Degrees: -118.2983
Permit Type Desc: Not reported
Program System Acronym: 10849
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: 09-1990-0012
FRS ID: 110002630608
Action Name: MONTROSE CHEMCIAL CORPORATION OF CALIFORNIA
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Facility Address: 20201 SOUTH NORMANDIE AVENUE
TORRANCE, CA 90502
Enforcement Action Type: Civil Judicial Action
Facility County: LOS ANGELES
Program System Acronym: ICIS
Enforcement Action Forum Desc: Judicial
EA Type Code: CIV
Facility SIC Code: 5191
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.84833
Longitude in Decimal Degrees: -118.2983
Permit Type Desc: Not reported
Program System Acronym: 10849
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address: 20201 SOUTH NORMANDIE AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
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Fed Facility: No
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Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
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Tribal Indicator: N
Fed Facility: No

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

NAIC Code: Not reported
SIC Code: Not reported

Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address: 20201 SOUTH NORMANDIE AVENUE
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Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
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MONTROSE CHEMICAL CORP. (Continued) **1000420366**

SIC Code: Not reported

Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
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MONTROSE CHEMICAL CORP. (Continued) **1000420366**

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Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

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Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
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MONTROSE CHEMICAL CORP. (Continued) **1000420366**

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MONTROSE CHEMICAL CORP. (Continued) **1000420366**

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MONTROSE CHEMICAL CORP. (Continued) **1000420366**

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MONTROSE CHEMICAL CORP. (Continued) **1000420366**

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MONTROSE CHEMICAL CORP. (Continued) **1000420366**

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MONTROSE CHEMICAL CORP. (Continued) **1000420366**

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Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 2879

Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address: 20201 SOUTH NORMANDIE AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5191

Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address: 20201 SOUTH NORMANDIE AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 2869

Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
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Address: 20201 SOUTH NORMANDIE AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

SIC Code: 2869

Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address: 20201 SOUTH NORMANDIE AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 2879

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SIC Code: 5191

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

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Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

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Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address: 20201 SOUTH NORMANDIE AVENUE

MONTROSE CHEMICAL CORP. (Continued) **1000420366**

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Fed Facility: No
NAIC Code: Not reported
SIC Code: 2879

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MONTROSE CHEMICAL CORP. (Continued) **1000420366**

Fed Facility: No
NAIC Code: Not reported
SIC Code: 2869

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MONTROSE CHEMICAL CORP. (Continued) **1000420366**

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MONTROSE CHEMICAL CORP. (Continued) **1000420366**

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MONTROSE CHEMICAL CORP. (Continued) **1000420366**

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MONTROSE CHEMICAL CORP. (Continued) **1000420366**

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CONSENT:
EPA ID: CAD008242711
Site ID: Not reported
Case Title: Not reported
Court Num: Not reported
District: Not reported
Entered Date: Not reported
Full-text of the consent decree for this site issued by the United States District Court is available from EDR. Contact your EDR Account Executive.

B17 **LAUSD - VAN DEENE AVE ELEMENTARY SCHOOL** **HAZNET** **S117311843**
826 W JAVELIN ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 1 of 4 in cluster B

Relative: Lower
Actual: 37 ft.

HAZNET:
envid: S117311843
Year: 2014
GEPAID: CAR000197970
Contact: PAT SCHAENEN
Telephone: 2132413921
Mailing Name: Not reported
Mailing Address: 1251 S BEAUDRY AVE FL 28

LAUSD - VAN DEENE AVE ELEMENTARY SCHOOL (Continued) **S117311843**

Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Los Angeles
TSD EPA ID:	CAD009007626
TSD County:	Los Angeles
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Cat Decode:	Asbestos containing waste
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles
envid:	S117311843
Year:	2013
GEPAID:	CAR000197970
Contact:	SOE AUNG
Telephone:	2137455939
Mailing Name:	Not reported
Mailing Address:	333 S BEAUNDRY AVE 28TH FLR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Los Angeles
TSD EPA ID:	CAD028409019
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.4
Cat Decode:	Not reported
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Not reported
envid:	S117311843
Year:	2013
GEPAID:	CAR000197970
Contact:	SOE AUNG
Telephone:	2137455939
Mailing Name:	Not reported
Mailing Address:	333 S BEAUNDRY AVE 28TH FLR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Los Angeles
TSD EPA ID:	CAD028409019
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.025
Cat Decode:	Not reported
Method Decode:	Fuel Blending Prior To Energy Recovery At Another Site
Facility County:	Not reported

18 **OSMAR SERRANO** **HAZNET** **S118208687**
21312 BUDLONG AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Relative:
Lower

Actual:
33 ft.

HAZNET:

envid:	S118208687
Year:	2014
GEPAID:	CAC002769077
Contact:	OSMAR SERRANO
Telephone:	3104275543
Mailing Name:	Not reported
Mailing Address:	21312 BUDLONG AVE
Mailing City,St,Zip:	TORRANCE, CA 90502
Gen County:	Los Angeles
TSD EPA ID:	CAD009007626
TSD County:	Los Angeles
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Cat Decode:	Asbestos containing waste
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

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19 **JUSTIN LEE** **HAZNET** **S118228045**
21315 BROADWELL AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Relative:
Lower

Actual:
33 ft.

HAZNET:

envid:	S118228045
Year:	2014
GEPAID:	CAC002794580
Contact:	JUSTIN LEE
Telephone:	3102187708
Mailing Name:	Not reported
Mailing Address:	21315 BROADWELL AVE
Mailing City,St,Zip:	TORRANCE, CA 90502
Gen County:	Los Angeles
TSD EPA ID:	AZC950823111
TSD County:	99
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.23
Cat Decode:	Asbestos containing waste
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

C20 **CHMIRS** **S108405999**

20802 S. VERMONT AVE. (M & Y SAFAR BROS. INC) **N/A**

< 1/8 **TORRANCE, CA**

1 ft.

Site 1 of 28 in cluster C

Relative: CHMIRS:

Lower

OES Incident Number:	5-6500
OES notification:	11/09/2005
Actual: OES Date:	Not reported
24 ft. OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	on site personnel
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2005
Agency:	Veeder Root
Incident Date:	11/9/200512:00:00 AM
Admin Agency:	Torrance Fire Department
Amount:	Not reported
Contained:	Yes
Site Type:	Service Station
E Date:	Not reported
Substance:	Diesel Fuel
Gallons:	0.000000
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported

(Continued) **S108405999**

Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Release due to auto nozzle failure on dispenser #10.

D21 **FRANCISCO DOLLANTE** **HAZNET** **S113794729**
717 W. 213TH ST. **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 1 of 5 in cluster D

Relative: Higher

Actual: 40 ft.

HAZNET:

envid:	S113794729
Year:	2012
GEPAID:	CAC002713761
Contact:	FRANCISCO DOLLANTE
Telephone:	3103286522
Mailing Name:	Not reported
Mailing Address:	717 W. 213TH ST.
Mailing City,St,Zip:	TORRANCE, CA 90502
Gen County:	Los Angeles
TSD EPA ID:	CAD009007626
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Cat Decode:	Not reported
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

E22 **CHMIRS** **S106393951**
TORRANCE BLVD. AND HAMILTON AVE. AT THE 110 FREEWAY **N/A**
< 1/8 **TORRANCE, CA 93309**
1 ft.

Site 1 of 10 in cluster E

Relative: Lower

Actual: 35 ft.

CHMIRS:

OES Incident Number:	0-3489
OES notification:	08/03/2000
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported

(Continued) **S106393951**

Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2000
Agency:	Equalon Pipeline, on behalf of Shell Oil Co.
Incident Date:	8/3/200012:00:00 AM
Admin Agency:	Torrance Fire Department
Amount:	Not reported
Contained:	Yes
Site Type:	Pipe Line
E Date:	Not reported
Substance:	water with crude oil
BBLS:	1
Gallons:	0.000000
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported

(Continued) **S106393951**

Injuries: Not reported
Fatals: Not reported
Comments: Not reported
Description: An abandoned pipeline has released substance for unknown reason, possibly corrosion.

---

23 **LISA GENADY** **HAZNET** **S117290100**
21305 PAYNE AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Relative:
Lower

Actual:
29 ft.

HAZNET:
envid: S117290100
Year: 2013
GEPAID: CAC002727348
Contact: LISA GENADY
Telephone: 4245588701
Mailing Name: Not reported
Mailing Address: 21305 PAYNE AVE
Mailing City,St,Zip: TORRANCE, CA 905021958
Gen County: Los Angeles
TSD EPA ID: AZC950823111
TSD County: 99
Waste Category: Not reported
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.4
Cat Decode: Not reported
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: Not reported

D24 **WILFRED DOMINGO** **HAZNET** **S113794171**
21248 MENLO AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 2 of 5 in cluster D

Relative:
Lower

Actual:
39 ft.

HAZNET:
envid: S113794171
Year: 2012
GEPAID: CAC002713010
Contact: WILFRED DOMINGO
Telephone: 3107042990
Mailing Name: Not reported
Mailing Address: 21248 MENLO AVE
Mailing City,St,Zip: TORRANCE, CA 905021923
Gen County: Los Angeles
TSD EPA ID: AZC950823111
TSD County: 99
Waste Category: Not reported
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.4
Cat Decode: Not reported
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To

WILFRED DOMINGO (Continued) **S113794171**

Include On-Site Treatment And/Or Stabilization)
Facility County: Los Angeles

C25 **NICK STORE** **LOS ANGELES CO. HMS** **S106026931**
20828 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 2 of 28 in cluster C

Relative:
Lower

Actual:
24 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 028254-039719
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

E26 **CATHERINE ALTOBELLO** **HAZNET** **S113776023**
717 GREENHEDGE ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 2 of 10 in cluster E

Relative:
Lower

Actual:
32 ft.

HAZNET:
envid: S113776023
Year: 2012
GEPAID: CAC002689048
Contact: CATHERINE ALTOBELLO
Telephone: 3105335860
Mailing Name: Not reported
Mailing Address: 717 GREENHEDGE ST
Mailing City,St,Zip: TORRANCE, CA 90502
Gen County: Los Angeles
TSD EPA ID: AZC950823111
TSD County: 99
Waste Category: Not reported
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.4
Cat Decode: Not reported
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: Los Angeles

C27 **EDR Hist Auto** **1015316595**
N/A

20802 S VERMONT AVE
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 3 of 28 in cluster C

Relative: EDR Historical Auto Stations:
Lower

Name:	TROY HOWELL MOBIL PRODUCTS SERVICE
Year:	1999
Address:	20802 S VERMONT AVE

Actual: **24 ft.**

Name:	TROYS MOBIL
Year:	2001
Address:	20802 S VERMONT AVE

Name:	TROYS MOBIL
Year:	2002
Address:	20802 S VERMONT AVE

Name:	TROYS MOBIL
Year:	2003
Address:	20802 S VERMONT AVE

Name:	TROYS MOBIL
Year:	2004
Address:	20802 S VERMONT AVE

Name:	LEOS MOBILE AUTO REPAIR
Year:	2005
Address:	20802 S VERMONT AVE

Name:	LEOS MOBILE AUTO REPAIR
Year:	2007
Address:	20802 S VERMONT AVE

Name:	TORRANCE MOBIL
Year:	2010
Address:	20802 S VERMONT AVE

C28 **CHMIRS** **S107449165**
N/A

20802 SOUTH VERMONT AVE
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 4 of 28 in cluster C

Relative: CHMIRS:
Lower

OES Incident Number:	4-4795
OES notification:	09/15/2004
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported

Actual: **24 ft.**

(Continued) **S107449165**

Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Responsible Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2004
Agency:	Veeder Root
Incident Date:	9/15/200412:00:00 AM
Admin Agency:	Torrance Fire Department
Amount:	Not reported
Contained:	Yes
Site Type:	Service Station
E Date:	Not reported
Substance:	Diesel
Gallons:	2
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Substance was released due to auto shut off failing on pump # 10.

C29 **HARBOR TIRES & AUTO SERVICE** **LOS ANGELES CO. HMS** **S118689615**
20802 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 5 of 28 in cluster C

Relative:
Lower

Actual:
24 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	S
Facility Id:	005098-061864
Facility Type:	S5
Facility Status:	Permit
Area:	2
Permit Number:	000832036
Permit Status:	Permit

C30 **CHMIRS** **S109037239**
20802 SOUTH VERMONT **N/A**
< 1/8 **TORRANCE, CA**
1 ft.

Site 6 of 28 in cluster C

Relative:
Lower

Actual:
24 ft.

CHMIRS:

OES Incident Number:	7-2259
OES notification:	04/11/2007
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported

(Continued) **S109037239**

Other:	Not reported
Date/Time:	Not reported
Year:	2007
Agency:	Veeder Root
Incident Date:	4/11/2007 12:00:00 AM
Admin Agency:	Torrance Fire Department
Amount:	Not reported
Contained:	Yes
Site Type:	Service Station
E Date:	Not reported
Substance:	Diesel
Gallons:	3
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	04/11/07 at 1745 hours, customer pumping diesel and the automatic shut-off failed.

---

31 **DALE KANESHIRO** **HAZNET** **S113792523**
941 W. 214TH ST. **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Relative:
Lower

Actual:
29 ft.

HAZNET:

envid:	S113792523
Year:	2012
GEPAID:	CAC002710976
Contact:	DALE KANESHIRO
Telephone:	3105056591
Mailing Name:	Not reported
Mailing Address:	941 W. 214TH ST.
Mailing City,St,Zip:	TORRANCE, CA 90502
Gen County:	Los Angeles
TSD EPA ID:	CAD009007626
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Cat Decode:	Not reported
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

E32 **CARL SERVINO** **HAZNET** **S117299127**
20812 ORCHARD AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 3 of 10 in cluster E

Relative: HAZNET:
Higher

envid:	S117299127
Year:	2013
GEPAID:	CAC002741165
Contact:	CARL SERVINO
Telephone:	3109303250
Mailing Name:	Not reported
Mailing Address:	20812 ORCHARD AVE
Mailing City,St,Zip:	TORRANCE, CA 905021727
Gen County:	Los Angeles
TSD EPA ID:	CAD009007626
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Cat Decode:	Not reported
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Not reported

Actual:
40 ft.

F33 **CDL** **S107535914**
708 W 209TH ST **N/A**
< 1/8 **TORRANCE, CA 90510**
1 ft.

Site 1 of 3 in cluster F

Relative: CDL:
Lower

Facility ID:	2000-10-048
Date:	10/10/2000
Lab Type:	Illegal Drug Lab (L) - location where an illegal drug lab was operated or drug lab equipment and/or materials were stored.

Actual:
38 ft.

C34 **M&Y SAFAR BROTHERS INC** **LOS ANGELES CO. HMS** **S106670388**
20802 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 7 of 28 in cluster C

Relative: LOS ANGELES CO. HMS:
Lower

Region:	LA
Permit Category:	Not reported
Facility Id:	005098-043231
Facility Type:	Not reported
Facility Status:	OPEN
Area:	2
Permit Number:	Not reported
Permit Status:	Not reported

Region:	LA
Permit Category:	I
Facility Id:	005098-043708

Actual:
24 ft.

M&Y SAFAR BROTHERS INC (Continued) **S106670388**

Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000506672
Permit Status: Closed

C35 **TROY A HOWELL** **HIST UST** **1000442170**
20802 S VERMONT **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 8 of 28 in cluster C

Relative:
Lower

Actual:
24 ft.

HIST UST:

File Number:	00027DD7
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00027DD7.pdf
Region:	STATE
Facility ID:	00000039975
Facility Type:	Gas Station
Other Type:	Not reported
Contact Name:	SAME
Telephone:	2133202120
Owner Name:	MOBIL OIL CORP
Owner Address:	612 S. FLOWER ST
Owner City,St,Zip:	LOS ANGELES, CA 90017
Total Tanks:	0005
Tank Num:	001
Container Num:	1
Year Installed:	Not reported
Tank Capacity:	00000280
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	5
Year Installed:	1962
Tank Capacity:	00004000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	003
Container Num:	4
Year Installed:	1962
Tank Capacity:	00008000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	004
Container Num:	3
Year Installed:	1962
Tank Capacity:	00005000
Tank Used for:	PRODUCT

TROY A HOWELL (Continued) **1000442170**

Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	005
Container Num:	2
Year Installed:	1971
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Click here for Geo Tracker PDF:

C36 **LEO'S MOBIL AUTO REPAIR** **LOS ANGELES CO. HMS** **S107997459**
20802 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 9 of 28 in cluster C

Relative:
Lower

Actual:
24 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	Not reported
Facility Id:	005098-043228
Facility Type:	Not reported
Facility Status:	OPEN
Area:	2
Permit Number:	Not reported
Permit Status:	Not reported

---

37 **DONNA ASARI** **HAZNET** **S117301862**
1223 W 213TH ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Relative:
Lower

Actual:
26 ft.

HAZNET:

envid:	S117301862
Year:	2013
GEPAID:	CAC002745152
Contact:	DONNA ASARI
Telephone:	3103679250
Mailing Name:	Not reported
Mailing Address:	1223 W 213TH ST
Mailing City,St,Zip:	TORRANCE, CA 905021830
Gen County:	Los Angeles
TSD EPA ID:	AZC950823111
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Cat Decode:	Not reported
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Not reported

C38 **MOBIL #18-MAP** **RGA LUST** **S114653529**
20802 VERMONT AVE S **N/A**
< 1/8 **TORRANCE, CA**
1 ft.

Site 10 of 28 in cluster C

Relative: RGA LUST:
Lower

2012	MOBIL #18-MAP	20802 VERMONT AVE S
2011	MOBIL #18-MAP	20802 VERMONT AVE S
2010	MOBIL #18-MAP	20802 VERMONT AVE S
2009	MOBIL #18-MAP	20802 VERMONT AVE S
2008	MOBIL #18-MAP	20802 VERMONT AVE S
2007	MOBIL #18-MAP	20802 VERMONT AVE S
2006	MOBIL #18-MAP	20802 VERMONT AVE S
2005	MOBIL #18-MAP	20802 VERMONT AVE S
2003	MOBIL #18-MAP	20802 VERMONT AVE S
2002	MOBIL #18-MAP	20802 VERMONT AVE S
2001	MOBIL #18-MAP	20802 VERMONT AVE S
2000	MOBIL #18-MAP	20802 VERMONT AVE S
1998	MOBIL #18-MAP	20802 VERMONT AVE S

Actual:
24 ft.

C39 **CIRCLE K STORE #2211184** **HAZNET** **S113162563**
20802 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 11 of 28 in cluster C

Relative: HAZNET:
Lower

envid:	S113162563
Year:	2014
GEPAID:	CAL000369728
Contact:	MADELYN MANJARREZ
Telephone:	9512705168
Mailing Name:	Not reported
Mailing Address:	255 E RINCON ST STE 100
Mailing City,St,Zip:	CORONA, CA 928790000
Gen County:	Los Angeles
TSD EPA ID:	CAD099452708
TSD County:	Los Angeles
Waste Category:	Waste oil and mixed oil
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.076
Cat Decode:	Waste oil and mixed oil
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Los Angeles

Actual:
24 ft.

envid:	S113162563
Year:	2013
GEPAID:	CAL000369728
Contact:	TRISHA YAHNER
Telephone:	9512705193
Mailing Name:	Not reported
Mailing Address:	255 E RINCON ST STE 100
Mailing City,St,Zip:	CORONA, CA 928790000
Gen County:	Los Angeles
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Not reported

CIRCLE K STORE #2211184 (Continued) **S113162563**

Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.21
Cat Decode:	Not reported
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Not reported
envid:	S113162563
Year:	2011
GEPAID:	CAL000369728
Contact:	JOEL LINDQUIST
Telephone:	9512705108
Mailing Name:	Not reported
Mailing Address:	255 E RINCON ST STE 100
Mailing City,St,Zip:	CORONA, CA 928791368
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.513
Cat Decode:	Waste oil and mixed oil
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Los Angeles

B40 **LAUSD/ VAN DEENE AVE ELEM** **HAZNET** **S113021893**
826 W W JAVELIN ST **N/A**
< 1/8 **TORRANCE, CA 90015**
1 ft.

Site 2 of 4 in cluster B

Relative: **Lower**

Actual: **37 ft.**

HAZNET:

envid:	S113021893
Year:	2007
GEPAID:	CAL000000640
Contact:	YI HWA KIM DEPUTY DIRECTOR
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE 20TH FLR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Other inorganic solid waste
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.05
Cat Decode:	Other inorganic solid waste
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Los Angeles
envid:	S113021893
Year:	2006
GEPAID:	CAL000000640

LAUSD/ VAN DEENE AVE ELEM (Continued) **S113021893**

Contact:	YI HWA KIM DEPUTY DIRECTOR
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE 20TH FLR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported
TSD EPA ID:	NVT330010000
TSD County:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Disposal, Land Fill
Tons:	33.71
Cat Decode:	Other organic solids
Method Decode:	Disposal, Land Fill
Facility County:	Los Angeles

envid:	S113021893
Year:	2002
GEPAID:	CAL000000640
Contact:	YI HWA KIM DEPUTY DIRECTOR
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE 20TH FLR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Other inorganic solid waste
Disposal Method:	Transfer Station
Tons:	0.05
Cat Decode:	Other inorganic solid waste
Method Decode:	Transfer Station
Facility County:	Los Angeles

envid:	S113021893
Year:	2001
GEPAID:	CAL000000640
Contact:	YI HWA KIM DEPUTY DIRECTOR
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE 20TH FLR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Transfer Station
Tons:	0
Cat Decode:	Other organic solids
Method Decode:	Transfer Station
Facility County:	Los Angeles

envid:	S113021893
Year:	2001
GEPAID:	CAL000000640
Contact:	YI HWA KIM DEPUTY DIRECTOR
Telephone:	2137435086
Mailing Name:	Not reported

LAUSD/ VAN DEENE AVE ELEM (Continued) **S113021893**

Mailing Address:	333 S BEAUDRY AVE 20TH FLR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported
TSD EPA ID:	CAT080033681
TSD County:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Disposal, Land Fill
Tons:	0.02
Cat Decode:	Other organic solids
Method Decode:	Disposal, Land Fill
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
3 additional CA_HAZNET: record(s) in the EDR Site Report.

G41 **CHMIRS** **S109037305**
21414 VERMONT AVE, UNINCORP. COUNTY AREA **N/A**
< 1/8 **CARSON, CA**
1 ft.

Site 1 of 3 in cluster G

Relative: CHMIRS:
Lower

OES Incident Number:	7-5843
OES notification:	09/24/2007
Actual: OES Date:	Not reported
30 ft. OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Storm Drain
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported

(Continued) **S109037305**

Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2007
Agency:	Los Angeles County Public Works
Incident Date:	9/24/2007 12:00:00 AM
Admin Agency:	L. A. County Fire Prevention
Amount:	Not reported
Contained:	Yes
Site Type:	Residence
E Date:	Not reported
Substance:	Sewage
Gallons:	200
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	09/24/07 at 1938 hrs, vandalized, clogged sewer line cause a manhole to overflow into a storm drain.

F42 **JANET D'JANILY** **HAZNET** **S113772103**
704 W 209TH ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 2 of 3 in cluster F

Relative: Higher

Actual: 41 ft.

HAZNET:

envid:	S113772103
Year:	2012
GEPAID:	CAC002684170
Contact:	JANET D'JANILY
Telephone:	3107156505
Mailing Name:	Not reported
Mailing Address:	704 W 209TH ST
Mailing City,St,Zip:	TORRANCE, CA 90502
Gen County:	Los Angeles
TSD EPA ID:	AZC950823111
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Cat Decode:	Not reported
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)

JANET D'JANILY (Continued) **S113772103**

Facility County: Los Angeles

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43 **PETE MAMEA** **HAZNET** **S113783324**
21403 BERENDO AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Relative: Higher

Actual: 41 ft.

HAZNET:

envid:	S113783324
Year:	2012
GEPAID:	CAC002698080
Contact:	PETE MAMEA
Telephone:	3109301204
Mailing Name:	Not reported
Mailing Address:	21403 BERENDO AVE
Mailing City,St,Zip:	TORRANCE, CA 90502
Gen County:	Los Angeles
TSD EPA ID:	CAD009007626
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Cat Decode:	Not reported
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

B44 **VAN DEENE AVENUE SCHOOL** **LOS ANGELES CO. HMS** **S106023546**
826 JAVELIN ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 3 of 4 in cluster B

Relative: Lower

Actual: 37 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	Not reported
Facility Id:	027789-039254
Facility Type:	Not reported
Facility Status:	OPEN
Area:	2
Permit Number:	Not reported
Permit Status:	Not reported

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45 **TAMMY CLARK** **HAZNET** **S113774252**
818 GREENHEDGE ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Relative: Lower

Actual: 29 ft.

HAZNET:

envid:	S113774252
Year:	2012
GEPAID:	CAC002686821
Contact:	TAMMY CLARK
Telephone:	3109531645

TAMMY CLARK (Continued) **S113774252**

Mailing Name:	Not reported
Mailing Address:	818 GREENHEDGE ST
Mailing City,St,Zip:	TORRANCE, CA 90502
Gen County:	Los Angeles
TSD EPA ID:	CAD028409019
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.14
Cat Decode:	Not reported
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Los Angeles

C46 **MOBIL OIL CORP S/S #18-MAP** **UST** **U003940700**
20802 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 12 of 28 in cluster C

Relative: UST:
Lower

Facility ID:	5290
Permitting Agency:	LOS ANGELES COUNTY
Latitude:	33.843068
Longitude:	-118.288258

Actual:
24 ft.

C47 **TROYS MOBIL** **HAZNET** **S113014187**
20802 S VERMONT **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 13 of 28 in cluster C

Relative: HAZNET:
Lower

envid:	S113014187
Year:	1998
GEPAID:	CAD982314676
Contact:	Not reported
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	20802 S VERMONT AVE
Mailing City,St,Zip:	TORRANCE, CA 905021744
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Treatment, Tank
Tons:	2.7105
Cat Decode:	Waste oil and mixed oil
Method Decode:	Treatment, Tank
Facility County:	Los Angeles

Actual:
24 ft.

envid:	S113014187
Year:	1995
GEPAID:	CAD982314676
Contact:	Not reported

TROYS MOBIL (Continued) **S113014187**

Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	20802 S VERMONT AVE
Mailing City,St,Zip:	TORRANCE, CA 905021744
Gen County:	Not reported
TSD EPA ID:	CAT080011059
TSD County:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Recycler
Tons:	1.2510
Cat Decode:	Unspecified oil-containing waste
Method Decode:	Recycler
Facility County:	Los Angeles

H48 **GARDENA VALLEY DUMP NO 4** **SEMS** **1000893604**
833 WEST TORRANCE BLVD **CAD000568865**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 1 of 3 in cluster H

Relative: **Lower**

Actual: **27 ft.**

SEMS:

Site ID:	905129
EPA ID:	CAD000568865
Federal Facility:	N
NPL:	Not on the NPL
Non NPL Status:	NFRAP-Site does not qualify for the NPL based on existing information

Following information was gathered from the prior CERCLIS update completed in 10/2013:

Site ID:	0905129
EPA ID:	CAD000568865
Facility County:	LOS ANGELES
Short Name:	GARDENA VALLEY DUMP NO 4
Congressional District:	31
IFMS ID:	Not reported
SMSA Number:	4480
USGC Hydro Unit:	18070104
Federal Facility:	Not a Federal Facility
DMNSN Number:	0.00000
Site Orphan Flag:	N
RCRA ID:	Not reported
USGS Quadrangle:	Not reported
Site Init By Prog:	Not reported
NFRAP Flag:	Not reported
Parent ID:	Not reported
RST Code:	Not reported
EPA Region:	09
Classification:	Not reported
Site Settings Code:	Not reported
NPL Status:	Not on the NPL
DMNSN Unit Code:	Not reported
RBRAC Code:	Not reported
RResp Fed Agency Code:	Not reported
Non NPL Status:	HRS Start Needed
Non NPL Status Date:	10/12/00
Site Fips Code:	06037
CC Concurrence Date:	/ /
CC Concurrence FY:	Not reported
Alias EPA ID:	Not reported

GARDENA VALLEY DUMP NO 4 (Continued) **1000893604**

Site FUDS Flag: Not reported

CERCLIS Site Contact Name(s):
Contact ID: 13003854.00000
Contact Name: Leslie Ramirez
Contact Tel: (415) 972-3978
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Contact ID: 13003858.00000
Contact Name: Sharon Murray
Contact Tel: (415) 972-4250
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Contact ID: 13004003.00000
Contact Name: Carl Brickner
Contact Tel: Not reported
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Alias Comments: Not reported
Site Description: Not reported

CERCLIS Assessment History:

Action Code: 001
Action: DISCOVERY
Date Started: / /
Date Completed: 08/12/94
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: SITE INSPECTION
Date Started: 07/18/95
Date Completed: 09/19/95
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 09/19/95
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed

GARDENA VALLEY DUMP NO 4 (Continued) **1000893604**

Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

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49 **BOB MCKEWEN** **HAZNET** **S113463328**
20811 DOBLE AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Relative: Lower

Actual: 23 ft.

HAZNET:

envid:	S113463328
Year:	2010
GEPAID:	CAC002658599
Contact:	BOB MCKEWEN
Telephone:	7149668197
Mailing Name:	Not reported
Mailing Address:	22255 ROLLING HILLS LN
Mailing City,St,Zip:	YORBA LINDA, CA 92887
Gen County:	Not reported
TSD EPA ID:	AZC950823111
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.8
Cat Decode:	Asbestos containing waste
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

B50 **VAN DEENE AVE ELEMENTARY SCHOOL** **RCRA-LQG** **1012175974**
826 W JAVELIN ST **FINDS** **CAR000197970**
< 1/8 **TORRANCE, CA 90502** **ECHO**
1 ft.

Site 4 of 4 in cluster B

Relative: Lower

Actual: 37 ft.

RCRA-LQG:

Date form received by agency:	01/12/2009
Facility name:	VAN DEENE AVE ELEMENTARY SCHOOL
Facility address:	826 W JAVELIN ST TORRANCE, CA 90502
EPA ID:	CAR000197970
Mailing address:	333 S BEAUDRY AVE 20TH FL LAUSD OEHS LOS ANGELES, CA 90017
Contact:	SOE AUNG
Contact address:	333 S BEAUDRY AVE 20TH FL LAUSD OEHS LOS ANGELES, CA 90017
Contact country:	US
Contact telephone:	213-241-3904
Contact email:	SOE.AUNG@LAUSD.NET
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste

VAN DEENE AVE ELEMENTARY SCHOOL (Continued) **1012175974**

during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	LAUSD
Owner/operator address:	333 S BEAUDRY AVE
	LOS ANGELES, CA 90017
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	District
Owner/Operator Type:	Owner
Owner/Op start date:	11/14/1989
Owner/Op end date:	Not reported

Owner/operator name:	VAN DEENE AVENUE ELEMENTARY SCHOOL
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	District
Owner/Operator Type:	Operator
Owner/Op start date:	11/14/1989
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

. Waste code:	D008
. Waste name:	LEAD

Violation Status: No violations found

FINDS:

Registry ID: 110036942707

VAN DEENE AVE ELEMENTARY SCHOOL (Continued) **1012175974**

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ECHO:
Envid: 1012175974
Registry ID: 110036942707
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110036942707

C51 **MOBIL OIL CORP S/S #18-MAP** **LOS ANGELES CO. HMS** **S104538613**
20802 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 14 of 28 in cluster C

Relative: Lower

Actual: 24 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: T
Facility Id: 005098-005290
Facility Type: 0
Facility Status: Closed
Area: 2
Permit Number: 0000T6358
Permit Status: Closed

C52 **MOBIL #18-MAP** **LUST** **S104406636**
20802 VERMONT **HIST CORTESE** **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 15 of 28 in cluster C

Relative: Lower

Actual: 24 ft.

LUST:
Region: STATE
Global Id: T0603704674
Latitude: 33.8420556
Longitude: -118.2898317
Case Type: LUST Cleanup Site
Status: Open - Remediation
Status Date: 10/14/2005
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: AT
Local Agency: TORRANCE, CITY OF
RB Case Number: R-05290
LOC Case Number: Not reported
File Location: Regional Board
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

MOBIL #18-MAP (Continued) **S104406636**

Contact:
Global Id: T0603704674
Contact Type: Regional Board Caseworker
Contact Name: ARMAN TOUMARI
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 WEST 4TH STREET, SUITE 200
City: LOS ANGELES
Email: atoumari@waterboards.ca.gov
Phone Number: 2135766708

Global Id: T0603704674
Contact Type: Local Agency Caseworker
Contact Name: RICHARD V. BONGARD
Organization Name: TORRANCE, CITY OF
Address: Not reported
City: R4 UNKNOWN
Email: Not reported
Phone Number: 3106182973

Status History:
Global Id: T0603704674
Status: Open - Case Begin Date
Status Date: 12/15/1993

Global Id: T0603704674
Status: Open - Remediation
Status Date: 02/11/1998

Global Id: T0603704674
Status: Open - Remediation
Status Date: 10/14/2005

Global Id: T0603704674
Status: Open - Site Assessment
Status Date: 01/31/1996

Global Id: T0603704674
Status: Open - Site Assessment
Status Date: 04/11/1997

Global Id: T0603704674
Status: Open - Site Assessment
Status Date: 08/12/2004

Regulatory Activities:
Global Id: T0603704674
Action Type: RESPONSE
Date: 01/15/2015
Action: Remedial Progress Report

Global Id: T0603704674
Action Type: RESPONSE
Date: 01/15/2015
Action: Monitoring Report - Semi-Annually

Global Id: T0603704674

MOBIL #18-MAP (Continued) **S104406636**

Action Type:	RESPONSE
Date:	01/15/2016
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603704674
Action Type:	RESPONSE
Date:	04/15/2005
Action:	Monitoring Report - Quarterly
Global Id:	T0603704674
Action Type:	RESPONSE
Date:	07/15/2005
Action:	Monitoring Report - Quarterly
Global Id:	T0603704674
Action Type:	RESPONSE
Date:	10/15/2005
Action:	Monitoring Report - Quarterly
Global Id:	T0603704674
Action Type:	RESPONSE
Date:	10/15/2005
Action:	Remedial Progress Report
Global Id:	T0603704674
Action Type:	RESPONSE
Date:	01/15/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0603704674
Action Type:	RESPONSE
Date:	12/05/2012
Action:	Well Installation Workplan - Regulator Responded
Global Id:	T0603704674
Action Type:	RESPONSE
Date:	02/24/2014
Action:	Corrective Action Plan / Remedial Action Plan - Regulator Responded
Global Id:	T0603704674
Action Type:	RESPONSE
Date:	04/15/2006
Action:	Monitoring Report - Quarterly
Global Id:	T0603704674
Action Type:	RESPONSE
Date:	01/15/2006
Action:	Monitoring Report - Quarterly
Global Id:	T0603704674
Action Type:	RESPONSE
Date:	10/15/2006
Action:	Monitoring Report - Quarterly
Global Id:	T0603704674
Action Type:	RESPONSE
Date:	07/15/2006

MOBIL #18-MAP (Continued) **S104406636**

Action: Monitoring Report - Quarterly

Global Id: T0603704674
Action Type: RESPONSE
Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603704674
Action Type: RESPONSE
Date: 04/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603704674
Action Type: RESPONSE
Date: 07/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603704674
Action Type: ENFORCEMENT
Date: 04/14/2009
Action: Staff Letter

Global Id: T0603704674
Action Type: REMEDIATION
Date: 02/11/1998
Action: Free Product Removal

Global Id: T0603704674
Action Type: RESPONSE
Date: 07/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603704674
Action Type: RESPONSE
Date: 04/26/2012
Action: Well Installation Workplan

Global Id: T0603704674
Action Type: RESPONSE
Date: 07/15/2015
Action: Monitoring Report - Semi-Annually

Global Id: T0603704674
Action Type: RESPONSE
Date: 07/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603704674
Action Type: ENFORCEMENT
Date: 06/23/2000
Action: Staff Letter

Global Id: T0603704674
Action Type: ENFORCEMENT
Date: 09/15/2014
Action: Staff Letter

MOBIL #18-MAP (Continued) **S104406636**

Global Id: T0603704674
Action Type: RESPONSE
Date: 10/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603704674
Action Type: RESPONSE
Date: 01/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603704674
Action Type: RESPONSE
Date: 01/15/2011
Action: Remedial Progress Report

Global Id: T0603704674
Action Type: RESPONSE
Date: 04/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603704674
Action Type: RESPONSE
Date: 04/15/2007
Action: Soil and Water Investigation Report

Global Id: T0603704674
Action Type: RESPONSE
Date: 07/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0603704674
Action Type: RESPONSE
Date: 04/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603704674
Action Type: REMEDIATION
Date: 01/01/2007
Action: Soil Vapor Extraction (SVE)

Global Id: T0603704674
Action Type: REMEDIATION
Date: 12/01/2010
Action: Pump & Treat (P&T) Groundwater

Global Id: T0603704674
Action Type: REMEDIATION
Date: 06/01/2005
Action: Soil Vapor Extraction (SVE)

Global Id: T0603704674
Action Type: REMEDIATION
Date: 04/01/2009
Action: Excavation

Global Id: T0603704674
Action Type: RESPONSE

MOBIL #18-MAP (Continued) **S104406636**

Date: 07/15/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0603704674
Action Type: RESPONSE
Date: 04/15/2013
Action: Well Installation Report

Global Id: T0603704674
Action Type: RESPONSE
Date: 07/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603704674
Action Type: RESPONSE
Date: 07/15/2009
Action: Remedial Progress Report

Global Id: T0603704674
Action Type: RESPONSE
Date: 07/15/2009
Action: Well Installation Report

Global Id: T0603704674
Action Type: Other
Date: 12/15/1993
Action: Leak Discovery

Global Id: T0603704674
Action Type: RESPONSE
Date: 01/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603704674
Action Type: ENFORCEMENT
Date: 06/15/2009
Action: Staff Letter

Global Id: T0603704674
Action Type: ENFORCEMENT
Date: 04/20/2009
Action: Waste Discharge Requirements

Global Id: T0603704674
Action Type: RESPONSE
Date: 07/15/2016
Action: Monitoring Report - Semi-Annually

Global Id: T0603704674
Action Type: RESPONSE
Date: 07/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603704674
Action Type: Other
Date: 12/15/1993
Action: Leak Reported

MOBIL #18-MAP (Continued) **S104406636**

Global Id: T0603704674
Action Type: RESPONSE
Date: 12/20/2013
Action: Pilot Study/ Treatability Report

Global Id: T0603704674
Action Type: RESPONSE
Date: 04/15/2002
Action: Monitoring Report - Quarterly

Global Id: T0603704674
Action Type: RESPONSE
Date: 07/15/2002
Action: Monitoring Report - Quarterly

Global Id: T0603704674
Action Type: RESPONSE
Date: 01/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603704674
Action Type: RESPONSE
Date: 10/15/2002
Action: Monitoring Report - Quarterly

Global Id: T0603704674
Action Type: RESPONSE
Date: 04/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603704674
Action Type: RESPONSE
Date: 04/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603704674
Action Type: RESPONSE
Date: 07/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603704674
Action Type: RESPONSE
Date: 07/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603704674
Action Type: RESPONSE
Date: 01/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603704674
Action Type: RESPONSE
Date: 10/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603704674
Action Type: RESPONSE

MOBIL #18-MAP (Continued) **S104406636**

Date: 08/12/2004
Action: Soil and Water Investigation Workplan

Global Id: T0603704674
Action Type: RESPONSE
Date: 06/01/2005
Action: Soil and Water Investigation Report

Global Id: T0603704674
Action Type: RESPONSE
Date: 10/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603704674
Action Type: RESPONSE
Date: 10/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603704674
Action Type: RESPONSE
Date: 01/15/2005
Action: Monitoring Report - Quarterly

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: R-05290
Status: Remedial action (cleanup) Underway
Substance: Gasoline
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Groundwater
Abatement Method Used at the Site: Not reported
Global ID: T0603704674
W Global ID: Not reported
Staff: AT
Local Agency: 19038
Cross Street: Not reported
Enforcement Type: DLSEL
Date Leak Discovered: 12/15/1993
Date Leak First Reported: 12/15/1993
Date Leak Record Entered: 3/22/1994
Date Confirmation Began: 1/31/1996
Date Leak Stopped: Not reported
Date Case Last Changed on Database: 10/11/2002
Date the Case was Closed: Not reported
How Leak Discovered: OM
How Leak Stopped: Not reported
Cause of Leak: UNK
Leak Source: Not reported
Operator: Not reported
Water System: Not reported
Well Name: Not reported
Approx. Dist To Production Well (ft): 7699.807518183900490488658589
Source of Cleanup Funding: Not reported

MOBIL #18-MAP (Continued) **S104406636**

Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: 4/11/1997
Remediation Plan Submitted: Not reported
Remedial Action Underway: 2/11/1998
Post Remedial Action Monitoring Began: Not reported
Enforcement Action Date: 12/6/1999
Historical Max MTBE Date: 1/1/1965
Hist Max MTBE Conc in Groundwater: 37000
Hist Max MTBE Conc in Soil: Not reported
Significant Interim Remedial Action Taken: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Owner Contact: Not reported
Responsible Party: JOHN MEDRANO
RP Address: 3700 W. 190TH ST., TPT2
Program: LUST
Lat/Long: 33.8420556 / -1
Local Agency Staff: RVB
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: 1/31/01 SITE ASSESSMENT RPT; 2/2/01 JAN 2001 FREE PRODUCT RECOVERY RPT; 4/5/01 1ST QTR GW MON RPT 2001

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: R-05290

F53 **VILLAREAL, AARON** **HAZNET** **S118209061**
708 W. 209TH ST. **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 3 of 3 in cluster F

Relative: Lower

Actual: 38 ft.

HAZNET:
envid: S118209061
Year: 2014
GEPAID: CAC002769526
Contact: VILLAREAL, AARON
Telephone: 3107484720
Mailing Name: Not reported
Mailing Address: 708 W. 209TH ST.
Mailing City,St,Zip: TORRANCE, CA 90502
Gen County: Los Angeles
TSD EPA ID: AZC950823111
TSD County: 99
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.8
Cat Decode: Asbestos containing waste

VILLAREAL, AARON (Continued) **S118209061**

Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: Los Angeles

C54 **M&Y SAFAR BROTHERS INC** **LOS ANGELES CO. HMS** **U003061199**
20802 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 16 of 28 in cluster C

Relative:
Lower

Actual:
24 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 005098-044889
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000529332
Permit Status: Closed

Region: LA
Permit Category: S
Facility Id: 005098-056803
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000712949
Permit Status: Permit

Region: LA
Permit Category: I
Facility Id: 005098-I05290
Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 00010412J
Permit Status: Closed

C55 **AECOM GLOBAL II LLC** **LOS ANGELES CO. HMS** **S118689614**
20802 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 17 of 28 in cluster C

Relative:
Lower

Actual:
24 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 005098-061737
Facility Type: 09
Facility Status: Permit
Area: 2
Permit Number: 000830010
Permit Status: Permit

C56 **URS CORPORATION** **LOS ANGELES CO. HMS** **S117541641**
20802 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 18 of 28 in cluster C

Relative: LOS ANGELES CO. HMS:
Lower Region: LA
Permit Category: I
Actual: Facility Id: 005098-059650
24 ft. Facility Type: 09
Facility Status: Closed
Area: 2
Permit Number: 000796165
Permit Status: Closed

C57 **CIRCLE K STORES INC #2211184** **LOS ANGELES CO. HMS** **S111827213**
20802 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 19 of 28 in cluster C

Relative: LOS ANGELES CO. HMS:
Lower Region: LA
Permit Category: T
Actual: Facility Id: 005098-056185
24 ft. Facility Type: 0
Facility Status: Permit
Area: 2
Permit Number: 000694435
Permit Status: Permit

C58 **VFW POST #10166** **LOS ANGELES CO. HMS** **S106026929**
20820 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 20 of 28 in cluster C

Relative: LOS ANGELES CO. HMS:
Lower Region: LA
Permit Category: S
Actual: Facility Id: 028253-039718
26 ft. Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000528274
Permit Status: Permit

Region: LA
Permit Category: Not reported
Facility Id: 028253-056781
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

C59 **GARDENA VALLEY DUMP #3** **LOS ANGELES CO. HMS** **U003060482**
20800 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 21 of 28 in cluster C

Relative:
Lower

Actual:
24 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	Not reported
Facility Id:	004279-I04433
Facility Type:	Not reported
Facility Status:	OPEN
Area:	2
Permit Number:	Not reported
Permit Status:	Not reported

C60 **ROWLAND NGYUEN** **HAZNET** **S118218537**
20800 DOBLE AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 22 of 28 in cluster C

Relative:
Lower

Actual:
22 ft.

HAZNET:

envid:	S118218537
Year:	2014
GEPAID:	CAC002781157
Contact:	ROWLAND NGYUEN
Telephone:	3107829256
Mailing Name:	Not reported
Mailing Address:	20800 DOBLE AVE
Mailing City,St,Zip:	TORRANCE, CA 90502
Gen County:	Los Angeles
TSD EPA ID:	CAD009007626
TSD County:	Los Angeles
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Cat Decode:	Asbestos containing waste
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

C61 **CHMIRS** **S105647207**
#11-MAP 20802 SOUTH VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 23 of 28 in cluster C

Relative:
Lower

Actual:
24 ft.

CHMIRS:

OES Incident Number:	11817
OES notification:	Not reported
OES Date:	1/17/1996
OES Time:	03:13:54 PM
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported

(Continued) **S105647207**

Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	YES
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	no clean up needed
Containment:	Not reported
What Happened:	Not reported
Type:	PETROLEUM
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1996
Agency:	mobil oil
Incident Date:	1000/17jan96
Admin Agency:	Not reported
Amount:	unknown
Contained:	NO
Site Type:	S/S
E Date:	Not reported
Substance:	suspect hydrocarbon
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	NO
Number of Injuries:	NO
Number of Fatalities:	NO
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	soil contamination found during construction

(Continued) **S105647207**

project

D62 **RHONDA THIBAULT** **HAZNET** **S118204699**
712 W 213TH ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 3 of 5 in cluster D

Relative:
Higher

Actual:
40 ft.

HAZNET:

envid:	S118204699
Year:	2014
GEPAID:	CAC002764191
Contact:	RHONDA THIBAULT
Telephone:	3103286522
Mailing Name:	Not reported
Mailing Address:	712 W 213TH ST
Mailing City,St,Zip:	TORRANCE, CA 905021901
Gen County:	Los Angeles
TSD EPA ID:	CAD009007626
TSD County:	Los Angeles
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Cat Decode:	Asbestos containing waste
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

C63 **CHMIRS** **S109037240**
20802 SOUTH VERMONT AVENUE **N/A**
< 1/8 **TORRANCE, CA**
1 ft.

Site 24 of 28 in cluster C

Relative:
Lower

Actual:
24 ft.

CHMIRS:

OES Incident Number:	6-0798
OES notification:	02/06/2006
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported

(Continued) **S109037240**

Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Site Employee
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2006
Agency:	Veederoot
Incident Date:	2/1/2006 12:00:00 AM
Admin Agency:	Torrance Fire Department
Amount:	Not reported
Contained:	Yes
Site Type:	Service Station
E Date:	Not reported
Substance:	Diesel
Gallons:	1/2
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	A customer noticed a nozzle that was leaking.

C64 **CIRCLE K STORES INC. SITE #2211184** **FINDS** **1016437226**
20802 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 25 of 28 in cluster C

Relative: FINDS:
Lower

Registry ID: 110055907050

Actual:
24 ft.

Environmental Interest/Information System

CIRCLE K STORES INC. SITE #2211184 (Continued) **1016437226**

STATE MASTER

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65 **EDR Hist Auto** **1015322505**
21127 DOBLE AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

EDR Historical Auto Stations:

Relative: Lower

Name:	NISHIMURAS AUTO SERVICE
Year:	2005
Address:	21127 DOBLE AVE

Actual: 25 ft.

Name:	NISHIMURAS AUTO SERVICE
Year:	2007
Address:	21127 DOBLE AVE
Name:	NISHIMURAS AUTO SERVICE
Year:	2008
Address:	21127 DOBLE AVE
Name:	NISHIMURAS AUTO SVC
Year:	2010
Address:	21127 DOBLE AVE

D66 **ROXIE JONES** **HAZNET** **S117308379**
21242 MENLO AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 4 of 5 in cluster D

Relative: Lower

HAZNET:

Actual: 39 ft.

envid:	S117308379
Year:	2013
GEPAID:	CAC002754490
Contact:	ROXIE JONES
Telephone:	3103206201
Mailing Name:	Not reported
Mailing Address:	21242 MENLO AVE
Mailing City,St,Zip:	TORRANCE, CA 905021923
Gen County:	Los Angeles
TSD EPA ID:	AZC950823111
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Cat Decode:	Not reported
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Not reported

I67 **SAL CENATIEMPO** **HAZNET** **S118210780**
907 JAVELIN ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 1 of 2 in cluster I

Relative:
Lower

Actual:
26 ft.

HAZNET:

envid:	S118210780
Year:	2014
GEPAID:	CAC002771612
Contact:	SAL CENATIEMPO
Telephone:	4242379219
Mailing Name:	Not reported
Mailing Address:	907 JAVELIN ST
Mailing City,St,Zip:	TORRANCE, CA 90502
Gen County:	Los Angeles
TSD EPA ID:	CAD009007626
TSD County:	Los Angeles
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Cat Decode:	Asbestos containing waste
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

G68 **HERITAGE REHABILITATION CENTER** **FINDS** **1016422298**
21414 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 2 of 3 in cluster G

Relative:
Lower

Actual:
34 ft.

FINDS:

Registry ID: 110055702574

Environmental Interest/Information System
STATE MASTER

G69 **HERITAGE LEGACY LLC** **LA Co. Site Mitigation** **S118565048**
21414 S VERMONT **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 3 of 3 in cluster G

Relative:
Lower

Actual:
34 ft.

LA Co. Site Mitigation:

Facility ID:	Not reported
Site ID:	SD0000329
Jurisdiction:	Not reported
Case ID:	RO0001330
Abated:	Yes
Assigned To:	Richard Clark
Entered Date:	Not reported
Abated Date:	01/27/2011

D70 **VIVIAN LE** **HAZNET** **S118219073**
808 CLARION DR. **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 5 of 5 in cluster D

Relative: HAZNET:
Higher

envid:	S118219073
Year:	2014
Actual: GEPAID:	CAC002781847
40 ft. Contact:	VIVIAN LE
Telephone:	7143984719
Mailing Name:	Not reported
Mailing Address:	808 CLARION DR.
Mailing City,St,Zip:	TORRANCE, CA 90502
Gen County:	Los Angeles
TSD EPA ID:	CAD009007626
TSD County:	Los Angeles
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	2
Cat Decode:	Asbestos containing waste
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

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71 **ROSEMARY ALMANZA** **HAZNET** **S118224609**
21420 BROADWELL AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

HAZNET:
Relative:
Lower

envid:	S118224609
Year:	2014
GEPAID:	CAC002789400
Actual: Contact:	ROSEMARY ALMANZA
34 ft. Telephone:	3103203917
Mailing Name:	Not reported
Mailing Address:	21420 BROADWELL AVE
Mailing City,St,Zip:	TORRANCE, CA 905021871
Gen County:	Los Angeles
TSD EPA ID:	CAD009007626
TSD County:	Los Angeles
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.23
Cat Decode:	Asbestos containing waste
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

C72 **MOBIL #11-MAP** **RGA LUST** **S114652710**
20802 VERMONT AVE S **N/A**
< 1/8 **TORRANCE, CA**
1 ft.

Site 26 of 28 in cluster C

Relative: RGA LUST:
Lower

1997	MOBIL #11-MAP	20802 VERMONT AVE S
1996	MOBIL #11-MAP	20802 VERMONT AVE S
1995	MOBIL #11-MAP	20802 VERMONT AVE S
1994	MOBIL #11-MAP	20802 VERMONT AVE S

Actual:
24 ft.

J73 **JIMMY QUIROZ** **HAZNET** **S118210350**
1228 DESFORD ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 1 of 2 in cluster J

Relative: HAZNET:
Higher

envid:	S118210350
Year:	2014
GEPAID:	CAC002771096
Contact:	JIMMY QUIROZ
Telephone:	3103201998
Mailing Name:	Not reported
Mailing Address:	1228 DESFORD ST
Mailing City,St,Zip:	TORRANCE, CA 905021852
Gen County:	Los Angeles
TSD EPA ID:	CAD009007626
TSD County:	Los Angeles
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Cat Decode:	Asbestos containing waste
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

Actual:
44 ft.

E74 **CHMIRS** **S100279741**
110 FRWAY S/B AT TORRANCE BLVD. **N/A**
< 1/8 **CARSON, CA**
1 ft.

Site 4 of 10 in cluster E

Relative: CHMIRS:
Lower

OES Incident Number:	000800
OES notification:	Not reported
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**22-MAR-90**
Property Use:	961
Agency Id Number:	19110
Agency Incident Number:	18
Time Notified:	508
Time Completed:	630
Surrounding Area:	500
Estimated Temperature:	60

Actual:
34 ft.

(Continued) **S100279741**

Property Management:	S
More Than Two Substances Involved?:	N
Resp Agncy Personel # Of Decontaminated:	0
Responding Agency Personel # Of Injuries:	0
Responding Agency Personel # Of Fatalities:	0
Others Number Of Decontaminated:	0
Others Number Of Injuries:	0
Others Number Of Fatalities:	0
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	CAPT. D. GIBBS #032539
Report Date:	23-MAR-90
Facility Telephone:	213 267-2401
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Not reported
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	88-92
Agency:	Not reported
Incident Date:	22-MAR-90
Admin Agency:	Not reported
Amount:	Not reported
Contained:	Not reported
Site Type:	Not reported
E Date:	27-JUN-91
Substance:	Not reported
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Y
Description:	Not reported

H75 **GARDENA VALLEY #4 LANDFILL** **ENVIROSTOR** **S102056992**
833 W. TORRANCE BLVD. **SWF/LF** **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 2 of 3 in cluster H

Relative:
Lower

Actual:
27 ft.

ENVIROSTOR:

Facility ID:	60001199
Status:	Inactive - Action Required
Status Date:	08/04/2015
Site Code:	401499
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	0
NPL:	NO
Regulatory Agencies:	SMBRP, US EPA
Lead Agency:	US EPA
Program Manager:	Not reported
Supervisor:	Manny Alonzo
Division Branch:	Cleanup Cypress
Assembly:	66
Senate:	35
Special Program:	EPA - PASI
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	EPA Grant
Latitude:	33.84203
Longitude:	-118.2887
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	401499
Alias Type:	Project Code (Site Code)
Alias Name:	60001199
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	PA/SI Reassessment
Completed Date:	06/10/2015
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	PA/SI Reassessment
Completed Date:	07/26/2010
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

GARDENA VALLEY #4 LANDFILL (Continued) **S102056992**

SWF/LF (SWIS):

Region:	STATE
Facility ID:	19-AA-5058
Lat/Long:	33.84315 / -118.28792
Owner Name:	Hans Rotter/Alpine Valley-Market/Restaur
Owner Telephone:	Not reported
Owner Address:	Not reported
Owner Address2:	80133 W Torrance
Owner City,St,Zip:	Not reported
Operational Status:	Closed
Operator:	Not reported
Operator Phone:	Not reported
Operator Address:	Not reported
Operator Address2:	Not reported
Operator City,St,Zip:	Not reported
Permit Date:	Not reported
Permit Status:	Not reported
Permitted Acreage:	$0.00
Activity:	Solid Waste Disposal Site
Regulation Status:	Unpermitted
Landuse Name:	Urban,Residential,Commercial
GIS Source:	GPS
Category:	Disposal
Unit Number:	01
Inspection Frequency:	Quarterly
Accepted Waste:	Not reported
Closure Date:	Not reported
Closure Type:	Not reported
Disposal Acreage:	$0.00
SWIS Num:	19-AA-5058
Waste Discharge Requirement Num:	Not reported
Program Type:	Not reported
Permitted Throughput with Units:	Not reported
Actual Throughput with Units:	Not reported
Permitted Capacity with Units:	Not reported
Remaining Capacity:	Not reported
Remaining Capacity with Units:	Not reported
Lat/Long:	33.84315 / -118.28792

Region:	STATE
Facility ID:	19-AA-5058
Lat/Long:	33.84315 / -118.28792
Owner Name:	Ponderosa Pine Association-Condominiums
Owner Telephone:	Not reported
Owner Address:	Not reported
Owner Address2:	20712 S. Vermont
Owner City,St,Zip:	Not reported
Operational Status:	Closed
Operator:	Not reported
Operator Phone:	Not reported
Operator Address:	Not reported
Operator Address2:	Not reported
Operator City,St,Zip:	Not reported
Permit Date:	Not reported
Permit Status:	Not reported
Permitted Acreage:	$0.00
Activity:	Solid Waste Disposal Site

GARDENA VALLEY #4 LANDFILL (Continued) **S102056992**

Regulation Status: Unpermitted
Landuse Name: Urban,Residential,Commercial
GIS Source: GPS
Category: Disposal
Unit Number: 01
Inspection Frequency: Quarterly
Accepted Waste: Not reported
Closure Date: Not reported
Closure Type: Not reported
Disposal Acreage: $0.00
SWIS Num: 19-AA-5058
Waste Discharge Requirement Num: Not reported
Program Type: Not reported
Permitted Throughput with Units: Not reported
Actual Throughput with Units: Not reported
Permitted Capacity with Units: Not reported
Remaining Capacity: Not reported
Remaining Capacity with Units: Not reported
Lat/Long: 33.84315 / -118.28792

Region: STATE
Facility ID: 19-AA-5058
Lat/Long: 33.84315 / -118.28792
Owner Name: Progressive Property Mgmt-Mini Storage
Owner Telephone: Not reported
Owner Address: Not reported
Owner Address2: 736 Del Amo Blvd.
Owner City,St,Zip: Not reported
Operational Status: Closed
Operator: Not reported
Operator Phone: Not reported
Operator Address: Not reported
Operator Address2: Not reported
Operator City,St,Zip: Not reported
Permit Date: Not reported
Permit Status: Not reported
Permitted Acreage: $0.00
Activity: Solid Waste Disposal Site
Regulation Status: Unpermitted
Landuse Name: Urban,Residential,Commercial
GIS Source: GPS
Category: Disposal
Unit Number: 01
Inspection Frequency: Quarterly
Accepted Waste: Not reported
Closure Date: Not reported
Closure Type: Not reported
Disposal Acreage: $0.00
SWIS Num: 19-AA-5058
Waste Discharge Requirement Num: Not reported
Program Type: Not reported
Permitted Throughput with Units: Not reported
Actual Throughput with Units: Not reported
Permitted Capacity with Units: Not reported
Remaining Capacity: Not reported
Remaining Capacity with Units: Not reported
Lat/Long: 33.84315 / -118.28792

GARDENA VALLEY #4 LANDFILL (Continued) **S102056992**

Region:	STATE
Facility ID:	19-AA-5058
Lat/Long:	33.84315 / -118.28792
Owner Name:	Rollins Leasing Corp.Trucking Facility
Owner Telephone:	Not reported
Owner Address:	Not reported
Owner Address2:	20425 Hamilton
Owner City,St,Zip:	Not reported
Operational Status:	Closed
Operator:	Not reported
Operator Phone:	Not reported
Operator Address:	Not reported
Operator Address2:	Not reported
Operator City,St,Zip:	Not reported
Permit Date:	Not reported
Permit Status:	Not reported
Permitted Acreage:	$0.00
Activity:	Solid Waste Disposal Site
Regulation Status:	Unpermitted
Landuse Name:	Urban,Residential,Commercial
GIS Source:	GPS
Category:	Disposal
Unit Number:	01
Inspection Frequency:	Quarterly
Accepted Waste:	Not reported
Closure Date:	Not reported
Closure Type:	Not reported
Disposal Acreage:	$0.00
SWIS Num:	19-AA-5058
Waste Discharge Requirement Num:	Not reported
Program Type:	Not reported
Permitted Throughput with Units:	Not reported
Actual Throughput with Units:	Not reported
Permitted Capacity with Units:	Not reported
Remaining Capacity:	Not reported
Remaining Capacity with Units:	Not reported
Lat/Long:	33.84315 / -118.28792

I76 **BELMONTE CENATIEMPO C/O SAL CENATIEMPO** **HAZNET** **S117305128**
907 JAVELIN ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 2 of 2 in cluster I

Relative:
Lower

Actual:
26 ft.

HAZNET:

envid:	S117305128
Year:	2013
GEPAID:	CAC002749750
Contact:	SAL CENATIEMPO
Telephone:	4242379219
Mailing Name:	Not reported
Mailing Address:	907 JAVELIN ST
Mailing City,St,Zip:	TORRANCE, CA 905021942
Gen County:	Los Angeles
TSD EPA ID:	AZC950823111
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To

BELMONTE CENATIEMPO C/O SAL CENATIEMPO (Continued) **S117305128**

Include On-Site Treatment And/Or Stabilization)
Tons: 0.4
Cat Decode: Not reported
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: Not reported

C77 **CHMIRS** **S110418785**
20802 S. VERMONT **N/A**
< 1/8 **TORRANCE, CA**
1 ft.

Site 27 of 28 in cluster C

Relative: CHMIRS:
Lower

OES Incident Number:	08-6812
OES notification:	09/18/2008
Actual: OES Date:	Not reported
24 ft. OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Service Station
Cleanup By:	Unknown
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Gal(s)
Other:	Not reported
Date/Time:	1020
Year:	2008
Agency:	Veeder Root
Incident Date:	9/18/2008
Admin Agency:	Torrance Fire Department
Amount:	Not reported

(Continued) **S110418785**

Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Diesel
Quantity Released:	5
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	The diesel leaked from the base of the dispenser. The area was cleaned up by the attendant.

C78 **EXXONMOBIL OIL CORPORATION #11322** **HAZNET** **S113043529**
20802 SO VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 28 of 28 in cluster C

Relative:
Lower

Actual:
24 ft.

HAZNET:

envid:	S113043529
Year:	2011
GEPAID:	CAL000056159
Contact:	DONNA HYMES/HAZARDOUS WASTE COOR
Telephone:	6104308151
Mailing Name:	Not reported
Mailing Address:	800 E WASHINGTON ST
Mailing City,St,Zip:	WEST CHESTER, PA 193800000
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues 10 percent or more
Disposal Method:	Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Tons:	0.2502
Cat Decode:	Aqueous solution with total organic residues 10 percent or more
Method Decode:	Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Facility County:	Los Angeles

envid:	S113043529
Year:	2011
GEPAID:	CAL000056159
Contact:	DONNA HYMES/HAZARDOUS WASTE COOR
Telephone:	6104308151
Mailing Name:	Not reported
Mailing Address:	800 E WASHINGTON ST

EXXONMOBIL OIL CORPORATION #11322 (Continued) **S113043529**

Mailing City,St,Zip:	WEST CHESTER, PA 193800000
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues 10 percent or more
Disposal Method:	Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Tons:	0.2502
Cat Decode:	Aqueous solution with total organic residues 10 percent or more
Method Decode:	Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Facility County:	Los Angeles

envid:	S113043529
Year:	2010
GEPAID:	CAL000056159
Contact:	DONNA HYMES
Telephone:	6104308151
Mailing Name:	Not reported
Mailing Address:	800 E WASHINGTON ST
Mailing City,St,Zip:	WEST CHESTER, PA 193800000
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues 10 percent or more
Disposal Method:	Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Tons:	0.4587
Cat Decode:	Aqueous solution with total organic residues 10 percent or more
Method Decode:	Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Facility County:	Los Angeles

envid:	S113043529
Year:	2010
GEPAID:	CAL000056159
Contact:	DONNA HYMES
Telephone:	6104308151
Mailing Name:	Not reported
Mailing Address:	800 E WASHINGTON ST
Mailing City,St,Zip:	WEST CHESTER, PA 193800000
Gen County:	Not reported
TSD EPA ID:	TXD077603371
TSD County:	Not reported
Waste Category:	Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
Disposal Method:	Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.3
Cat Decode:	Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
Method Decode:	Fuel Blending Prior To Energy Recovery At Another Site
Facility County:	Los Angeles

envid:	S113043529
Year:	2010
GEPAID:	CAL000056159
Contact:	DONNA HYMES
Telephone:	6104308151
Mailing Name:	Not reported

EXXONMOBIL OIL CORPORATION #11322 (Continued) **S113043529**

Mailing Address:	800 E WASHINGTON ST
Mailing City,St,Zip:	WEST CHESTER, PA 193800000
Gen County:	Not reported
TSD EPA ID:	TXD077603371
TSD County:	Not reported
Waste Category:	Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
Disposal Method:	Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.3
Cat Decode:	Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
Method Decode:	Fuel Blending Prior To Energy Recovery At Another Site
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
45 additional CA_HAZNET: record(s) in the EDR Site Report.

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79 **BARBARA HOLLAND** **HAZNET** **S117281749**
946 W 220TH ST UNIT 210 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Relative: Higher

Actual: 41 ft.

HAZNET:

envid:	S117281749
Year:	2013
GEPAID:	CAC002715344
Contact:	BARBARA HOLLAND
Telephone:	3103280967
Mailing Name:	Not reported
Mailing Address:	946 W 220TH ST UNIT 210
Mailing City,St,Zip:	TORRANCE, CA 90502
Gen County:	Los Angeles
TSD EPA ID:	AZC950823111
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Cat Decode:	Not reported
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Not reported

K80 **JACK-IN-THE-BOX** **LOS ANGELES CO. HMS** **S106023550**
835 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 1 of 24 in cluster K

Relative: Lower

Actual: 38 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	S
Facility Id:	027683-039150
Facility Type:	S5
Facility Status:	Permit
Area:	2
Permit Number:	000527554
Permit Status:	Permit

JACK-IN-THE-BOX (Continued) **S106023550**

Region: LA
Permit Category: I
Facility Id: 027683-051316
Facility Type: 01
Facility Status: Permit
Area: 2
Permit Number: 000634403
Permit Status: Permit

L81 **PRITKIN-FINKEL INVESTMENT CO** **LOS ANGELES CO. HMS** **U003059883**
826 W 220TH ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 1 of 9 in cluster L

Relative: Higher

Actual: 42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 003625-044893
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

Region: LA
Permit Category: I
Facility Id: 003625-I16979
Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000012766
Permit Status: Closed

L82 **HARBOR UCLA MEDICAL CENTER** **NPDES** **S118595822**
826 W 220TH ST **N/A**
< 1/8 **TORRANCE, CA 90509**
1 ft.

Site 2 of 9 in cluster L

Relative: Higher

Actual: 42 ft.

NPDES:
Npdes Number: Not reported
Facility Status: Not reported
Agency Id: Not reported
Region: 4
Regulatory Measure Id: 321325
Order No: Not reported
Regulatory Measure Type: Construction
Place Id: Not reported
WDID: 4 19C345919
Program Type: Not reported
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: Not reported
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: 9/2/2010
Discharge Name: Not reported

HARBOR UCLA MEDICAL CENTER (Continued) **S118595822**

Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008
PROCESSED DATE:	2/28/2007
STATUS CODE NAME:	Terminated
STATUS DATE:	9/2/2010
PLACE SIZE:	1
PLACE SIZE UNIT:	52
FACILITY CONTACT NAME:	Connie Hua
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	310-224-7106
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Harbor UCLA Medical Center
OPERATOR ADDRESS:	1000 W Carson St
OPERATOR CITY:	Torrance
OPERATOR STATE:	California
OPERATOR ZIP:	90509
OPERATOR CONTACT NAME:	Mary Werk
OPERATOR CONTACT TITLE:	Dir
OPERATOR CONTACT PHONE:	310-224-7106
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	MTM Construction Inc
DEVELOPER ADDRESS:	16035 Phoenix Dr
DEVELOPER CITY:	City of Industry
DEVELOPER STATE:	California
DEVELOPER ZIP:	91745
DEVELOPER CONTACT NAME:	Raymond Johnston
DEVELOPER CONTACT TITLE:	Sr PM
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	562-224-9270
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Hospital
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Pacific Ocean
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported

HARBOR UCLA MEDICAL CENTER (Continued) **S118595822**

PRIMARY SIC: Not reported
SECONDARY SIC: Not reported
TERTIARY SIC: Not reported

L83 **ATANDT INFORMATION SYSTEMS** **HIST UST** **U001564090**
826 W 220TH STREET **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 3 of 9 in cluster L

Relative: Higher

Actual: 42 ft.

HIST UST:

File Number:	00027DEC
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00027DEC.pdf
Region:	STATE
Facility ID:	00000004923
Facility Type:	Other
Other Type:	COMMUNICATIONS
Contact Name:	BILL PARKER
Telephone:	7149731675
Owner Name:	PRITKIN-FINKKEL INVESTMENT COM
Owner Address:	10880 WILSHIRE BLVD., SUITE 23
Owner City,St,Zip:	LOS ANGELES, CA 90024
Total Tanks:	0000
Tank Num:	001
Container Num:	01
Year Installed:	Not reported
Tank Capacity:	00000000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	None

Click here for Geo Tracker PDF:

L84 **AT&T** **LOS ANGELES CO. HMS** **S104164099**
826 W 220TH ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 4 of 9 in cluster L

Relative: Higher

Actual: 42 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	Not reported
Facility Id:	003625-003748
Facility Type:	Not reported
Facility Status:	Removed
Area:	2
Permit Number:	Not reported
Permit Status:	Not reported
Region:	LA
Permit Category:	Not reported
Facility Id:	003625-I03748
Facility Type:	Not reported
Facility Status:	OPEN

AT&T (Continued) **S104164099**

Area: 2
Permit Number: Not reported
Permit Status: Not reported

L85 **LA CO HARBOR-UCLA MEDICAL CTR** **SWEEPS UST** **S101629802**
826 W 220TH ST **CA FID UST** **N/A**
< 1/8 **TORRANCE, CA 90502** **LOS ANGELES CO. HMS**
1 ft.

Site 5 of 9 in cluster L

Relative: Higher

Actual: 42 ft.

SWEEPS UST:
Status: Active
Comp Number: 3748
Number: 9
Board Of Equalization: Not reported
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Owner Tank Id: Not reported
SWRCB Tank Id: Not reported
Tank Status: Not reported
Capacity: Not reported
Active Date: Not reported
Tank Use: Not reported
STG: Not reported
Content: Not reported
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 19051058
Regulated By: UTNKA
Regulated ID: 00004923
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 8180000000
Mail To: Not reported
Mailing Address: 826 W 220TH ST
Mailing Address 2: Not reported
Mailing City,St,Zip: CENTINELA VALLEY
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 003625-040399
Facility Type: 01
Facility Status: Permit
Area: 2
Permit Number: 000392770
Permit Status: Permit

M86 **TONYS UNOCAL** **LUST** **S101583103**
1259 W CARSON ST **SWEEPS UST** **N/A**
< 1/8 **TORRANCE, CA 90502** **CA FID UST**
1 ft. **LOS ANGELES CO. HMS**

Site 1 of 55 in cluster M

Relative:
Higher

Actual:
44 ft.

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	I-05372	
Status:	Case Closed	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Soil	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603703067	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19000	
Cross Street:	NORMANDIE	
Enforcement Type:	Not reported	
Date Leak Discovered:	9/14/1992	
Date Leak First Reported:		10/13/1992
Date Leak Record Entered:	2/19/1993	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		1/20/1997
Date the Case was Closed:		9/9/1996
How Leak Discovered:	OM	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	UNOCAL	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		5035.279827602736276521536074 1
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		10/13/1992
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	UNOCAL CORPORATION	
RP Address:	376 S. VALENCIA AVE., BREA CA 92621	
Program:	LUST	
Lat/Long:	33.8316366 / -1	
Local Agency Staff:	Not reported	

TONYS UNOCAL (Continued) **S101583103**

Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: 10/30/96 3RD QUARTERLY REPORT

SWEEPS UST:
Status: Active
Comp Number: 5372
Number: 2
Board Of Equalization: 44-001057
Referral Date: 10-03-90
Action Date: 10-03-90
Created Date: 06-30-89
Owner Tank Id: Not reported
SWRCB Tank Id: 19-000-005372-000001
Tank Status: A
Capacity: Not reported
Active Date: 06-30-89
Tank Use: UNKNOWN
STG: W
Content: Not reported
Number Of Tanks: 3

Status: Active
Comp Number: 5372
Number: 2
Board Of Equalization: 44-001057
Referral Date: 10-03-90
Action Date: 10-03-90
Created Date: 06-30-89
Owner Tank Id: Not reported
SWRCB Tank Id: 19-000-005372-000002
Tank Status: A
Capacity: Not reported
Active Date: 06-30-89
Tank Use: UNKNOWN
STG: W
Content: Not reported
Number Of Tanks: Not reported

Status: Active
Comp Number: 5372
Number: 2
Board Of Equalization: 44-001057
Referral Date: 10-03-90
Action Date: 10-03-90
Created Date: 06-30-89
Owner Tank Id: Not reported
SWRCB Tank Id: 19-000-005372-000003
Tank Status: A
Capacity: Not reported
Active Date: 06-30-89
Tank Use: UNKNOWN
STG: W
Content: Not reported

TONYS UNOCAL (Continued) **S101583103**

Number Of Tanks: Not reported

CA FID UST:
Facility ID: 19002646
Regulated By: UTNKA
Regulated ID: 00017444
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2133209351
Mail To: Not reported
Mailing Address: 13707 S BROADWAY
Mailing Address 2: Not reported
Mailing City,St,Zip: TORRANCE 90502
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 005173-051651
Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000590947
Permit Status: Closed

Region: LA
Permit Category: I
Facility Id: 005173-054907
Facility Type: S4
Facility Status: Permit
Area: 2
Permit Number: 000669561
Permit Status: Permit

Region: LA
Permit Category: I
Facility Id: 005173-I05372
Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 00010304C
Permit Status: Closed

N87 **THE FOTO FACTORY** **LOS ANGELES CO. HMS** **S102064089**
21720 S VERMONT AVE #104 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 1 of 33 in cluster N

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 007392-020040
Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000067847
Permit Status: Closed

Region: LA
Permit Category: Not reported
Facility Id: 007392-045095
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

M88 **WIENERSCHNITZEL RESTAURANT #38** **LOS ANGELES CO. HMS** **S118496106**
1125 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 2 of 55 in cluster M

Relative:
Higher

Actual:
44 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 027677-060125
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000795816
Permit Status: Permit

M89 **KRAGEN AUTO PARTS STORE #1564** **HAZNET** **S113098352**
1213 W CARSON STREET **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 3 of 55 in cluster M

Relative:
Higher

Actual:
44 ft.

HAZNET:
envid: S113098352
Year: 2009
GEPAID: CAL000187971
Contact: JAMI GAY
Telephone: 4175204589
Mailing Name: Not reported
Mailing Address: PO BOX 1156
Mailing City,St,Zip: SPRINGFIELD, MO 658011156
Gen County: Not reported
TSD EPA ID: WIR000029751

KRAGEN AUTO PARTS STORE #1564 (Continued) **S113098352**

TSD County:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.05
Cat Decode:	Unspecified oil-containing waste
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Los Angeles

envid:	S113098352
Year:	2009
GEPAID:	CAL000187971
Contact:	JAMI GAY
Telephone:	4175204589
Mailing Name:	Not reported
Mailing Address:	PO BOX 1156
Mailing City,St,Zip:	SPRINGFIELD, MO 658011156
Gen County:	Not reported
TSD EPA ID:	WIR000029751
TSD County:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.05
Cat Decode:	Unspecified oil-containing waste
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Los Angeles

envid:	S113098352
Year:	2008
GEPAID:	CAL000187971
Contact:	BOB GILLESPIE-REG/ENVMNTAL MGR
Telephone:	4178747257
Mailing Name:	Not reported
Mailing Address:	PO BOX 1156
Mailing City,St,Zip:	SPRINGFIELD, MO 65801
Gen County:	Not reported
TSD EPA ID:	WIR000029751
TSD County:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.3375
Cat Decode:	Unspecified oil-containing waste
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Los Angeles

envid:	S113098352
Year:	2008
GEPAID:	CAL000187971
Contact:	BOB GILLESPIE-REG/ENVMNTAL MGR
Telephone:	4178747257
Mailing Name:	Not reported
Mailing Address:	PO BOX 1156

KRAGEN AUTO PARTS STORE #1564 (Continued) **S113098352**

Mailing City,St,Zip:	SPRINGFIELD, MO 65801
Gen County:	Not reported
TSD EPA ID:	WIR000029751
TSD County:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.3375
Cat Decode:	Unspecified oil-containing waste
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Los Angeles
envid:	S113098352
Year:	2007
GEPAID:	CAL000187971
Contact:	K M BOWLES HAZMAT
Telephone:	6022659200
Mailing Name:	Not reported
Mailing Address:	DEPT 9216 PO BOX 6030
Mailing City,St,Zip:	PHOENIX, AZ 850056030
Gen County:	Not reported
TSD EPA ID:	WIR000029751
TSD County:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.13
Cat Decode:	Unspecified oil-containing waste
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
13 additional CA_HAZNET: record(s) in the EDR Site Report.

M90 **BIOMARIN PHARMACEUTICAL INC** **HAZNET** **S112914408**
1123 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 4 of 55 in cluster M

Relative:
Higher

Actual:
44 ft.

HAZNET:

envid:	S112914408
Year:	2001
GEPAID:	CAC002349329
Contact:	JIM KROYER
Telephone:	4158508666
Mailing Name:	Not reported
Mailing Address:	46 GALLI DR
Mailing City,St,Zip:	NOVATO, CA 949490000
Gen County:	Not reported
TSD EPA ID:	CAD008302903
TSD County:	Not reported
Waste Category:	Off-specification, aged or surplus inorganics
Disposal Method:	Transfer Station
Tons:	0.02
Cat Decode:	Off-specification, aged or surplus inorganics

BIOMARIN PHARMACEUTICAL INC (Continued) **S112914408**

Method Decode: Transfer Station
Facility County: Los Angeles

envid: S112914408
Year: 2001
GEPAID: CAC002349329
Contact: JIM KROYER
Telephone: 4158508666
Mailing Name: Not reported
Mailing Address: 46 GALLI DR
Mailing City,St,Zip: NOVATO, CA 949490000
Gen County: Not reported
TSD EPA ID: CAD008302903
TSD County: Not reported
Waste Category: Off-specification, aged or surplus inorganics
Disposal Method: Transfer Station
Tons: 0.14
Cat Decode: Off-specification, aged or surplus inorganics
Method Decode: Transfer Station
Facility County: Los Angeles

envid: S112914408
Year: 2001
GEPAID: CAC002349329
Contact: JIM KROYER
Telephone: 4158508666
Mailing Name: Not reported
Mailing Address: 46 GALLI DR
Mailing City,St,Zip: NOVATO, CA 949490000
Gen County: Not reported
TSD EPA ID: CAD008302903
TSD County: Not reported
Waste Category: Alkaline solution without metals pH >= 12.5
Disposal Method: Transfer Station
Tons: 0.05
Cat Decode: Alkaline solution without metals pH >= 12.5
Method Decode: Transfer Station
Facility County: Los Angeles

N91 **EXXONMOBIL OIL CORP 10164** **RCRA-SQG 1012176328**
21700 S VERMONT AVE **FINDS CAR000202457**
< 1/8 **TORRANCE, CA 90502** **HAZNET**
1 ft. **ECHO**

Site 2 of 33 in cluster N

Relative: Higher

Actual: 42 ft.

RCRA-SQG:
Date form received by agency: 08/26/2009
Facility name: EXXONMOBIL OIL CORP 10164
Facility address: 21700 S VERMONT AVE
TORRANCE, CA 90502
EPA ID: CAR000202457
Mailing address: 882 S MATLACK ST
STE C EMES CO JD2 ENV INC
WEST CHESTER, PA 19382
Contact: DONNA HYMES
Contact address: 882 S MATLACK ST STE C EMES CO JD2 ENV INC
WEST CHESTER, PA 19382
Contact country: US

EXXONMOBIL OIL CORP 10164 (Continued) **1012176328**

Contact telephone: 610-430-8151
Contact email: DHYMES@JD2ENV.COM
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: EXXONMOBIL OIL CORP
Owner/operator address: 3225 GALLOWS RD
FAIRFAX, VA 22037
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 12/01/1999
Owner/Op end date: Not reported

Owner/operator name: EXXONMOBIL OIL CORP
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 12/01/1999
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D018
. Waste name: BENZENE

Violation Status: No violations found

EXXONMOBIL OIL CORP 10164 (Continued) **1012176328**

FINDS:

Registry ID: 110039567135

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

HAZNET:

envid:	1012176328
Year:	2014
GEPAID:	CAR000202457
Contact:	DONNA HYMES
Telephone:	6104308151
Mailing Name:	Not reported
Mailing Address:	800 E WASHINGTON ST
Mailing City,St,Zip:	WEST CHESTER, PA 193804542
Gen County:	Los Angeles
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Aqueous solution with total organic residues 10 percent or more
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	9.23238
Cat Decode:	Aqueous solution with total organic residues 10 percent or more
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Los Angeles

envid:	1012176328
Year:	2013
GEPAID:	CAR000202457
Contact:	DONNA HYMES
Telephone:	6104308151
Mailing Name:	Not reported
Mailing Address:	800 E WASHINGTON ST
Mailing City,St,Zip:	WEST CHESTER, PA 193804542
Gen County:	Los Angeles
TSD EPA ID:	CAD028409019
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.14595
Cat Decode:	Not reported
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Not reported

EXXONMOBIL OIL CORP 10164 (Continued) **1012176328**

envid: 1012176328
Year: 2013
GEPAID: CAR000202457
Contact: DONNA HYMES
Telephone: 6104308151
Mailing Name: Not reported
Mailing Address: 800 E WASHINGTON ST
Mailing City,St,Zip: WEST CHESTER, PA 193804542
Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 5.32509
Cat Decode: Not reported
Method Decode: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County: Not reported

envid: 1012176328
Year: 2013
GEPAID: CAR000202457
Contact: DONNA HYMES
Telephone: 6104308151
Mailing Name: Not reported
Mailing Address: 800 E WASHINGTON ST
Mailing City,St,Zip: WEST CHESTER, PA 193804542
Gen County: Los Angeles
TSD EPA ID: CAD028409019
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.005
Cat Decode: Not reported
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Not reported

envid: 1012176328
Year: 2012
GEPAID: CAR000202457
Contact: DONNA HYMES
Telephone: 6104308151
Mailing Name: Not reported
Mailing Address: 800 E WASHINGTON ST
Mailing City,St,Zip: WEST CHESTER, PA 193800000
Gen County: Los Angeles
TSD EPA ID: CAD028409019
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.50457
Cat Decode: Not reported
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery

EXXONMOBIL OIL CORP 10164 (Continued) **1012176328**

(H010-H129) Or (H131-H135)
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
4 additional CA_HAZNET: record(s) in the EDR Site Report.

ECHO:
Envid: 1012176328
Registry ID: 110039567135
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110039567135

O92 **EDR Hist Auto** **1015680761**
941 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 1 of 3 in cluster O

Relative:
Lower

EDR Historical Auto Stations:
Name: RELIANCE GAS
Year: 2001
Actual: Address: 941 W CARSON ST
38 ft.

M93 **LOS ANGELES BIOMEDICAL RESEARCH INS** **AST** **A100421926**
1124 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 5 of 55 in cluster M

Relative:
Higher

AST:
Certified Unified Program Agencies: Not reported
Owner: Los Angeles Biomedical Research Institute
Actual: Total Gallons: Not reported
45 ft. CERSID: 10299769
Facility ID: LACoFA0006616
Business Name: LOS ANGELES BIOMEDICAL RESEARCH INS
Phone: (310) 222-2456
Fax: Not reported
Mailing Address: 1124 WEST CARSON STREET
Mailing Address City: TORRANCE
Mailing Address State: CA
Mailing Address Zip Code: 90502
Operator Name: Los Angeles Biomedical Research Institute
Operator Phone: (310) 222-2345
Owner Phone: (310) 222-2345
Owner Mail Address: 1124 WEST CARSON STREET
Owner State: CA
Owner Zip Code: 90502
Owner Country: United States
Property Owner Name: Not reported
Property Owner Phone: Not reported
Property Owner Mailing Address: Not reported
Property Owner City: Not reported
Property Owner Stat : Not reported
Property Owner Zip Code: Not reported
Property Owner Country: Not reported
EPAID: CAD079605366

P94 **FIESTA GRILL MEDITERRANEAN** **LOS ANGELES CO. HMS** **S113745537**
1153 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 1 of 8 in cluster P

Relative: LOS ANGELES CO. HMS:
Higher Region: LA
Permit Category: I
Actual: Facility Id: 031913-053132
46 ft. Facility Type: 01
Facility Status: Permit
Area: 2
Permit Number: 000618711
Permit Status: Permit

K95 **TESORO (SHELL) #68624** **LOS ANGELES CO. HMS** **S118495420**
911 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 2 of 24 in cluster K

Relative: LOS ANGELES CO. HMS:
Lower Region: LA
Permit Category: Not reported
Actual: Facility Id: 004563-061035
38 ft. Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

---

96 **ERNS** **94397504**
945 WEST CARSON **N/A**
< 1/8 **TORRANCE, CA -**
1 ft.

Relative: Click this hyperlink while viewing on your computer to access
Lower additional ERNS detail in the EDR Site Report.

Actual:
34 ft.

Q97 **CARL'S JR RESTAURANT #426** **LOS ANGELES CO. HMS** **S118689617**
1259 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 1 of 21 in cluster Q

Relative: LOS ANGELES CO. HMS:
Higher Region: LA
Permit Category: Not reported
Actual: Facility Id: 005173-061741
48 ft. Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported

CARL'S JR RESTAURANT #426 (Continued) **S118689617**

Permit Status: Not reported

L98 **EDR Hist Auto** **1015639777**
802 W 220TH ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 6 of 9 in cluster L

Relative: Higher

Actual: 42 ft.

EDR Historical Auto Stations:

Name:	BEPOS AUTO REPAIR
Year:	1999
Address:	802 W 220TH ST
Name:	BEPOS AUTO REPAIR
Year:	2001
Address:	802 W 220TH ST
Name:	BEPOS AUTO REPAIR
Year:	2002
Address:	802 W 220TH ST
Name:	BEPOS AUTO REPAIR
Year:	2003
Address:	802 W 220TH ST
Name:	BEPOS AUTO REPAIR
Year:	2004
Address:	802 W 220TH ST

L99 **BEPO AUTO REPAIR** **HAZNET** **S113123211**
802 W 220TH ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 7 of 9 in cluster L

Relative: Higher

Actual: 42 ft.

HAZNET:

envid:	S113123211
Year:	2011
GEPAID:	CAL000262120
Contact:	ENRIQUE GONZALES
Telephone:	3103202641
Mailing Name:	Not reported
Mailing Address:	802 W 220TH ST
Mailing City,St,Zip:	TORRANCE, CA 905020000
Gen County:	Not reported
TSD EPA ID:	NVT330010000
TSD County:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.475
Cat Decode:	Unspecified oil-containing waste
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Los Angeles

M100 **ERNS** **92291659**
1259 WEST CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 6 of 55 in cluster M

Relative: Higher

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual: 44 ft.

N101 **PHO CONSOMME LLC** **LOS ANGELES CO. HMS** **S118496286**
21730 S VERMONT AVE #130 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 3 of 33 in cluster N

Relative: Higher

Actual: 42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 030172-060549
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000804810
Permit Status: Closed

M102 **MERONA ENTERPRISES DBA CARSON-NORMANDIE PLAZA** **HAZNET** **S113155306**
1141 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 7 of 55 in cluster M

Relative: Higher

Actual: 44 ft.

HAZNET:
envid: S113155306
Year: 2013
GEPAID: CAL000340454
Contact: CARLOS LOSADA
Telephone: 5627452359
Mailing Name: Not reported
Mailing Address: 9550 FIRESTONE BLVD STE 105
Mailing City,St,Zip: DOWNEY, CA 902415560
Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 2.31
Cat Decode: Not reported
Method Decode: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County: Not reported

envid: S113155306
Year: 2011
GEPAID: CAL000340454
Contact: CARLOS LOSADA
Telephone: 5627452359
Mailing Name: Not reported
Mailing Address: 9550 FIRESTONE BLVD STE 105

MERONA ENTERPRISES DBA CARSON-NORMANDIE PLAZA (Continued) **S113155306**

Mailing City,St,Zip: DOWNEY, CA 902415560
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 6.426
Cat Decode: Aqueous solution with total organic residues less than 10 percent
Method Decode: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County: Los Angeles

envid: S113155306
Year: 2009
GEPAID: CAL000340454
Contact: CARLOS LOSADA
Telephone: 5627452359
Mailing Name: Not reported
Mailing Address: 9550 FIRESTONE BLVD STE 105
Mailing City,St,Zip: DOWNEY, CA 902415560
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 1.326
Cat Decode: Aqueous solution with total organic residues less than 10 percent
Method Decode: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County: Los Angeles

M103 **SERVICE STATION 4944** **HIST UST** **U001564106**
1259 W CARSON **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 8 of 55 in cluster M

Relative: Higher
Actual: 44 ft.

HIST UST:
File Number: 0002916F
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002916F.pdf
Region: STATE
Facility ID: 00000017446
Facility Type: Gas Station
Other Type: Not reported
Contact Name: EIK KUN KIM
Telephone: 2133209351
Owner Name: UNION OIL COMPANY OF CALIFORNI
Owner Address: 3701 WILSHIRE BLVD STE 830
Owner City,St,Zip: LOS ANGELES, CA 90010
Total Tanks: 0003

Tank Num: 001
Container Num: 4944-4
Year Installed: 1962
Tank Capacity: 00000000
Tank Used for: WASTE

SERVICE STATION 4944 (Continued) **U001564106**

Type of Fuel:	WASTE OIL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor, Pressure Test
Tank Num:	002
Container Num:	4944-2
Year Installed:	1962
Tank Capacity:	00007500
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor, Pressure Test
Tank Num:	003
Container Num:	4944-1
Year Installed:	1962
Tank Capacity:	00007500
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor, Pressure Test

Click here for Geo Tracker PDF:

N104 **PHO CONSOMME LLC** **LOS ANGELES CO. HMS** **S118496285**
21730 S VERMONT AVE #130 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 4 of 33 in cluster N

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	Not reported
Facility Id:	030172-060378
Facility Type:	Not reported
Facility Status:	OPEN
Area:	2
Permit Number:	Not reported
Permit Status:	Not reported

N105 **CHMIRS** **S105673871**
21700 S. VERMONT **N/A**
< 1/8 **TORRANCE, CA**
1 ft.

Site 5 of 33 in cluster N

Relative:
Higher

Actual:
42 ft.

CHMIRS:

OES Incident Number:	1-3516
OES notification:	06/18/2001
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported

(Continued) **S105673871**

Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Responsible Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2001
Agency:	Veeder Root
Incident Date:	6/18/200112:00:00 AM
Admin Agency:	Not reported
Amount:	Not reported
Contained:	Yes
Site Type:	Service Station
E Date:	Not reported
Substance:	Soil Contamination
Unknown:	Unk
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Contamination found during a repiping project.

N106 **INDUSTRIAL TECHNOLOGY INC** **LOS ANGELES CO. HMS** **S102064101**
21822 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 6 of 33 in cluster N

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: T
Facility Id: 016315-021490
Facility Type: 1
Facility Status: Removed
Area: 2
Permit Number: 000084027
Permit Status: Removed

R107 **HAYASHI RESTAURANT** **LOS ANGELES CO. HMS** **S106023533**
800 W CARSON ST #38 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 1 of 15 in cluster R

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 027681-039148
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000527550
Permit Status: Closed

Region: LA
Permit Category: S
Facility Id: 027681-050786
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000557919
Permit Status: Permit

Region: LA
Permit Category: Not reported
Facility Id: 027681-054035
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

N108 **PHOTO FINEST INC** **LOS ANGELES CO. HMS** **S106670413**
21720 S VERMONT AVE #104 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 7 of 33 in cluster N

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 007392-I07754
Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000010051
Permit Status: Closed

N109 **AJRC INC** **RCRA-LQG** **1007200173**
21700 S VERMONT AVE **FINDS** **CAL000056160**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 8 of 33 in cluster N

Relative:
Higher

Actual:
42 ft.

RCRA-LQG:
Date form received by agency: 02/28/2002
Facility name: EXXONMOBIL OIL CORP.
Facility address: 21700 S VERMONT AVE
TORRANCE, CA 90502
EPA ID: CAL000056160
Mailing address: WEST BAYAUD AVE.
LAKEWOOD, CO 80228
Contact: JOHN HOOVER
Contact address: Not reported
Not reported
Contact country: US
Contact telephone: (800) 253-8054
Contact email: Not reported
EPA Region: 09
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: EXXONMOBIL OIL CORP.
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner

AJRC INC (Continued) **1007200173**

Owner/Op start date: 05/31/2002
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 223
. Waste name: 223

. Waste code: D001
. Waste name: IGNITABLE WASTE

Violation Status: No violations found

FINDS:

Registry ID: 110057045442

Environmental Interest/Information System
STATE MASTER

K110 **FIESTA CAR WASH** **LOS ANGELES CO. HMS** **S109421337**
21611 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 3 of 24 in cluster K

Relative:
Lower

Actual:
37 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 000379-044869
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000528774
Permit Status: Closed

N111 **VIGAN EXPRESS** **LOS ANGELES CO. HMS** **S111827703**
21720 S VERMONT AVE #114 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 9 of 33 in cluster N

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 028421-039940
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000528420
Permit Status: Permit

Region: LA
Permit Category: Not reported
Facility Id: 028421-056779
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

M112 **EDR Hist Auto** **1015194332**
1259 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 9 of 55 in cluster M

Relative:
Higher

Actual:
44 ft.

EDR Historical Auto Stations:
Name: TONYS UNION 76
Year: 2003
Address: 1259 W CARSON ST

Name: TONYS UNION 76
Year: 2004
Address: 1259 W CARSON ST

Name: TONYS UNICOL STATION
Year: 2005
Address: 1259 W CARSON ST

Name: TONYS UNICOL STATION
Year: 2006
Address: 1259 W CARSON ST

Name: TONYS UNION 76
Year: 2007
Address: 1259 W CARSON ST

Name: TONYS UNICOL STATION
Year: 2008
Address: 1259 W CARSON ST

M113 **B M A LOS ANGELES** **HAZNET** **S112885040**
1123 WEST CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 10 of 55 in cluster M

Relative: HAZNET:
Higher

envid:	S112885040
Year:	1998
GEPAID:	CAC001359520
Contact:	B M A LOS ANGELES
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	1123 WEST CARSON ST
Mailing City,St,Zip:	TORRANCE, CA 905020000
Gen County:	Not reported
TSD EPA ID:	CAD099452708
TSD County:	Not reported
Waste Category:	Oil/water separation sludge
Disposal Method:	Transfer Station
Tons:	1.6680
Cat Decode:	Oil/water separation sludge
Method Decode:	Transfer Station
Facility County:	Los Angeles

Actual:
44 ft.

M114 **UNOCAL S.S. #4944** **RGA LUST** **S114712945**
1259 CARSON ST. W. **N/A**
< 1/8 **TORRANCE, CA**
1 ft.

Site 11 of 55 in cluster M

Relative: RGA LUST:
Higher

1993	UNOCAL S.S. #4944	1259 CARSON ST. W.

Actual:
44 ft.

M115 **NORGE LAUNDRY & DRY CLEANING V** **EMI** **S106836364**
1161 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 12 of 55 in cluster M

Relative: EMI:
Higher

Year:	1995
County Code:	19
Air Basin:	SC
Facility ID:	12394
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	3
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Actual:
44 ft.

R116 **SUBWAY SANDWICH #41878** **LOS ANGELES CO. HMS** **S118496292**
800 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 2 of 15 in cluster R

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 030206-061184
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

Q117 **UNOCAL CORP SS 4944** **LOS ANGELES CO. HMS** **S102057589**
1259 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 2 of 21 in cluster Q

Relative:
Higher

Actual:
48 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: T
Facility Id: 005173-005372
Facility Type: 0
Facility Status: Closed
Area: 2
Permit Number: 00004151T
Permit Status: Closed

Q118 **CARL'S JR RESTAURANT LLC #426** **LOS ANGELES CO. HMS** **S111827215**
1259 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 3 of 21 in cluster Q

Relative:
Higher

Actual:
48 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 005173-056637
Facility Type: 01
Facility Status: Permit
Area: 2
Permit Number: 000773865
Permit Status: Permit

L119 **INTEGRATED MEDICAL SERVICES** **LOS ANGELES CO. HMS** **S104295386**
22114 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 8 of 9 in cluster L

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 020758-029442
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000531974
Permit Status: Closed

A120 **C C'S DONUTS** **LOS ANGELES CO. HMS** **S106023615**
1001 W CARSON ST #C **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 17 of 22 in cluster A

Relative:
Lower

Actual:
38 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 027661-039127
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000527520
Permit Status: Closed

Region: LA
Permit Category: Not reported
Facility Id: 027661-054031
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

Region: LA
Permit Category: S
Facility Id: 027661-055370
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000671516
Permit Status: Closed

Q121 **SUNGS BBQ HOUSE** **LOS ANGELES CO. HMS** **S106023727**
1225 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 4 of 21 in cluster Q

Relative:
Higher

Actual:
48 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 027666-039133
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

Region: LA
Permit Category: S
Facility Id: 027666-043645
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000527528
Permit Status: Permit

Region: LA
Permit Category: I
Facility Id: 027666-050142
Facility Type: 01
Facility Status: Permit
Area: 2
Permit Number: 000574039
Permit Status: Permit

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122 **ECOLOGY CONTROL INDUSTRIES** **FINDS** **1011991246**
VARIOUS LOCATIONS IN SCAQMD **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

FINDS:

Relative:
Higher

Registry ID: 110038017482

Actual:
40 ft.

Environmental Interest/Information System
AIR EMISSIONS CLASSIFICATION UNKNOWN

M123 **LA BIOMEDICAL RESEARCH INSTITUTE CHRONIC DISEASE CLINICAL RE** **HIST UST** **S111291957**
1124 WEST CARSON STREET L2 L3 **NPDES** **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 13 of 55 in cluster M

Relative:
Higher

Actual:
44 ft.

HIST UST:
File Number: 000276EC
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/000276EC.pdf
Region: Not reported
Facility ID: Not reported

LA BIOMEDICAL RESEARCH INSTITUTE CHRONIC DISEASE CLINICAL RE (Continued) **S111291957**

Facility Type:	Not reported
Other Type:	Not reported
Contact Name:	Not reported
Telephone:	Not reported
Owner Name:	Not reported
Owner Address:	Not reported
Owner City,St,Zip:	Not reported
Total Tanks:	Not reported
Tank Num:	Not reported
Container Num:	Not reported
Year Installed:	Not reported
Tank Capacity:	Not reported
Tank Used for:	Not reported
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	Not reported

Click here for Geo Tracker PDF:

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	4
Regulatory Measure Id:	417607
Order No:	Not reported
Regulatory Measure Type:	Construction
Place Id:	Not reported
WDID:	4 19C361751
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	7/27/2011
PROCESSED DATE:	8/22/2011
STATUS CODE NAME:	Active
STATUS DATE:	8/22/2011
PLACE SIZE:	0.76
PLACE SIZE UNIT:	52
FACILITY CONTACT NAME:	Arthur Zweben
FACILITY CONTACT TITLE:	Owner
FACILITY CONTACT PHONE:	310-222-3635
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	azweben@labiomed.org
OPERATOR NAME:	Los Angeles Biomedical Reasearch Institute at Harbor UCLA Medical Center
OPERATOR ADDRESS:	1124 West Carson Street
OPERATOR CITY:	Torrance
OPERATOR STATE:	California
OPERATOR ZIP:	90502
OPERATOR CONTACT NAME:	Arthur Zweben

LA BIOMEDICAL RESEARCH INSTITUTE CHRONIC DISEASE CLINICAL RE (Continued) **S111291957**

OPERATOR CONTACT TITLE:	Owner
OPERATOR CONTACT PHONE:	310-222-3635
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	azweben@labiomed.org
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Los Angeles Biomedical Reasearch Institute at Harbor UCLA Medical Center
DEVELOPER ADDRESS:	1124 West Carson Street
DEVELOPER CITY:	Torrance
DEVELOPER STATE:	California
DEVELOPER ZIP:	90502
DEVELOPER CONTACT NAME:	Arthur Zweben
DEVELOPER CONTACT TITLE:	Owner
CONSTYPE LINEAR UTILITY IND:	N
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Y
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Dominguez Channel
CERTIFIER NAME:	Arthur Zweben
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	27-JUL-11
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

S124 **SEMICONDUCTOR MATERIALS INC** **LOS ANGELES CO. HMS** **S113744616**
22108 S VERMONT AVE #101 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 1 of 17 in cluster S

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	I
Facility Id:	020757-029441
Facility Type:	09
Facility Status:	Permit
Area:	2
Permit Number:	000370216
Permit Status:	Permit

S125 **SEMICONDUCTOR MATERIALS INC** **LOS ANGELES CO. HMS** **S113744617**
22108 S VERMONT AVE #101 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 2 of 17 in cluster S

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 020757-045096
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000530220
Permit Status: Permit

S126 **SEMICONDUCTOR MATERIALS INC** **FINDS** **1016422207**
22108 S VERMONT AVE # 101 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 3 of 17 in cluster S

Relative:
Higher

Actual:
42 ft.

FINDS:

Registry ID: 110055701227

Environmental Interest/Information System
STATE MASTER

T127 **DEBRA JOHNSON** **HAZNET** **S118204947**
1211 W 221ST ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 1 of 2 in cluster T

Relative:
Higher

Actual:
45 ft.

HAZNET:
envid: S118204947
Year: 2014
GEPAID: CAC002764490
Contact: DEBRA JOHNSON
Telephone: 3105331479
Mailing Name: Not reported
Mailing Address: 1211 W 221ST ST
Mailing City,St,Zip: TORRANCE, CA 905022211
Gen County: Los Angeles
TSD EPA ID: AZC950823111
TSD County: 99
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.4
Cat Decode: Asbestos containing waste
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: Los Angeles

S128 **DRAKE RACE CARS** **HAZNET** **S113071389**
22106 S VERMONT AVE SUITE 106 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 4 of 17 in cluster S

Relative:
Higher

Actual:
42 ft.

HAZNET:

envid:	S113071389
Year:	2009
GEPAID:	CAL000126284
Contact:	CLARK DRAKE
Telephone:	3103285375
Mailing Name:	Not reported
Mailing Address:	22106 S VERMONT AVE STE 106
Mailing City,St,Zip:	TORRANCE, CA 905020000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Not reported
Tons:	0.22935
Cat Decode:	Unspecified oil-containing waste
Method Decode:	Not reported
Facility County:	Los Angeles

envid:	S113071389
Year:	2009
GEPAID:	CAL000126284
Contact:	CLARK DRAKE
Telephone:	3103285375
Mailing Name:	Not reported
Mailing Address:	22106 S VERMONT AVE STE 106
Mailing City,St,Zip:	TORRANCE, CA 905020000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Not reported
Tons:	0.22935
Cat Decode:	Unspecified oil-containing waste
Method Decode:	Not reported
Facility County:	Los Angeles

envid:	S113071389
Year:	2000
GEPAID:	CAL000126284
Contact:	CLARK DRAKE
Telephone:	3103285375
Mailing Name:	Not reported
Mailing Address:	22106 S VERMONT AVE STE 106
Mailing City,St,Zip:	TORRANCE, CA 905020000
Gen County:	Not reported
TSD EPA ID:	CAT080025711
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Tons:	9.06
Cat Decode:	Waste oil and mixed oil
Method Decode:	Recycler

DRAKE RACE CARS (Continued) **S113071389**

Facility County: Los Angeles

envid: S113071389
Year: 2000
GEPAID: CAL000126284
Contact: CLARK DRAKE
Telephone: 3103285375
Mailing Name: Not reported
Mailing Address: 22106 S VERMONT AVE STE 106
Mailing City,St,Zip: TORRANCE, CA 905020000
Gen County: Not reported
TSD EPA ID: CAT080025711
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: 9.06
Cat Decode: Waste oil and mixed oil
Method Decode: Recycler
Facility County: Los Angeles

envid: S113071389
Year: 1999
GEPAID: CAL000126284
Contact: DRAKE RACE CAR INC
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 22106 S VERMONT AVE STE 106
Mailing City,St,Zip: TORRANCE, CA 905020000
Gen County: Not reported
TSD EPA ID: CAT080025711
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: 8.2566
Cat Decode: Waste oil and mixed oil
Method Decode: Recycler
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
7 additional CA_HAZNET: record(s) in the EDR Site Report.

S129 **TRI-MACHINE CO** **LOS ANGELES CO. HMS** **S110071197**
22106 S VERMONT AVE #104 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 5 of 17 in cluster S

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 030180-043596
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

S130 **PARAGON ENGINEERING INC** **RCRA-SQG** **1000146203**
22106 S VERMONT AVE **FINDS** **CAD010706885**
< 1/8 **TORRANCE, CA 90502** **ECHO**
1 ft.

Site 6 of 17 in cluster S

Relative: Higher

Actual: 42 ft.

RCRA-SQG:

Date form received by agency:	09/09/1986
Facility name:	PARAGON ENGINEERING INC
Facility address:	22106 S VERMONT AVE TORRANCE, CA 90502
EPA ID:	CAD010706885
Mailing address:	S VERMONT AVE TORRANCE, CA 90502
Contact:	ENVIRONMENTAL MANAGER
Contact address:	22106 S VERMONT AVE TORRANCE, CA 90502
Contact country:	US
Contact telephone:	(213) 320-9251
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	PARAGON ENG
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No

PARAGON ENGINEERING INC (Continued) **1000146203**

Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002638138

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ECHO:
Envid: 1000146203
Registry ID: 110002638138
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002638138

S131 **DRAKE RACE CAR DEVELOPMENT INC** **LOS ANGELES CO. HMS** **S110071189**
22106 S VERMONT AVE #106 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 7 of 17 in cluster S

Relative: Higher

Actual: 42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 030178-043590
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000628823
Permit Status: Permit

S132 **PARAGON ENGINEERING INC** **HAZNET** **S113035772**
22106 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 8 of 17 in cluster S

Relative: Higher

Actual: 42 ft.

HAZNET:
envid: S113035772
Year: 1995
GEPAID: CAL000035972
Contact: MAZZARINO VJ
Telephone: 0000000000

PARAGON ENGINEERING INC (Continued) **S113035772**

Mailing Name:	Not reported
Mailing Address:	22106 S VERMONT AVE
Mailing City,St,Zip:	TORRANCE, CA 905020000
Gen County:	Not reported
TSD EPA ID:	CAD099452708
TSD County:	Not reported
Waste Category:	Oil/water separation sludge
Disposal Method:	Recycler
Tons:	.4170
Cat Decode:	Oil/water separation sludge
Method Decode:	Recycler
Facility County:	Los Angeles

envid:	S113035772
Year:	1994
GEPAID:	CAL000035972
Contact:	MAZZARINO VJ
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	22106 S VERMONT AVE
Mailing City,St,Zip:	TORRANCE, CA 905020000
Gen County:	Not reported
TSD EPA ID:	CAD099452708
TSD County:	Not reported
Waste Category:	Oil/water separation sludge
Disposal Method:	Recycler
Tons:	.6046
Cat Decode:	Oil/water separation sludge
Method Decode:	Recycler
Facility County:	Los Angeles

M133 **CONOCO PHILLIPS #254944** **HAZNET** **S113129539**
1259 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 14 of 55 in cluster M

Relative: Higher

Actual: 44 ft.

HAZNET:

envid:	S113129539
Year:	2009
GEPAID:	CAL000277138
Contact:	DANELLE EICHHORST
Telephone:	2812933723
Mailing Name:	Not reported
Mailing Address:	600 N DAIRY ASHFORD -US MARKETING -
Mailing City,St,Zip:	HOUSTON, TX 77079
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Tank bottom waste
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	3.336
Cat Decode:	Tank bottom waste
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Los Angeles

CONOCO PHILLIPS #254944 (Continued) **S113129539**

envid: S113129539
Year: 2008
GEPAID: CAL000277138
Contact: DANELLE EICHHORST
Telephone: 2812933723
Mailing Name: Not reported
Mailing Address: 600 N DAIRY ASHFORD -US MARKETING -
Mailing City,St,Zip: HOUSTON, TX 77079
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 4.6662
Cat Decode: Aqueous solution with total organic residues less than 10 percent
Method Decode: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County: Los Angeles

envid: S113129539
Year: 2007
GEPAID: CAL000277138
Contact: DANELLE EICHHORST
Telephone: 2812933723
Mailing Name: Not reported
Mailing Address: 600 N DAIRY ASHFORD -US MARKETING -
Mailing City,St,Zip: HOUSTON, TX 77079
Gen County: Not reported
TSD EPA ID: CAD982444481
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 2.31
Cat Decode: Aqueous solution with total organic residues less than 10 percent
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Los Angeles

envid: S113129539
Year: 2006
GEPAID: CAL000277138
Contact: DANELLE EICHHORST
Telephone: 2812933723
Mailing Name: Not reported
Mailing Address: 600 N DAIRY ASHFORD-MO 1001
Mailing City,St,Zip: HOUSTON, TX 77079
Gen County: Not reported
TSD EPA ID: CAD982444481
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Recycler
Tons: 0.08
Cat Decode: Other organic solids
Method Decode: Recycler
Facility County: Los Angeles

CONOCO PHILLIPS #254944 (Continued) **S113129539**

envid:	S113129539
Year:	2006
GEPAID:	CAL000277138
Contact:	DANELLE EICHHORST
Telephone:	2812933723
Mailing Name:	Not reported
Mailing Address:	600 N DAIRY ASHFORD-MO 1001
Mailing City,St,Zip:	HOUSTON, TX 77079
Gen County:	Not reported
TSD EPA ID:	CAD982444481
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Treatment, Tank
Tons:	0.2
Cat Decode:	Aqueous solution with total organic residues less than 10 percent
Method Decode:	Treatment, Tank
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
1 additional CA_HAZNET: record(s) in the EDR Site Report.

S134 **SEMICONDUCTOR MATERIALS INC** **LOS ANGELES CO. HMS** **U003064989**
22104 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 9 of 17 in cluster S

Relative: Higher
Actual: 42 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	Not reported
Facility Id:	015712-I16766
Facility Type:	Not reported
Facility Status:	OPEN
Area:	2
Permit Number:	Not reported
Permit Status:	Not reported

S135 **CHMIRS** **S110981529**
22104 S. VERMONT SUITE 101-103 **N/A**
< 1/8 **TORRANCE, CA**
1 ft.

Site 10 of 17 in cluster S

Relative: Higher
Actual: 42 ft.

CHMIRS:

OES Incident Number:	10-5529
OES notification:	09/14/2010
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported

(Continued) **S110981529**

Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Merchant/Business
Cleanup By:	Unknown
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Cu.Ft.
Other:	Not reported
Date/Time:	2000
Year:	2010
Agency:	NRC
Incident Date:	9/13/2010
Admin Agency:	Torrance Fire Department
Amount:	Not reported
Contained:	No
Site Type:	Not reported
E Date:	Not reported
Substance:	AUTOMOTIVE BODY SPRAY PAINT
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	CALLER STATED THERE ARE AUTOMOBILES THAT ARE BEING SPRAY PAINTED WITHOUT THE PROPER VENTILATION EQUIPMENT. NO ACTIONS TAKEN AS THIS IS STILL GOING ON.

S136 **SEMICONDUCTOR MATERIALS INC** **HAZNET** **S113041390**
22104 S VERMONT **N/A**
< 1/8 **TORRANCE, CA 90507**
1 ft.

Site 11 of 17 in cluster S

Relative:
Higher

Actual:
42 ft.

HAZNET:

envid:	S113041390
Year:	2014
GEPAID:	CAL000048176
Contact:	RANDY BOUJIKIAN V-PRES
Telephone:	3103285350
Mailing Name:	Not reported
Mailing Address:	PO BOX 148
Mailing City,St,Zip:	TORRANCE, CA 905070000
Gen County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County:	99
Waste Category:	Other inorganic solid waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.325
Cat Decode:	Other inorganic solid waste
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

envid:	S113041390
Year:	2013
GEPAID:	CAL000048176
Contact:	RANDY BOUJIKIAN V-PRES
Telephone:	3103285350
Mailing Name:	Not reported
Mailing Address:	PO BOX 148
Mailing City,St,Zip:	TORRANCE, CA 905070000
Gen County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.375
Cat Decode:	Not reported
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Not reported

envid:	S113041390
Year:	2011
GEPAID:	CAL000048176
Contact:	RANDY BOUJIKIAN V-PRES
Telephone:	3103285350
Mailing Name:	Not reported
Mailing Address:	PO BOX 148
Mailing City,St,Zip:	TORRANCE, CA 905070000
Gen County:	Not reported
TSD EPA ID:	NVT330010000
TSD County:	Not reported
Waste Category:	Other inorganic solid waste

SEMICONDUCTOR MATERIALS INC (Continued) **S113041390**

Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.5
Cat Decode:	Other inorganic solid waste
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

envid:	S113041390
Year:	2008
GEPAID:	CAL000048176
Contact:	RANDY BOUJIKIAN V-PRES
Telephone:	3103285350
Mailing Name:	Not reported
Mailing Address:	PO BOX 148
Mailing City,St,Zip:	TORRANCE, CA 905070000
Gen County:	Not reported
TSD EPA ID:	NVT330010000
TSD County:	Not reported
Waste Category:	Not reported
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	1.3761
Cat Decode:	Not reported
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Los Angeles

envid:	S113041390
Year:	2008
GEPAID:	CAL000048176
Contact:	RANDY BOUJIKIAN V-PRES
Telephone:	3103285350
Mailing Name:	Not reported
Mailing Address:	PO BOX 148
Mailing City,St,Zip:	TORRANCE, CA 905070000
Gen County:	Not reported
TSD EPA ID:	NVT330010000
TSD County:	Not reported
Waste Category:	Other inorganic solid waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.05
Cat Decode:	Other inorganic solid waste
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
14 additional CA_HAZNET: record(s) in the EDR Site Report.

S137 **ERNS** **2010953981**
22104 S.VERMONT **N/A**
< 1/8 **TORRANCE, CA**
1 ft.

Site 12 of 17 in cluster S

Relative:
Higher

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
42 ft.

M138 **GOLDEN PHEASANT CHINESE REST** **LOS ANGELES CO. HMS** **S104536419**
1077 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 15 of 55 in cluster M

Relative:
Higher

Actual:
44 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 022596-031692
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000527158
Permit Status: Closed

Region: LA
Permit Category: Not reported
Facility Id: 022596-053855
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

Region: LA
Permit Category: S
Facility Id: 022596-058101
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000792173
Permit Status: Permit

M139 **RISING SUN ENTERPRISES INC** **LOS ANGELES CO. HMS** **S109117460**
1141 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 16 of 55 in cluster M

Relative:
Higher

Actual:
45 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 005199-051133
Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000665408
Permit Status: Closed

S140 **X PERT REBUILD & MACHINE UNIT F** **RCRA-SQG** **1000219325**
22102 S VERMONT AVE **FINDS** **CAD981439250**
< 1/8 **TORRANCE, CA 90502** **ECHO**
1 ft.

Site 13 of 17 in cluster S

Relative:
Higher

Actual:
42 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	X PERT REBUILD & MACHINE UNIT F
Facility address:	22102 S VERMONT AVE TORRANCE, CA 90502
EPA ID:	CAD981439250
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	RAY BOWMAN
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No

X PERT REBUILD & MACHINE UNIT F (Continued) **1000219325**

User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 09/03/1986
Site name: X PERT REBUILD & MACHINE UNIT F
Classification: Large Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110002705369

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ECHO:
Envid: 1000219325
Registry ID: 110002705369
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002705369

K141 **POLLY'S PIES RESTAURANT** **LOS ANGELES CO. HMS** **S110070231**
819 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 4 of 24 in cluster K

Relative: Lower

Actual: 39 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 027658-053238
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000622403
Permit Status: Closed

M142 **TOSCO/UNOCAL #30769** **RGA LUST** **S114705686**
1259 W CARSON STREET **N/A**
< 1/8 **TORRANCE, CA**
1 ft.

Site 17 of 55 in cluster M

Relative: RGA LUST:
Higher 2005 TOSCO/UNOCAL #30769 1259 W CARSON STREET

Actual:
44 ft.

K143 **TESORO SOUTH COAST CO LLC** **LOS ANGELES CO. HMS** **S103392449**
911 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 5 of 24 in cluster K

Relative: LOS ANGELES CO. HMS:
Lower Region: LA
Permit Category: T
Actual: Facility Id: 004563-026329
38 ft. Facility Type: 0
Facility Status: Closed
Area: 2
Permit Number: 000227722
Permit Status: Closed

Region: LA
Permit Category: S
Facility Id: 004563-036198
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000529266
Permit Status: Permit

M144 **BIOMARIN INC** **LOS ANGELES CO. HMS** **S103489178**
1123 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 18 of 55 in cluster M

Relative: LOS ANGELES CO. HMS:
Higher Region: LA
Permit Category: I
Actual: Facility Id: 018679-026654
44 ft. Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000015052
Permit Status: Closed

Region: LA
Permit Category: S
Facility Id: 018679-045009
Facility Type: S5
Facility Status: Removed
Area: 2
Permit Number: 000530160
Permit Status: Removed

BIOMARIN INC (Continued) **S103489178**

Region: LA
Permit Category: Not reported
Facility Id: 018679-053917
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

Region: LA
Permit Category: I
Facility Id: 018679-055447
Facility Type: 01
Facility Status: Permit
Area: 2
Permit Number: 000759001
Permit Status: Permit

N145 **EXXONMOBIL OIL CORPORATION #10164** **HAZNET** **S113043530**
21700 VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 10 of 33 in cluster N

Relative:
Higher

Actual:
42 ft.

HAZNET:
envid: S113043530
Year: 2010
GEPAID: CAL000056160
Contact: DONNA HYMES
Telephone: 6104308151
Mailing Name: Not reported
Mailing Address: 800 E WASHINGTON ST
Mailing City,St,Zip: WEST CHESTER, PA 193800000
Gen County: Not reported
TSD EPA ID: TXD000838896
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 0.0125
Cat Decode: Other organic solids
Method Decode: Incineration--Thermal Destruction Other Than Use As A Fuel
Facility County: Los Angeles

envid: S113043530
Year: 2010
GEPAID: CAL000056160
Contact: DONNA HYMES
Telephone: 6104308151
Mailing Name: Not reported
Mailing Address: 800 E WASHINGTON ST
Mailing City,St,Zip: WEST CHESTER, PA 193800000
Gen County: Not reported
TSD EPA ID: TXD000838896
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 0.0125
Cat Decode: Other organic solids

EXXONMOBIL OIL CORPORATION #10164 (Continued) **S113043530**

Method Decode: Incineration--Thermal Destruction Other Than Use As A Fuel
Facility County: Los Angeles

envid: S113043530
Year: 2009
GEPAID: CAL000056160
Contact: DONNA HYMES
Telephone: 6104308151
Mailing Name: Not reported
Mailing Address: 800 E WASHINGTON ST
Mailing City,St,Zip: WEST CHESTER, PA 19380
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues 10 percent or more
Disposal Method: Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Tons: 0.22935
Cat Decode: Aqueous solution with total organic residues 10 percent or more
Method Decode: Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Facility County: Los Angeles

envid: S113043530
Year: 2009
GEPAID: CAL000056160
Contact: DONNA HYMES
Telephone: 6104308151
Mailing Name: Not reported
Mailing Address: 800 E WASHINGTON ST
Mailing City,St,Zip: WEST CHESTER, PA 19380
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues 10 percent or more
Disposal Method: Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Tons: 0.22935
Cat Decode: Aqueous solution with total organic residues 10 percent or more
Method Decode: Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Facility County: Los Angeles

envid: S113043530
Year: 2008
GEPAID: CAL000056160
Contact: DALE VIATOR, ENVT'L ADVISOR
Telephone: 2816548470
Mailing Name: Not reported
Mailing Address: 882 S MATLACK ST SUITE C
Mailing City,St,Zip: WEST CHESTER, PA 193820000
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues 10 percent or more
Disposal Method: Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)

EXXONMOBIL OIL CORPORATION #10164 (Continued) **S113043530**

Tons: 0.22935
Cat Decode: Aqueous solution with total organic residues 10 percent or more
Method Decode: Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
29 additional CA_HAZNET: record(s) in the EDR Site Report.

R146 **AROMA CATERING** **LOS ANGELES CO. HMS** **S112165897**
800 W CARSON ST #34 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 3 of 15 in cluster R

Relative: Higher
Actual: 42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 033594-057003
Facility Type: 01
Facility Status: Permit
Area: 2
Permit Number: 000727214
Permit Status: Permit

N147 **TROPI-CUBA CAFE INC UNIT 130** **LOS ANGELES CO. HMS** **S113745354**
21730 S VERMONT AVE #130 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 11 of 33 in cluster N

Relative: Higher
Actual: 42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 030172-051121
Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000584335
Permit Status: Closed

N148 **KING S SERVICE STATION** **EDR Hist Auto** **1009019393**
21700 S VERMONT AV **N/A**
< 1/8 **TORRANCE, CA**
1 ft.

Site 12 of 33 in cluster N

Relative: Higher
Actual: 42 ft.

EDR Historical Auto Stations:
Name: KING S SERVICE STATION
Year: 1940
Type: AUTO SERVICE STATIONS

Name: KBINGS SERVICE STATION
Year: 1940
Type: AUTO SERVICE STATIONS

KING S SERVICE STATION (Continued) **1009019393**

Name: BERNASCONI RUDOLPH
Year: 1946
Type: AUTOMOBILE SERVICE STATIONS

Name: LEES MOBILE STATION
Year: 1999
Address: 21700 S VERMONT AVE

Name: LEES MOBILE STATION
Year: 2001
Address: 21700 S VERMONT AVE

Name: LEES MOBILE STATION
Year: 2002
Address: 21700 S VERMONT AVE

Name: LIMS MOBIL MART
Year: 2003
Address: 21700 S VERMONT AVE

Name: LIMS MOBIL MART
Year: 2004
Address: 21700 S VERMONT AVE

Name: LIMS MOBIL MART
Year: 2005
Address: 21700 S VERMONT AVE

Name: LIMS MOBIL MART
Year: 2006
Address: 21700 S VERMONT AVE

Name: LEES MOBILE STATION
Year: 2007
Address: 21700 S VERMONT AVE

Name: LEES MOBILE STATION
Year: 2008
Address: 21700 S VERMONT AVE

Name: LEES MOBIL
Year: 2010
Address: 21700 S VERMONT AVE

Name: LEES MOBILE STATION
Year: 2011
Address: 21700 S VERMONT AVE

Name: LEES MOBILE STATION
Year: 2012
Address: 21700 S VERMONT AVE

U149 **CARSON NORMANDIE LLC** **LOS ANGELES CO. HMS** **S106023715**
1173 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 1 of 8 in cluster U

Relative:
Higher

Actual:
47 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	I
Facility Id:	028580-040242
Facility Type:	S4
Facility Status:	Closed
Area:	2
Permit Number:	000400203
Permit Status:	Closed

Region:	LA
Permit Category:	S
Facility Id:	028580-046240
Facility Type:	S5
Facility Status:	Closed
Area:	2
Permit Number:	000530404
Permit Status:	Closed

Region:	LA
Permit Category:	S
Facility Id:	028580-049304
Facility Type:	S5
Facility Status:	Closed
Area:	2
Permit Number:	000528464
Permit Status:	Closed

Region:	LA
Permit Category:	S
Facility Id:	028885-050445
Facility Type:	S5
Facility Status:	Closed
Area:	2
Permit Number:	000552824
Permit Status:	Closed

Region:	LA
Permit Category:	S
Facility Id:	028885-053536
Facility Type:	S5
Facility Status:	Permit
Area:	2
Permit Number:	000628113
Permit Status:	Permit

Region:	LA
Permit Category:	I
Facility Id:	028885-053540
Facility Type:	01
Facility Status:	Permit
Area:	2
Permit Number:	000628205

CARSON NORMANDIE LLC (Continued) **S106023715**

Permit Status: Permit

V150 **THE 21600 VERMONT GROUP** **HAZNET** **S112874606**
21600 VERMONT **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 1 of 12 in cluster V

Relative:
Lower

Actual:
33 ft.

HAZNET:

envid:	S112874606
Year:	1996
GEPAID:	CAC001212624
Contact:	THE 21600 VERMONT GROUP
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	21600 VERMONT
Mailing City,St,Zip:	TORRANCE, CA 905020000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Recycler
Tons:	7.3308
Cat Decode:	Unspecified oil-containing waste
Method Decode:	Recycler
Facility County:	Los Angeles

V151 **JOHN BATES** **LOS ANGELES CO. HMS** **S103317699**
21602 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 2 of 12 in cluster V

Relative:
Lower

Actual:
30 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	T
Facility Id:	003508-023360
Facility Type:	1
Facility Status:	Removed
Area:	2
Permit Number:	000160698
Permit Status:	Removed

V152 **TRC/HARBOR UCLA DIALYSIS CTR** **LOS ANGELES CO. HMS** **S100863952**
21602 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 3 of 12 in cluster V

Relative:
Lower

Actual:
30 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	I
Facility Id:	003508-023976
Facility Type:	01
Facility Status:	Permit

TRC/HARBOR UCLA DIALYSIS CTR (Continued) **S100863952**

Area: 2
Permit Number: 000177022
Permit Status: Permit

Region: LA
Permit Category: S
Facility Id: 003508-045094
Facility Type: S5
Facility Status: Removed
Area: 2
Permit Number: 000529140
Permit Status: Removed

M153 **LOS ANGELES BIOMEDICAL RESERACH INSTITUTE** **HAZNET** **S113146254**
1124 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 19 of 55 in cluster M

Relative:
Higher

Actual:
44 ft.

HAZNET:

envid: S113146254
Year: 2014
GEPAID: CAL000316288
Contact: Gil Armangue
Telephone: 3102222456
Mailing Name: Not reported
Mailing Address: 1124 W CARSON ST
Mailing City,St,Zip: TORRANCE, CA 905020000
Gen County: Los Angeles
TSD EPA ID: NVT330010000
TSD County: 99
Waste Category: Other organic solids
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.261
Cat Decode: Other organic solids
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: Los Angeles

envid: S113146254
Year: 2014
GEPAID: CAL000316288
Contact: Gil Armangue
Telephone: 3102222456
Mailing Name: Not reported
Mailing Address: 1124 W CARSON ST
Mailing City,St,Zip: TORRANCE, CA 905020000
Gen County: Los Angeles
TSD EPA ID: TXD055135388
TSD County: 99
Waste Category: Laboratory waste chemicals
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.0045
Cat Decode: Laboratory waste chemicals
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

LOS ANGELES BIOMEDICAL RESERACH INSTITUTE (Continued) **S113146254**

Facility County: Los Angeles

envid: S113146254
Year: 2014
GEPAID: CAL000316288
Contact: Gil Armangue
Telephone: 3102222456
Mailing Name: Not reported
Mailing Address: 1124 W CARSON ST
Mailing City,St,Zip: TORRANCE, CA 905020000
Gen County: Los Angeles
TSD EPA ID: UTD981552177
TSD County: 99
Waste Category: Other inorganic solid waste
Disposal Method: Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 0.12
Cat Decode: Other inorganic solid waste
Method Decode: Incineration--Thermal Destruction Other Than Use As A Fuel
Facility County: Los Angeles

envid: S113146254
Year: 2014
GEPAID: CAL000316288
Contact: Gil Armangue
Telephone: 3102222456
Mailing Name: Not reported
Mailing Address: 1124 W CARSON ST
Mailing City,St,Zip: TORRANCE, CA 905020000
Gen County: Los Angeles
TSD EPA ID: UTD981552177
TSD County: 99
Waste Category: Off-specification, aged or surplus organics
Disposal Method: Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 0.13
Cat Decode: Off-specification, aged or surplus organics
Method Decode: Incineration--Thermal Destruction Other Than Use As A Fuel
Facility County: Los Angeles

envid: S113146254
Year: 2014
GEPAID: CAL000316288
Contact: Gil Armangue
Telephone: 3102222456
Mailing Name: Not reported
Mailing Address: 1124 W CARSON ST
Mailing City,St,Zip: TORRANCE, CA 905020000
Gen County: Los Angeles
TSD EPA ID: AZC950823111
TSD County: 99
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.23
Cat Decode: Asbestos containing waste
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: Los Angeles

LOS ANGELES BIOMEDICAL RESERACH INSTITUTE (Continued) **S113146254**

Click this hyperlink while viewing on your computer to access
80 additional CA_HAZNET: record(s) in the EDR Site Report.

K154 **SHELL SERVICE STATION** **RCRA-SQG** **1005441232**
911 W CARSON **FINDS** **CAR000116954**
< 1/8 **TORRANCE, CA 90502** **HAZNET**
1 ft.

Site 6 of 24 in cluster K

Relative: Lower

Actual: 38 ft.

RCRA-SQG:

Date form received by agency:	05/21/2002
Facility name:	SHELL SERVICE STATION
Facility address:	911 W CARSON S A P 136184 TORRANCE, CA 90502
EPA ID:	CAR000116954
Mailing address:	P O BOX 2648 HOUSTON, TX 772522648
Contact:	SONDRA BIENVENU
Contact address:	P O BOX 2648 HOUSTON, TX 772522648
Contact country:	US
Contact telephone:	(713) 241-5036
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	EQUILON ENT LLC DBA S O P US
Owner/operator address:	P O BOX 2648 HOUSTON, TX 77252
Owner/operator country:	Not reported
Owner/operator telephone:	(713) 241-5036
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No

SHELL SERVICE STATION (Continued) **1005441232**

Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D018
. Waste name: BENZENE

Violation Status: No violations found

FINDS:

Registry ID: 110059738468

Environmental Interest/Information System
STATE MASTER

HAZNET:

envid: 1005441232
Year: 2007
GEPAID: CAR000116954
Contact: R HULL/ENV. REPORTING ANALYST
Telephone: 2818742224
Mailing Name: Not reported
Mailing Address: 12700 NORTHBOROUGH DR 300G03
Mailing City,St,Zip: Houston, TX 770670000
Gen County: Not reported
TSD EPA ID: CAD008302903
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.04
Cat Decode: Other organic solids
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Los Angeles

envid: 1005441232
Year: 2004
GEPAID: CAR000116954
Contact: N CORTEZ/ENVT'L DATA ANALYST
Telephone: 2818742224
Mailing Name: Not reported
Mailing Address: 12700 NORTHBOROUGH DR MFT 240-G
Mailing City,St,Zip: Houston, TX 770672508
Gen County: Not reported
TSD EPA ID: CAD982484933
TSD County: Not reported
Waste Category: Other empty containers 30 gallons or more
Disposal Method: Disposal, Other
Tons: 1.25
Cat Decode: Other empty containers 30 gallons or more
Method Decode: Disposal, Other
Facility County: Los Angeles

SHELL SERVICE STATION (Continued) **1005441232**

envid: 1005441232
Year: 2002
GEPAID: CAR000116954
Contact: N CORTEZ/ENVT'L DATA ANALYST
Telephone: 2818742224
Mailing Name: Not reported
Mailing Address: 12700 NORTHBOROUGH DR MFT 240-G
Mailing City,St,Zip: Houston, TX 770672508
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Tank bottom waste
Disposal Method: Treatment, Tank
Tons: 0.7
Cat Decode: Tank bottom waste
Method Decode: Treatment, Tank
Facility County: Los Angeles

envid: 1005441232
Year: 2002
GEPAID: CAR000116954
Contact: N CORTEZ/ENVT'L DATA ANALYST
Telephone: 2818742224
Mailing Name: Not reported
Mailing Address: 12700 NORTHBOROUGH DR MFT 240-G
Mailing City,St,Zip: Houston, TX 770672508
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Treatment, Tank
Tons: 0.1
Cat Decode: Aqueous solution with total organic residues less than 10 percent
Method Decode: Treatment, Tank
Facility County: Los Angeles

M155 **LEES SANDWICHES** **LOS ANGELES CO. HMS** **S108418622**
1145 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 20 of 55 in cluster M

Relative:
Higher

Actual:
46 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 029341-048691
Facility Type: S4
Facility Status: Permit
Area: 2
Permit Number: 000525333
Permit Status: Permit

Region: LA
Permit Category: I
Facility Id: 029341-058882
Facility Type: 01
Facility Status: Permit
Area: 2

LEES SANDWICHES (Continued) **S108418622**

Permit Number: 000820457
Permit Status: Permit

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156 **JOHN NAITO NURSERY** **LOS ANGELES CO. HMS** **S113745860**
22102 NORMANDIE AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Relative: LOS ANGELES CO. HMS:
Higher Region: LA
Permit Category: S
Facility Id: 033793-057787
Actual: Facility Type: S5
48 ft. Facility Status: Permit
Area: 2
Permit Number: 000762089
Permit Status: Permit

U157 **NE BAKESHOP AND BUFFET** **LOS ANGELES CO. HMS** **S113745634**
1175 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 2 of 8 in cluster U

Relative: LOS ANGELES CO. HMS:
Higher Region: LA
Permit Category: I
Actual: Facility Id: 032802-053362
47 ft. Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000656289
Permit Status: Closed

P158 **MANILA MANGO FILIPINO RESTAURA** **LOS ANGELES CO. HMS** **S113745536**
1153 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 2 of 8 in cluster P

Relative: LOS ANGELES CO. HMS:
Higher Region: LA
Permit Category: Not reported
Actual: Facility Id: 031913-051909
46 ft. Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

U159 **PIZZA HUT RESTAURANT #059814** **LOS ANGELES CO. HMS** **S108741054**
1173 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 3 of 8 in cluster U

Relative:
Higher

Actual:
47 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 028885-041094
Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000421919
Permit Status: Closed

Q160 **THE FLAME BROILER** **LOS ANGELES CO. HMS** **S115780005**
1249 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 5 of 21 in cluster Q

Relative:
Higher

Actual:
48 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 005378-058132
Facility Type: 01
Facility Status: Permit
Area: 2
Permit Number: 000754648
Permit Status: Permit

N161 **MOBIL OIL CORP S/S #18-MAF** **UST** **U003940699**
21700 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 13 of 33 in cluster N

Relative:
Higher

Actual:
42 ft.

UST:
Facility ID: 4331
Permitting Agency: LOS ANGELES COUNTY
Latitude: 33.83262
Longitude: -118.288548

S162 **BICKERTON IRON WORKS** **HAZNET** **S113076705**
22118 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 14 of 17 in cluster S

Relative:
Higher

Actual:
42 ft.

HAZNET:
envid: S113076705
Year: 2010
GEPAID: CAL000140263
Contact: MINH TRUONG, CONTROLLER
Telephone: 3103207720
Mailing Name: Not reported

BICKERTON IRON WORKS (Continued) **S113076705**

Mailing Address: 22118 S VERMONT AVE
Mailing City,St,Zip: TORRANCE, CA 905020000
Gen County: Not reported
TSD EPA ID: AZR000030452
TSD County: Not reported
Waste Category: Latex waste
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.2085
Cat Decode: Latex waste
Method Decode: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County: Los Angeles

envid: S113076705
Year: 2002
GEPAID: CAL000140263
Contact: ERNIE HAUSER-MGR
Telephone: 3103207720
Mailing Name: Not reported
Mailing Address: 22118 S VERMONT AVE
Mailing City,St,Zip: TORRANCE, CA 905020000
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Tank bottom waste
Disposal Method: Recycler
Tons: 0.12
Cat Decode: Tank bottom waste
Method Decode: Recycler
Facility County: Los Angeles

envid: S113076705
Year: 1998
GEPAID: CAL000140263
Contact: BICKERTON IRON WORKS INC
Telephone: 3103207720
Mailing Name: Not reported
Mailing Address: 22118 S VERMONT AVE
Mailing City,St,Zip: TORRANCE, CA 905020000
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Treatment, Tank
Tons: .9174
Cat Decode: Waste oil and mixed oil
Method Decode: Treatment, Tank
Facility County: Los Angeles

envid: S113076705
Year: 1998
GEPAID: CAL000140263
Contact: BICKERTON IRON WORKS INC
Telephone: 3103207720
Mailing Name: Not reported
Mailing Address: 22118 S VERMONT AVE

BICKERTON IRON WORKS (Continued) **S113076705**

Mailing City,St,Zip:	TORRANCE, CA 905020000
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Organic liquids (nonsolvents) with halogens
Disposal Method:	Transfer Station
Tons:	.0150
Cat Decode:	Organic liquids (nonsolvents) with halogens
Method Decode:	Transfer Station
Facility County:	Los Angeles

envid:	S113076705
Year:	1998
GEPAID:	CAL000140263
Contact:	BICKERTON IRON WORKS INC
Telephone:	3103207720
Mailing Name:	Not reported
Mailing Address:	22118 S VERMONT AVE
Mailing City,St,Zip:	TORRANCE, CA 905020000
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Transfer Station
Tons:	.3500
Cat Decode:	Unspecified oil-containing waste
Method Decode:	Transfer Station
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
1 additional CA_HAZNET: record(s) in the EDR Site Report.

S163 **EDR Hist Auto** **1015335505**
N/A

22115 S VERMONT AVE
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 15 of 17 in cluster S

Relative:
Higher

Actual:
42 ft.

EDR Historical Auto Stations:

Name:	SANYCO AUTOMOTIVE
Year:	2002
Address:	22115 S VERMONT AVE

Name:	SANYCO AUTOMOTIVE
Year:	2012
Address:	22115 S VERMONT AVE

T164 **NAWAID RANA** **HAZNET** **S112992837**
22114 KENWOOD AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 2 of 2 in cluster T

Relative:
Higher

Actual:
46 ft.

HAZNET:

envid:	S112992837
Year:	2011
GEPAID:	CAC002675176
Contact:	NAWAID RANA
Telephone:	3104096444
Mailing Name:	Not reported
Mailing Address:	22114 KENWOOD AVE
Mailing City,St,Zip:	TORRANCE, CA 90502
Gen County:	Not reported
TSD EPA ID:	AZC950823111
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	1.2
Cat Decode:	Asbestos containing waste
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

envid:	S112992837
Year:	2011
GEPAID:	CAC002675176
Contact:	NAWAID RANA
Telephone:	3104096444
Mailing Name:	Not reported
Mailing Address:	22114 KENWOOD AVE
Mailing City,St,Zip:	TORRANCE, CA 90502
Gen County:	Not reported
TSD EPA ID:	AZC950823111
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	1.2
Cat Decode:	Asbestos containing waste
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

M165 **MERONA ENTERPRISES DBA CARSON-NORMANDIE PLAZA** **DRYCLEANERS** **S107137227**
1141 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 21 of 55 in cluster M

Relative:
Higher

Actual:
44 ft.

DRYCLEANERS:

EPA Id:	CAL000340454
NAICS Code:	81232
NAICS Description:	Drycleaning and Laundry Services (except Coin-Operated)
SIC Code:	7211
SIC Description:	Power Laundries, Family and Commercial
Create Date:	02/10/2009

MERONA ENTERPRISES DBA CARSON-NORMANDIE PLAZA (Continued) **S107137227**

Facility Active:	No
Inactive Date:	06/30/2013
Facility Addr2:	Not reported
Owner Name:	MERONA ENTERPRISES INC
Owner Address:	9550 FIRESTONE BLVD STE 105
Owner Address 2:	Not reported
Owner Telephone:	5627452359
Contact Name:	CARLOS LOSADA
Contact Address:	9550 FIRESTONE BLVD STE 105
Contact Address 2:	Not reported
Contact Telephone:	5627452359
Mailing Name:	Not reported
Mailing Address 1:	9550 FIRESTONE BLVD STE 105
Mailing Address 2:	Not reported
Mailing City:	DOWNEY
Mailing State:	CA
Mailing Zip:	902415560
Owner Fax:	3
Region Code:	5627452341

EPA Id:	CAL000360511
NAICS Code:	81232
NAICS Description:	Drycleaning and Laundry Services (except Coin-Operated)
SIC Code:	7211
SIC Description:	Power Laundries, Family and Commercial
Create Date:	01/24/2011
Facility Active:	No
Inactive Date:	03/20/2012
Facility Addr2:	Not reported
Owner Name:	CARSON NORMANDIE PLAZA LLC
Owner Address:	9550 FIRESTONE BLVD STE 105
Owner Address 2:	Not reported
Owner Telephone:	5628624360
Contact Name:	CARLOS LOSADA
Contact Address:	9550 FIRESTONE BLVD STE 105
Contact Address 2:	Not reported
Contact Telephone:	5623074735
Mailing Name:	Not reported
Mailing Address 1:	9550 FIRESTONE BLVD STE 105
Mailing Address 2:	Not reported
Mailing City:	DOWNEY
Mailing State:	CA
Mailing Zip:	902415560
Owner Fax:	3
Region Code:	5627452341

Q166 **GENKAI GRILL** **LOS ANGELES CO. HMS** **S113743095**
1249 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 6 of 21 in cluster Q

Relative:
Higher

Actual:
48 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	I
Facility Id:	005378-051157
Facility Type:	01
Facility Status:	Closed

GENKAI GRILL (Continued) **S113743095**

Area: 2
Permit Number: 000569593
Permit Status: Closed

S167 **BICKERTON INDUSTRIES INC** **SWEEPS UST** **S103945107**
22118 S VERMONT AVE **EMI** **N/A**
< 1/8 **TORRANCE, CA 90502** **LOS ANGELES CO. HMS**
1 ft. **NPDES**

Site 16 of 17 in cluster S

Relative: Higher

Actual: 42 ft.

SWEEPS UST:

Status:	Active
Comp Number:	13197
Number:	9
Board Of Equalization:	Not reported
Referral Date:	06-30-89
Action Date:	Not reported
Created Date:	06-30-89
Owner Tank Id:	Not reported
SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

EMI:

Year:	1987
County Code:	19
Air Basin:	SC
Facility ID:	8038
Air District Name:	SC
SIC Code:	3441
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1990
County Code:	19
Air Basin:	SC
Facility ID:	8038
Air District Name:	SC
SIC Code:	3441
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0

BICKERTON INDUSTRIES INC (Continued) **S103945107**

Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 012946-028719
Facility Type: S6
Facility Status: Permit
Area: 2
Permit Number: CGI009653
Permit Status: Permit

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	4
Regulatory Measure Id:	189851
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	4 19I009653
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008
PROCESSED DATE:	1/4/1993
STATUS CODE NAME:	Active
STATUS DATE:	1/4/1993
PLACE SIZE:	3
PLACE SIZE UNIT:	52
FACILITY CONTACT NAME:	BRIAN Bickerton
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	3103207322
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Bickerton Industries Inc
OPERATOR ADDRESS:	22118 S Vermont Ave
OPERATOR CITY:	Torrance
OPERATOR STATE:	California
OPERATOR ZIP:	90502
OPERATOR CONTACT NAME:	Brian Bickerton
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	310-320-7322
OPERATOR CONTACT PHONE EXT:	Not reported

BICKERTON INDUSTRIES INC (Continued) **S103945107**

OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	310-320-7322
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	San Pedro Bay
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	3441-Fabricated Structural Metal
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	CAS000001
Facility Status:	Terminated
Agency Id:	0
Region:	4
Regulatory Measure Id:	189851
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	4 19I009653
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	01/04/1993
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	11/22/2013
Discharge Name:	Bickerton Industries Inc
Discharge Address:	22118 S Vermont Ave
Discharge City:	Torrance
Discharge State:	California
Discharge Zip:	90502
RECEIVED DATE:	Not reported

BICKERTON INDUSTRIES INC (Continued) **S103945107**

PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

S168 **AGGRESSIVE ERECTORS** **LOS ANGELES CO. HMS** **S102064112**
22118 S VERMONT AVE **WDS** **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 17 of 17 in cluster S

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: T
Facility Id: 012946-013197
Facility Type: 0
Facility Status: Removed
Area: 2
Permit Number: 000067808
Permit Status: Removed

Region: LA
Permit Category: Not reported
Facility Id: 012946-058074
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

WDS:
Facility ID: 4 19I009653
Facility Type: Other - Does not fall into the category of Municipal/Domestic, Industrial, Agricultural or Solid Waste (Class I, II or III)
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number: CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion: 4
Facility Telephone: 3103207322
Facility Contact: Brian Brickerton
Agency Name: BRICKERTON INDUSTRIES INC.
Agency Address: 22118 S. Vermont Ave
Agency City,St,Zip: Torrance 90502
Agency Contact: Ernie A. Hauser
Agency Telephone: 3103207322
Agency Type: Private
SIC Code: 0
SIC Code 2: Not reported
Primary Waste Type: Not reported
Primary Waste: Not reported
Waste Type2: Not reported
Waste2: Not reported
Primary Waste Type: Not reported
Secondary Waste: Not reported
Secondary Waste Type: Not reported
Design Flow: 0
Baseline Flow: 0
Reclamation: Not reported
POTW: Not reported
Treat To Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher

AGGRESSIVE ERECTORS (Continued) **S102064112**

Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.

Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

N169 **PHO CONSOMME LLC** **LOS ANGELES CO. HMS** **S118496287**
21730 S VERMONT AVE #130 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 14 of 33 in cluster N

Relative: Higher

Actual: 42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 030172-060972
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

W170 **HSU, RUI** **HAZNET** **S117300445**
1254 220 STREET **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 1 of 2 in cluster W

Relative: Higher

Actual: 47 ft.

HAZNET:
envid: S117300445
Year: 2013
GEPAID: CAC002743030
Contact: HSU, RUI
Telephone: 3106181163
Mailing Name: Not reported
Mailing Address: 1254 220 STREET
Mailing City,St,Zip: TORRANCE, CA 90502
Gen County: Los Angeles
TSD EPA ID: AZC950823111
TSD County: 99
Waste Category: Not reported
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.4
Cat Decode: Not reported
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: Not reported

A171 **C C DONUTS** **LOS ANGELES CO. HMS** **S113745120**
1001 W CARSON ST #C **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 18 of 22 in cluster A

Relative:
Lower

Actual:
38 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 027661-057728
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000741447
Permit Status: Permit

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172 **METAL CLEANING IND INC (DEST)** **LOS ANGELES CO. HMS** **U003057131**
1120 JAY ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 000700-I00706
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

A173 **ERNS** **8874359**
1012 CARSON ST STORE FOR LEASE **N/A**
< 1/8 **LONG BEACH, CA**
1 ft.

Site 19 of 22 in cluster A

Relative:
Higher

Actual:
42 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Q174 **MICHEALS COFFEE SHOP** **LOS ANGELES CO. HMS** **S113743097**
1249 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 7 of 21 in cluster Q

Relative:
Higher

Actual:
48 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 005378-I05579
Facility Type: 01
Facility Status: Removed
Area: 2
Permit Number: 000003161
Permit Status: Removed

X175 **UNITED MICROWAVE PRODUCTS INC** **LOS ANGELES CO. HMS** **S110275145**
22129 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 1 of 31 in cluster X

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 020759-029445
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000632037
Permit Status: Permit

X176 **UNITED MICROWAVE PRODUCTS INC** **HAZNET** **S113014188**
22129 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 2 of 31 in cluster X

Relative:
Higher

Actual:
42 ft.

HAZNET:
envid: S113014188
Year: 2014
GEPAID: CAD982314700
Contact: EDWIN T JACOBS/PRESIDENT
Telephone: 3103201244
Mailing Name: Not reported
Mailing Address: 22129 S VERMONT AVE
Mailing City,St,Zip: TORRANCE, CA 905022132
Gen County: Los Angeles
TSD EPA ID: CAD044429835
TSD County: Los Angeles
Waste Category: Off-specification, aged or surplus organics
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.1
Cat Decode: Off-specification, aged or surplus organics
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Los Angeles

envid: S113014188
Year: 2014
GEPAID: CAD982314700
Contact: EDWIN T JACOBS/PRESIDENT
Telephone: 3103201244
Mailing Name: Not reported
Mailing Address: 22129 S VERMONT AVE
Mailing City,St,Zip: TORRANCE, CA 905022132
Gen County: Los Angeles
TSD EPA ID: CAD044429835
TSD County: Los Angeles
Waste Category: Other organic solids
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.225
Cat Decode: Other organic solids
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery

UNITED MICROWAVE PRODUCTS INC (Continued) **S113014188**

(H010-H129) Or (H131-H135)
Facility County: Los Angeles

envid: S113014188
Year: 2014
GEPAID: CAD982314700
Contact: EDWIN T JACOBS/PRESIDENT
Telephone: 3103201244
Mailing Name: Not reported
Mailing Address: 22129 S VERMONT AVE
Mailing City,St,Zip: TORRANCE, CA 905022132
Gen County: Los Angeles
TSD EPA ID: CAT000613976
TSD County: Orange
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.714
Cat Decode: Aqueous solution with total organic residues less than 10 percent
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Los Angeles

envid: S113014188
Year: 2013
GEPAID: CAD982314700
Contact: EDWIN T JACOBS/PRESIDENT
Telephone: 3103201244
Mailing Name: Not reported
Mailing Address: 22129 S VERMONT AVE
Mailing City,St,Zip: TORRANCE, CA 905022132
Gen County: Los Angeles
TSD EPA ID: TXD077603371
TSD County: 99
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.15
Cat Decode: Not reported
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Not reported

envid: S113014188
Year: 2013
GEPAID: CAD982314700
Contact: EDWIN T JACOBS/PRESIDENT
Telephone: 3103201244
Mailing Name: Not reported
Mailing Address: 22129 S VERMONT AVE
Mailing City,St,Zip: TORRANCE, CA 905022132
Gen County: Los Angeles
TSD EPA ID: CAT000613893
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

UNITED MICROWAVE PRODUCTS INC (Continued) **S113014188**

Tons: 0.1
Cat Decode: Not reported
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Not reported

Click this hyperlink while viewing on your computer to access
33 additional CA_HAZNET: record(s) in the EDR Site Report.

Q177 **CARSON CENTER** **LOS ANGELES CO. HMS** **S113743093**
1249 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 8 of 21 in cluster Q

Relative: Higher

Actual: 48 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 005378-040841
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

K178 **SHELL** **RGA LUST** **S114690400**
911 CARSON ST. **N/A**
< 1/8 **TORRANCE, CA**
1 ft.

Site 7 of 24 in cluster K

Relative: Lower

Actual: 38 ft.

RGA LUST:

2008	SHELL	911 CARSON ST.
2007	SHELL	911 CARSON ST.

X179 **MECHANICAL SEAL REPAIR** **HAZNET** **S113014169**
22122 S VERMONT **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 3 of 31 in cluster X

Relative: Higher

Actual: 42 ft.

HAZNET:
envid: S113014169
Year: 1998
GEPAID: CAD982313892
Contact: Not reported
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 3188 ORANGE AVENUE
Mailing City,St,Zip: SIGNAL HILL, CA 908070000
Gen County: Not reported
TSD EPA ID: CAD093459485
TSD County: Not reported
Waste Category: Organic liquids with metals (Alkaline solution (pH >= 12.5) with metals)

MECHANICAL SEAL REPAIR (Continued) **S113014169**

Disposal Method: Transfer Station
Tons: .2418
Cat Decode: Organic liquids with metals (Alkaline solution (pH >= 12.5) with metals)
Method Decode: Transfer Station
Facility County: Los Angeles

X180 **VERMONT INDUSTRIAL CTR** **HAZNET** **S112893618**
22122 S VERMONT AVE STE B **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 4 of 31 in cluster X

Relative: Higher

Actual: 42 ft.

HAZNET:
envid: S112893618
Year: 1999
GEPAID: CAC001470512
Contact: VERMONT INDUSTRIAL CTR
Telephone: 3103209213
Mailing Name: Not reported
Mailing Address: 22122 S VERMONT AVE STE B
Mailing City,St,Zip: TORRANCE, CA 905020000
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Empty containers less than 30 gallons
Disposal Method: Transfer Station
Tons: .0300
Cat Decode: Empty containers less than 30 gallons
Method Decode: Transfer Station
Facility County: Los Angeles

envid: S112893618
Year: 1999
GEPAID: CAC001470512
Contact: VERMONT INDUSTRIAL CTR
Telephone: 3103209213
Mailing Name: Not reported
Mailing Address: 22122 S VERMONT AVE STE B
Mailing City,St,Zip: TORRANCE, CA 905020000
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Unspecified oil-containing waste
Disposal Method: Transfer Station
Tons: .2250
Cat Decode: Unspecified oil-containing waste
Method Decode: Transfer Station
Facility County: Los Angeles

X181 **EDR Hist Cleaner** **1015020831**
22131 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 5 of 31 in cluster X

Relative: EDR Historical Cleaners:
Higher Name: SHIMS DRY CLNG & LNDRY SYSTM R
Year: 2003
Actual: Address: 22131 S VERMONT AVE
42 ft.

N182 **PHO CONSOMME LLC** **LOS ANGELES CO. HMS** **S118496288**
21730 S VERMONT AVE #130 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 15 of 33 in cluster N

Relative: LOS ANGELES CO. HMS:
Higher Region: LA
Permit Category: S
Actual: Facility Id: 030172-060980
42 ft. Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000816357
Permit Status: Permit

X183 **AUTOCRAFTING FLEET SOLUTIONS** **LOS ANGELES CO. HMS** **S113744618**
22133 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 6 of 31 in cluster X

Relative: LOS ANGELES CO. HMS:
Higher Region: LA
Permit Category: S
Actual: Facility Id: 020760-029446
42 ft. Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000734502
Permit Status: Permit

X184 **EDR Hist Cleaner** **1015020832**
22133 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 7 of 31 in cluster X

Relative: EDR Historical Cleaners:
Higher Name: CARPET CLEANING SPECIALISTS
Year: 1999
Actual: Address: 22133 S VERMONT AVE
42 ft.

M185 **BIOMARIN** **HAZNET** **S112907127**
1123 CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 22 of 55 in cluster M

Relative: HAZNET:
Higher

envid:	S112907127
Year:	2000
GEPAID:	CAC002248897
Contact:	STEVE JUNGLES-DIRECTOR
Telephone:	4158846700
Mailing Name:	Not reported
Mailing Address:	371 BEL MARIN KEYS STE 210
Mailing City,St,Zip:	NOVATO, CA 949490000
Gen County:	Not reported
TSD EPA ID:	CAT080022148
TSD County:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Transfer Station
Tons:	0.07
Cat Decode:	Other organic solids
Method Decode:	Transfer Station
Facility County:	Los Angeles

Actual:
44 ft.

envid:	S112907127
Year:	2000
GEPAID:	CAC002248897
Contact:	STEVE JUNGLES-DIRECTOR
Telephone:	4158846700
Mailing Name:	Not reported
Mailing Address:	371 BEL MARIN KEYS STE 210
Mailing City,St,Zip:	NOVATO, CA 949490000
Gen County:	Not reported
TSD EPA ID:	CAT080022148
TSD County:	Not reported
Waste Category:	Unspecified solvent mixture
Disposal Method:	Transfer Station
Tons:	0.22
Cat Decode:	Unspecified solvent mixture
Method Decode:	Transfer Station
Facility County:	Los Angeles

M186 **QUIZNOS SUBS #9388** **LOS ANGELES CO. HMS** **S108649661**
1141 W CARSON ST #D **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 23 of 55 in cluster M

Relative: LOS ANGELES CO. HMS:
Higher

Region:	LA
Permit Category:	Not reported
Facility Id:	031564-049125
Facility Type:	Not reported
Facility Status:	OPEN
Area:	2
Permit Number:	Not reported
Permit Status:	Not reported

Actual:
45 ft.

J187 **JOHN PIPER** **HAZNET** **S117286710**
1207 RITNER ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 2 of 2 in cluster J

Relative: Higher

Actual: 44 ft.

HAZNET:

envid:	S117286710
Year:	2013
GEPAID:	CAC002722522
Contact:	JOHN PIPER
Telephone:	5627546774
Mailing Name:	Not reported
Mailing Address:	1207 RITNER ST
Mailing City,St,Zip:	TORRANCE, CA 905021870
Gen County:	Los Angeles
TSD EPA ID:	CAD009007626
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Cat Decode:	Not reported
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Not reported

M188 **RITE AID NO 5492** **RCRA-LQG** **1014387492**
1237 W CARSON ST **HAZNET** **CAR000210260**
< 1/8 **TORRANCE, CA 90502** **ECHO**
1 ft.

Site 24 of 55 in cluster M

Relative: Higher

Actual: 44 ft.

RCRA-LQG:

Date form received by agency:	04/30/2015
Facility name:	RITE AID NO 5492
Facility address:	1237 W CARSON ST TORRANCE, CA 90502
EPA ID:	CAR000210260
Mailing address:	30 HUNTER LN CAMP HILL, PA 17011
Contact:	STEPHANIE A CAIATI
Contact address:	30 HUNTER LN CAMP HILL, PA 17011
Contact country:	US
Contact telephone:	717-730-8225
Contact email:	RSKSAFE@RITEAID.COM
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than

RITE AID NO 5492 (Continued) **1014387492**

100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: CARSON NORMANDIE PLAZA LLC
Owner/operator address: 9550 FIRESTONE BLVD STE 105
DOWNEY, 90241
Owner/operator country: US
Owner/operator telephone: 562-862-4470
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 09/27/1962
Owner/Op end date: Not reported

Owner/operator name: THRIFTY PAYLESS INC
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 04/08/1997
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 131
. Waste name: 131

. Waste code: 141
. Waste name: 141

. Waste code: 214
. Waste name: 214

. Waste code: 232
. Waste name: 232

. Waste code: 311
. Waste name: 311

. Waste code: 791

RITE AID NO 5492 (Continued) **1014387492**

. Waste name: 791

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D009
. Waste name: MERCURY

. Waste code: D010
. Waste name: SELENIUM

. Waste code: D011
. Waste name: SILVER

. Waste code: D024
. Waste name: M-CRESOL

. Waste code: D026
. Waste name: CRESOL

. Waste code: P001
. Waste name: 2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3% (OR) WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3%

. Waste code: P075
. Waste name: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

Historical Generators:
Date form received by agency: 08/19/2010
Site name: RITE AID 5492
Classification: Conditionally Exempt Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

RITE AID NO 5492 (Continued) **1014387492**

. Waste code: D016
. Waste name: 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: U002
. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U080
. Waste name: METHANE, DICHLORO- (OR) METHYLENE CHLORIDE

. Waste code: U160
. Waste name: 2-BUTANONE, PEROXIDE (R,T) (OR) METHYL ETHYL KETONE PEROXIDE (R,T)

Violation Status: No violations found

HAZNET:

envid:	1014387492
Year:	2014
GEPAID:	CAL000379660
Contact:	STEPHANIE A. CAIATI
Telephone:	7177308225
Mailing Name:	Not reported
Mailing Address:	30 HUNTER LN
Mailing City,St,Zip:	CAMP HILL, PA 170112400
Gen County:	Los Angeles
TSD EPA ID:	TXD074196338
TSD County:	99
Waste Category:	Alkaline solution without metals pH >= 12.5
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.008
Cat Decode:	Alkaline solution without metals pH >= 12.5
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Los Angeles

envid:	1014387492
Year:	2014
GEPAID:	CAL000379660
Contact:	STEPHANIE A. CAIATI
Telephone:	7177308225
Mailing Name:	Not reported
Mailing Address:	30 HUNTER LN
Mailing City,St,Zip:	CAMP HILL, PA 170112400
Gen County:	Los Angeles
TSD EPA ID:	TXD074196338
TSD County:	99
Waste Category:	Aqueous solution (2 < pH < 12.5) containing reactive anions ...
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0065
Cat Decode:	Aqueous solution (2 < pH < 12.5) containing reactive anions ...
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Los Angeles

RITE AID NO 5492 (Continued) **1014387492**

envid: 1014387492
Year: 2014
GEPAID: CAL000379660
Contact: STEPHANIE A. CAIATI
Telephone: 7177308225
Mailing Name: Not reported
Mailing Address: 30 HUNTER LN
Mailing City,St,Zip: CAMP HILL, PA 170112400
Gen County: Los Angeles
TSD EPA ID: NVD980895338
TSD County: 99
Waste Category: Pharmaceutical waste
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.0015
Cat Decode: Pharmaceutical waste
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Los Angeles

envid: 1014387492
Year: 2014
GEPAID: CAL000379660
Contact: STEPHANIE A. CAIATI
Telephone: 7177308225
Mailing Name: Not reported
Mailing Address: 30 HUNTER LN
Mailing City,St,Zip: CAMP HILL, PA 170112400
Gen County: Los Angeles
TSD EPA ID: INR000110197
TSD County: Not reported
Waste Category: Liquids with pH <= 2
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.0025
Cat Decode: Liquids with pH <= 2
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Los Angeles

envid: 1014387492
Year: 2014
GEPAID: CAL000379660
Contact: STEPHANIE A. CAIATI
Telephone: 7177308225
Mailing Name: Not reported
Mailing Address: 30 HUNTER LN
Mailing City,St,Zip: CAMP HILL, PA 170112400
Gen County: Los Angeles
TSD EPA ID: INR000110197
TSD County: Not reported
Waste Category: Pharmaceutical waste
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.0535
Cat Decode: Pharmaceutical waste
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery

RITE AID NO 5492 (Continued) **1014387492**

(H010-H129) Or (H131-H135)
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
17 additional CA_HAZNET: record(s) in the EDR Site Report.

ECHO:
Envid: 1014387492
Registry ID: 110042169792
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110042169792

U189 **PHILS FISH-GRILL** **LOS ANGELES CO. HMS** **S115780161**
1175 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 4 of 8 in cluster U

Relative:
Higher

Actual:
47 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 032802-058582
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000760033
Permit Status: Permit

Q190 **CHARO CHICKEN-TORRANCE** **LOS ANGELES CO. HMS** **S106668907**
1255 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 9 of 21 in cluster Q

Relative:
Higher

Actual:
48 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 017336-043181
Facility Type: 01
Facility Status: Permit
Area: 2
Permit Number: 000440347
Permit Status: Permit

Region: LA
Permit Category: S
Facility Id: 017336-050668
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000553655
Permit Status: Permit

N191 **CUBAN CUISINE & BAKERY** **LOS ANGELES CO. HMS** **S113745358**
21730 S VERMONT AVE #130 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 16 of 33 in cluster N

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 030172-057071
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000717922
Permit Status: Closed

Q192 **KRAGEN AUTO PARTS** **LOS ANGELES CO. HMS** **S106852958**
1213 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 10 of 21 in cluster Q

Relative:
Higher

Actual:
48 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 030214-043644
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000532978
Permit Status: Closed

A193 **C C DONUTS** **LOS ANGELES CO. HMS** **S113745119**
1001 W CARSON ST #C **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 20 of 22 in cluster A

Relative:
Lower

Actual:
38 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 027661-057727
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

K194 **LIM'S MOBIL MARKET #18-MAF** **LOS ANGELES CO. HMS** **S109421664**
21700 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 8 of 24 in cluster K

Relative:
Higher

Actual:
41 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 009028-036201
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000529860
Permit Status: Closed

Q195 **CARL'S JR RESTAURANT LLC #426** **LOS ANGELES CO. HMS** **S117541643**
1259 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 11 of 21 in cluster Q

Relative:
Higher

Actual:
48 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 005173-059970
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000794238
Permit Status: Closed

Q196 **TOSCO/UNOCAL #30769** **LOS ANGELES CO. HMS** **S103489199**
1259 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 12 of 21 in cluster Q

Relative:
Higher

Actual:
48 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: T
Facility Id: 005173-025753
Facility Type: 0
Facility Status: Closed
Area: 2
Permit Number: 000216346
Permit Status: Closed

U197 **PHILS FISH-GRILL** **LOS ANGELES CO. HMS** **S115780160**
1175 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 5 of 8 in cluster U

Relative:
Higher

Actual:
47 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 032802-058580
Facility Type: 01
Facility Status: Permit
Area: 2
Permit Number: 000761269
Permit Status: Permit

M198 **WIENERSCHNITZEL #38** **LOS ANGELES CO. HMS** **S118496107**
1125 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 25 of 55 in cluster M

Relative:
Higher

Actual:
44 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 027677-060126
Facility Type: 01
Facility Status: Permit
Area: 2
Permit Number: 000801942
Permit Status: Permit

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199 **MARTIN BROTHERS E I C** **LOS ANGELES CO. HMS** **S109277671**
22126 S VERMONT AVE #F **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 030151-043559
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

M200 **O'REILLY AUTO PARTS #3066** **FINDS** **1007651451**
1213 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 26 of 55 in cluster M

Relative: FINDS:
Higher

Registry ID: 110017954374

Actual:
44 ft.

Environmental Interest/Information System
UORS (California - Used Oil Recycling System). California Integrated Waste Management Board (CIWMB) helps communities establish and promote convenient collection opportunities for used oil and used oil filters.

Registry ID: 110055731944

Environmental Interest/Information System
STATE MASTER

K201 **BLUE BASIL ASIAN CUISINE** **LOS ANGELES CO. HMS** **S118496104**
819 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 9 of 24 in cluster K

Relative: LOS ANGELES CO. HMS:
Lower

Region: LA
Permit Category: S
Actual: Facility Id: 027658-060742
39 ft. Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000809111
Permit Status: Permit

---

202 **LARRY BILLOUPS** **HAZNET** **S118223461**
1220 W 222ND ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

HAZNET:
Relative: envid: S118223461
Higher Year: 2014
GEPAID: CAC002787601
Actual: Contact: LARRY BILLOUPS
46 ft. Telephone: 9095864287
Mailing Name: Not reported
Mailing Address: 1220 W 222ND ST
Mailing City,St,Zip: TORRANCE, CA 905022216
Gen County: Los Angeles
TSD EPA ID: AZC950823111
TSD County: 99
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.23

LARRY BILLOUPS (Continued) **S118223461**

Cat Decode: Asbestos containing waste
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: Los Angeles

X203 **ELLIE'S PLACE** **LOS ANGELES CO. HMS** **S106027000**
22137 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 8 of 31 in cluster X

Relative: Higher
Actual: 42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 028256-039721
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

X204 **ALFRA INDUSTRIES INC** **LOS ANGELES CO. HMS** **S109277316**
22134 S VERMONT AVE #C **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 9 of 31 in cluster X

Relative: Higher
Actual: 42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 015705-I16922
Facility Type: 01
Facility Status: Removed
Area: 2
Permit Number: 000013174
Permit Status: Removed

X205 **OPTICAL PHYSICS ENG** **HAZNET** **S113027613**
22134 VERMONT #E **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 10 of 31 in cluster X

Relative: Higher
Actual: 42 ft.

HAZNET:
envid: S113027613
Year: 2008
GEPAID: CAL000016971
Contact: UNDELIVERABLE PER SURVEY
Telephone: --
Mailing Name: Not reported
Mailing Address: 22134 VERMONT #E
Mailing City,St,Zip: TORRANCE, CA 905020000
Gen County: Not reported
TSD EPA ID: CAD099452708
TSD County: Not reported

OPTICAL PHYSICS ENG (Continued) **S113027613**

Waste Category:	Waste oil and mixed oil
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.8968
Cat Decode:	Waste oil and mixed oil
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Los Angeles

X206 **ALFRA INDUSTRIES INC** **HAZNET** **S113169488**
22134 S VERMONT AVE,UNIT ABC **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 11 of 31 in cluster X

Relative: Higher

Actual: 42 ft.

HAZNET:

envid:	S113169488
Year:	1999
GEPAID:	CAL930835676
Contact:	FRANZ ISAK
Telephone:	3103201410
Mailing Name:	Not reported
Mailing Address:	8338 RUSH STREET
Mailing City,St,Zip:	ROSEMEAD, CA 917703617
Gen County:	Not reported
TSD EPA ID:	CAD099452708
TSD County:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Recycler
Tons:	2.0932
Cat Decode:	Unspecified oil-containing waste
Method Decode:	Recycler
Facility County:	Los Angeles

envid:	S113169488
Year:	1998
GEPAID:	CAL930835676
Contact:	FRANZ ISAK
Telephone:	3103201410
Mailing Name:	Not reported
Mailing Address:	8338 RUSH STREET
Mailing City,St,Zip:	ROSEMEAD, CA 917703617
Gen County:	Not reported
TSD EPA ID:	CAD099452708
TSD County:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Recycler
Tons:	1.9014
Cat Decode:	Unspecified oil-containing waste
Method Decode:	Recycler
Facility County:	Los Angeles

envid:	S113169488
Year:	1997
GEPAID:	CAL930835676
Contact:	FRANZ ISAK
Telephone:	3103201410
Mailing Name:	Not reported

ALFRA INDUSTRIES INC (Continued) **S113169488**

Mailing Address:	8338 RUSH STREET
Mailing City,St,Zip:	ROSEMEAD, CA 917703617
Gen County:	Not reported
TSD EPA ID:	CAD099452708
TSD County:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Recycler
Tons:	.8548
Cat Decode:	Unspecified oil-containing waste
Method Decode:	Recycler
Facility County:	Los Angeles

envid:	S113169488
Year:	1997
GEPAID:	CAL930835676
Contact:	FRANZ ISAK
Telephone:	3103201410
Mailing Name:	Not reported
Mailing Address:	8338 RUSH STREET
Mailing City,St,Zip:	ROSEMEAD, CA 917703617
Gen County:	Not reported
TSD EPA ID:	CAD099452708
TSD County:	Not reported
Waste Category:	Oil/water separation sludge
Disposal Method:	Recycler
Tons:	1.0591
Cat Decode:	Oil/water separation sludge
Method Decode:	Recycler
Facility County:	Los Angeles

envid:	S113169488
Year:	1996
GEPAID:	CAL930835676
Contact:	FRANZ ISAK
Telephone:	3103201410
Mailing Name:	Not reported
Mailing Address:	8338 RUSH STREET
Mailing City,St,Zip:	ROSEMEAD, CA 917703617
Gen County:	Not reported
TSD EPA ID:	CAD099452708
TSD County:	Not reported
Waste Category:	Oil/water separation sludge
Disposal Method:	Recycler
Tons:	1.6346
Cat Decode:	Oil/water separation sludge
Method Decode:	Recycler
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
4 additional CA_HAZNET: record(s) in the EDR Site Report.

X207 **A I T** **LOS ANGELES CO. HMS** **S113745350**
22130 S VERMONT AVE #H **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 12 of 31 in cluster X

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 030156-043565
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

X208 **ALL STAR CUSTOM CABINETS #D** **LOS ANGELES CO. HMS** **S109277319**
22138 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 13 of 31 in cluster X

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 030149-043557
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

X209 **CUSTOM DESIGN INC** **LOS ANGELES CO. HMS** **S113745347**
22138 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 14 of 31 in cluster X

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 030149-057590
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

X210 **CARLILE MANUFACTURING INC** **HAZNET** **S113025551**
22138 S VERMONT #D **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 15 of 31 in cluster X

Relative:
Higher

Actual:
42 ft.

HAZNET:

envid:	S113025551
Year:	2006
GEPAID:	CAL000011621
Contact:	UNDELIVERABLE 96 FEES MB
Telephone:	--
Mailing Name:	Not reported
Mailing Address:	22138 S VERMONT #D
Mailing City,St,Zip:	TORRANCE, CA 905020000
Gen County:	Not reported
TSD EPA ID:	AZC950823111
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Not reported
Tons:	0.42
Cat Decode:	Asbestos containing waste
Method Decode:	Not reported
Facility County:	Los Angeles

X211 **F J DRYWALL INC** **LOS ANGELES CO. HMS** **S113745348**
22138 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 16 of 31 in cluster X

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	Not reported
Facility Id:	030149-057591
Facility Type:	Not reported
Facility Status:	OPEN
Area:	2
Permit Number:	Not reported
Permit Status:	Not reported

X212 **ZENITRAM ENG MANUFACTURING INC** **LOS ANGELES CO. HMS** **S113745349**
22138 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 17 of 31 in cluster X

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	Not reported
Facility Id:	030149-057592
Facility Type:	Not reported
Facility Status:	OPEN
Area:	2
Permit Number:	Not reported
Permit Status:	Not reported

X213 **U.S. POWER CONVERTING** **HAZNET** **S113075793**
22138 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 18 of 31 in cluster X

Relative:
Higher

Actual:
42 ft.

HAZNET:

envid:	S113075793
Year:	1997
GEPAID:	CAL000138795
Contact:	LEONARD SNOW
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	22138 S VERMONT AVE
Mailing City,St,Zip:	TORRANCE, CA 905022131
Gen County:	Not reported
TSD EPA ID:	CAL000024110
TSD County:	Not reported
Waste Category:	Other inorganic solid waste
Disposal Method:	Recycler
Tons:	.3800
Cat Decode:	Other inorganic solid waste
Method Decode:	Recycler
Facility County:	Los Angeles

X214 **CUSTOM DESIGN INC** **LOS ANGELES CO. HMS** **S109277442**
22138 S VERMONT AVE #A **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 19 of 31 in cluster X

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	Not reported
Facility Id:	030147-043555
Facility Type:	Not reported
Facility Status:	OPEN
Area:	2
Permit Number:	Not reported
Permit Status:	Not reported

X215 **CLAUDE P WILLIAMS INC** **LOS ANGELES CO. HMS** **S106670420**
22138 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 20 of 31 in cluster X

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	I
Facility Id:	001030-I01081
Facility Type:	00
Facility Status:	Closed
Area:	2
Permit Number:	000005980
Permit Status:	Closed

M216 **TOSCO/UNOCAL #30769** **UST** **U003942415**
1259 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 27 of 55 in cluster M

Relative: UST:
Higher
Facility ID: 25753
Permitting Agency: LOS ANGELES COUNTY
Actual: Latitude: 33.83154
44 ft. Longitude: -118.29841

V217 **THE INDUSTRIAL CO** **LOS ANGELES CO. HMS** **U003059780**
21602 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 4 of 12 in cluster V

Relative: LOS ANGELES CO. HMS:
Lower
Region: LA
Permit Category: I
Actual: Facility Id: 003508-I03628
30 ft. Facility Type: 01
Facility Status: Removed
Area: 2
Permit Number: 000012273
Permit Status: Removed

N218 **MOBIL #11-MAF** **HIST CORTESE** **S103066104**
21700 VERMONT **N/A**
< 1/8 **LOS ANGELES, CA 90502**
1 ft.

Site 17 of 33 in cluster N

Relative: HIST CORTESE:
Higher
Region: CORTESE
Facility County Code: 19
Actual: Reg By: LTNKA
42 ft. Reg Id: R-04331

X219 **DELTA CONVERSION** **LOS ANGELES CO. HMS** **S109277457**
22203 S VERMONT AVE #B **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 21 of 31 in cluster X

Relative: LOS ANGELES CO. HMS:
Higher
Region: LA
Permit Category: S
Actual: Facility Id: 014511-029447
42 ft. Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000530992
Permit Status: Closed

X220 **DELTA CONVERSION SHOP** **HAZNET** **S113081222**
22203 SO VERMONT STE B **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 22 of 31 in cluster X

Relative:
Higher

Actual:
42 ft.

HAZNET:

envid:	S113081222
Year:	2004
GEPAID:	CAL000147684
Contact:	CARLOS FLORES/OWNER
Telephone:	3105330953
Mailing Name:	Not reported
Mailing Address:	22203 SO VERMONT STE B
Mailing City,St,Zip:	TORRANCE, CA 905020000
Gen County:	Not reported
TSD EPA ID:	CAD008252405
TSD County:	Not reported
Waste Category:	Unspecified solvent mixture
Disposal Method:	Recycler
Tons:	0.06
Cat Decode:	Unspecified solvent mixture
Method Decode:	Recycler
Facility County:	Los Angeles

X221 **G&M AUTO REPAIR** **LOS ANGELES CO. HMS** **S109277522**
22203 S VERMONT AVE #D **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 23 of 31 in cluster X

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	S
Facility Id:	027066-038006
Facility Type:	S5
Facility Status:	Closed
Area:	2
Permit Number:	000532064
Permit Status:	Closed

X222 **EDR Hist Auto** **1015336773**
22203 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 24 of 31 in cluster X

Relative:
Higher

Actual:
42 ft.

EDR Historical Auto Stations:

Name:	D & C AUTO REPAIR
Year:	1999
Address:	22203 S VERMONT AVE
Name:	FORTUNATO AUTO REPAIR
Year:	2001
Address:	22203 S VERMONT AVE
Name:	D & C AUTO REPAIR
Year:	2002

(Continued) **1015336773**

Address: 22203 S VERMONT AVE

Name: PM AUTO BODY PAINT
Year: 2003
Address: 22203 S VERMONT AVE

Name: PM AUTO BODY PAINT
Year: 2004
Address: 22203 S VERMONT AVE

Name: P M AUTO BODY PAINT
Year: 2007
Address: 22203 S VERMONT AVE

X223 **KEN BILLINGTON** **LOS ANGELES CO. HMS** **S109277618**
22203 S VERMONT AVE #B **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 25 of 31 in cluster X

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 014511-015114
Facility Type: Not reported
Facility Status: Removed
Area: 2
Permit Number: Not reported
Permit Status: Not reported

X224 **DOYLE BROS INC** **HIST UST** **U001564094**
22203 SO VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 26 of 31 in cluster X

Relative:
Higher

Actual:
42 ft.

HIST UST:
File Number: 000277C3
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/000277C3.pdf
Region: STATE
Facility ID: 00000006405
Facility Type: Other
Other Type: MECHANICAL CONTRACTO
Contact Name: Not reported
Telephone: 2133286680
Owner Name: DOYLE BROS, INC.
Owner Address: 22203 SO. VERMONT AVE.
Owner City,St,Zip: TORRANCE, CA 90502
Total Tanks: 0001

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00000550
Tank Used for: PRODUCT
Type of Fuel: UNLEADED

DOYLE BROS INC (Continued) **U001564094**

Container Construction Thickness: Not reported
Leak Detection: None

Click here for Geo Tracker PDF:

X225 **DOYLE BROTHERS INC.** **RGA LUST** **S114611973**
22203 VERMONT AVE S **N/A**
< 1/8 **TORRANCE, CA**
1 ft.

Site 27 of 31 in cluster X

Relative: Higher

Actual: 42 ft.

RGA LUST:

2012	DOYLE BROTHERS INC.	22203 VERMONT AVE S
2011	DOYLE BROTHERS INC.	22203 VERMONT AVE S
2010	DOYLE BROTHERS INC.	22203 VERMONT AVE S
2009	DOYLE BROTHERS INC.	22203 VERMONT AVE S
2008	DOYLE BROTHERS INC.	22203 VERMONT AVE S
2007	DOYLE BROTHERS INC.	22203 VERMONT AVE S
2006	DOYLE BROTHERS INC.	22203 VERMONT AVE S
2005	DOYLE BROTHERS INC.	22203 VERMONT AVE S
2003	DOYLE BROTHERS INC.	22203 VERMONT AVE S
2002	DOYLE BROTHERS INC.	22203 VERMONT AVE S
2001	DOYLE BROTHERS INC.	22203 VERMONT AVE S
2000	DOYLE BROTHERS INC.	22203 VERMONT AVE S

X226 **RAFAEL ARELLANO UPHOLSTERY** **LOS ANGELES CO. HMS** **S109277758**
22203 S VERMONT AVE #A **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 28 of 31 in cluster X

Relative: Higher

Actual: 42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 027041-037955
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000532062
Permit Status: Closed

X227 **DOYLE BROTHERS INC.** **LUST** **S105032925**
22203 VERMONT AVE S **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 29 of 31 in cluster X

Relative: Higher

Actual: 42 ft.

LUST:
Region: STATE
Global Id: T0603704260
Latitude: 33.8255989
Longitude: -118.290935
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 04/01/1993

DOYLE BROTHERS INC. (Continued) **S105032925**

Lead Agency:	LOS ANGELES COUNTY
Case Worker:	JOA
Local Agency:	LOS ANGELES COUNTY
RB Case Number:	I-15114
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603704260
Contact Type:	Local Agency Caseworker
Contact Name:	JOHN AWUJO
Organization Name:	LOS ANGELES COUNTY
Address:	900 S FREMONT AVE
City:	ALHAMBRA
Email:	jawujo@dpw.lacounty.gov
Phone Number:	6264583507

Global Id:	T0603704260
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Status History:

Global Id:	T0603704260
Status:	Completed - Case Closed
Status Date:	04/01/1993

Global Id:	T0603704260
Status:	Open - Case Begin Date
Status Date:	11/22/1989

Global Id:	T0603704260
Status:	Open - Site Assessment
Status Date:	11/22/1989

Regulatory Activities:

Global Id:	T0603704260
Action Type:	Other
Date:	11/22/1989
Action:	Leak Stopped

Global Id:	T0603704260
Action Type:	Other
Date:	11/22/1989
Action:	Leak Discovery

Global Id:	T0603704260
Action Type:	Other

DOYLE BROTHERS INC. (Continued) **S105032925**

Date: 02/27/1990
Action: Leak Reported

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	I-15114	
Status:	Case Closed	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Soil	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603704260	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19000	
Cross Street:	222RD ST.	
Enforcement Type:	222	
Date Leak Discovered:	11/22/1989	
Date Leak First Reported:		2/27/1990
Date Leak Record Entered:	4/24/1990	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	11/22/1989	
Date Case Last Changed on Database:		4/1/1993
Date the Case was Closed:		4/1/1993
How Leak Discovered:	Tank Closure	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	BILLINGTON, KEN	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		5906.562651910817052347317 4403
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		11/22/1989
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		1/1/1965
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	DOYLE BROTHERS INC.	
RP Address:	22203 VERMONT AVE., S., TORRANCE, 90502	
Program:	LUST	
Lat/Long:	33.8255468 / -1	
Local Agency Staff:	Not reported	

DOYLE BROTHERS INC. (Continued) **S105032925**

Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: Not reported

X228 **UNIFIED PROPERTY MGMT INC** **HAZNET** **S112948893**
22203 VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 30 of 31 in cluster X

Relative:
Higher

Actual:
42 ft.

HAZNET:
envid: S112948893
Year: 2005
GEPAID: CAC002596133
Contact: BRETT GERLACH/X1
Telephone: 3107877111
Mailing Name: Not reported
Mailing Address: 21718 VERMONT AVE STE 203
Mailing City,St,Zip: TORRANCE, CA 90502
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Transfer Station
Tons: 0.08
Cat Decode: Unspecified solvent mixture
Method Decode: Transfer Station
Facility County: Los Angeles

M229 **S & J PALACE CORPORATION** **LOS ANGELES CO. HMS** **S109421959**
1123 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 28 of 55 in cluster M

Relative:
Higher

Actual:
44 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 018679-046017
Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000468009
Permit Status: Closed

X230 **DOYLE BROTHERS INC.** **HIST CORTESE** **S101297315**
22203 VERMONT **N/A**
< 1/8 **LOS ANGELES, CA 90502**
1 ft.

Site 31 of 31 in cluster X

Relative: HIST CORTESE:
Higher Region: CORTESE
Facility County Code: 19
Actual: Reg By: LTNKA
42 ft. Reg Id: I-15114

Q231 **THE FLAME BROILER** **LOS ANGELES CO. HMS** **S115780004**
1249 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 13 of 21 in cluster Q

Relative: LOS ANGELES CO. HMS:
Higher Region: LA
Permit Category: S
Actual: Facility Id: 005378-058131
48 ft. Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000753423
Permit Status: Permit

R232 **VISION AUTO SERVICE CENTER** **HAZNET** **S113140819**
800 W CARSON ST STE 32 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 4 of 15 in cluster R

Relative: HAZNET:
Higher envid: S113140819
Year: 2006
Actual: GEPAID: CAL000302620
42 ft. Contact: ANTHONY CHAVEZ
Telephone: 3102127989
Mailing Name: Not reported
Mailing Address: 800 W CARSON ST STE 32
Mailing City,St,Zip: TORRANCE, CA 90502
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: 0.41
Cat Decode: Waste oil and mixed oil
Method Decode: Recycler
Facility County: Los Angeles

Y233 **CM AUTO DETAIL** **LOS ANGELES CO. HMS** **S106853907**
22209 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 1 of 4 in cluster Y

Relative: Higher

Actual: 42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 030140-043545
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

Y234 **EDR Hist Auto** **1015336782**
22209 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 2 of 4 in cluster Y

Relative: Higher

Actual: 42 ft.

EDR Historical Auto Stations:
Name: BEST AUTO CARE
Year: 2003
Address: 22209 S VERMONT AVE

Name: UNIVERSAL CUSTOM AUTO BODY
Year: 2008
Address: 22209 S VERMONT AVE

Name: UNIVERSAL CUSTOM AUTO BODY
Year: 2009
Address: 22209 S VERMONT AVE

Name: UNIVERSAL CUSTOM AUTO BODY
Year: 2011
Address: 22209 S VERMONT AVE

Name: UNIVERSAL CUSTOM AUTO BODY
Year: 2012
Address: 22209 S VERMONT AVE

N235 **EDR Hist Cleaner** **1015019403**
21720 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 18 of 33 in cluster N

Relative: Higher

Actual: 42 ft.

EDR Historical Cleaners:
Name: FAMOUS CLEANERS
Year: 2001
Address: 21720 S VERMONT AVE

Name: FAMOUS CLEANERS
Year: 2002
Address: 21720 S VERMONT AVE

(Continued) **1015019403**

Name:	FAMOUS CLEANERS
Year:	2004
Address:	21720 S VERMONT AVE
Name:	FAMOUS CLEANERS
Year:	2005
Address:	21720 S VERMONT AVE
Name:	FAMOUS CLEANERS
Year:	2006
Address:	21720 S VERMONT AVE
Name:	FAMOUS CLEANERS
Year:	2007
Address:	21720 S VERMONT AVE
Name:	FAMOUS CLEANERS
Year:	2008
Address:	21720 S VERMONT AVE
Name:	FAMOUS CLEANERS
Year:	2009
Address:	21720 S VERMONT AVE
Name:	FAMOUS CLEANERS
Year:	2010
Address:	21720 S VERMONT AVE
Name:	FAMOUS CLEANERS
Year:	2011
Address:	21720 S VERMONT AVE
Name:	FAMOUS CLEANERS
Year:	2012
Address:	21720 S VERMONT AVE

Z236 **DECOCAL INC** **HAZNET** **S112952877**
22208 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 1 of 10 in cluster Z

Relative: Higher

Actual: 42 ft.

HAZNET:

envid:	S112952877
Year:	2006
GEPAID:	CAC002602700
Contact:	CARLOS MAILLAND, PRES
Telephone:	3107826304
Mailing Name:	Not reported
Mailing Address:	22208 S VERMONT AVE
Mailing City,St,Zip:	TORRANCE, CA 90502
Gen County:	Not reported
TSD EPA ID:	CAD980884183
TSD County:	Not reported
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	Transfer Station
Tons:	0.22
Cat Decode:	Off-specification, aged or surplus organics

DECOCAL INC (Continued) **S112952877**

Method Decode: Transfer Station
Facility County: Los Angeles

Z237 **BYROM RADIATOR SERVICE** **RCRA-SQG** **1000334137**
22208 SO VERMONT AVE **FINDS** **CAD981655707**
< 1/8 **TORRANCE, CA 90502** **ECHO**
1 ft.

Site 2 of 10 in cluster Z

Relative: Higher

Actual: 42 ft.

RCRA-SQG:
Date form received by agency: 09/10/1986
Facility name: BYROM RADIATOR SERVICE
Facility address: 22208 SO VERMONT AVE
TORRANCE, CA 90502
EPA ID: CAD981655707
Mailing address: SO VERMONT AVE
TORRANCE, CA 90502
Contact: ENVIRONMENTAL MANAGER
Contact address: 22208 SO VERMONT AVE
TORRANCE, CA 90502
Contact country: US
Contact telephone: (213) 328-1930
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: BYROM DONALD R
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No

BYROM RADIATOR SERVICE (Continued) **1000334137**

Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002739430

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ECHO:
Envid: 1000334137
Registry ID: 110002739430
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002739430

Z238 **DC DECKER CO INC** **HIST UST** **U001564092**
22208 S VERMONT **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 3 of 10 in cluster Z

Relative: Higher

Actual: 42 ft.

HIST UST:
File Number: 000274E7
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/000274E7.pdf
Region: STATE
Facility ID: 00000046934
Facility Type: Other
Other Type: CONTRACTORS
Contact Name: ROBERT R. SPENCER
Telephone: 2133287604
Owner Name: D.C. DECKER CO. INC.
Owner Address: 22208 S. VERMONT AVE.
Owner City,St,Zip: TORRANCE, CA 90502
Total Tanks: 0001

Tank Num: 001
Container Num: ONE
Year Installed: Not reported
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM

DC DECKER CO INC (Continued) **U001564092**

Container Construction Thickness: 10
Leak Detection: Stock Inventor

Click here for Geo Tracker PDF:

Z239 **FINLEY'S TREE & LANDCARE INC.** **PEST LIC** **S117642093**
22208 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 4 of 10 in cluster Z

Relative:
Higher

Actual:
42 ft.

PEST LIC:
Facility Type: MGB
Categories: Not reported
License No: 38268
Issued or Renewed Date: 01/01/2015
Expiration Date: 12/31/2016

Z240 **DECOCAL INC** **HAZNET** **S112849728**
22208 SOUTH VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 5 of 10 in cluster Z

Relative:
Higher

Actual:
42 ft.

HAZNET:
envid: S112849728
Year: 1995
GEPAID: CAC000882224
Contact: CARLOS MAILLAND
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 22208 SOUTH VERMONT AVE
Mailing City,St,Zip: TORRANCE, CA 905020000
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: 1.4595
Cat Decode: Waste oil and mixed oil
Method Decode: Recycler
Facility County: Los Angeles

Z241 **UNITED INSTALLER** **SWEEPS UST** **S101585432**
22208 S VERMONT AVE **CA FID UST** **N/A**
< 1/8 **TORRANCE, CA 90502** **LOS ANGELES CO. HMS**
1 ft.

Site 6 of 10 in cluster Z

Relative:
Higher

Actual:
42 ft.

SWEEPS UST:
Status: Active
Comp Number: 12444
Number: 9
Board Of Equalization: Not reported
Referral Date: 06-30-89

UNITED INSTALLER (Continued) **S101585432**

Action Date: Not reported
Created Date: 06-30-89
Owner Tank Id: Not reported
SWRCB Tank Id: Not reported
Tank Status: Not reported
Capacity: Not reported
Active Date: Not reported
Tank Use: Not reported
STG: Not reported
Content: Not reported
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 19023494
Regulated By: UTNKA
Regulated ID: 00046934
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 8180000000
Mail To: Not reported
Mailing Address: 22208 S VERMONT AVE
Mailing Address 2: Not reported
Mailing City,St,Zip: CARSON
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 012316-012444
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

Region: LA
Permit Category: S
Facility Id: 012316-055749
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000682845
Permit Status: Permit

Z242 **DECOCAL INC** **LOS ANGELES CO. HMS** **S104295390**
22208 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 7 of 10 in cluster Z

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 012316-029448
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000529932
Permit Status: Closed

Region: LA
Permit Category: T
Facility Id: 012316-046565
Facility Type: 0
Facility Status: Removed
Area: 2
Permit Number: 000507514
Permit Status: Removed

Z243 **BYROM RADIATOR SERVICE** **HAZNET** **S113009339**
22208 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 8 of 10 in cluster Z

Relative:
Higher

Actual:
42 ft.

HAZNET:
envid: S113009339
Year: 1993
GEPAID: CAD981655707
Contact: Not reported
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 22208 S VERMONT AVE
Mailing City,St,Zip: TORRANCE, CA 905020000
Gen County: Not reported
TSD EPA ID: CAD000088252
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Transfer Station
Tons: 5.00000000000
Cat Decode: Other inorganic solid waste
Method Decode: Transfer Station
Facility County: Los Angeles

Z244 **BYRON'S RADIATOR REPAIR** **EMI** **S106827526**
22208 SO. VERMONT **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 9 of 10 in cluster Z

Relative:
Higher

Actual:
42 ft.

EMI:

Year:	1987
County Code:	19
Air Basin:	SC
Facility ID:	23261
Air District Name:	SC
SIC Code:	3714
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Z245 **JUAN CARLOS MAILLAND** **HAZNET** **S113461831**
22208 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 10 of 10 in cluster Z

Relative:
Higher

Actual:
42 ft.

HAZNET:

envid:	S113461831
Year:	2010
GEPAID:	CAC002656128
Contact:	JUAN CARLOS MAILLAND
Telephone:	3104667354
Mailing Name:	Not reported
Mailing Address:	2348 VIA LA ORILLA
Mailing City,St,Zip:	FALLBROOK, CA 92028
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Tank bottom waste
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.2085
Cat Decode:	Tank bottom waste
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Los Angeles

Q246 **CONOCOPHILLIPS CO #254944** **LOS ANGELES CO. HMS** **S105792142**
1259 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 14 of 21 in cluster Q

Relative:
Higher

Actual:
48 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	T
Facility Id:	005173-038275
Facility Type:	0
Facility Status:	Removed
Area:	2
Permit Number:	000368342
Permit Status:	Removed

M247 **CARSON-NORMANDIE PLAZA, LLC** **SLIC** **S106916817**
1141 CARSON ST **BROWNFIELDS** **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 29 of 55 in cluster M

Relative:
Higher

Actual:
44 ft.

SLIC:

Region:	STATE
Facility Status:	**Open - Remediation**
Status Date:	10/07/2010
Global Id:	SL0603746736
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number:	Not reported
Latitude:	33.832414
Longitude:	-118.29643
Case Type:	Cleanup Program Site
Case Worker:	BA
Local Agency:	Not reported
RB Case Number:	1173
File Location:	Regional Board
Potential Media Affected:	Other Groundwater (uses other than drinking water), Soil, Soil Vapor
Potential Contaminants of Concern:	Other Chlorinated Hydrocarbons, Tetrachloroethylene (PCE), Trichloroethylene (TCE)
Site History:	The site is a commercial shopping strip mall, originally constructed in approximately 1962. A dry cleaner occupied a unit at 1161 West Carson Street and operated from approximately 1962 to at least 1985. Site investigations were conducted at the site from 2001 to 2007, involving soil vapor survey, soil and groundwater sampling and installation of six groundwater monitoring wells and indicated that there was a release of chemicals used in the dry cleaning operations. Perchloroethylene (PCE), trichloroethene (TCE) and other volatile organic compounds were detected in the soil, soil vapor and groundwater. A soil remedial action plan (RAP) was approved by the Regional Board on July 23, 2009. The RAP proposed impacted soil excavation and removal from the upper 5 feet and a soil vapor extraction (SVE) system for the remaining portion of the vadose zone, which is approximately 45 feet thick. The soil excavtion was completed in January 2009. A total of 367 tons of VOC-impacted soil was excavated and removed from inside the former dry cleaner's unit. The SVE system was installed and began operation on September 7, 2010. An interim groundwater remedial action plan (IGRP) was approved by the Regional Board on January 12, 2011. The IGRP proposed injection of potassium permanganet solution in the source area for source reduction and evaluation of the effectiveness of the reagent.

CARSON-NORMANDIE PLAZA, LLC (Continued) **S106916817**

The injection work was conducted from May to June 2011. A total volume of 42,264 gallons of potassium permanganet soultion was injected at 22 injection points and two injection wells in the first round of injection. Groundwater monitoring has been performed at the site since 2007.

Click here to access the California GeoTracker records for this facility:

BROWNFIELDS:
Global ID: SL0603746736

V248 **JOHN BATES** **RGA LUST** **S114637714**
21600 VERMONT AVE S **N/A**
< 1/8 **TORRANCE, CA**
1 ft.

Site 5 of 12 in cluster V

Relative: Lower

Actual: 30 ft.

RGA LUST:

1998	JOHN BATES	21600 VERMONT AVE S
1997	JOHN BATES	21600 VERMONT AVE S

V249 **HERTZ EQUIPMENT RENTAL** **RCRA-SQG** **1000423582**
21600 S VERMONT AVE **HIST UST** **CAD981664279**
< 1/8 **TORRANCE, CA 90502** **FINDS**
1 ft. **HAZNET**
ECHO

Site 6 of 12 in cluster V

Relative: Lower

Actual: 33 ft.

RCRA-SQG:

Date form received by agency:	10/14/1986
Facility name:	HERTZ EQUIPMENT RENTAL
Facility address:	21600 S VERMONT AVE TORRANCE, CA 90502
EPA ID:	CAD981664279
Mailing address:	S VERMONT AVE TORRANCE, CA 90502
Contact:	ENVIRONMENTAL MANAGER
Contact address:	21600 S VERMONT AVE TORRANCE, CA 90502
Contact country:	US
Contact telephone:	(213) 637-7368
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	HERTZ CORP
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212

HERTZ EQUIPMENT RENTAL (Continued) **1000423582**

Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

HIST UST:
File Number: 00028559
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00028559.pdf
Region: STATE
Facility ID: 00000068538
Facility Type: Other
Other Type: CONST. EQUIP. RENTAL
Contact Name: RICK BROWN
Telephone: 2014286825
Owner Name: VERMONT ENTERPRISES
Owner Address: P.O. BOX 1589
Owner City,St,Zip: TORRANCE, CA 90505
Total Tanks: 0002

Tank Num: 001
Container Num: 1
Year Installed: 1980
Tank Capacity: 00010000
Tank Used for: WASTE
Type of Fuel: 4
Container Construction Thickness: X
Leak Detection: Stock Inventor

HERTZ EQUIPMENT RENTAL (Continued) **1000423582**

Tank Num: 002
Container Num: 2
Year Installed: 1980
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: Not reported
Leak Detection: None

Click here for Geo Tracker PDF:

FINDS:

Registry ID: 110002742088

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Registry ID: 110055889668

Environmental Interest/Information System
STATE MASTER

HAZNET:

envid: 1000423582
Year: 2013
GEPAID: CAL000378275
Contact: DARRYL DINSON
Telephone: 3238697704
Mailing Name: Not reported
Mailing Address: 600 CITADEL DRIVE
Mailing City,St,Zip: COMMERCE, CA 900400000
Gen County: Los Angeles
TSD EPA ID: INR000110197
TSD County: Not reported
Waste Category: Not reported
Disposal Method: Not reported
Tons: 0.003
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Not reported

envid: 1000423582
Year: 2013
GEPAID: CAL000378275
Contact: DARRYL DINSON
Telephone: 3238697704
Mailing Name: Not reported
Mailing Address: 600 CITADEL DRIVE
Mailing City,St,Zip: COMMERCE, CA 900400000

HERTZ EQUIPMENT RENTAL (Continued) **1000423582**

Gen County:	Los Angeles
TSD EPA ID:	INR000110197
TSD County:	Not reported
Waste Category:	Not reported
Disposal Method:	Not reported
Tons:	0.0005
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Not reported

envid:	1000423582
Year:	1993
GEPAID:	CAD981664279
Contact:	Not reported
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	21600 S VERMONT AVE
Mailing City,St,Zip:	TORRENCE, CA 905020000
Gen County:	Not reported
TSD EPA ID:	CAT080011059
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Recycler
Tons:	1.4595
Cat Decode:	Aqueous solution with total organic residues less than 10 percent
Method Decode:	Recycler
Facility County:	Los Angeles

ECHO:

Envid:	1000423582
Registry ID:	110002742088
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110002742088

M250 **RITE AID NO 5492** **FINDS** **1014674532**
1237 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 30 of 55 in cluster M

Relative: Higher

FINDS:

Registry ID: 110042169792

Actual: 44 ft.

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

N251 **SPOT SIZZLING SOUP RESTAURANT** **LOS ANGELES CO. HMS** **S117542060**
21730 S VERMONT AVE #130 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 19 of 33 in cluster N

Relative: **Higher**

Actual: **42 ft.**

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 030172-058595
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000781617
Permit Status: Closed

K252 **JACK IN THE BOX #3155** **FINDS** **1016421761**
835 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 10 of 24 in cluster K

Relative: **Lower**

Actual: **38 ft.**

FINDS:

Registry ID: 110055695092

Environmental Interest/Information System
STATE MASTER

M253 **NORGE VILLAGE CLEANERS** **RCRA-SQG** **1000233450**
1161 W CARSON ST **FINDS** **CAD981987993**
< 1/8 **TORRANCE, CA 90502** **ECHO**
1 ft.

Site 31 of 55 in cluster M

Relative: **Higher**

Actual: **44 ft.**

RCRA-SQG:
Date form received by agency: 12/21/1993
Facility name: NORGE VILLAGE CLEANERS
Facility address: 1161 W CARSON ST
TORRANCE, CA 90502
EPA ID: CAD981987993
Mailing address: W CARSON ST
TORRANCE, CA 90502
Contact: RAYMOND SHORE
Contact address: 1161 W CARSON ST
TORRANCE, CA 90502
Contact country: US
Contact telephone: (310) 328-9675
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

NORGE VILLAGE CLEANERS (Continued) **1000233450**

Owner/Operator Summary:
Owner/operator name: RAYMOND E SHORE
Owner/operator address: 1161 W CARSON
TORRANCE, CA 90502
Owner/operator country: Not reported
Owner/operator telephone: (310) 328-9675
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002767060

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ECHO:
Envid: 1000233450
Registry ID: 110002767060

NORGE VILLAGE CLEANERS (Continued) **1000233450**

DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002767060

W254 **NATL SUPPLY CO DUMP (DEST)** **LOS ANGELES CO. HMS** **S113742636**
22000 NORMANDIE AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 2 of 2 in cluster W

Relative:
Higher

Actual:
48 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 001124-I01182
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

N255 **TROPI-CUBA CAFE INC UNIT 130** **LOS ANGELES CO. HMS** **S113745356**
21730 S VERMONT AVE #130 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 20 of 33 in cluster N

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 030172-052722
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000611141
Permit Status: Closed

N256 **PHO CONSOMME** **LOS ANGELES CO. HMS** **S118496284**
21730 S VERMONT AVE #130 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 21 of 33 in cluster N

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 030172-060377
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000802344
Permit Status: Closed

N257 **CUBAN CUISINE & BAKERY** **LOS ANGELES CO. HMS** **S113745357**
21730 S VERMONT AVE #130 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 22 of 33 in cluster N

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 030172-057070
Facility Type: 01
Facility Status: Permit
Area: 2
Permit Number: 000721227
Permit Status: Suspended

K258 **BLUE BASIL ASIAN CUISINE** **LOS ANGELES CO. HMS** **S106023544**
819 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 11 of 24 in cluster K

Relative:
Lower

Actual:
39 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 027658-039125
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000527516
Permit Status: Closed

Region: LA
Permit Category: Not reported
Facility Id: 027658-054030
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

R259 **NEW CARSON TRANSMISSION** **LOS ANGELES CO. HMS** **S108998349**
800 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 5 of 15 in cluster R

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 030206-050787
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000557924
Permit Status: Closed

260 **MIKAMO NURSERY** **LOS ANGELES CO. HMS** **S113744785**
1029 W 223RD ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Relative: LOS ANGELES CO. HMS:
Higher Region: LA
Permit Category: S
Facility Id: 023041-032211
Actual: Facility Type: S5
41 ft. Facility Status: Closed
Area: 2
Permit Number: 000733018
Permit Status: Closed

K261 **TORRANCE HARBOR SHELL** **UST** **U003777977**
911 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 12 of 24 in cluster K

Relative: UST:
Lower Facility ID: 26329
Permitting Agency: LOS ANGELES COUNTY
Actual: Latitude: 33.833298
38 ft. Longitude: -118.2893399

M262 **TOSCO/UNOCAL #30769** **RGA LUST** **S114705685**
1259 CARSON ST. W. **N/A**
< 1/8 **TORRANCE, CA**
1 ft.

Site 32 of 55 in cluster M

Relative: RGA LUST:
Higher 2009 TOSCO/UNOCAL #30769 1259 CARSON ST. W.
2008 TOSCO/UNOCAL #30769 1259 CARSON ST. W.
Actual: 2007 TOSCO/UNOCAL #30769 1259 CARSON ST. W.
44 ft. 2006 TOSCO/UNOCAL #30769 1259 CARSON ST. W.

M263 **TOSCO CORPORATION STATION #30769** **HAZNET** **S113076075**
1259 W CARSON **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 33 of 55 in cluster M

Relative: HAZNET:
Higher envid: S113076075
Year: 2002
Actual: GEPAID: CAL000139158
44 ft. Contact: HAZMAT SPECIALIST
Telephone: 6027284180
Mailing Name: Not reported
Mailing Address: PO BOX 52085
Mailing City,St,Zip: PHOENIX, AZ 850722085
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported

TOSCO CORPORATION STATION #30769 (Continued) **S113076075**

Waste Category: Unspecified aqueous solution
Disposal Method: Treatment, Tank
Tons: 0.68
Cat Decode: Unspecified aqueous solution
Method Decode: Treatment, Tank
Facility County: Los Angeles

Q264 **TONY'S UNOCAL** **LOS ANGELES CO. HMS** **S110070323**
1259 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 15 of 21 in cluster Q

Relative: Higher
Actual: 48 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 005173-044843
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000529354
Permit Status: Closed

M265 **RESEARCH & EDUCATION INSTITUTE** **EMI** **U001562310**
1124 W CARSON ST **LOS ANGELES CO. HMS** **N/A**
< 1/8 **TORRANCE, CA 90063**
1 ft.

Site 34 of 55 in cluster M

Relative: Higher
Actual: 45 ft.

EMI:
Year: 1990
County Code: 19
Air Basin: SC
Facility ID: 78119
Air District Name: SC
SIC Code: 8733
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 027672-039139
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

N266 **CARLOS M V FAUSTO DDS** **HAZNET** **S113060157**
21720 S VERMONT AVE SUITE 115 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 23 of 33 in cluster N

Relative: HAZNET:
Higher

envid:	S113060157
Year:	1995
GEPAID:	CAL000100688
Contact:	CARLOS M V FAUSTO
Telephone:	3103200085
Mailing Name:	Not reported
Mailing Address:	21720 S VERMONT AVE STE 115
Mailing City,St,Zip:	TORRANCE, CA 905022127
Gen County:	Not reported
TSD EPA ID:	CAD981402522
TSD County:	Not reported
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	Not reported
Tons:	.0166
Cat Decode:	Photochemicals/photoprocessing waste
Method Decode:	Not reported
Facility County:	Los Angeles

Actual:
42 ft.

K267 **TESORO REFINING & MARKETING/CARSON SHELL #68624** **HAZNET** **S113148562**
911 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 13 of 24 in cluster K

Relative: HAZNET:
Lower

envid:	S113148562
Year:	2014
GEPAID:	CAL000322088
Contact:	LISA GOMEZ
Telephone:	2106264994
Mailing Name:	Not reported
Mailing Address:	19100 RIDGEWOOD PKWY
Mailing City,St,Zip:	SAN ANTONIO, TX 782590000
Gen County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County:	99
Waste Category:	Other organic solids
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.025
Cat Decode:	Other organic solids
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

Actual:
38 ft.

envid:	S113148562
Year:	2014
GEPAID:	CAL000322088
Contact:	LISA GOMEZ
Telephone:	2106264994
Mailing Name:	Not reported
Mailing Address:	19100 RIDGEWOOD PKWY
Mailing City,St,Zip:	SAN ANTONIO, TX 782590000

TESORO REFINING & MARKETING/CARSON SHELL #68624 (Continued) **S113148562**

Gen County:	Los Angeles
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.084
Cat Decode:	Aqueous solution with total organic residues less than 10 percent
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Los Angeles

envid:	S113148562
Year:	2013
GEPAID:	CAL000322088
Contact:	Lisa Gomez
Telephone:	2106264994
Mailing Name:	Not reported
Mailing Address:	19100 RIDGEWOOD PKWY
Mailing City,St,Zip:	SAN ANTONIO, TX 782590000
Gen County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.04
Cat Decode:	Not reported
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Not reported

envid:	S113148562
Year:	2013
GEPAID:	CAL000322088
Contact:	Lisa Gomez
Telephone:	2106264994
Mailing Name:	Not reported
Mailing Address:	19100 RIDGEWOOD PKWY
Mailing City,St,Zip:	SAN ANTONIO, TX 782590000
Gen County:	Los Angeles
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.1092
Cat Decode:	Not reported
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Not reported

envid:	S113148562
Year:	2012
GEPAID:	CAL000322088
Contact:	LISA GARCIA
Telephone:	2106264994

TESORO REFINING & MARKETING/CARSON SHELL #68624 (Continued) **S113148562**

Mailing Name:	Not reported
Mailing Address:	19100 RIDGEWOOD PKWY
Mailing City,St,Zip:	SAN ANTONIO, TX 782590000
Gen County:	Los Angeles
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.0672
Cat Decode:	Not reported
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
9 additional CA_HAZNET: record(s) in the EDR Site Report.

K268 **SHELL** **LUST** **S108418338**
911 CARSON ST. W **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 14 of 24 in cluster K

Relative:
Lower

Actual:
38 ft.

LUST:

Region:	STATE
Global Id:	T0603759521
Latitude:	33.83159
Longitude:	-118.290746
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	01/16/2013
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	MT
Local Agency:	LOS ANGELES COUNTY
RB Case Number:	R-26329
LOC Case Number:	004563-026329
File Location:	Regional Board
Potential Media Affect:	Other Groundwater (uses other than drinking water), Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603759521
Contact Type:	Local Agency Caseworker
Contact Name:	ALBERTO GRAJEDA
Organization Name:	LOS ANGELES COUNTY
Address:	900 S. FREMONT AVE.
City:	ALHAMBRA
Email:	algrajeda@dpw.lacounty.gov
Phone Number:	Not reported

Global Id:	T0603759521
Contact Type:	Regional Board Caseworker
Contact Name:	MARYAM TAIDY
Organization Name:	LOS ANGELES RWQCB (REGION 4)

SHELL (Continued) **S108418338**

Address: 320 W. 4TH ST., SUITE 200
City: LOS ANGELES
Email: mtaidy@waterboards.ca.gov
Phone Number: 2135766741

Status History:
Global Id: T0603759521
Status: Completed - Case Closed
Status Date: 01/16/2013

Global Id: T0603759521
Status: Open - Case Begin Date
Status Date: 06/10/2004

Global Id: T0603759521
Status: Open - Eligible for Closure
Status Date: 11/06/2012

Global Id: T0603759521
Status: Open - Site Assessment
Status Date: 02/05/2007

Global Id: T0603759521
Status: Open - Site Assessment
Status Date: 06/08/2009

Regulatory Activities:
Global Id: T0603759521
Action Type: ENFORCEMENT
Date: 11/16/2012
Action: Notification - Preclosure

Global Id: T0603759521
Action Type: RESPONSE
Date: 01/15/2012
Action: Monitoring Report - Quarterly

Global Id: T0603759521
Action Type: REMEDIATION
Date: 02/05/2007
Action: Not reported

Global Id: T0603759521
Action Type: RESPONSE
Date: 10/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603759521
Action Type: RESPONSE
Date: 07/15/2012
Action: Monitoring Report - Quarterly

Global Id: T0603759521
Action Type: RESPONSE
Date: 01/15/2011
Action: Monitoring Report - Semi-Annually

SHELL (Continued) **S108418338**

Global Id: T0603759521
Action Type: RESPONSE
Date: 12/29/2010
Action: Site Assessment Report

Global Id: T0603759521
Action Type: RESPONSE
Date: 04/15/2012
Action: Monitoring Report - Quarterly

Global Id: T0603759521
Action Type: RESPONSE
Date: 04/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603759521
Action Type: RESPONSE
Date: 09/26/2011
Action: Well Installation Report

Global Id: T0603759521
Action Type: RESPONSE
Date: 09/06/2012
Action: Request for Closure

Global Id: T0603759521
Action Type: ENFORCEMENT
Date: 01/16/2013
Action: Closure/No Further Action Letter

Global Id: T0603759521
Action Type: RESPONSE
Date: 02/26/2010
Action: Soil and Water Investigation Workplan

Global Id: T0603759521
Action Type: RESPONSE
Date: 07/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603759521
Action Type: RESPONSE
Date: 07/16/2010
Action: Remedial Progress Report

Global Id: T0603759521
Action Type: RESPONSE
Date: 04/15/2011
Action: Monitoring Report - Quarterly

Global Id: T0603759521
Action Type: RESPONSE
Date: 07/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0603759521
Action Type: RESPONSE

SHELL (Continued) **S108418338**

Date: 07/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603759521
Action Type: RESPONSE
Date: 10/15/2011
Action: Monitoring Report - Quarterly

Global Id: T0603759521
Action Type: RESPONSE
Date: 04/15/2013
Action: Well Destruction Report

Global Id: T0603759521
Action Type: ENFORCEMENT
Date: 06/08/2009
Action: Staff Letter

Global Id: T0603759521
Action Type: Other
Date: 06/10/2004
Action: Leak Discovery

Global Id: T0603759521
Action Type: Other
Date: 08/10/2004
Action: Leak Reported

Global Id: T0603759521
Action Type: RESPONSE
Date: 07/08/2009
Action: Other Report / Document

Global Id: T0603759521
Action Type: RESPONSE
Date: 10/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0603759521
Action Type: RESPONSE
Date: 01/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603759521
Action Type: ENFORCEMENT
Date: 04/08/2009
Action: Referral to Regional Board

M269 **LOS ANGELES BIOMEDICAL RB3** **LOS ANGELES CO. HMS** **S108740995**
1124 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 35 of 55 in cluster M

Relative:
Higher

Actual:
45 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 027672-049836
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

P270 **FILIPINO RESTAURANT** **LOS ANGELES CO. HMS** **S113745535**
1153 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 3 of 8 in cluster P

Relative:
Higher

Actual:
46 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 031913-050364
Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000575104
Permit Status: Closed

M271 **UNOCAL #4944** **RGA LUST** **S114711340**
1259 CARSON ST. W. **N/A**
< 1/8 **TORRANCE, CA**
1 ft.

Site 36 of 55 in cluster M

Relative:
Higher

Actual:
44 ft.

RGA LUST:

2012	UNOCAL #4944	1259 CARSON ST. W.
2011	UNOCAL #4944	1259 CARSON ST. W.
2010	UNOCAL #4944	1259 CARSON ST. W.

M272 **LONG JOHN SILVER'S #24038** **LOS ANGELES CO. HMS** **S106671688**
1145 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 37 of 55 in cluster M

Relative:
Higher

Actual:
46 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 029341-042116
Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000439890

LONG JOHN SILVER'S #24038 (Continued) **S106671688**

Permit Status: Closed

Region: LA
Permit Category: I
Facility Id: 029341-042116
Facility Type: S4
Facility Status: Closed
Area: 2
Permit Number: 000451584
Permit Status: Closed

Y273 **CHMIRS** **S110979333**
925 WEST 223RD STREET **N/A**
< 1/8 **TORRANCE, CA**
1 ft.

Site 3 of 4 in cluster Y

Relative: Higher

Actual: 42 ft.

CHMIRS:

OES Incident Number:	10-2748
OES notification:	05/03/2010
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Unknown
Waterway:	storm drain
Spill Site:	Merchant/Business,Residence
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Gal(s)
Other:	Not reported
Date/Time:	320
Year:	2010

(Continued) **S110979333**

Agency:	Southern CA Edison
Incident Date:	5/3/2010
Admin Agency:	Torrance Fire Department
Amount:	Not reported
Contained:	Yes
Site Type:	storm drain
E Date:	Not reported
Substance:	mineral oil NON PCB
Quantity Released:	45
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	RP States: A vehicle struck a pole and caused a release from the transformers on the pole. Some of the material may have entered a storm drain.

Y274 **ERNS** **2010938872**
925 W. 223RD STREET **N/A**
< 1/8 **TORRANCE, CA**
1 ft.

Site 4 of 4 in cluster Y

Relative:
Higher

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
42 ft.

V275 **HAZNET** **S112941569**
MISSION STORAGE **N/A**
735 W CARSON ST
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 7 of 12 in cluster V

Relative:
Lower

Actual:
38 ft.

HAZNET:

envid:	S112941569
Year:	2004
GEPAID:	CAC002583971
Contact:	DAVE
Telephone:	7145545291
Mailing Name:	Not reported
Mailing Address:	1954 PLACENTIA AVE # 210
Mailing City,St,Zip:	COSTA MESA, CA 92627
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Other organic solids

MISSION STORAGE (Continued) **S112941569**

Disposal Method: Transfer Station
Tons: 0
Cat Decode: Other organic solids
Method Decode: Transfer Station
Facility County: Los Angeles

P276 **FIESTA GRILL MEDITERRANEAN** **LOS ANGELES CO. HMS** **S113745538**
1153 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 4 of 8 in cluster P

Relative:
Higher

Actual:
46 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 031913-053134
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000628000
Permit Status: Permit

O277 **SMILE CARE DENTAL GROUP** **HAZNET** **S113053914**
923 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 2 of 3 in cluster O

Relative:
Lower

Actual:
37 ft.

HAZNET:
envid: S113053914
Year: 2003
GEPAID: CAL000083020
Contact: LANE D HARTER-DIR CLIN SVCS
Telephone: 7148503333
Mailing Name: Not reported
Mailing Address: PO BOX 25096
Mailing City,St,Zip: SANTA ANA, CA 927995096
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Unspecified organic liquid mixture
Disposal Method: Transfer Station
Tons: 0.02
Cat Decode: Unspecified organic liquid mixture
Method Decode: Transfer Station
Facility County: Los Angeles

envid: S113053914
Year: 2003
GEPAID: CAL000083020
Contact: LANE D HARTER-DIR CLIN SVCS
Telephone: 7148503333
Mailing Name: Not reported
Mailing Address: PO BOX 25096
Mailing City,St,Zip: SANTA ANA, CA 927995096
Gen County: Not reported

SMILE CARE DENTAL GROUP (Continued) **S113053914**

TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Unspecified organic liquid mixture
Disposal Method: Transfer Station
Tons: 0.02
Cat Decode: Unspecified organic liquid mixture
Method Decode: Transfer Station
Facility County: Los Angeles

envid: S113053914
Year: 2001
GEPAID: CAL000083020
Contact: LANE D HARTER-DIR CLIN SVCS
Telephone: 7148503333
Mailing Name: Not reported
Mailing Address: PO BOX 25096
Mailing City,St,Zip: SANTA ANA, CA 927995096
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Liquids with mercury >= 20 Mg./L
Disposal Method: Transfer Station
Tons: 0
Cat Decode: Liquids with mercury >= 20 Mg./L
Method Decode: Transfer Station
Facility County: Los Angeles

envid: S113053914
Year: 2001
GEPAID: CAL000083020
Contact: LANE D HARTER-DIR CLIN SVCS
Telephone: 7148503333
Mailing Name: Not reported
Mailing Address: PO BOX 25096
Mailing City,St,Zip: SANTA ANA, CA 927995096
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Liquids with mercury >= 20 Mg./L
Disposal Method: Transfer Station
Tons: 0
Cat Decode: Liquids with mercury >= 20 Mg./L
Method Decode: Transfer Station
Facility County: Los Angeles

envid: S113053914
Year: 2000
GEPAID: CAL000083020
Contact: LANE D HARTER-DIR CLIN SVCS
Telephone: 7148503333
Mailing Name: Not reported
Mailing Address: PO BOX 25096
Mailing City,St,Zip: SANTA ANA, CA 927995096
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Unspecified organic liquid mixture

SMILE CARE DENTAL GROUP (Continued) **S113053914**

Disposal Method: Transfer Station
Tons: 0.02
Cat Decode: Unspecified organic liquid mixture
Method Decode: Transfer Station
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
15 additional CA_HAZNET: record(s) in the EDR Site Report.

K278 **TESORO (SHELL) #68624** **LOS ANGELES CO. HMS** **S113742976**
911 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 15 of 24 in cluster K

Relative: LOS ANGELES CO. HMS:
Lower Region: LA
Permit Category: T
Actual: Facility Id: 004563-057485
38 ft. Facility Type: 0
Facility Status: Permit
Area: 2
Permit Number: 000729950
Permit Status: Permit

M279 **VITAHUT INVESTMENTS LLC** **LOS ANGELES CO. HMS** **S105512080**
1123 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 38 of 55 in cluster M

Relative: LOS ANGELES CO. HMS:
Higher Region: LA
Permit Category: I
Actual: Facility Id: 018679-037636
44 ft. Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000346912
Permit Status: Closed

M280 **TONY'S 76** **HAZNET** **S113045795**
1259 W CARSON **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 39 of 55 in cluster M

Relative: HAZNET:
Higher envid: S113045795
Year: 2008
Actual: GEPAID: CAL000062082
44 ft. Contact: TONY BOU-ABSI
Telephone: 3103209351
Mailing Name: Not reported
Mailing Address: 1301 W REDONDO BEACH BLVD

TONY'S 76 (Continued) **S113045795**

Mailing City,St,Zip:	GARDENA, CA 902473320
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Oil/water separation sludge
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	1.668
Cat Decode:	Oil/water separation sludge
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Los Angeles
envid:	S113045795
Year:	2008
GEPAID:	CAL000062082
Contact:	TONY BOU-ABSI
Telephone:	3103209351
Mailing Name:	Not reported
Mailing Address:	1301 W REDONDO BEACH BLVD
Mailing City,St,Zip:	GARDENA, CA 902473320
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Oil/water separation sludge
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	1.668
Cat Decode:	Oil/water separation sludge
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Los Angeles
envid:	S113045795
Year:	2007
GEPAID:	CAL000062082
Contact:	TONY BOU-ABSI
Telephone:	3103209351
Mailing Name:	Not reported
Mailing Address:	1259 W CARSON ST
Mailing City,St,Zip:	TORRANCE, CA 905022009
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Oil/water separation sludge
Disposal Method:	Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Tons:	1.37
Cat Decode:	Oil/water separation sludge
Method Decode:	Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Facility County:	Los Angeles
envid:	S113045795
Year:	2007
GEPAID:	CAL000062082
Contact:	TONY BOU-ABSI

TONY'S 76 (Continued) **S113045795**

Telephone:	3103209351
Mailing Name:	Not reported
Mailing Address:	1259 W CARSON ST
Mailing City,St,Zip:	TORRANCE, CA 905022009
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Oil/water separation sludge
Disposal Method:	Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Tons:	1.37
Cat Decode:	Oil/water separation sludge
Method Decode:	Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Facility County:	Los Angeles

envid:	S113045795
Year:	1998
GEPAID:	CAL000062082
Contact:	TONY BOU-ABSI/OWNER
Telephone:	3103209351
Mailing Name:	Not reported
Mailing Address:	1259 W CARSON ST
Mailing City,St,Zip:	TORRANCE, CA 905022009
Gen County:	Not reported
TSD EPA ID:	CAT000613893
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Transfer Station
Tons:	.0458
Cat Decode:	Aqueous solution with total organic residues less than 10 percent
Method Decode:	Transfer Station
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
1 additional CA_HAZNET: record(s) in the EDR Site Report.

V281 **JOHN BATES** **HIST CORTESE** **S103990725**
21600 VERMONT **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 8 of 12 in cluster V

Relative:
Lower

Actual:
33 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	R-23360

M282 **CARSON NORMANDIE PLAZA** **ENF** **S110984736**
1141-1259 CARSON STREET **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 40 of 55 in cluster M

Relative:
Higher

Actual:
44 ft.

ENF:

Region:	4
Facility Id:	729488
Agency Name:	Not reported
Place Type:	Service/Commercial
Place Subtype:	Service/Commercial Site, NEC
Facility Type:	All other facilities
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	33.831860
Place Longitude:	-118.298850
SIC Code 1:	Not reported
SIC Desc 1:	Not reported
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	TANKS
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported

CARSON NORMANDIE PLAZA (Continued) **S110984736**

Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	355730
Region:	4
Order / Resolution Number:	NOV
Enforcement Action Type:	Notice of Violation
Effective Date:	06/16/2008
Adoption/Issuance Date:	06/16/2008
Achieve Date:	Not reported
Termination Date:	06/16/2008
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	NOV sent 6/16/08 for overdue source removal RAP.
Description:	NOV sent 6/16/08 for overdue source removal RAP.
Program:	SLIC
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0

A283 **FORTUNE BOWL** **LOS ANGELES CO. HMS** **S106023642**
1029 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 21 of 22 in cluster A

Relative: Higher

Actual: 40 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	S
Facility Id:	027662-039128
Facility Type:	S5
Facility Status:	Closed
Area:	2
Permit Number:	000527522
Permit Status:	Closed

Region:	LA
Permit Category:	S
Facility Id:	027662-050776
Facility Type:	S5
Facility Status:	Permit
Area:	2
Permit Number:	000557931

FORTUNE BOWL (Continued) **S106023642**

Permit Status: Permit

Region: LA
Permit Category: Not reported
Facility Id: 027662-054032
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

N284 **HONG KONG BAKERY & DELI** **LOS ANGELES CO. HMS** **S108649547**
21720 S VERMONT AVE #120 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 24 of 33 in cluster N

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 031610-049282
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000528618
Permit Status: Permit

Region: LA
Permit Category: I
Facility Id: 031610-057908
Facility Type: 01
Facility Status: Permit
Area: 2
Permit Number: 000818214
Permit Status: Permit

R285 **AROMA CATERING** **LOS ANGELES CO. HMS** **S118496535**
800 W CARSON ST #34 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 6 of 15 in cluster R

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 033594-061064
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

R286 **CAR TECH MG AUTO SPECIALIST** **HAZNET** **S113161513**
800 W CARSON ST STE 35 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 7 of 15 in cluster R

Relative:
Higher

Actual:
42 ft.

HAZNET:

envid:	S113161513
Year:	2014
GEPAID:	CAL000362648
Contact:	GHERRY GIMENEZ
Telephone:	5627538099
Mailing Name:	Not reported
Mailing Address:	800 W CARSON ST STE 35
Mailing City,St,Zip:	TORRANCE, CA 905022100
Gen County:	Los Angeles
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Waste oil and mixed oil
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.418
Cat Decode:	Waste oil and mixed oil
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Los Angeles

envid:	S113161513
Year:	2013
GEPAID:	CAL000362648
Contact:	GHERRY GIMENEZ
Telephone:	5627538099
Mailing Name:	Not reported
Mailing Address:	800 W CARSON ST STE 35
Mailing City,St,Zip:	TORRANCE, CA 905022100
Gen County:	Los Angeles
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	1.4744
Cat Decode:	Not reported
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Not reported

envid:	S113161513
Year:	2012
GEPAID:	CAL000362648
Contact:	GHERRY GIMENEZ
Telephone:	5627538099
Mailing Name:	Not reported
Mailing Address:	800 W CARSON ST STE 35
Mailing City,St,Zip:	TORRANCE, CA 905022100
Gen County:	Los Angeles
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Not reported

CAR TECH MG AUTO SPECIALIST (Continued) **S113161513**

Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.722
Cat Decode:	Not reported
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Los Angeles
envid:	S113161513
Year:	2011
GEPAID:	CAL000362648
Contact:	GHERRY GIMENEZ
Telephone:	5627538099
Mailing Name:	Not reported
Mailing Address:	800 W CARSON ST STE 35
Mailing City,St,Zip:	TORRANCE, CA 905022100
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.665
Cat Decode:	Waste oil and mixed oil
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Los Angeles

M287 **C AND S PHOTO EXPRESS** **HAZNET** **S113005743**
1255 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 41 of 55 in cluster M

Relative: **Higher**

Actual: **44 ft.**

HAZNET:

envid:	S113005743
Year:	1993
GEPAID:	CAD981418841
Contact:	NANCY WU
Telephone:	3103253699
Mailing Name:	Not reported
Mailing Address:	1255 W CARSON ST
Mailing City,St,Zip:	TORRANCE, CA 905020000
Gen County:	Not reported
TSD EPA ID:	CAD108040858
TSD County:	Not reported
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	Recycler
Tons:	0.0625
Cat Decode:	Photochemicals/photoprocessing waste
Method Decode:	Recycler
Facility County:	Los Angeles
envid:	S113005743
Year:	1993
GEPAID:	CAD981418841
Contact:	NANCY WU
Telephone:	3103253699

C AND S PHOTO EXPRESS (Continued) **S113005743**

Mailing Name: Not reported
Mailing Address: 1255 W CARSON ST
Mailing City,St,Zip: TORRANCE, CA 905020000
Gen County: Not reported
TSD EPA ID: CAD108040858
TSD County: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Not reported
Tons: 0.1042
Cat Decode: Photochemicals/photoprocessing waste
Method Decode: Not reported
Facility County: Los Angeles

A288 **LOS ALTOS MARKET** **LOS ANGELES CO. HMS** **S106023636**
1019 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 22 of 22 in cluster A

Relative: Higher

Actual: 40 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 027670-039137
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000527536
Permit Status: Permit

Region: LA
Permit Category: Not reported
Facility Id: 027670-056373
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

N289 **SPOT SIZZLING SOUP(#129/#130)** **LOS ANGELES CO. HMS** **S113745355**
21730 S VERMONT AVE #130 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 25 of 33 in cluster N

Relative: Higher

Actual: 42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 030172-052305
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

Region: LA
Permit Category: Not reported

SPOT SIZZLING SOUP(#129/#130) (Continued) **S113745355**

Facility Id: 030172-058594
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

P290 **DRY CLEANERS 114-1259 W CARSON** **LOS ANGELES CO. HMS** **S113745651**
1161 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 5 of 8 in cluster P

Relative: Higher

Actual: 47 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 032892-053756
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

K291 **SHELL SERVICE STATION** **FINDS** **1016302229**
911 WEST CARSON **ECHO** **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 16 of 24 in cluster K

Relative: Lower

Actual: 38 ft.

FINDS:

Registry ID: 110012545335

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ECHO:
Envid: 1016302229
Registry ID: 110012545335
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110012545335

AA292 **JR JANSEN INC** **LOS ANGELES CO. HMS** **U003056950**
22231 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 1 of 6 in cluster AA

Relative:
Higher

Actual:
43 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 000525-046350
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000528808
Permit Status: Closed

Region: LA
Permit Category: I
Facility Id: 000525-I00528
Facility Type: 01
Facility Status: Removed
Area: 2
Permit Number: 000010924
Permit Status: Removed

AA293 **JANSEN ANIMAL HOSPITAL** **HAZNET** **S113048092**
22231 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 2 of 6 in cluster AA

Relative:
Higher

Actual:
43 ft.

HAZNET:
envid: S113048092
Year: 1998
GEPAID: CAL000068638
Contact: JAMES R. JANSEN
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 22231 S VERMONT AVE
Mailing City,St,Zip: TORRANCE, CA 905022134
Gen County: Not reported
TSD EPA ID: CAD981402522
TSD County: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Recycler
Tons: .0625
Cat Decode: Photochemicals/photoprocessing waste
Method Decode: Recycler
Facility County: Los Angeles

R294 **EDR Hist Auto** **1015638096**
800 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 8 of 15 in cluster R

Relative:
Higher

Actual:
42 ft.

EDR Historical Auto Stations:

Name:	EZ TRANSMISSION AUTO REPAIR
Year:	2005
Address:	800 W CARSON ST
Name:	VISION AUTO
Year:	2006
Address:	800 W CARSON ST
Name:	VISION AUTO SERVICE CENTER
Year:	2007
Address:	800 W CARSON ST
Name:	EGM PHILAMERICAN AUTO TECH
Year:	2011
Address:	800 W CARSON ST

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295 **LAUSD/ MEYLER ST ELEM** **HAZNET** **S113013558**
1123 W 223RD ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Relative:
Higher

Actual:
44 ft.

HAZNET:

envid:	S113013558
Year:	2005
GEPAID:	CAD982046237
Contact:	YI HWA KIM DEPUTY DIRECTOR
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE 20 FL
Mailing City,St,Zip:	LOS ANGELES, CA 90017
Gen County:	Not reported
TSD EPA ID:	AZC950823111
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Not reported
Tons:	30.34
Cat Decode:	Asbestos containing waste
Method Decode:	Not reported
Facility County:	Los Angeles
envid:	S113013558
Year:	2003
GEPAID:	CAD982046237
Contact:	YI HWA KIM DEPUTY DIRECTOR
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE 20 FL
Mailing City,St,Zip:	LOS ANGELES, CA 90017
Gen County:	Not reported
TSD EPA ID:	CAD008252405
TSD County:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Transfer Station

LAUSD/ MEYLER ST ELEM (Continued) **S113013558**

Tons:	0
Cat Decode:	Other organic solids
Method Decode:	Transfer Station
Facility County:	Los Angeles

envid:	S113013558
Year:	2002
GEPAID:	CAD982046237
Contact:	YI HWA KIM DEPUTY DIRECTOR
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE 20 FL
Mailing City,St,Zip:	LOS ANGELES, CA 90017
Gen County:	Not reported
TSD EPA ID:	CAD009007626
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Disposal, Land Fill
Tons:	1.68
Cat Decode:	Asbestos containing waste
Method Decode:	Disposal, Land Fill
Facility County:	Los Angeles

envid:	S113013558
Year:	2001
GEPAID:	CAD982046237
Contact:	YI HWA KIM DEPUTY DIRECTOR
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE 20 FL
Mailing City,St,Zip:	LOS ANGELES, CA 90017
Gen County:	Not reported
TSD EPA ID:	AZC950823111
TSD County:	Not reported
Waste Category:	Other inorganic solid waste
Disposal Method:	Transfer Station
Tons:	0
Cat Decode:	Other inorganic solid waste
Method Decode:	Transfer Station
Facility County:	Los Angeles

envid:	S113013558
Year:	2000
GEPAID:	CAD982046237
Contact:	YI HWA KIM DEPUTY DIRECTOR
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE 20 FL
Mailing City,St,Zip:	LOS ANGELES, CA 90017
Gen County:	Not reported
TSD EPA ID:	AZR000005454
TSD County:	Not reported
Waste Category:	Polychlorinated biphenyls and material containing PCBs
Disposal Method:	Recycler
Tons:	0.32
Cat Decode:	Polychlorinated biphenyls and material containing PCBs
Method Decode:	Recycler

LAUSD/ MEYLER ST ELEM (Continued) **S113013558**

Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access additional CA_HAZNET: detail in the EDR Site Report.

M296 **TONY'S UNOCAL #1** **HAZNET** **S113067102**
1259 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 42 of 55 in cluster M

Relative: Higher

Actual: 44 ft.

HAZNET:

envid:	S113067102
Year:	2001
GEPAID:	CAL000117526
Contact:	TONY BOU-ABSI
Telephone:	3103209351
Mailing Name:	Not reported
Mailing Address:	1259 W CARSON ST
Mailing City,St,Zip:	TORRANCE, CA 905020000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Oil/water separation sludge
Disposal Method:	Recycler
Tons:	0.72
Cat Decode:	Oil/water separation sludge
Method Decode:	Recycler
Facility County:	Los Angeles

envid:	S113067102
Year:	1999
GEPAID:	CAL000117526
Contact:	TONY BOY ABSI
Telephone:	3103209351
Mailing Name:	Not reported
Mailing Address:	1259 W CARSON ST
Mailing City,St,Zip:	TORRANCE, CA 905020000
Gen County:	Not reported
TSD EPA ID:	CAT000613893
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Transfer Station
Tons:	.0625
Cat Decode:	Aqueous solution with total organic residues less than 10 percent
Method Decode:	Transfer Station
Facility County:	Los Angeles

AB297 **THE SOFT TOUCH PET LODGE** **LOS ANGELES CO. HMS** **U003062391**
951 W 223RD ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 1 of 3 in cluster AB

Relative: **Higher**

Actual: **42 ft.**

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 006502-I06722
Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000010923
Permit Status: Closed

AB298 **ALL STAR PET RESORT** **LOS ANGELES CO. HMS** **S109420958**
951 W 223RD ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 2 of 3 in cluster AB

Relative: **Higher**

Actual: **42 ft.**

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 006502-046351
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000529560
Permit Status: Closed

Region: LA
Permit Category: I
Facility Id: 006502-048885
Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000538503
Permit Status: Closed

AB299 **ALL STAR PET RESORT** **LOS ANGELES CO. HMS** **S105422228**
951 W 223RD ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 3 of 3 in cluster AB

Relative: **Higher**

Actual: **42 ft.**

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 006502-037334
Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000343776
Permit Status: Closed

AA300 **CENTURY PARTS INC** **HAZNET** **S113150289**
913 W 223RD ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 3 of 6 in cluster AA

Relative: HAZNET:
Higher

envid:	S113150289
Year:	2013
GEPAID:	CAL000326009
Contact:	LYNN HALE
Telephone:	3103280281
Mailing Name:	Not reported
Mailing Address:	913 W 223RD ST
Mailing City,St,Zip:	TORRANCE, CA 905022246
Gen County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.9174
Cat Decode:	Not reported
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Not reported

Actual:
43 ft.

envid:	S113150289
Year:	2008
GEPAID:	CAL000326009
Contact:	LYNN HALE
Telephone:	3103280281
Mailing Name:	Not reported
Mailing Address:	913 W 223RD ST
Mailing City,St,Zip:	TORRANCE, CA 905022246
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.297
Cat Decode:	Off-specification, aged or surplus organics
Method Decode:	Fuel Blending Prior To Energy Recovery At Another Site
Facility County:	Los Angeles

envid:	S113150289
Year:	2008
GEPAID:	CAL000326009
Contact:	LYNN HALE
Telephone:	3103280281
Mailing Name:	Not reported
Mailing Address:	913 W 223RD ST
Mailing City,St,Zip:	TORRANCE, CA 905022246
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

CENTURY PARTS INC (Continued) **S113150289**

Tons: 0.017
Cat Decode: Unspecified organic liquid mixture
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Los Angeles

envid: S113150289
Year: 2008
GEPAID: CAL000326009
Contact: LYNN HALE
Telephone: 3103280281
Mailing Name: Not reported
Mailing Address: 913 W 223RD ST
Mailing City,St,Zip: TORRANCE, CA 905022246
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Off-specification, aged or surplus organics
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.002
Cat Decode: Off-specification, aged or surplus organics
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Los Angeles

AA301 **CENTURY PARTS INC** **FINDS** **1016430230**
913 W 223RD ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 4 of 6 in cluster AA

Relative: Higher

FINDS:

Registry ID: 110055812081

Actual: 43 ft.

Environmental Interest/Information System
STATE MASTER

AA302 **CENTURY PARTS INC** **LOS ANGELES CO. HMS** **S113745363**
913 W 223RD ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 5 of 6 in cluster AA

Relative: Higher

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 030209-043639
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000532972
Permit Status: Permit

Actual: 43 ft.

N303 **CHMIRS** **S109037333**
N/A

21804 SOUTH VERMONT
< 1/8 **CARSON, CA 91770**
1 ft.

Site 26 of 33 in cluster N

Relative: CHMIRS:
Higher

OES Incident Number:	6-0542
OES notification:	01/23/2006
Actual: OES Date:	Not reported
42 ft. OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2006
Agency:	Southern Calif Edison
Incident Date:	1/23/2006 12:00:00 AM
Admin Agency:	L. A. County Fire Prevention
Amount:	Not reported
Contained:	Yes
Site Type:	Road
E Date:	Not reported
Substance:	Mineral Oil (Unk PCB)
Gallons:	2
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported

(Continued) **S109037333**

Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Wind blew the pole mounted transformer off and hit the ground spilling contents.

Q304 **SAMURAI SAMS** **LOS ANGELES CO. HMS** **S113743094**
1249 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 16 of 21 in cluster Q

Relative:
Higher

Actual:
48 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	I
Facility Id:	005378-044601
Facility Type:	01
Facility Status:	Closed
Area:	2
Permit Number:	000440106
Permit Status:	Closed

R305 **EXPRESS IMPORT & EXPORT** **LOS ANGELES CO. HMS** **S106852872**
727 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 9 of 15 in cluster R

Relative:
Higher

Actual:
41 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	S
Facility Id:	030212-043642
Facility Type:	S5
Facility Status:	Closed
Area:	2
Permit Number:	000532976
Permit Status:	Closed

N306 **SPENCER CHUN/VILLAGE VERMONT** **LOS ANGELES CO. HMS** **S113745353**
21730 S VERMONT AVE #130 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 27 of 33 in cluster N

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 030172-043583
Facility Type: 01
Facility Status: Permit
Area: 2
Permit Number: 000440370
Permit Status: Closed

Region: LA
Permit Category: I
Facility Id: 030172-043583
Facility Type: S4
Facility Status: Permit
Area: 2
Permit Number: 000453716
Permit Status: Permit

M307 **UNOCAL #4944** **LUST** **S110654485**
1259 CARSON ST. W. **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 43 of 55 in cluster M

Relative:
Higher

Actual:
44 ft.

LUST:

Region:	STATE
Global Id:	T0603703067
Latitude:	33.8316366
Longitude:	-118.2982917
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	09/09/1996
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	YR
Local Agency:	LOS ANGELES COUNTY
RB Case Number:	I-05372
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603703067
Contact Type:	Local Agency Caseworker
Contact Name:	JOHN AWUJO
Organization Name:	LOS ANGELES COUNTY
Address:	900 S FREMONT AVE
City:	ALHAMBRA
Email:	jawujo@dpw.lacounty.gov
Phone Number:	6264583507

UNOCAL #4944 (Continued) **S110654485**

Global Id: T0603703067
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Status History:
Global Id: T0603703067
Status: Completed - Case Closed
Status Date: 09/09/1996

Global Id: T0603703067
Status: Open - Case Begin Date
Status Date: 09/14/1992

Global Id: T0603703067
Status: Open - Site Assessment
Status Date: 10/13/1992

Regulatory Activities:
Global Id: T0603703067
Action Type: Other
Date: 09/14/1992
Action: Leak Discovery

Global Id: T0603703067
Action Type: Other
Date: 10/13/1992
Action: Leak Reported

Region: STATE
Global Id: T0603714288
Latitude: 33.831883
Longitude: -118.298867
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 09/23/2010
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: JW
Local Agency: LOS ANGELES COUNTY
RB Case Number: I-05372A
LOC Case Number: 025753
File Location: Regional Board
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603714288
Contact Type: Local Agency Caseworker
Contact Name: RANI IYER

UNOCAL #4944 (Continued) **S110654485**

Organization Name: LOS ANGELES COUNTY
Address: 900 S. FREMONT AVE.
City: ALHAMBRA
Email: Not reported
Phone Number: Not reported

Global Id: T0603714288
Contact Type: Regional Board Caseworker
Contact Name: JIMMIE WOO
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 WEST 4TH STREET, SUITE 200
City: LOS ANGELES
Email: jwoo@waterboards.ca.gov
Phone Number: 2135766600

Status History:
Global Id: T0603714288
Status: Completed - Case Closed
Status Date: 09/23/2010

Global Id: T0603714288
Status: Open - Case Begin Date
Status Date: 12/22/1998

Global Id: T0603714288
Status: Open - Site Assessment
Status Date: 04/13/1999

Global Id: T0603714288
Status: Open - Site Assessment
Status Date: 04/04/2006

Global Id: T0603714288
Status: Open - Site Assessment
Status Date: 09/04/2008

Regulatory Activities:
Global Id: T0603714288
Action Type: RESPONSE
Date: 10/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603714288
Action Type: RESPONSE
Date: 11/30/2006
Action: Other Report / Document

Global Id: T0603714288
Action Type: RESPONSE
Date: 07/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603714288
Action Type: RESPONSE
Date: 01/16/2007
Action: Well Installation Report

UNOCAL #4944 (Continued) **S110654485**

Global Id: T0603714288
Action Type: RESPONSE
Date: 04/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603714288
Action Type: REMEDIATION
Date: 01/12/2010
Action: Pump & Treat (P&T) Groundwater

Global Id: T0603714288
Action Type: RESPONSE
Date: 04/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603714288
Action Type: RESPONSE
Date: 04/15/2010
Action: Request for Closure

Global Id: T0603714288
Action Type: ENFORCEMENT
Date: 06/15/2009
Action: Staff Letter

Global Id: T0603714288
Action Type: RESPONSE
Date: 07/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603714288
Action Type: RESPONSE
Date: 10/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603714288
Action Type: ENFORCEMENT
Date: 10/20/2006
Action: Staff Letter

Global Id: T0603714288
Action Type: REMEDIATION
Date: 04/02/2009
Action: Excavation

Global Id: T0603714288
Action Type: RESPONSE
Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603714288
Action Type: RESPONSE
Date: 02/28/2009
Action: Well Installation Report

Global Id: T0603714288
Action Type: RESPONSE

UNOCAL #4944 (Continued) **S110654485**

Date: 07/25/2008
Action: Well Installation Workplan

Global Id: T0603714288
Action Type: ENFORCEMENT
Date: 09/04/2008
Action: Staff Letter

Global Id: T0603714288
Action Type: RESPONSE
Date: 02/03/2010
Action: Well Destruction Report

Global Id: T0603714288
Action Type: RESPONSE
Date: 07/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603714288
Action Type: RESPONSE
Date: 07/14/2009
Action: Well Installation Report

Global Id: T0603714288
Action Type: RESPONSE
Date: 05/04/2009
Action: Other Report / Document

Global Id: T0603714288
Action Type: RESPONSE
Date: 01/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603714288
Action Type: RESPONSE
Date: 01/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603714288
Action Type: RESPONSE
Date: 11/17/2009
Action: Soil and Water Investigation Workplan

Global Id: T0603714288
Action Type: ENFORCEMENT
Date: 11/30/2009
Action: Staff Letter

Global Id: T0603714288
Action Type: ENFORCEMENT
Date: 08/27/2010
Action: Notification - Preclosure

Global Id: T0603714288
Action Type: Other
Date: 12/22/1998
Action: Leak Discovery

UNOCAL #4944 (Continued) **S110654485**

Global Id: T0603714288
Action Type: RESPONSE
Date: 07/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0603714288
Action Type: Other
Date: 04/13/1999
Action: Leak Reported

Global Id: T0603714288
Action Type: RESPONSE
Date: 04/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603714288
Action Type: ENFORCEMENT
Date: 09/23/2010
Action: Closure/No Further Action Letter

Global Id: T0603714288
Action Type: RESPONSE
Date: 04/15/2010
Action: Soil and Water Investigation Report

U308 **CARSON NORMANDIE PLAZA LLC** **LOS ANGELES CO. HMS** **S106409697**
1173 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 6 of 8 in cluster U

Relative:
Higher

Actual:
47 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 028885-048972
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

N309 **MOBIL OIL CORP** **LOS ANGELES CO. HMS** **U003060391**
21704 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 28 of 33 in cluster N

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 004180-I04331
Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 00002584J

MOBIL OIL CORP (Continued) **U003060391**

Permit Status: Closed

U310 **NE BAKESHOP AND BUFFET** **LOS ANGELES CO. HMS** **S113745635**
1175 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 7 of 8 in cluster U

Relative: Higher

Actual: 47 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 032802-053566
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000691574
Permit Status: Closed

N311 **MOBIL #11-MAF** **LUST** **S102433619**
21700 VERMONT AVE S **N/A**
< 1/8 **CARSON, CA 90502**
1 ft.

Site 29 of 33 in cluster N

Relative: Higher

Actual: 42 ft.

LUST:

Region:	STATE
Global Id:	T0603704641
Latitude:	33.8315157
Longitude:	-118.2901756
Case Type:	LUST Cleanup Site
Status:	Open - Remediation
Status Date:	02/11/2016
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	MB
Local Agency:	LOS ANGELES COUNTY
RB Case Number:	R-04331
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603704641
Contact Type:	Local Agency Caseworker
Contact Name:	JOHN AWUJO
Organization Name:	LOS ANGELES COUNTY
Address:	900 S FREMONT AVE
City:	ALHAMBRA
Email:	jawujo@dpw.lacounty.gov
Phone Number:	6264583507

Global Id:	T0603704641
Contact Type:	Regional Board Caseworker
Contact Name:	MAGDY BAIADY

MOBIL #11-MAF (Continued) **S102433619**

Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: LOS ANGELES
Email: mbaiady@waterboards.ca.gov
Phone Number: 2135766699

Status History:
Global Id: T0603704641
Status: Open - Case Begin Date
Status Date: 09/18/1990

Global Id: T0603704641
Status: Open - Remediation
Status Date: 02/11/2016

Global Id: T0603704641
Status: Open - Site Assessment
Status Date: 09/18/1990

Regulatory Activities:
Global Id: T0603704641
Action Type: RESPONSE
Date: 12/23/2008
Action: Preliminary Site Assessment Report

Global Id: T0603704641
Action Type: RESPONSE
Date: 08/29/2008
Action: Preliminary Site Assessment Workplan

Global Id: T0603704641
Action Type: RESPONSE
Date: 10/15/2015
Action: Monitoring Report - Quarterly

Global Id: T0603704641
Action Type: RESPONSE
Date: 10/20/2015
Action: Other Report / Document

Global Id: T0603704641
Action Type: RESPONSE
Date: 01/15/2014
Action: Other Workplan - Regulator Responded

Global Id: T0603704641
Action Type: RESPONSE
Date: 07/15/2014
Action: Monitoring Report - Semi-Annually

Global Id: T0603704641
Action Type: ENFORCEMENT
Date: 11/13/2013
Action: Staff Letter

Global Id: T0603704641

MOBIL #11-MAF (Continued) **S102433619**

Action Type: RESPONSE
Date: 12/04/2010
Action: Other Report / Document

Global Id: T0603704641
Action Type: RESPONSE
Date: 05/30/2012
Action: Well Installation Report

Global Id: T0603704641
Action Type: RESPONSE
Date: 07/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603704641
Action Type: ENFORCEMENT
Date: 03/28/2014
Action: Staff Letter

Global Id: T0603704641
Action Type: Other
Date: 09/18/1990
Action: Leak Stopped

Global Id: T0603704641
Action Type: RESPONSE
Date: 01/15/2016
Action: Monitoring Report - Quarterly

Global Id: T0603704641
Action Type: RESPONSE
Date: 07/15/2016
Action: Monitoring Report - Semi-Annually

Global Id: T0603704641
Action Type: REMEDIATION
Date: 11/01/2009
Action: Pump & Treat (P&T) Groundwater

Global Id: T0603704641
Action Type: RESPONSE
Date: 01/20/2011
Action: Site Assessment Report

Global Id: T0603704641
Action Type: RESPONSE
Date: 02/17/2011
Action: Well Installation Workplan

Global Id: T0603704641
Action Type: ENFORCEMENT
Date: 02/11/2016
Action: Staff Letter

Global Id: T0603704641
Action Type: RESPONSE
Date: 07/15/2014

MOBIL #11-MAF (Continued) **S102433619**

Action:	Soil and Water Investigation Workplan
Global Id:	T0603704641
Action Type:	RESPONSE
Date:	12/23/2014
Action:	Well Installation Report
Global Id:	T0603704641
Action Type:	RESPONSE
Date:	01/15/2013
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603704641
Action Type:	ENFORCEMENT
Date:	10/14/2010
Action:	Referral to Regional Board
Global Id:	T0603704641
Action Type:	ENFORCEMENT
Date:	11/04/2010
Action:	Staff Letter
Global Id:	T0603704641
Action Type:	RESPONSE
Date:	07/15/2011
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603704641
Action Type:	RESPONSE
Date:	07/15/2013
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603704641
Action Type:	RESPONSE
Date:	10/30/2014
Action:	Pilot Study / Treatability Workplan
Global Id:	T0603704641
Action Type:	RESPONSE
Date:	01/15/2015
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603704641
Action Type:	Other
Date:	09/18/1990
Action:	Leak Discovery
Global Id:	T0603704641
Action Type:	RESPONSE
Date:	12/14/2011
Action:	Well Installation Report
Global Id:	T0603704641
Action Type:	RESPONSE
Date:	01/15/2012
Action:	Monitoring Report - Semi-Annually

MOBIL #11-MAF (Continued) **S102433619**

Global Id: T0603704641
Action Type: RESPONSE
Date: 10/15/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0603704641
Action Type: RESPONSE
Date: 04/15/2015
Action: Monitoring Report - Quarterly

Global Id: T0603704641
Action Type: RESPONSE
Date: 07/15/2015
Action: Monitoring Report - Quarterly

Global Id: T0603704641
Action Type: Other
Date: 09/18/1990
Action: Leak Reported

Global Id: T0603704641
Action Type: RESPONSE
Date: 01/15/2014
Action: Monitoring Report - Semi-Annually

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: R-04331
Status: Leak being confirmed
Substance: Gasoline
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Soil
Abatement Method Used at the Site: Not reported
Global ID: T0603704641
W Global ID: Not reported
Staff: UNK
Local Agency: 19000
Cross Street: Not reported
Enforcement Type: Not reported
Date Leak Discovered: 9/18/1990
Date Leak First Reported: 9/18/1990
Date Leak Record Entered: 12/6/1990
Date Confirmation Began: 9/18/1990
Date Leak Stopped: 9/18/1990
Date Case Last Changed on Database: 12/7/1990
Date the Case was Closed: Not reported
How Leak Discovered: Subsurface Monitoring
How Leak Stopped: Not reported
Cause of Leak: Structure Failure
Leak Source: Other Source
Operator: Not reported
Water System: Not reported
Well Name: Not reported

MOBIL #11-MAF (Continued) **S102433619**

Approx. Dist To Production Well (ft):	7148.1491724530485595532734727
Source of Cleanup Funding:	Other Source
Preliminary Site Assessment Workplan Submitted:	Not reported
Preliminary Site Assessment Began:	Not reported
Pollution Characterization Began:	Not reported
Remediation Plan Submitted:	Not reported
Remedial Action Underway:	Not reported
Post Remedial Action Monitoring Began:	Not reported
Enforcement Action Date:	Not reported
Historical Max MTBE Date:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil:	Not reported
Significant Interim Remedial Action Taken:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	MOBIL
RP Address:	Not reported
Program:	LUST
Lat/Long:	33.8315157 / -1
Local Agency Staff:	Not reported
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	Not reported

R312 **SUBWAY SANDWICH-CLOSED FILE** **LOS ANGELES CO. HMS** **S110590663**
800 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 10 of 15 in cluster R

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	S
Facility Id:	030206-054272
Facility Type:	S5
Facility Status:	Permit
Area:	2
Permit Number:	000642566
Permit Status:	Suspended

K313 **HONG KONG GARDEN RESTAURANT** **LOS ANGELES CO. HMS** **S106026969**
21718 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 17 of 24 in cluster K

Relative:
Higher

Actual:
40 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	S
Facility Id:	028255-039720
Facility Type:	S5

HONG KONG GARDEN RESTAURANT (Continued) **S106026969**

Facility Status: Permit
Area: 2
Permit Number: 000528276
Permit Status: Permit

Region: LA
Permit Category: Not reported
Facility Id: 028255-053846
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

M314 **NORGE LAUNDRY & DRY CLEANING V** **EMI** **S106836365**
1161 W. CARSON ST. **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 44 of 55 in cluster M

Relative: Higher

Actual: 44 ft.

EMI:

Year:	1987
County Code:	19
Air Basin:	SC
Facility ID:	12394
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	5
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1990
County Code:	19
Air Basin:	SC
Facility ID:	12394
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

K315 **SHELL OIL #204-7873-0102** **LOS ANGELES CO. HMS** **S105792116**
911 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 18 of 24 in cluster K

Relative:
Lower

Actual:
38 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: T
Facility Id: 004563-004737
Facility Type: 0
Facility Status: Closed
Area: 2
Permit Number: 00000581T
Permit Status: Closed

Region: LA
Permit Category: T
Facility Id: 004563-050277
Facility Type: 0
Facility Status: Closed
Area: 2
Permit Number: 000556477
Permit Status: Closed

Region: LA
Permit Category: I
Facility Id: 004563-I04737
Facility Type: 00
Facility Status: Closed
Area: 2
Permit Number: 000002894
Permit Status: Closed

P316 **PEP'N CHEESE** **LOS ANGELES CO. HMS** **S106023708**
1157 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 6 of 8 in cluster P

Relative:
Higher

Actual:
46 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 027680-039146
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000527548
Permit Status: Closed

Region: LA
Permit Category: Not reported
Facility Id: 027680-054034
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

V317 **JOHN BATES** **LUST** **S102064075**
21600 VERMONT AVE S **N/A**
< 1/8 **LOS ANGELES, CA 90502**
1 ft.

Site 9 of 12 in cluster V

Relative:
Lower

Actual:
33 ft.

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	R-23360	
Status:	Case Closed	
Substance:	1	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Soil	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603705399	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19000	
Cross Street:	Not reported	
Enforcement Type:	Not reported	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		4/24/1996
Date Leak Record Entered:	10/9/1996	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		4/24/1996
Date the Case was Closed:		4/24/1996
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	Not reported	
Leak Source:	Not reported	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		7125.607563918045609149523869 6
Source of Cleanup Funding:		Not reported
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	VERMONT GROUP 21600	
RP Address:	21600 S VERMONT AVE, STE 545 TORRANCE 90502	
Program:	LUST	
Lat/Long:	33.8324457 / -1	
Local Agency Staff:	Not reported	

JOHN BATES (Continued) **S102064075**

Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: Not reported

Q318 **GENKAI GRILL** **LOS ANGELES CO. HMS** **S113743096**
1249 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 17 of 21 in cluster Q

Relative: LOS ANGELES CO. HMS:
Higher Region: LA
Permit Category: S
Actual: Facility Id: 005378-051533
48 ft. Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000580443
Permit Status: Closed

R319 **TORRANCE BUSINESS PLAZA** **HAZNET** **S112976718**
800 W CARSON ST STE 35 **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 11 of 15 in cluster R

Relative: HAZNET:
Higher envid: S112976718
Year: 2009
Actual: GEPAID: CAC002640525
42 ft. Contact: SURYA GUPTA
Telephone: 3238992772
Mailing Name: Not reported
Mailing Address: PO BOX 93391
Mailing City,St,Zip: LOS ANGELES, CA 900930391
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.0375
Cat Decode: Other organic solids
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Los Angeles

envid: S112976718
Year: 2009
GEPAID: CAC002640525
Contact: SURYA GUPTA
Telephone: 3238992772
Mailing Name: Not reported

TORRANCE BUSINESS PLAZA (Continued) **S112976718**

Mailing Address: PO BOX 93391
Mailing City,St,Zip: LOS ANGELES, CA 900930391
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Tank bottom waste
Disposal Method: Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Tons: 0.6672
Cat Decode: Tank bottom waste
Method Decode: Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Facility County: Los Angeles

M320 **PETER HORVATH ET AL** **LOS ANGELES CO. HMS** **S105053195**
1123 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 45 of 55 in cluster M

Relative: Higher
Actual: 44 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 018679-036329
Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000319521
Permit Status: Closed

K321 **MOBIL OIL CORP #10164** **LOS ANGELES CO. HMS** **S104538614**
21700 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 19 of 24 in cluster K

Relative: Higher
Actual: 41 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: T
Facility Id: 009028-004331
Facility Type: 0
Facility Status: Closed
Area: 2
Permit Number: 00002750T
Permit Status: Removed

Region: LA
Permit Category: T
Facility Id: 009028-004331
Facility Type: 0
Facility Status: Closed
Area: 2
Permit Number: 0000T2750
Permit Status: Closed

Region: LA

MOBIL OIL CORP #10164 (Continued) **S104538614**

Permit Category: T
Facility Id: 009028-055108
Facility Type: 0
Facility Status: Permit
Area: 2
Permit Number: 000664913
Permit Status: Permit

Region: LA
Permit Category: S
Facility Id: 009028-055553
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000675921
Permit Status: Permit

M322 **ROGERS K C** **EDR Hist Auto** **1009017098**
1181 CARSON WY **N/A**
< 1/8 **LONG BEACH, CA**
1 ft.

Site 46 of 55 in cluster M

Relative: Higher

Actual: 44 ft.

EDR Historical Auto Stations:
Name: ROGERS K C
Year: 1952
Type: GASOLINE STATIONS

Name: BLANKENSHIP FLOYD CHEIRON SERVICE
Year: 1957
Type: GASOLINE STATIONS

Name: BLANKENSHIP FLOYD CHEVRON SERVICE
Year: 1963
Type: GASOLINE STATIONS

Q323 **SOUTH BAY WATER INC** **LOS ANGELES CO. HMS** **S102057588**
1255 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 18 of 21 in cluster Q

Relative: Higher

Actual: 48 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 017336-023488
Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000159137
Permit Status: Closed

Region: LA
Permit Category: Not reported
Facility Id: 017336-045010
Facility Type: Not reported

SOUTH BAY WATER INC (Continued) **S102057588**

Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

R324 **VIDEOSONIC LABS INC** **LOS ANGELES CO. HMS** **S106852874**
733 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 12 of 15 in cluster R

Relative:
Higher

Actual:
40 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 030218-043654
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000532980
Permit Status: Closed

Region: LA
Permit Category: Not reported
Facility Id: 030218-050785
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

K325 **EDR Hist Auto** **1015672277**
911 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 20 of 24 in cluster K

Relative:
Lower

Actual:
38 ft.

EDR Historical Auto Stations:
Name: SHELL GAS STATION
Year: 2004
Address: 911 W CARSON ST

P326 **LOS PAISAS TACOS Y MARISCOS** **LOS ANGELES CO. HMS** **S109117390**
1151 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 7 of 8 in cluster P

Relative:
Higher

Actual:
46 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 032066-050929
Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000588063

LOS PAISAS TACOS Y MARISCOS (Continued) **S109117390**

Permit Status: Closed

Region: LA
Permit Category: I
Facility Id: 032066-058911
Facility Type: 01
Facility Status: Permit
Area: 2
Permit Number: 000773355
Permit Status: Permit

Region: LA
Permit Category: S
Facility Id: 032066-058912
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000832913
Permit Status: Permit

M327 **COST SAVER MARKET** **LOS ANGELES CO. HMS** **U003061288**
1141 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 47 of 55 in cluster M

Relative:
Higher

Actual:
45 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 005199-043646
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000530772
Permit Status: Closed

Region: LA
Permit Category: S
Facility Id: 005199-058272
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000753976
Permit Status: Permit

Region: LA
Permit Category: I
Facility Id: 005199-058679
Facility Type: 01
Facility Status: Permit
Area: 2
Permit Number: 000764126
Permit Status: Permit

Region: LA
Permit Category: Not reported
Facility Id: 005199-I05398
Facility Type: Not reported

COST SAVER MARKET (Continued) **U003061288**

Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

M328 **BLANKENSHIP PLOYD CHEVRON SERVICE** **EDR Hist Auto** **1009016048**
1181 CARSON ST **N/A**
< 1/8 **LONG BEACH, CA**
1 ft.

Site 48 of 55 in cluster M

Relative: Higher

Actual: 44 ft.

EDR Historical Auto Stations:
Name: ROGERS K C
Year: 1952
Type: GASOLINE STATIONS

Name: BLANKENSHIP FLOYD CHEIRON SERVICE
Year: 1957
Type: GASOLINE STATIONS

Name: BLANKENSHIP FLOYD CHEVRON SERVICE
Year: 1963
Type: GASOLINE STATIONS

Name: BLANKENSHIP PLOYD CHEVRON SERVICE
Year: 1969
Type: GASOLINE STATIONS

Name: BLANKENSHIP PLOYD CHEVRON SERVICE
Year: 1969
Type: GASOLINE STATIONS

M329 **EDR Hist Auto** **1015184449**
1213 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 49 of 55 in cluster M

Relative: Higher

Actual: 44 ft.

EDR Historical Auto Stations:
Name: KRAGEN AUTO PARTS
Year: 2004
Address: 1213 W CARSON ST

Q330 **CARL'S JR RESTAURANT #426** **LOS ANGELES CO. HMS** **S118689616**
1259 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 19 of 21 in cluster Q

Relative: Higher

Actual: 48 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 005173-061735
Facility Type: S5
Facility Status: Permit

CARL'S JR RESTAURANT #426 (Continued) **S118689616**

Area: 2
Permit Number: 000829904
Permit Status: Permit

L331 **PACIFIC BELL** **RCRA NonGen / NLR** **1000250446**
826 W SECOND HUNDRED TWENTY ST **FINDS** **CAT080028491**
< 1/8 **TORRANCE, CA 90502** **ECHO**
1 ft.

Site 9 of 9 in cluster L

Relative: Higher

Actual: 42 ft.

RCRA NonGen / NLR:
Date form received by agency: 09/02/1997
Facility name: PACIFIC BELL
Facility address: 826 W SECOND HUNDRED TWENTY ST
TORRANCE, CA 90502
EPA ID: CAT080028491
Mailing address: 500 S MAIN S TOWER BOCC R
ORANGE, CA 92668
Contact: ENVIRONMENTAL MANAGER
Contact address: 826 W SECOND HUNDRED TWENTY ST
TORRANCE, CA 90502
Contact country: US
Contact telephone: (714) 972-5116
Contact email: Not reported
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: THE PACIFIC TELEPHONE AND TELEGRAPH CO
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

PACIFIC BELL (Continued) **1000250446**

Historical Generators:
Date form received by agency: 09/01/1996
Site name: PACIFIC BELL
Classification: Small Quantity Generator

Date form received by agency: 01/30/1981
Site name: PACIFIC BELL
Classification: Large Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110002954571

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ECHO:
Envid: 1000250446
Registry ID: 110002954571
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002954571

K332 **SHELL** **RGA LUST** **S114690399**
911 CARSON ST. W **N/A**
< 1/8 **TORRANCE, CA**
1 ft.

Site 21 of 24 in cluster K

Relative:
Lower

Actual:
38 ft.

RGA LUST:

2012	SHELL	911 CARSON ST. W
2011	SHELL	911 CARSON ST. W
2010	SHELL	911 CARSON ST. W
2009	SHELL	911 CARSON ST. W

N333 **AMERICAN AIRCRAFT PROD.** **EMI** **S106825750**
21808 SO. VERMONT AVE. **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 30 of 33 in cluster N

Relative:
Higher

Actual:
42 ft.

EMI:

Year:	1987
County Code:	19
Air Basin:	SC
Facility ID:	3401
Air District Name:	SC
SIC Code:	3444
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported

AMERICAN AIRCRAFT PROD. (Continued) **S106825750**

Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1990
County Code:	19
Air Basin:	SC
Facility ID:	3401
Air District Name:	SC
SIC Code:	3599
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

K334 **SHELL** **HAZNET** **S113086838**
911 W CARSON **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 22 of 24 in cluster K

Relative: **Lower**

Actual: **38 ft.**

HAZNET:

envid:	S113086838
Year:	1998
GEPAID:	CAL000162358
Contact:	EQUILON ENTERPRISES LLC
Telephone:	7132412258
Mailing Name:	Not reported
Mailing Address:	PO BOX 2099
Mailing City,St,Zip:	HOUSTON, TX 772522099
Gen County:	Not reported
TSD EPA ID:	CAD982484933
TSD County:	Not reported
Waste Category:	Empty containers less than 30 gallons
Disposal Method:	Disposal, Other
Tons:	.4250
Cat Decode:	Empty containers less than 30 gallons
Method Decode:	Disposal, Other
Facility County:	Los Angeles

O335 **GINOS INC** **LOS ANGELES CO. HMS** **U003057309**
923 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 3 of 3 in cluster O

Relative: LOS ANGELES CO. HMS:
Lower Region: LA
Permit Category: Not reported
Actual: Facility Id: 000832-I00869
37 ft. Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

M336 **UNOCAL #4944** **RGA LUST** **S114711339**
1259 CARSON ST W **N/A**
< 1/8 **TORRANCE, CA**
1 ft.

Site 50 of 55 in cluster M

Relative: RGA LUST:
Higher

1998	UNOCAL #4944	1259 CARSON ST W
1997	UNOCAL #4944	1259 CARSON ST W
1996	UNOCAL #4944	1259 CARSON ST W
1995	UNOCAL #4944	1259 CARSON ST W
1994	UNOCAL #4944	1259 CARSON ST W

Actual:
44 ft.

M337 **T SHIRT WAREHOUSE** **HAZNET** **S112873553**
1101 WEST CARSON **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 51 of 55 in cluster M

Relative: HAZNET:
Higher envid: S112873553
Year: 1995
Actual: GEPAID: CAC001201096
44 ft. Contact: CHRIS HAN
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 1101 WEST CARSON
Mailing City,St,Zip: TORRANCE, CA 905020000
Gen County: Not reported
TSD EPA ID: CAD000088252
TSD County: Not reported
Waste Category: Unspecified oil-containing waste
Disposal Method: Transfer Station
Tons: .1668
Cat Decode: Unspecified oil-containing waste
Method Decode: Transfer Station
Facility County: Los Angeles

envid: S112873553
Year: 1995
GEPAID: CAC001201096
Contact: CHRIS HAN

T SHIRT WAREHOUSE (Continued) **S112873553**

Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	1101 WEST CARSON
Mailing City,St,Zip:	TORRANCE, CA 905020000
Gen County:	Not reported
TSD EPA ID:	CAD000088252
TSD County:	Not reported
Waste Category:	Latex waste
Disposal Method:	Transfer Station
Tons:	.0475
Cat Decode:	Latex waste
Method Decode:	Transfer Station
Facility County:	Los Angeles

Q338 **THE SEELY CORP** **LOS ANGELES CO. HMS** **S113743092**
1249 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 20 of 21 in cluster Q

Relative: Higher

Actual: 48 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	Not reported
Facility Id:	005378-029424
Facility Type:	Not reported
Facility Status:	OPEN
Area:	2
Permit Number:	Not reported
Permit Status:	Not reported

K339 **CDL** **S107541066**
VERMONT & CARSON ST **N/A**
< 1/8 **CARSON, CA**
1 ft.

Site 23 of 24 in cluster K

Relative: Lower

Actual: 38 ft.

CDL:

Facility ID:	1999-08-093
Date:	08/16/1999
Lab Type:	Mobile Lab (M) - location where illegal drug lab equipment and materials were found in a vehicle or other mode of transport.

N340 **ARCO #5108** **LUST** **S101295797**
21704 FIGUEROA ST S **HIST CORTESE** **N/A**
< 1/8 **CARSON, CA 90745**
1 ft.

Site 31 of 33 in cluster N

Relative: Higher

Actual: 42 ft.

LUST:

Region:	STATE
Global Id:	T0603702800
Latitude:	33.8314859
Longitude:	-118.2859351
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed

ARCO #5108 (Continued) **S101295797**

Status Date: 05/19/1998
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: JP
Local Agency: LOS ANGELES COUNTY
RB Case Number: I-01781
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603702800
Contact Type: Local Agency Caseworker
Contact Name: JOHN AWUJO
Organization Name: LOS ANGELES COUNTY
Address: 900 S FREMONT AVE
City: ALHAMBRA
Email: jawujo@dpw.lacounty.gov
Phone Number: 6264583507

Global Id: T0603702800
Contact Type: Regional Board Caseworker
Contact Name: JOSE PEREYRA
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: Not reported
City: R4 UNKNOWN
Email: Not reported
Phone Number: Not reported

Status History:
Global Id: T0603702800
Status: Completed - Case Closed
Status Date: 05/19/1998

Global Id: T0603702800
Status: Open - Case Begin Date
Status Date: 03/02/1988

Global Id: T0603702800
Status: Open - Remediation
Status Date: 11/20/1996

Global Id: T0603702800
Status: Open - Site Assessment
Status Date: 04/14/1988

Regulatory Activities:
Global Id: T0603702800
Action Type: Other
Date: 03/02/1988
Action: Leak Discovery

Global Id: T0603702800
Action Type: Other

ARCO #5108 (Continued) **S101295797**

Date: 04/14/1988
Action: Leak Reported

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	I-01781	
Status:	Case Closed	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603702800	
W Global ID:	Not reported	
Staff:	JP	
Local Agency:	19000	
Cross Street:	CARSON	
Enforcement Type:	Not reported	
Date Leak Discovered:	3/2/1988	
Date Leak First Reported:		4/14/1988
Date Leak Record Entered:	4/27/1988	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		7/15/1998
Date the Case was Closed:		5/19/1998
How Leak Discovered:	Tank Test	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	PRESTIGE STATIONS, INC	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		5868.1190982680093392335277484
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		4/14/1988
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		11/20/1996
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		1/1/1965
Hist Max MTBE Conc in Groundwater:		5900
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	ATLANTIC RICHFIELD CO.	
RP Address:	17315 STUDEBAKER RD, CERRITOS, CA 90701	
Program:	LUST	
Lat/Long:	33.8314518 / -1	
Local Agency Staff:	Not reported	

ARCO #5108 (Continued) **S101295797**

Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: 07/15/98 - 2ND QTR 1998 GW MON RPT

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: I-01781

K341 **R CONTRERAS - CARWASH** **LOS ANGELES CO. HMS** **S106670410**
21611 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 24 of 24 in cluster K

Relative:
Lower

Actual:
37 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 000379-000381
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

Region: LA
Permit Category: I
Facility Id: 000379-028489
Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000372162
Permit Status: Closed

Region: LA
Permit Category: I
Facility Id: 000379-050645
Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000577901
Permit Status: Closed

Region: LA
Permit Category: I
Facility Id: 000379-058300
Facility Type: 01
Facility Status: Permit
Area: 2
Permit Number: 000811431
Permit Status: Permit

Region: LA

R CONTRERAS - CARWASH (Continued) **S106670410**

Permit Category: I
Facility Id: 000379-I00381
Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000009260
Permit Status: Closed

M342 **UNOCAL #4944** **HIST CORTESE** **S105027083**
1259 CARSON **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 52 of 55 in cluster M

Relative:
Higher

Actual:
44 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: I-05372

M343 **MERONA ENTERPRISES DBA CARSON NORMANDIE PLAZA LLC** **HAZNET** **S113799145**
1141 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 53 of 55 in cluster M

Relative:
Higher

Actual:
44 ft.

HAZNET:
envid: S113799145
Year: 2012
GEPAID: CAL000360511
Contact: CARLOS LOSADA
Telephone: 5623074735
Mailing Name: Not reported
Mailing Address: 9550 FIRESTONE BLVD STE 105
Mailing City,St,Zip: DOWNEY, CA 902415560
Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 2.94
Cat Decode: Not reported
Method Decode: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County: Los Angeles

R344 **IN-N-OUT BURGER INC. #30** **FINDS** **1016784214**
730 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 13 of 15 in cluster R

Relative: Higher

FINDS:

Registry ID: 110058252750

Actual: 42 ft.

Environmental Interest/Information System
STATE MASTER

Q345 **RITE AID STORE #5492** **HAZNET** **S113083034**
1237 N CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 21 of 21 in cluster Q

Relative: Higher

HAZNET:

Actual: 48 ft.

envid:	S113083034
Year:	1999
GEPAID:	CAL000153172
Contact:	RITE AID CORPORATION
Telephone:	7177612633
Mailing Name:	Not reported
Mailing Address:	4020 STIRRUP CREEK DRIVE SUITE 211
Mailing City,St,Zip:	DURHAM, NC 277033165
Gen County:	Not reported
TSD EPA ID:	CAD981402522
TSD County:	Not reported
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	Recycler
Tons:	.0208
Cat Decode:	Photochemicals/photoprocessing waste
Method Decode:	Recycler
Facility County:	Los Angeles

envid:	S113083034
Year:	1998
GEPAID:	CAL000153172
Contact:	RITE AID CORPORATION
Telephone:	7177612633
Mailing Name:	Not reported
Mailing Address:	4020 STIRRUP CREEK DRIVE SUITE 211
Mailing City,St,Zip:	DURHAM, NC 277033165
Gen County:	Not reported
TSD EPA ID:	CAT000613976
TSD County:	Not reported
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	Transfer Station
Tons:	.0417
Cat Decode:	Photochemicals/photoprocessing waste
Method Decode:	Transfer Station
Facility County:	Los Angeles

P346 **LOS PAISAS TACOS Y MARISCOS** **LOS ANGELES CO. HMS** **S109691263**
1151 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 8 of 8 in cluster P

Relative:
Higher

Actual:
46 ft.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	S
Facility Id:	032066-052927
Facility Type:	S5
Facility Status:	Closed
Area:	2
Permit Number:	000669890
Permit Status:	Closed

V347 **JOHN BATES** **LUST** **S110654520**
21600 VERMONT AVE S **N/A**
< 1/8 **LOS ANGELES, CA 90502**
1 ft.

Site 10 of 12 in cluster V

Relative:
Lower

Actual:
33 ft.

LUST:

Region:	STATE
Global Id:	T0603705399
Latitude:	33.8324457
Longitude:	-118.2901786
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	04/24/1996
Lead Agency:	LOS ANGELES COUNTY
Case Worker:	JOA
Local Agency:	LOS ANGELES COUNTY
RB Case Number:	R-23360
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Aviation
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603705399
Contact Type:	Local Agency Caseworker
Contact Name:	JOHN AWUJO
Organization Name:	LOS ANGELES COUNTY
Address:	900 S FREMONT AVE
City:	ALHAMBRA
Email:	jawujo@dpw.lacounty.gov
Phone Number:	6264583507

Global Id:	T0603705399
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

JOHN BATES (Continued) **S110654520**

Status History:
Global Id: T0603705399
Status: Completed - Case Closed
Status Date: 04/24/1996

Global Id: T0603705399
Status: Open - Case Begin Date
Status Date: 04/24/1996

Regulatory Activities:
Global Id: T0603705399
Action Type: Other
Date: 04/24/1996
Action: Leak Reported

N348 **IL-SUN KIM** **HIST UST** **U001564100**
21700 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 32 of 33 in cluster N

Relative: Higher

Actual: 42 ft.

HIST UST:
File Number: 00027CA2
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00027CA2.pdf
Region: STATE
Facility ID: 00000039700
Facility Type: Gas Station
Other Type: Not reported
Contact Name: SAME
Telephone: 2133205305
Owner Name: MOBIL OIL CORP
Owner Address: 612 S. FLOWER ST
Owner City,St,Zip: LOS ANGELES, CA 90017
Total Tanks: 0004

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00000280
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: 4
Year Installed: Not reported
Tank Capacity: 00006000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: 3
Year Installed: Not reported

IL-SUN KIM (Continued) **U001564100**

Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	004
Container Num:	2
Year Installed:	Not reported
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Click here for Geo Tracker PDF:

N349 **EDR Hist Auto** **1015330582**
N/A

21810 S VERMONT AVE
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 33 of 33 in cluster N

Relative:
Higher

Actual:
42 ft.

EDR Historical Auto Stations:

Name:	GOMEZ TRANSMISSION
Year:	2004
Address:	21810 S VERMONT AVE
Name:	GOMEZ TRANSMISSION
Year:	2009
Address:	21810 S VERMONT AVE
Name:	GOMEZ TRANSMISSION
Year:	2010
Address:	21810 S VERMONT AVE
Name:	GOMEZ TRANSMISSION
Year:	2012
Address:	21810 S VERMONT AVE

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350 **LA PORT O EMB STATION HOSP** **ENVIROSTOR** **S107736572**
N/A

< 1/8 **CARSON, CA**
1 ft.

Relative:
Higher

Actual:
43 ft.

ENVIROSTOR:

Facility ID:	80000293
Status:	Inactive - Needs Evaluation
Status Date:	07/01/2005
Site Code:	Not reported
Site Type:	Military Evaluation
Site Type Detailed:	FUDS
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP

LA PORT O EMB STATION HOSP (Continued) **S107736572**

Program Manager: Not reported
Supervisor: Douglas Bautista
Division Branch: Cleanup Cypress
Assembly: 66
Senate: 35
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: DERA
Latitude: 33.83055
Longitude: -118.2944
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CA99799F549200
Alias Type: Federal Facility ID
Alias Name: J09CA0433
Alias Type: INPR
Alias Name: 80000293
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

R351 **IN-N-OUT BURGER RESTAURANT #30** **LOS ANGELES CO. HMS** **U003056595**
730 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 14 of 15 in cluster R

Relative:
Higher

Actual:
42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 000141-039921
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000526478
Permit Status: Permit

Region: LA
Permit Category: I

IN-N-OUT BURGER RESTAURANT #30 (Continued) **U003056595**

Facility Id: 000141-051313
Facility Type: 01
Facility Status: Permit
Area: 2
Permit Number: 000581189
Permit Status: Permit

Region: LA
Permit Category: I
Facility Id: 000141-I00141
Facility Type: 01
Facility Status: Removed
Area: 2
Permit Number: 000122492
Permit Status: Removed

U352 **STARBUCKS COFFEE #6856** **LOS ANGELES CO. HMS** **S108936486**
1171 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 8 of 8 in cluster U

Relative: Higher

Actual: 47 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 031871-050246
Facility Type: Not reported
Facility Status: OPEN
Area: 2
Permit Number: Not reported
Permit Status: Not reported

R353 **SUBWAY SANDWICH #41878** **LOS ANGELES CO. HMS** **S108997985**
800 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 15 of 15 in cluster R

Relative: Higher

Actual: 42 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 030206-043631
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000532968
Permit Status: Closed

Region: LA
Permit Category: S
Facility Id: 030206-057051
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000720657
Permit Status: Permit

V354 **US STORAGE CENTERS** **LOS ANGELES CO. HMS** **S107257483**
735 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 11 of 12 in cluster V

Relative:
Lower

Actual:
38 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 030559-045552
Facility Type: S4
Facility Status: Closed
Area: 2
Permit Number: 000462142
Permit Status: Closed

Region: LA
Permit Category: I
Facility Id: 030559-054442
Facility Type: S4
Facility Status: Permit
Area: 2
Permit Number: 000791380
Permit Status: Permit

M355 **B M A LOS ANGELES** **HAZNET** **S112873564**
1123 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 54 of 55 in cluster M

Relative:
Higher

Actual:
44 ft.

HAZNET:
envid: S112873564
Year: 1995
GEPAID: CAC001201264
Contact: NATIONAL MED CARE INC.
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 1123 W CARSON ST
Mailing City,St,Zip: TORRANCE, CA 905020000
Gen County: Not reported
TSD EPA ID: CAT080022148
TSD County: Not reported
Waste Category: Paint sludge
Disposal Method: Transfer Station
Tons: .2502
Cat Decode: Paint sludge
Method Decode: Transfer Station
Facility County: Los Angeles

envid: S112873564
Year: 1995
GEPAID: CAC001201264
Contact: NATIONAL MED CARE INC.
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 1123 W CARSON ST
Mailing City,St,Zip: TORRANCE, CA 905020000
Gen County: Not reported
TSD EPA ID: CAT080022148

B M A LOS ANGELES (Continued) **S112873564**

TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Transfer Station
Tons: .0050
Cat Decode: Other organic solids
Method Decode: Transfer Station
Facility County: Los Angeles

M356 **WIENERSCHNITZEL RESTAURANT #38** **LOS ANGELES CO. HMS** **S106023680**
1125 W CARSON ST **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 55 of 55 in cluster M

Relative:
Higher

Actual:
44 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: S
Facility Id: 027677-039144
Facility Type: S5
Facility Status: Closed
Area: 2
Permit Number: 000527542
Permit Status: Closed

Region: LA
Permit Category: I
Facility Id: 027677-054033
Facility Type: 01
Facility Status: Closed
Area: 2
Permit Number: 000792089
Permit Status: Closed

V357 **TIC-THE INDUSTRIAL CO** **LOS ANGELES CO. HMS** **S102064076**
21602 S VERMONT AVE **N/A**
< 1/8 **TORRANCE, CA 90502**
1 ft.

Site 12 of 12 in cluster V

Relative:
Lower

Actual:
30 ft.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: T
Facility Id: 003508-003628
Facility Type: 0
Facility Status: Closed
Area: 2
Permit Number: 00001488T
Permit Status: Closed

H358 **BERADA CORPORATION-GARDENA VAL** **WMUDS/SWAT** **S103441297**
801 TORRANCE **N/A**
< 1/8 **CARSON, CA**
0.001 mi.
3 ft. **Site 3 of 3 in cluster H**

Relative:
Lower

Actual:
28 ft.

WMUDS/SWAT:

Edit Date:	Not reported
Complexity:	Not reported
Primary Waste:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Base Meridian:	Not reported
NPID:	Not reported
Tonnage:	0
Regional Board ID:	59-174
Municipal Solid Waste:	False
Superorder:	False
Open To Public:	False
Waste List:	False
Agency Type:	Not reported
Agency Name:	BERADA CORPORATION
Agency Department:	Not reported
Agency Address:	Not reported
Agency City,St,Zip:	Not reported
Agency Contact:	Not reported
Agency Telephone:	Not reported
Land Owner Name:	ALPINE VILLAGE, INC.
Land Owner Address:	2950 PALOS VERDES DRIVE NORTH
Land Owner City,St,Zip:	CITY OF ROLLING HILLS, CA 90274
Land Owner Contact:	HANS ROTLER, PRESIDENT
Land Owner Phone:	Not reported
Region:	4
Facility Type:	Not reported
Facility Description:	Not reported
Facility Telephone:	Not reported
SWAT Facility Name:	Not reported
Primary SIC:	Not reported
Secondary SIC:	Not reported
Comments:	Not reported
Last Facility Editors:	Not reported
Waste Discharge System:	False
Solid Waste Assessment Test Program:	True
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act:	False
Department of Defence:	False
Solid Waste Assessment Test Program:	BERADA CORPORATION
Threat to Water Quality:	Not reported
Sub Chapter 15:	False
Regional Board Project Officer:	R_N
Number of WMUDS at Facility:	1
Section Range:	Not reported
RCRA Facility:	Not reported
Waste Discharge Requirements:	Not reported
Self-Monitoring Rept. Frequency:	Not reported
Waste Discharge System ID:	4 190010NUR
Solid Waste Information ID:	Not reported

AC359 **HARBORUCLA PROFESSIONAL BLDG** **RCRA NonGen / NLR** **1000164422**
WSW **21840 S NORMANDIE AVE** **CAD982401648**
< 1/8 **TORRANCE, CA 90502**
0.002 mi.
12 ft. **Site 1 of 2 in cluster AC**

Relative:
Higher

Actual:
48 ft.

RCRA NonGen / NLR:

Date form received by agency:	11/28/1989
Facility name:	HARBORUCLA PROFESSIONAL BLDG
Facility address:	21840 S NORMANDIE AVE TORRANCE, CA 90502
EPA ID:	CAD982401648
Mailing address:	S NORMANDIE AVE TORRANCE, CA 90502
Contact:	ENVIRONMENTAL MANAGER
Contact address:	21840 S NORMANDIE AVE TORRANCE, CA 90502
Contact country:	US
Contact telephone:	(213) 783-5050
Contact email:	Not reported
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	SHARON SPERRY
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No

HARBORUCLA PROFESSIONAL BLDG (Continued) **1000164422**

Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

AC360 **HARBOR UCLA DIAGNOSTIC IMAGING** **RCRA-SQG** **1000597953**
WSW **21828 S NORMANDIE AVE** **HAZNET** **CAD983619883**
< 1/8 **TORRANCE, CA 90502**
0.002 mi.
12 ft. **Site 2 of 2 in cluster AC**

Relative:
Higher

Actual:
48 ft.

RCRA-SQG:
Date form received by agency: 09/01/1996
Facility name: HARBOR UCLA DIAGNOSTIC IMAGING
Facility address: 21828 S NORMANDIE AVE
TORRANCE, CA 90502
EPA ID: CAD983619883
Mailing address: S NORMANDIE AVE
TORRANCE, CA 90502
Contact: Not reported
Contact address: Not reported
Not reported
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: AMERICAN HEALTH SERVICES CORP
Owner/operator address: 4440 VON KARMAN AVE
NEWPORT BEACH, CA 92660
Owner/operator country: Not reported
Owner/operator telephone: (714) 476-0733
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No

HARBOR UCLA DIAGNOSTIC IMAGING (Continued) **1000597953**

Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 09/01/1996
Site name: HARBOR UCLA DIAGNOSTIC IMAGING
Classification: Small Quantity Generator

Date form received by agency: 03/31/1994
Site name: HARBOR UCLA MEDICAL CENTER
Classification: Large Quantity Generator

Violation Status: No violations found

HAZNET:
envid: 1000597953
Year: 1997
GEPAID: CAD983619883
Contact: INSIGHT HEALTH SERVICES
Telephone: 8008748634
Mailing Name: Not reported
Mailing Address: 21828 NORMANDIE AVE
Mailing City,St,Zip: TORRANCE, CA 905022047
Gen County: Not reported
TSD EPA ID: CAD981402522
TSD County: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Recycler
Tons: .0471
Cat Decode: Photochemicals/photoprocessing waste
Method Decode: Recycler
Facility County: Los Angeles

envid: 1000597953
Year: 1996
GEPAID: CAD983619883
Contact: INSIGHT HEALTH SERVICES
Telephone: 8008748634
Mailing Name: Not reported
Mailing Address: 21828 NORMANDIE AVE
Mailing City,St,Zip: TORRANCE, CA 905022047
Gen County: Not reported
TSD EPA ID: CAD981402522
TSD County: Not reported
Waste Category: Metal sludge (Alkaline solution (pH >= 12.5) with metals)
Disposal Method: Recycler
Tons: .1084
Cat Decode: Metal sludge (Alkaline solution (pH >= 12.5) with metals)
Method Decode: Recycler
Facility County: Los Angeles

envid: 1000597953
Year: 1996
GEPAID: CAD983619883
Contact: INSIGHT HEALTH SERVICES
Telephone: 8008748634

HARBOR UCLA DIAGNOSTIC IMAGING (Continued) **1000597953**

Mailing Name: Not reported
Mailing Address: 21828 NORMANDIE AVE
Mailing City,St,Zip: TORRANCE, CA 905022047
Gen County: Not reported
TSD EPA ID: CAD981402522
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Recycler
Tons: .0045
Cat Decode: Other inorganic solid waste
Method Decode: Recycler
Facility County: Los Angeles

envid: 1000597953
Year: 1995
GEPAID: CAD983619883
Contact: INSIGHT HEALTH SERVICES
Telephone: 8008748634
Mailing Name: Not reported
Mailing Address: 21828 NORMANDIE AVE
Mailing City,St,Zip: TORRANCE, CA 905022047
Gen County: Not reported
TSD EPA ID: CAD982433575
TSD County: Not reported
Waste Category: Metal sludge (Alkaline solution (pH >= 12.5) with metals)
Disposal Method: Recycler
Tons: .0417
Cat Decode: Metal sludge (Alkaline solution (pH >= 12.5) with metals)
Method Decode: Recycler
Facility County: Los Angeles

envid: 1000597953
Year: 1995
GEPAID: CAD983619883
Contact: INSIGHT HEALTH SERVICES
Telephone: 8008748634
Mailing Name: Not reported
Mailing Address: 21828 NORMANDIE AVE
Mailing City,St,Zip: TORRANCE, CA 905022047
Gen County: Not reported
TSD EPA ID: CAD982433575
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Recycler
Tons: .0070
Cat Decode: Other inorganic solid waste
Method Decode: Recycler
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
4 additional CA_HAZNET: record(s) in the EDR Site Report.

361
WNW
< 1/8
0.003 mi.
14 ft.

21600 NORMANDIE AVE
TORRANCE, CA 90502

EDR Hist Cleaner **1015019135**
N/A

Relative:
Higher

Actual:
46 ft.

EDR Historical Cleaners:

Name:	TORRANCE COIN LAUNDRY
Year:	2001
Address:	21600 NORMANDIE AVE
Name:	TORRANCE COIN LAUNDRY
Year:	2002
Address:	21600 NORMANDIE AVE
Name:	TORRANCE COIN LAUNDRY
Year:	2003
Address:	21600 NORMANDIE AVE
Name:	TORRANCE COIN LAUNDRY
Year:	2004
Address:	21600 NORMANDIE AVE
Name:	TORRANCE COIN LAUNDRY
Year:	2005
Address:	21600 NORMANDIE AVE
Name:	TORRANCE COIN LAUNDRY
Year:	2006
Address:	21600 NORMANDIE AVE
Name:	TORRANCE COIN LAUNDRY
Year:	2007
Address:	21600 NORMANDIE AVE
Name:	TORRANCE COIN LAUNDRY
Year:	2008
Address:	21600 NORMANDIE AVE
Name:	TORRANCE COIN LAUNDRY
Year:	2009
Address:	21600 NORMANDIE AVE
Name:	TORRANCE COIN LAUNDRY
Year:	2010
Address:	21600 NORMANDIE AVE
Name:	TORRANCE COIN LAUNDRY
Year:	2011
Address:	21600 NORMANDIE AVE
Name:	TORRANCE COIN LAUNDRY
Year:	2012
Address:	21600 NORMANDIE AVE

E362
NNE
< 1/8
0.009 mi.
50 ft.

ALPINE VILLAGE TEXACO — **UST** — **U003777721**
701 TORRANCE BLVD — **N/A**
TORRANCE, CA 90502

Site 5 of 10 in cluster E

Relative:
Lower

Actual:
34 ft.

UST:
Facility ID: 24881
Permitting Agency: LOS ANGELES COUNTY
Latitude: 33.843745
Longitude: -118.285807

E363
NNE
< 1/8
0.009 mi.
50 ft.

701 TORRANCE BLVD — **EDR Hist Auto** — **1015606029**
TORRANCE, CA 90502 — **N/A**

Site 6 of 10 in cluster E

Relative:
Lower

Actual:
34 ft.

EDR Historical Auto Stations:

Name: ALPINE VILLAGE TEXACO
Year: 1999
Address: 701 TORRANCE BLVD

Name: ALPINE TEXACO
Year: 2001
Address: 701 TORRANCE BLVD

Name: ALPINE TEXACO
Year: 2002
Address: 701 TORRANCE BLVD

Name: ALPINE VILLAGE TEXACO
Year: 2003
Address: 701 TORRANCE BLVD

Name: ALPINE VILLAGE TEXACO
Year: 2004
Address: 701 TORRANCE BLVD

Name: ALPINE TEXACO
Year: 2005
Address: 701 TORRANCE BLVD

Name: ALPINE TEXACO
Year: 2006
Address: 701 TORRANCE BLVD

Name: ALPINE TEXACO
Year: 2007
Address: 701 TORRANCE BLVD

Name: ALPINE TEXACO
Year: 2008
Address: 701 TORRANCE BLVD

Name: TEXACO INC
Year: 2009
Address: 701 TORRANCE BLVD

Name: ALPINE TEXACO

(Continued) **1015606029**

Year: 2010
Address: 701 TORRANCE BLVD

Name: ALPINE TEXACO
Year: 2011
Address: 701 TORRANCE BLVD

Name: ALPINE TEXACO
Year: 2012
Address: 701 TORRANCE BLVD

E364 **ALPINE VILLAGE TEXACO** **LUST** **U001595787**
NNE **701 TORRANCE BLVD.** **N/A**
< 1/8 **TORRANCE, CA 90502**
0.009 mi.
50 ft. **Site 7 of 10 in cluster E**

Relative:
Lower

Actual:
34 ft.

LUST:

Region:	STATE
Global Id:	T0603778569
Latitude:	33.842435
Longitude:	-118.28712
Case Type:	LUST Cleanup Site
Status:	Open - Remediation
Status Date:	03/30/2011
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	CET
Local Agency:	LOS ANGELES COUNTY
RB Case Number:	R-24881A
LOC Case Number:	002872-044785
File Location:	Regional Board
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline, Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603778569
Contact Type:	Local Agency Caseworker
Contact Name:	MANUEL R REGALADO
Organization Name:	LOS ANGELES COUNTY
Address:	900 S. FREMONT AVE.
City:	ALHAMBRA
Email:	mregalad@dpw.lacounty.gov
Phone Number:	Not reported

Global Id:	T0603778569
Contact Type:	Regional Board Caseworker
Contact Name:	CHANDRA TYLER
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	Not reported
City:	R4 UNKNOWN
Email:	cetyler@waterboards.ca.gov
Phone Number:	Not reported

Status History:

Global Id:	T0603778569

ALPINE VILLAGE TEXACO (Continued) **U001595787**

Status: Open - Assessment & Interim Remedial Action
Status Date: 10/22/2009

Global Id: T0603778569
Status: Open - Case Begin Date
Status Date: 06/05/2006

Global Id: T0603778569
Status: Open - Remediation
Status Date: 03/30/2011

Global Id: T0603778569
Status: Open - Site Assessment
Status Date: 01/03/2007

Global Id: T0603778569
Status: Open - Site Assessment
Status Date: 03/26/2009

Regulatory Activities:
Global Id: T0603778569
Action Type: REMEDIATION
Date: 06/22/2006
Action: Excavation

Global Id: T0603778569
Action Type: RESPONSE
Date: 07/31/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603778569
Action Type: RESPONSE
Date: 05/30/2012
Action: Other Workplan

Global Id: T0603778569
Action Type: RESPONSE
Date: 07/31/2012
Action: Remedial Progress Report

Global Id: T0603778569
Action Type: RESPONSE
Date: 01/15/2014
Action: Monitoring Report - Semi-Annually

Global Id: T0603778569
Action Type: RESPONSE
Date: 10/24/2016
Action: CAP/RAP - Final Remediation / Design Plan

Global Id: T0603778569
Action Type: RESPONSE
Date: 01/15/2015
Action: Other Workplan - Regulator Responded

Global Id: T0603778569
Action Type: RESPONSE

ALPINE VILLAGE TEXACO (Continued) **U001595787**

Date: 11/15/2014
Action: Other Workplan - Regulator Responded

Global Id: T0603778569
Action Type: RESPONSE
Date: 01/15/2015
Action: Soil Vapor Intrusion Investigation Report - Regulator Responded

Global Id: T0603778569
Action Type: RESPONSE
Date: 11/17/2015
Action: Interim Remedial Action Plan - Regulator Responded

Global Id: T0603778569
Action Type: RESPONSE
Date: 09/30/2015
Action: Soil and Water Investigation Workplan - Regulator Responded

Global Id: T0603778569
Action Type: RESPONSE
Date: 04/16/2007
Action: Other Report / Document

Global Id: T0603778569
Action Type: ENFORCEMENT
Date: 08/22/2016
Action: Staff Letter

Global Id: T0603778569
Action Type: ENFORCEMENT
Date: 12/11/2015
Action: Staff Letter

Global Id: T0603778569
Action Type: RESPONSE
Date: 11/18/2010
Action: Pilot Study/ Treatability Report

Global Id: T0603778569
Action Type: RESPONSE
Date: 01/24/2015
Action: Monitoring Report - Semi-Annually

Global Id: T0603778569
Action Type: RESPONSE
Date: 01/15/2017
Action: Monitoring Report - Semi-Annually

Global Id: T0603778569
Action Type: ENFORCEMENT
Date: 04/29/2014
Action: Waste Discharge Requirements

Global Id: T0603778569
Action Type: RESPONSE
Date: 06/10/2016
Action: Site Assessment Report

ALPINE VILLAGE TEXACO (Continued) **U001595787**

Global Id: T0603778569
Action Type: ENFORCEMENT
Date: 02/14/2007
Action: Staff Letter

Global Id: T0603778569
Action Type: ENFORCEMENT
Date: 03/30/2011
Action: Staff Letter

Global Id: T0603778569
Action Type: REMEDIATION
Date: 12/28/2011
Action: Other (Use Description Field)

Global Id: T0603778569
Action Type: REMEDIATION
Date: 06/17/2013
Action: In Situ Physical/Chemical Treatment (other than SVE)

Global Id: T0603778569
Action Type: REMEDIATION
Date: 12/28/2011
Action: Other (Use Description Field)

Global Id: T0603778569
Action Type: RESPONSE
Date: 04/20/2010
Action: Interim Remedial Action Report

Global Id: T0603778569
Action Type: RESPONSE
Date: 04/20/2010
Action: Soil and Water Investigation Report

Global Id: T0603778569
Action Type: RESPONSE
Date: 07/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603778569
Action Type: RESPONSE
Date: 07/10/2010
Action: Remedial Progress Report

Global Id: T0603778569
Action Type: RESPONSE
Date: 01/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603778569
Action Type: ENFORCEMENT
Date: 08/20/2014
Action: Staff Letter

Global Id: T0603778569
Action Type: RESPONSE

ALPINE VILLAGE TEXACO (Continued) **U001595787**

Date: 01/31/2013
Action: Soil Vapor Intrusion Investigation Report

Global Id: T0603778569
Action Type: RESPONSE
Date: 01/31/2013
Action: Site Assessment Report

Global Id: T0603778569
Action Type: ENFORCEMENT
Date: 03/09/2016
Action: Staff Letter

Global Id: T0603778569
Action Type: RESPONSE
Date: 07/15/2015
Action: Monitoring Report - Semi-Annually

Global Id: T0603778569
Action Type: ENFORCEMENT
Date: 01/27/2010
Action: Staff Letter

Global Id: T0603778569
Action Type: ENFORCEMENT
Date: 03/29/2012
Action: Staff Letter

Global Id: T0603778569
Action Type: ENFORCEMENT
Date: 09/27/2012
Action: Waste Discharge Requirements

Global Id: T0603778569
Action Type: RESPONSE
Date: 07/15/2011
Action: Remedial Progress Report

Global Id: T0603778569
Action Type: RESPONSE
Date: 07/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603778569
Action Type: RESPONSE
Date: 01/15/2013
Action: Remedial Progress Report

Global Id: T0603778569
Action Type: RESPONSE
Date: 01/15/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0603778569
Action Type: RESPONSE
Date: 07/31/2014
Action: Soil Vapor Intrusion Investigation Report

ALPINE VILLAGE TEXACO (Continued) **U001595787**

Global Id: T0603778569
Action Type: RESPONSE
Date: 07/31/2014
Action: Remedial Progress Report

Global Id: T0603778569
Action Type: RESPONSE
Date: 01/24/2015
Action: Remedial Progress Report

Global Id: T0603778569
Action Type: RESPONSE
Date: 01/15/2010
Action: Monitoring Report - Quarterly

Global Id: T0603778569
Action Type: ENFORCEMENT
Date: 05/09/2011
Action: Staff Letter

Global Id: T0603778569
Action Type: ENFORCEMENT
Date: 09/16/2008
Action: Notice to Comply

Global Id: T0603778569
Action Type: REMEDIATION
Date: 06/02/2016
Action: Soil Vapor Extraction (SVE)

Global Id: T0603778569
Action Type: RESPONSE
Date: 07/15/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0603778569
Action Type: RESPONSE
Date: 07/31/2014
Action: Monitoring Report - Semi-Annually

Global Id: T0603778569
Action Type: RESPONSE
Date: 12/15/2008
Action: Soil and Water Investigation Workplan

Global Id: T0603778569
Action Type: RESPONSE
Date: 08/12/2009
Action: Soil and Water Investigation Report

Global Id: T0603778569
Action Type: RESPONSE
Date: 10/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603778569
Action Type: RESPONSE

ALPINE VILLAGE TEXACO (Continued) **U001595787**

Date: 11/23/2009
Action: Soil and Water Investigation Workplan

Global Id: T0603778569
Action Type: RESPONSE
Date: 08/12/2009
Action: Soil and Water Investigation Report

Global Id: T0603778569
Action Type: ENFORCEMENT
Date: 03/26/2009
Action: Staff Letter

Global Id: T0603778569
Action Type: ENFORCEMENT
Date: 05/01/2009
Action: Staff Letter

Global Id: T0603778569
Action Type: ENFORCEMENT
Date: 11/09/2012
Action: Staff Letter

Global Id: T0603778569
Action Type: RESPONSE
Date: 01/15/2012
Action: Remedial Progress Report

Global Id: T0603778569
Action Type: RESPONSE
Date: 01/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603778569
Action Type: Other
Date: 06/05/2006
Action: Leak Discovery

Global Id: T0603778569
Action Type: Other
Date: 09/01/2006
Action: Leak Reported

Global Id: T0603778569
Action Type: RESPONSE
Date: 07/15/2016
Action: Remedial Progress Report

Global Id: T0603778569
Action Type: RESPONSE
Date: 06/10/2016
Action: Well Installation Report

Global Id: T0603778569
Action Type: RESPONSE
Date: 12/23/2009
Action: Interim Remedial Action Plan

ALPINE VILLAGE TEXACO (Continued) **U001595787**

Global Id:	T0603778569
Action Type:	RESPONSE
Date:	11/23/2009
Action:	Correspondence
Global Id:	T0603778569
Action Type:	ENFORCEMENT
Date:	10/22/2009
Action:	Staff Letter
Global Id:	T0603778569
Action Type:	ENFORCEMENT
Date:	10/23/2008
Action:	Staff Letter
Global Id:	T0603778569
Action Type:	ENFORCEMENT
Date:	11/17/2014
Action:	Staff Letter
Global Id:	T0603778569
Action Type:	RESPONSE
Date:	07/26/2016
Action:	Pilot Study/ Treatability Report
Global Id:	T0603778569
Action Type:	ENFORCEMENT
Date:	04/17/2014
Action:	Staff Letter
Global Id:	T0603778569
Action Type:	RESPONSE
Date:	01/15/2016
Action:	Monitoring Report - Semi-Annually

E365 **ALPINE TEXACO (FORMER EXXON)** **LUST** **S103281781**
NNE **701 TORRANCE BLVD W** **N/A**
< 1/8 **CARSON, CA 90502**
0.009 mi.
50 ft. **Site 8 of 10 in cluster E**

Relative:
Lower

Actual:
34 ft.

LUST:

Region:	STATE
Global Id:	T0603705470
Latitude:	33.8421686
Longitude:	-118.2868127
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	02/04/1998
Lead Agency:	LOS ANGELES COUNTY
Case Worker:	JOA
Local Agency:	LOS ANGELES COUNTY
RB Case Number:	R-24881
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline

ALPINE TEXACO (FORMER EXXON) (Continued) **S103281781**

Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603705470
Contact Type: Local Agency Caseworker
Contact Name: JOHN AWUJO
Organization Name: LOS ANGELES COUNTY
Address: 900 S FREMONT AVE
City: ALHAMBRA
Email: jawujo@dpw.lacounty.gov
Phone Number: 6264583507

Global Id: T0603705470
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Status History:
Global Id: T0603705470
Status: Completed - Case Closed
Status Date: 02/04/1998

Global Id: T0603705470
Status: Open - Case Begin Date
Status Date: 04/30/1992

Global Id: T0603705470
Status: Open - Site Assessment
Status Date: 04/30/1992

Regulatory Activities:
Global Id: T0603705470
Action Type: Other
Date: 08/06/1997
Action: Leak Discovery

Global Id: T0603705470
Action Type: Other
Date: 12/18/1997
Action: Leak Reported

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: R-24881
Status: Case Closed
Substance: Gasoline
Substance Quantity: Not reported

ALPINE TEXACO (FORMER EXXON) (Continued) **S103281781**

Local Case No:	Not reported	
Case Type:	Soil	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603705470	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19000	
Cross Street:	HAMILTON AVE.	
Enforcement Type:	Informal Enforcement Actions,including Notices of Violations and Staff Enforcement Letters	
Date Leak Discovered:	8/6/1997	
Date Leak First Reported:		12/18/1997
Date Leak Record Entered:	5/26/1992	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		2/4/1998
Date the Case was Closed:		2/4/1998
How Leak Discovered:	OM	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	Piping	
Operator:	MAHDAVI, MEHDI	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		6896.873747172514499113868112 6
Source of Cleanup Funding:		Piping
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		4/30/1992
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		1/1/1965
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	ALPINE VILLAGE TEXACO	
RP Address:	5256 LAMPSON AVE., GARDEN GROVE, CA 92845	
Program:	LUST	
Lat/Long:	33.8421686 / -1	
Local Agency Staff:	Not reported	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	VARIFY WITH DAVID ESFANDI LA CO DPW DATED 2/26/98, SAID THATSITE IS CLOSED IN 4/4/94 CASE #I-02969, FORMERLY EXXON USA	

E366
NNE
< 1/8
0.009 mi.
50 ft.

WON TAE LEE EXXON
701 W TORRANCE
TORRANCE, CA 90502

Site 9 of 10 in cluster E

HIST UST **S113028092**
HAZNET **N/A**

Relative:
Lower

Actual:
34 ft.

HIST UST:

File Number:	00026621
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00026621.pdf
Region:	Not reported
Facility ID:	Not reported
Facility Type:	Not reported
Other Type:	Not reported
Contact Name:	Not reported
Telephone:	Not reported
Owner Name:	Not reported
Owner Address:	Not reported
Owner City,St,Zip:	Not reported
Total Tanks:	Not reported
Tank Num:	Not reported
Container Num:	Not reported
Year Installed:	Not reported
Tank Capacity:	Not reported
Tank Used for:	Not reported
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	Not reported

Click here for Geo Tracker PDF:

HAZNET:

envid:	S113028092
Year:	2008
GEPAID:	CAL000018510
Contact:	--
Telephone:	Not reported
Mailing Name:	Not reported
Mailing Address:	701 W TORRANCE
Mailing City,St,Zip:	TORRANCE, CA 905020000
Gen County:	Not reported
TSD EPA ID:	IND093219012
TSD County:	Not reported
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.116
Cat Decode:	Off-specification, aged or surplus organics
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Los Angeles

E367
NNE
< 1/8
0.009 mi.
50 ft.

EXXON SERVICE STATION
701 W TORRANCE
TORRANCE, CA 90502

Site 10 of 10 in cluster E

SWEEPS UST **S101630241**
CA FID UST **N/A**

Relative:
Lower

Actual:
34 ft.

SWEEPS UST:

Status:	Active
Comp Number:	3024
Number:	1
Board Of Equalization:	Not reported
Referral Date:	05-13-91
Action Date:	05-13-91
Created Date:	05-13-91
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-000-003024-000001
Tank Status:	A
Capacity:	6000
Active Date:	05-13-91
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	4

Status:	Active
Comp Number:	3024
Number:	1
Board Of Equalization:	Not reported
Referral Date:	05-13-91
Action Date:	05-13-91
Created Date:	05-13-91
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-000-003024-000002
Tank Status:	A
Capacity:	8000
Active Date:	05-13-91
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	3024
Number:	1
Board Of Equalization:	Not reported
Referral Date:	05-13-91
Action Date:	05-13-91
Created Date:	05-13-91
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-000-003024-000003
Tank Status:	A
Capacity:	10000
Active Date:	05-13-91
Tank Use:	M.V. FUEL
STG:	P
Content:	LEADED
Number Of Tanks:	Not reported

Status: Active

EXXON SERVICE STATION (Continued) **S101630241**

Comp Number: 3024
Number: 1
Board Of Equalization: Not reported
Referral Date: 05-13-91
Action Date: 05-13-91
Created Date: 05-13-91
Owner Tank Id: Not reported
SWRCB Tank Id: 19-000-003024-000004
Tank Status: A
Capacity: 550
Active Date: 05-13-91
Tank Use: OIL
STG: W
Content: Not reported
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 19003602
Regulated By: UTNKA
Regulated ID: 00029488
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 8180000000
Mail To: Not reported
Mailing Address: 701 W TORRANCE BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: CENTINELA VALLEY
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

Facility ID: 19003602
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2133273736
Mail To: Not reported
Mailing Address: 701 W TORRANCE
Mailing Address 2: Not reported
Mailing City,St,Zip: TORRANCE 90502
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

AD368
SW
< 1/8
0.033 mi.
174 ft.

SAM LEUNG A & M PROPERTIES
22322 NORMANDIE AVENUE
TORRANCE, CA 90502

Site 1 of 2 in cluster AD

LUST **S107863258**
N/A

Relative:
Higher

Actual:
49 ft.

LUST:

Region:	STATE
Global Id:	T0603726189
Latitude:	33.823752
Longitude:	-118.299179
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	08/16/2006
Lead Agency:	LOS ANGELES COUNTY
Case Worker:	TS
Local Agency:	LOS ANGELES COUNTY
RB Case Number:	Not reported
LOC Case Number:	CLUP# 473344
File Location:	Not reported
Potential Media Affect:	Not reported
Potential Contaminants of Concern:	Waste Oil / Motor / Hydraulic / Lubricating
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603726189
Contact Type:	Local Agency Caseworker
Contact Name:	TIM SMITH
Organization Name:	LOS ANGELES COUNTY
Address:	900 S. FREMONT AVE.
City:	ALHAMBRA
Email:	tsmith@dpw.lacounty.gov
Phone Number:	Not reported

Global Id:	T0603726189
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Status History:

Global Id:	T0603726189
Status:	Completed - Case Closed
Status Date:	08/16/2006

Global Id:	T0603726189
Status:	Open - Case Begin Date
Status Date:	10/25/2005

Global Id:	T0603726189
Status:	Open - Site Assessment
Status Date:	01/30/2006

SAM LEUNG A & M PROPERTIES (Continued) **S107863258**

Regulatory Activities:

Global Id:	T0603726189
Action Type:	REMEDIATION
Date:	08/04/2005
Action:	Not reported
Global Id:	T0603726189
Action Type:	Other
Date:	10/25/2005
Action:	Leak Discovery
Global Id:	T0603726189
Action Type:	Other
Date:	11/07/2005
Action:	Leak Reported

AD369 **EDR Hist Auto** **1015338084**
SW **22322 NORMANDIE AVE** **N/A**
< 1/8 **TORRANCE, CA 90502**
0.033 mi.
174 ft. **Site 2 of 2 in cluster AD**

Relative:
Higher

Actual:
49 ft.

EDR Historical Auto Stations:

Name:	SUNRISE RV REPAIR
Year:	1999
Address:	22322 NORMANDIE AVE
Name:	PROMISE AUTO REPAIR
Year:	2002
Address:	22322 NORMANDIE AVE
Name:	SUNRISE RV REPAIR
Year:	2003
Address:	22322 NORMANDIE AVE
Name:	ECONOMIC AUTO REPAIR
Year:	2004
Address:	22322 NORMANDIE AVE
Name:	ECONOMY AUTO REPAIR
Year:	2005
Address:	22322 NORMANDIE AVE
Name:	ECONOMY AUTO REPAIR
Year:	2006
Address:	22322 NORMANDIE AVE
Name:	ECONOMY AUTO REPAIR
Year:	2007
Address:	22322 NORMANDIE AVE
Name:	ECONOMY AUTO REPAIR
Year:	2008
Address:	22322 NORMANDIE AVE

AA370
SSE
< 1/8
0.034 mi.
180 ft.

22315 S VERMONT AVE
TORRANCE, CA 90502

Site 6 of 6 in cluster AA

EDR Hist Auto **1015338028**
N/A

Relative:
Higher

Actual:
43 ft.

EDR Historical Auto Stations:

Name:	D & H ENGINEERING INC
Year:	2005
Address:	22315 S VERMONT AVE
Name:	D & H ENGINEERING INC
Year:	2006
Address:	22315 S VERMONT AVE
Name:	D & H ENGINEERING INC
Year:	2007
Address:	22315 S VERMONT AVE
Name:	D & H ENGINEERING INC
Year:	2008
Address:	22315 S VERMONT AVE

371
South
< 1/8
0.035 mi.
185 ft.

924 W 223RD ST
TORRANCE, CA 90502

EDR Hist Auto **1015676663**
N/A

Relative:
Higher

Actual:
42 ft.

EDR Historical Auto Stations:

Name:	MAACO AUTO PAINTING & BODYWORKS
Year:	1999
Address:	924 W 223RD ST
Name:	MAACO AUTO PNTNG & BODY WORK
Year:	2002
Address:	924 W 223RD ST
Name:	MAACO AUTO PNTNG & BODY WORK
Year:	2003
Address:	924 W 223RD ST
Name:	MAACO AUTO PNTNG & BODY WORK
Year:	2004
Address:	924 W 223RD ST
Name:	MAACO AUTO PAINTING & BODY WORK
Year:	2005
Address:	924 W 223RD ST
Name:	MAACO AUTO PAINTING & BODY WORK
Year:	2006
Address:	924 W 223RD ST
Name:	MAACO COLLISION REPAIR & AUTO PAIN
Year:	2007
Address:	924 W 223RD ST
Name:	MAACO COLLISION REPAIR
Year:	2008

(Continued) **1015676663**

Address: 924 W 223RD ST

Name: MAACO AUTO PAINTING & BODY WORKS
Year: 2009
Address: 924 W 223RD ST

Name: MAACO AUTO PAINTING & BODYWORK
Year: 2010
Address: 924 W 223RD ST

Name: MAACO COLLISION REPAIR & AUTO PAINTI
Year: 2011
Address: 924 W 223RD ST

AE372 **EDR Hist Auto** **1015322207**
NE **21101 FIGUEROA ST** **N/A**
< 1/8 **CARSON, CA 90745**
0.040 mi.
212 ft. **Site 1 of 3 in cluster AE**

Relative:
Lower

Actual:
37 ft.

EDR Historical Auto Stations:

Name: TROYS BODY SHOP
Year: 2001
Address: 21101 FIGUEROA ST

Name: TROYS BODY SHOP
Year: 2002
Address: 21101 FIGUEROA ST

Name: TROYS BODY SHOP
Year: 2003
Address: 21101 FIGUEROA ST

Name: TROYS BODY SHOP
Year: 2004
Address: 21101 FIGUEROA ST

Name: TROYS BODY SHOP
Year: 2005
Address: 21101 FIGUEROA ST

Name: TROYS BODY SHOP
Year: 2006
Address: 21101 FIGUEROA ST

Name: TROYS BODY SHOP
Year: 2008
Address: 21101 FIGUEROA ST

Name: TROYS BODY SHOP
Year: 2009
Address: 21101 FIGUEROA ST

Name: TROYS BODY SHOP
Year: 2010
Address: 21101 FIGUEROA ST

Name: TROYS BODY SHOP

(Continued) **1015322207**

Year: 2011
Address: 21101 FIGUEROA ST

Name: TROYS BODY SHOP
Year: 2012
Address: 21101 FIGUEROA ST

AF373 **EDR Hist Auto** **1015320432**
NE **21021 FIGUEROA ST** **N/A**
< 1/8 **CARSON, CA 90745**
0.041 mi.
216 ft. **Site 1 of 7 in cluster AF**

Relative:
Lower

Actual:
39 ft.

EDR Historical Auto Stations:
Name: GENERAL TRANSMISSION COMPONENTS
Year: 2007
Address: 21021 FIGUEROA ST

AF374 **MUNDORF AUTO SALES & CONVERSIONS** **RCRA-SQG** **1000375848**
NE **21023 S FIGUEROA** **FINDS** **CAD982350597**
< 1/8 **CARSON, CA 90745** **HAZNET**
0.041 mi. **ECHO**
218 ft. **Site 2 of 7 in cluster AF**

Relative:
Lower

Actual:
39 ft.

RCRA-SQG:
Date form received by agency: 10/21/1987
Facility name: JAGS SERVICES INC
Facility address: 21023 S FIGUEROA
CARSON, CA 90745
EPA ID: CAD982350597
Mailing address: S FIGUEROA
CARSON, CA 90745
Contact: ENVIRONMENTAL MANAGER
Contact address: 21023 S FIGUEROA
CARSON, CA 90745
Contact country: US
Contact telephone: (213) 530-8480
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: GARY MUNDORF
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

MUNDORF AUTO SALES & CONVERSIONS (Continued) **1000375848**

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002742275

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Registry ID: 110009544074

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
envid: 1000375848
Year: 2001
GEPAID: CAD982350597
Contact: --

MUNDORF AUTO SALES & CONVERSIONS (Continued) **1000375848**

Telephone: --
Mailing Name: Not reported
Mailing Address: 21023 FIGUEROA ST # S
Mailing City,St,Zip: CARSON, CA 907451960
Gen County: Not reported
TSD EPA ID: CAT000613893
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: 0.05
Cat Decode: Aqueous solution with total organic residues less than 10 percent
Method Decode: Transfer Station
Facility County: Los Angeles

ECHO:
Envid: 1000375848
Registry ID: 110002742275
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002742275

Envid: 1000375848
Registry ID: 110009544074
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110009544074

AF375 **MUNDORF AUTO SALES & CONVERSIONS** **RCRA-SQG** **1000191365**
NE **21023 S FIGUEROA** **CAD981664881**
< 1/8 **CARSON, CA 90745**
0.041 mi.
218 ft. **Site 3 of 7 in cluster AF**

Relative:
Lower

Actual:
39 ft.

RCRA-SQG:
Date form received by agency: 10/20/1986
Facility name: MUNDORF AUTO SALES & CONVERSIONS
Facility address: 21023 S FIGUEROA
CARSON, CA 90745
EPA ID: CAD981664881
Contact: ENVIRONMENTAL MANAGER
Contact address: 21023 S FIGUEROA
CARSON, CA 90745
Contact country: US
Contact telephone: (415) 555-1212
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: GARY W MUNFORD
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner

MUNDORF AUTO SALES & CONVERSIONS (Continued) **1000191365**

Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

AE376 **D AND N CONCRETE PUMPING INC** **RCRA-SQG** **1000905096**
NE **21125 FIGUEROA ST** **FINDS** **CA0000333377**
< 1/8 **CARSON, CA 90745** **HAZNET**
0.044 mi. **ECHO**
234 ft. **Site 2 of 3 in cluster AE**

Relative:
Lower

Actual:
37 ft.

RCRA-SQG:
Date form received by agency: 09/27/1994
Facility name: D AND N CONCRETE PUMPING INC
Facility address: 21125 FIGUEROA ST
CARSON, CA 90745
EPA ID: CA0000333377
Mailing address: P O BOX 3595
GARDENA, CA 902477295
Contact: DANIEL NAVARRO
Contact address: P O BOX 3595
GARDENA, CA 902477295
Contact country: US
Contact telephone: (310) 533-7092
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of

D AND N CONCRETE PUMPING INC (Continued) **1000905096**

hazardous waste at any time

Owner/Operator Summary:
- Owner/operator name: DANIEL NAVARRO
- Owner/operator address: 21125 FIGUEROA ST
  CARSON, CA 90745
- Owner/operator country: Not reported
- Owner/operator telephone: (310) 533-7092
- Legal status: Private
- Owner/Operator Type: Owner
- Owner/Op start date: Not reported
- Owner/Op end date: Not reported

Handler Activities Summary:
- U.S. importer of hazardous waste: No
- Mixed waste (haz. and radioactive): No
- Recycler of hazardous waste: No
- Transporter of hazardous waste: No
- Treater, storer or disposer of HW: No
- Underground injection activity: No
- On-site burner exemption: No
- Furnace exemption: No
- Used oil fuel burner: No
- Used oil processor: No
- User oil refiner: No
- Used oil fuel marketer to burner: No
- Used oil Specification marketer: No
- Used oil transfer facility: No
- Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002616857

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
- envid: 1000905096
- Year: 1995
- GEPAID: CA0000333377
- Contact: DANIEL NAVARRO
- Telephone: 3105337092
- Mailing Name: Not reported
- Mailing Address: PO BOX 3595
- Mailing City,St,Zip: GARDENA, CA 902477295
- Gen County: Not reported
- TSD EPA ID: CAD982444481

D AND N CONCRETE PUMPING INC (Continued) **1000905096**

TSD County: Not reported
Waste Category: Empty containers less than 30 gallons
Disposal Method: Recycler
Tons: .1000
Cat Decode: Empty containers less than 30 gallons
Method Decode: Recycler
Facility County: Los Angeles

ECHO:
Envid: 1000905096
Registry ID: 110002616857
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002616857

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377 **EDR Hist Auto** **1015337932**
SSE **22300 S VERMONT AVE** **N/A**
< 1/8 **TORRANCE, CA 90502**
0.047 mi.
249 ft.

Relative:
Higher

Actual:
42 ft.

EDR Historical Auto Stations:
Name: GLOBAL AUTO MARKET ENCHANT
Year: 2005
Address: 22300 S VERMONT AVE

Name: GLOBAL AUTO MARKET ENCHANT
Year: 2006
Address: 22300 S VERMONT AVE

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378 **EDR Hist Auto** **1015333869**
SE **22029 FIGUEROA ST** **N/A**
< 1/8 **CARSON, CA 90745**
0.053 mi.
278 ft.

Relative:
Higher

Actual:
42 ft.

EDR Historical Auto Stations:
Name: NAVARRO AUTO SERVICE
Year: 2006
Address: 22029 FIGUEROA ST

Name: NAVARRO AUTO SVC
Year: 2010
Address: 22029 FIGUEROA ST

Name: NAVARRO AUTO SERVICES
Year: 2011
Address: 22029 FIGUEROA ST

Name: NAVARRO AUTO SERVICES
Year: 2012
Address: 22029 FIGUEROA ST

AF379 **GOLDEN EAGLE REFINING CO INC** **SEMS** **1000186899**
NE **21000 S FIGUERORA ST** **SLIC** **CAD062080064**
< 1/8 **CARSON, CA 90745** **SWEEPS UST**
0.055 mi. **LOS ANGELES CO. HMS**
292 ft. **Site 4 of 7 in cluster AF** **HWP**

Relative:
Lower

Actual:
38 ft.

SEMS:

Site ID:	901486
EPA ID:	CAD062080064
Federal Facility:	N
NPL:	Not on the NPL
Non NPL Status:	Other Cleanup Activity: State-Lead Cleanup

Following information was gathered from the prior CERCLIS update completed in 10/2013:

Site ID:	0901486
EPA ID:	CAD062080064
Facility County:	LOS ANGELES
Short Name:	GOLDEN EAGLE REFINING CO
Congressional District:	31
IFMS ID:	Not reported
SMSA Number:	4480
USGC Hydro Unit:	18070104
Federal Facility:	Not a Federal Facility
DMNSN Number:	0.00000
Site Orphan Flag:	N
RCRA ID:	Not reported
USGS Quadrangle:	Not reported
Site Init By Prog:	Not reported
NFRAP Flag:	Not reported
Parent ID:	Not reported
RST Code:	Not reported
EPA Region:	09
Classification:	Not reported
Site Settings Code:	Not reported
NPL Status:	Not on the NPL
DMNSN Unit Code:	Not reported
RBRAC Code:	Not reported
RResp Fed Agency Code:	Not reported
Non NPL Status:	Other Cleanup Activity: State-Lead Cleanup
Non NPL Status Date:	10/13/00
Site Fips Code:	06037
CC Concurrence Date:	/ /
CC Concurrence FY:	Not reported
Alias EPA ID:	Not reported
Site FUDS Flag:	Not reported

CERCLIS Site Contact Name(s):

Contact ID:	13003854.00000
Contact Name:	Leslie Ramirez
Contact Tel:	(415) 972-3978
Contact Title:	Site Assessment Manager (SAM)
Contact Email:	Not reported

Contact ID:	13003858.00000
Contact Name:	Sharon Murray
Contact Tel:	(415) 972-4250
Contact Title:	Site Assessment Manager (SAM)
Contact Email:	Not reported

GOLDEN EAGLE REFINING CO INC (Continued) **1000186899**

Contact ID: 13004003.00000
Contact Name: Carl Brickner
Contact Tel: Not reported
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

CERCLIS Site Alias Name(s):
Alias ID: 101
Alias Name: CARSON OIL CO
Alias Address: Not reported
CA
Alias ID: 201
Alias Name: GOLDEN EAGLE REFINERY
Alias Address: Not reported
CA
Alias ID: 301
Alias Name: SUNSET OIL CO
Alias Address: Not reported
CA
Alias ID: 401
Alias Name: SUNSET INTL PETRO CORP
Alias Address: Not reported
CA
Alias ID: 501
Alias Name: DOUGLAS OIL & REFINING CO
Alias Address: Not reported
CA
Alias ID: 601
Alias Name: JULIAN PETRO CO (OCC PRIOR TO 1959)
Alias Address: Not reported
CA
Alias ID: 701
Alias Name: CA & EASTERN OIL CO (OCC PRIOR TO 1959)
Alias Address: Not reported
CA
Alias ID: 801
Alias Name: SUNSET PACIFIC OIL CO(OCC PRIOR TO 1959)
Alias Address: Not reported
CA
Alias ID: 901
Alias Name: AMER ULTRAMAR LTD(PARENT OF GOLDEN EAGL)
Alias Address: Not reported
CA
Alias ID: 101
Alias ID: 201
Alias ID: 301
Alias ID: 401
Alias ID: 901
Alias ID: 601
Alias ID: 701
Alias ID: 801
Alias ID: 501
Alias Comments: PREVIOUS EPA ID# AZD 981 416 977PREVIOUS EPA ID# AZD 981 416 977PREVIOUS EPA ID# AZD 981 416 977PREVIOUS EPA ID# AZD 981 416 977PREVIOUS EPA ID# AZD 981 416 977PREVIOUS EPA ID# AZD 981 416 977PREVIOUS EPA ID# AZD 981 416 977PREVIOUS EPA ID# AZD 981 416 977PREVIOUS EPA ID# AZD 981 416 977

GOLDEN EAGLE REFINING CO INC (Continued) **1000186899**

Site Description: 6/13/06 - DTSC issued a consent order to the site owners (3/30/90), the RI was approved (6/29/94), the design of the air sparging/vapor extraction system was approved (3/13/95), operation & maintenance agreement was signed and a deed restriction was recorded (7/6/95). The responsible party is currently working on a supplemental RI work plan under DTSC oversight.

CERCLIS Assessment History:

Action Code: 001
Action: DISCOVERY
Date Started: / /
Date Completed: 09/01/85
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: PRELIMINARY ASSESSMENT
Date Started: 08/01/85
Date Completed: 10/01/86
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 12/29/88
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: SITE INSPECTION
Date Started: / /
Date Completed: 09/20/89
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: SITE REASSESSMENT

GOLDEN EAGLE REFINING CO INC (Continued) **1000186899**

Date Started: / /
Date Completed: 06/06/01
Priority Level: Higher priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: SITE REASSESSMENT
Date Started: / /
Date Completed: 06/13/06
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

SLIC REG 4:
Region: 4
Facility Status: Remediation
SLIC: 0241
Substance: TPH
Staff: PC

SWEEPS UST:
Status: Active
Comp Number: 70
Number: 9
Board Of Equalization: Not reported
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Owner Tank Id: Not reported
SWRCB Tank Id: Not reported
Tank Status: Not reported
Capacity: Not reported
Active Date: Not reported
Tank Use: Not reported
STG: Not reported
Content: Not reported
Number Of Tanks: Not reported

LOS ANGELES CO. HMS:
Region: LA
Permit Category: T
Facility Id: 000070-000070
Facility Type: 0
Facility Status: Removed
Area: 22
Permit Number: 000069496
Permit Status: Removed

GOLDEN EAGLE REFINING CO INC (Continued) **1000186899**

Region: LA
Permit Category: I
Facility Id: 000070-I00070
Facility Type: 02
Facility Status: Closed
Area: 22
Permit Number: 000001458
Permit Status: Closed

HWP:
EPA Id: CAD062080064
Cleanup Status: PROTECTIVE FILER
Latitude: 33.83921
Longitude: -118.2857
Facility Type: Historical - Non-Operating
Facility Size: Not reported
Team: Not reported
Supervisor: Not reported
Site Code: Not reported
Assembly District: 64
Senate District: 35
Public Information Officer: Not reported
Public Information Officer: Not reported

Activities:
EPA Id: CAD062080064
Facility Type: Historical - Non-Operating
Unit Names: OTHRTRT1, TANKSTR1
Event Description: Protective Filer Status - PROTECTIVE FILER (APPROVED)
Actual Date: 07/06/1982

EPA Id: CAD062080064
Facility Type: Historical - Non-Operating
Unit Names: OTHRTRT1, TANKSTR1
Event Description: Protective Filer Status - PROTECTIVE FILER (RECEIVED)
Actual Date: 06/17/1982

Alias:
EPA Id: CAD062080064
Facility Type: Historical - Non-Operating
Alias Type: Envirostor ID Number
Alias: 19290167

AF380 **CARSON TANK FARM** **ENF U002277537**
NE **21000 FIGUEROA** **HIST CORTESE N/A**
< 1/8 **CARSON, CA 90745**
0.055 mi.
292 ft. **Site 5 of 7 in cluster AF**

Relative:
Lower

Actual:
38 ft.

ENF:
Region: 4
Facility Id: 217066
Agency Name: Eni Petroleum Company, Inc
Place Type: Facility
Place Subtype: Groundwater Cleanup Site
Facility Type: All other facilities

CARSON TANK FARM (Continued) **U002277537**

Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	33.960030
Place Longitude:	-118.282700
SIC Code 1:	2911
SIC Desc 1:	Petroleum Refining
SIC Code 2:	2999
SIC Desc 2:	Products of Petroleum and Coal, NEC
SIC Code 3:	3691
SIC Desc 3:	Storage Batteries
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	0.001
Threat To Water Quality:	3
Complexity:	B
Pretreatment:	X - Facility is not a POTW
Facility Waste Type:	Contaminated ground water
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	LNDISP
Program Category1:	LNDISP
Program Category2:	LNDISP
# Of Programs:	1
WDID:	4B192516001
Reg Measure Id:	133559
Reg Measure Type:	WDR
Region:	4
Order #:	87-012
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	N - No
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	1000
Status:	Historical
Status Date:	10/22/2012
Effective Date:	01/26/1987
Expiration/Review Date:	01/22/2002
Termination Date:	12/07/2011
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	58 - Non15 Based on (TTWQ)/CPLX)
Direction/Voice:	Passive

CARSON TANK FARM (Continued) **U002277537**

Enforcement Id(EID):	220200
Region:	4
Order / Resolution Number:	R4-1993-0061
Enforcement Action Type:	Clean-up and Abatement Order
Effective Date:	09/27/1993
Adoption/Issuance Date:	09/27/1993
Achieve Date:	Not reported
Termination Date:	08/03/2011
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	CAO 93-061 - 4B192516001
Description:	ASSURANCE OF REMEDIATION FOR REMAINING CONTAMINATED SOIL & GROUND WATER.
Program:	LNDISP
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	WBC&D
Reg Id:	4B192516001

AE381 **DEWEY PEST CONTROL** **RCRA-SQG** **1000226163**
NE **21111 S FIGUEROA STREET** **UST** **CAD055778716**
< 1/8 **CARSON, CA 90745** **SWEEPS UST**
0.056 mi. **HIST UST**
297 ft. **Site 3 of 3 in cluster AE** **CA FID UST**
FINDS
Relative: **LOS ANGELES CO. HMS**
Lower **ECHO**

Actual: **36 ft.**

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	DEWEY PEST CONTROL
Facility address:	21111 S FIGUEROA STREET CARSON, CA 90745
EPA ID:	CAD055778716
Mailing address:	3711 BEVERLY BLVD LOS ANGELES, CA 90004
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous

DEWEY PEST CONTROL (Continued) **1000226163**

waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	DEWEY SERVICES INC
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency:	07/30/1986
Site name:	DEWEY PEST CONTROL
Classification:	Large Quantity Generator
Violation Status:	No violations found

UST:

Facility ID:	10359
Permitting Agency:	LOS ANGELES COUNTY
Latitude:	33.83777
Longitude:	-118.28615

DEWEY PEST CONTROL (Continued) **1000226163**

SWEEPS UST:

Status:	Active
Comp Number:	10359
Number:	1
Board Of Equalization:	44-006091
Referral Date:	03-31-92
Action Date:	03-31-92
Created Date:	06-30-89
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-000-010359-000001
Tank Status:	A
Capacity:	Not reported
Active Date:	06-30-89
Tank Use:	UNKNOWN
STG:	W
Content:	Not reported
Number Of Tanks:	2

Status:	Active
Comp Number:	10359
Number:	1
Board Of Equalization:	44-006091
Referral Date:	03-31-92
Action Date:	03-31-92
Created Date:	06-30-89
Owner Tank Id:	2
SWRCB Tank Id:	19-000-010359-000002
Tank Status:	A
Capacity:	10000
Active Date:	03-31-92
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

HIST UST:

File Number:	000276D1
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/000276D1.pdf
Region:	STATE
Facility ID:	00000029477
Facility Type:	Not reported
Other Type:	PEST CONTROL
Contact Name:	BILL MORTON
Telephone:	2133280553
Owner Name:	DEWEY SERVICES, INC.
Owner Address:	3711 BEVERLY BLVD.
Owner City,St,Zip:	LOS ANGELES, CA 90004
Total Tanks:	0001

Tank Num:	001
Container Num:	1
Year Installed:	Not reported
Tank Capacity:	00000750
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported

DEWEY PEST CONTROL (Continued) **1000226163**

Leak Detection: None

Click here for Geo Tracker PDF:

CA FID UST:
Facility ID: 19029469
Regulated By: UTNKA
Regulated ID: 00029477
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2133280553
Mail To: Not reported
Mailing Address: 21111 S FIGUEROA ST
Mailing Address 2: Not reported
Mailing City,St,Zip: CARSON 90745
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

FINDS:

Registry ID: 110002650541

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

LOS ANGELES CO. HMS:
Region: LA
Permit Category: T
Facility Id: 010440-010359
Facility Type: 0
Facility Status: Permit
Area: 22
Permit Number: 00001756T
Permit Status: Permit

ECHO:
Envid: 1000226163
Registry ID: 110002650541
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002650541

AF382 **CWD LLC** **RCRA-LQG** **1007370121**
NE **21046 S FIGUEROA ST** **CAR000152892**
< 1/8 **CARSON, CA 90745**
0.063 mi.
331 ft. **Site 6 of 7 in cluster AF**

Relative:
Lower

Actual:
36 ft.

RCRA-LQG:

Date form received by agency:	02/04/2008
Facility name:	CWD LLC
Facility address:	21046 S FIGUEROA ST UNIT B CARSON, CA 90745
EPA ID:	CAR000152892
Contact:	DOUG BONILLA
Contact address:	21046 S FIGUEROA ST UNIT B CARSON, CA 90745
Contact country:	US
Contact telephone:	310-218-1082
Contact email:	Not reported
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	CWD LLC
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	06/01/2000
Owner/Op end date:	Not reported

Owner/operator name:	CWD LLC
Owner/operator address:	21046 S FIGUEROA ST CARSON, CA 90745
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	06/01/2000
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No

CWD LLC (Continued) **1007370121**

Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D006
. Waste name: CADMIUM

Historical Generators:
Date form received by agency: 06/05/2006
Site name: CWD LLC
Classification: Large Quantity Generator

. Waste code: D006
. Waste name: CADMIUM

Date form received by agency: 06/05/2006
Site name: CWD LLC
Classification: Small Quantity Generator

Date form received by agency: 04/27/2004
Site name: CWD LLC
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D006
. Waste name: CADMIUM

Violation Status: No violations found

AF383 **CWD, LLC** **RCRA-LQG** **1012175752**
NE **21046 SOUTH FIGUEROA STREET** **CAL000300966**
< 1/8 **CARSON, CA 90745**
0.063 mi.
331 ft. **Site 7 of 7 in cluster AF**

Relative:
Lower

Actual:
36 ft.

RCRA-LQG:
Date form received by agency: 05/19/2008
Facility name: CWD, LLC
Facility address: 21046 SOUTH FIGUEROA STREET
UNIT B
CARSON, CA 90745
EPA ID: CAL000300966
Contact: JASON STEINHART
Contact address: Not reported
Not reported
Contact country: US

CWD, LLC (Continued) **1012175752**

Contact telephone: (310) 218-1082
Contact email: J.STEINHART@CENTRICPARTS.COM
EPA Region: 09
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: CWD, LLC
Owner/operator address: 21046 SOUTH FIGUEROA STREET
CARSON, CA 90745
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 06/14/2001
Owner/Op end date: Not reported

Owner/operator name: CWD, LLC
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 06/14/2001
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D006

CWD, LLC (Continued) **1012175752**

. Waste name: CADMIUM

Violation Status: No violations found

AG384 **SIMPAL OIL INC** **SWEEPS UST** **S101584417**
SE **22235 S FIGUEROA ST** **CA FID UST** **N/A**
< 1/8 **CARSON, CA 90745** **LOS ANGELES CO. HMS**
0.063 mi.
335 ft. **Site 1 of 6 in cluster AG**

Relative:
Higher

Actual:
42 ft.

SWEEPS UST:

Status:	Active
Comp Number:	32
Number:	9
Board Of Equalization:	44-000074
Referral Date:	06-30-89
Action Date:	Not reported
Created Date:	06-30-89
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-000-000032-000001
Tank Status:	A
Capacity:	Not reported
Active Date:	06-30-89
Tank Use:	UNKNOWN
STG:	W
Content:	Not reported
Number Of Tanks:	3

Status:	Active
Comp Number:	32
Number:	9
Board Of Equalization:	44-000074
Referral Date:	06-30-89
Action Date:	Not reported
Created Date:	06-30-89
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-000-000032-000002
Tank Status:	A
Capacity:	Not reported
Active Date:	06-30-89
Tank Use:	UNKNOWN
STG:	W
Content:	Not reported
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	32
Number:	9
Board Of Equalization:	44-000074
Referral Date:	06-30-89
Action Date:	Not reported
Created Date:	06-30-89
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-000-000032-000003
Tank Status:	A
Capacity:	Not reported
Active Date:	06-30-89
Tank Use:	UNKNOWN
STG:	W

SIMPAL OIL INC (Continued) **S101584417**

Content: Not reported
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 19011234
Regulated By: UTNKA
Regulated ID: 00021015
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 8180000000
Mail To: Not reported
Mailing Address: 22235 S FIGUEROA ST
Mailing Address 2: Not reported
Mailing City,St,Zip: CARSON
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 000032-024004
Facility Type: 01
Facility Status: Removed
Area: 22
Permit Number: 000288375
Permit Status: Removed

Region: LA
Permit Category: I
Facility Id: 000032-024004
Facility Type: 01
Facility Status: Removed
Area: 22
Permit Number: 000324998
Permit Status: Removed

Region: LA
Permit Category: I
Facility Id: 000032-I00032
Facility Type: 01
Facility Status: Closed
Area: 22
Permit Number: 000007093
Permit Status: Closed

Region: LA
Permit Category: I
Facility Id: 000032-I00032
Facility Type: 02
Facility Status: Closed
Area: 22

SIMPAL OIL INC (Continued) **S101584417**

Permit Number: 000009836
Permit Status: Closed

AG385 **SANDHU'S SHELL** **UST** **U003984064**
SE **22235 FIGUEROA ST** **N/A**
< 1/8 **CARSON, CA 90745**
0.063 mi.
335 ft. **Site 2 of 6 in cluster AG**

Relative:
Higher

Actual:
42 ft.

UST:
Facility ID: 26240
Permitting Agency: LOS ANGELES COUNTY
Latitude: 33.8262322
Longitude: -118.285255

AG386 **SHELL SERVICE STATION** **RCRA-SQG** **1005415576**
SE **22235 S FIGUEROA ST** **FINDS** **CAR000113043**
< 1/8 **CARSON, CA 90745** **HAZNET**
0.063 mi. **LOS ANGELES CO. HMS**
335 ft. **Site 3 of 6 in cluster AG** **ECHO**

Relative:
Higher

Actual:
42 ft.

RCRA-SQG:
Date form received by agency: 03/01/2002
Facility name: SHELL SERVICE STATION
Facility address: 22235 S FIGUEROA ST
S A P 135135
CARSON, CA 907454498
EPA ID: CAR000113043
Mailing address: P O BOX 2648
HOUSTON, TX 772522648
Contact: SONDRA BIENVENU
Contact address: P O BOX 2648
HOUSTON, TX 772522648
Contact country: US
Contact telephone: (713) 241-5036
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: EQUILON ENTERPRISES L L C
Owner/operator address: P O BOX 2648
HOUSTON, TX 77252
Owner/operator country: Not reported
Owner/operator telephone: (713) 241-5036
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

SHELL SERVICE STATION (Continued) **1005415576**

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D018
. Waste name: BENZENE

Violation Status: No violations found

FINDS:

Registry ID: 110012230567

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
envid: 1005415576
Year: 2013
GEPAID: CAR000113043
Contact: Adam Estes
Telephone: 3172917007
Mailing Name: Not reported
Mailing Address: PO BOX 3127
Mailing City,St,Zip: HOUSTON, TX 772530000
Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration,

SHELL SERVICE STATION (Continued) **1005415576**

Organics Recovery Ect
Tons: 0.22935
Cat Decode: Not reported
Method Decode: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County: Not reported

envid: 1005415576
Year: 2002
GEPAID: CAR000113043
Contact: N CORTEZ/ENVT'L DATA ANALYST
Telephone: 2818742224
Mailing Name: Not reported
Mailing Address: 12700 NORTHBOROUGH DRIVE MFT 240-G
Mailing City,St,Zip: Houston, TX 770672508
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Recycler
Tons: 6.88
Cat Decode: Aqueous solution with total organic residues less than 10 percent
Method Decode: Recycler
Facility County: Los Angeles

envid: 1005415576
Year: 2002
GEPAID: CAR000113043
Contact: N CORTEZ/ENVT'L DATA ANALYST
Telephone: 2818742224
Mailing Name: Not reported
Mailing Address: 12700 NORTHBOROUGH DRIVE MFT 240-G
Mailing City,St,Zip: Houston, TX 770672508
Gen County: Not reported
TSD EPA ID: CAD982484933
TSD County: Not reported
Waste Category: Other empty containers 30 gallons or more
Disposal Method: Disposal, Other
Tons: 9.5
Cat Decode: Other empty containers 30 gallons or more
Method Decode: Disposal, Other
Facility County: Los Angeles

LOS ANGELES CO. HMS:
Region: LA
Permit Category: T
Facility Id: 000032-000032
Facility Type: 0
Facility Status: Closed
Area: 22
Permit Number: 00000615T
Permit Status: Closed

ECHO:
Envid: 1005415576
Registry ID: 110012230567

SHELL SERVICE STATION (Continued) **1005415576**

DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110012230567

AG387 **FORMER SHELL STATION** **LUST** **S106716460**
SE **22235 FIGUEROA ST. S.** **N/A**
< 1/8 **CARSON, CA 90745**
0.063 mi.
335 ft. **Site 4 of 6 in cluster AG**

Relative:
Higher

Actual:
42 ft.

LUST:

Region:	STATE
Global Id:	T0603707726
Latitude:	33.824946
Longitude:	-118.28611
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	02/14/2013
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	AT
Local Agency:	LOS ANGELES COUNTY
RB Case Number:	R-26240
LOC Case Number:	0032-26240
File Location:	Regional Board
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603707726
Contact Type:	Local Agency Caseworker
Contact Name:	TIM SMITH
Organization Name:	LOS ANGELES COUNTY
Address:	900 S. FREMONT AVE.
City:	ALHAMBRA
Email:	tsmith@dpw.lacounty.gov
Phone Number:	Not reported

Global Id:	T0603707726
Contact Type:	Regional Board Caseworker
Contact Name:	ARMAN TOUMARI
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 WEST 4TH STREET, SUITE 200
City:	LOS ANGELES
Email:	atoumari@waterboards.ca.gov
Phone Number:	2135766708

Status History:

Global Id:	T0603707726
Status:	Completed - Case Closed
Status Date:	02/14/2013

Global Id:	T0603707726
Status:	Open - Case Begin Date
Status Date:	06/24/2002

Global Id:	T0603707726
Status:	Open - Eligible for Closure

FORMER SHELL STATION (Continued) **S106716460**

Status Date: 11/30/2012

Global Id: T0603707726
Status: Open - Site Assessment
Status Date: 11/15/2004

Global Id: T0603707726
Status: Open - Site Assessment
Status Date: 07/15/2008

Regulatory Activities:

Global Id: T0603707726
Action Type: ENFORCEMENT
Date: 06/23/2008
Action: 13267 Requirement

Global Id: T0603707726
Action Type: ENFORCEMENT
Date: 12/18/2012
Action: Notification - Preclosure

Global Id: T0603707726
Action Type: RESPONSE
Date: 04/15/2012
Action: Monitoring Report - Quarterly

Global Id: T0603707726
Action Type: REMEDIATION
Date: 06/01/2002
Action: Excavation

Global Id: T0603707726
Action Type: RESPONSE
Date: 10/15/2010
Action: Other Report / Document

Global Id: T0603707726
Action Type: RESPONSE
Date: 07/31/2008
Action: Other Report / Document

Global Id: T0603707726
Action Type: RESPONSE
Date: 07/15/2012
Action: Monitoring Report - Quarterly

Global Id: T0603707726
Action Type: RESPONSE
Date: 07/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603707726
Action Type: ENFORCEMENT
Date: 02/14/2013
Action: Closure/No Further Action Letter

Global Id: T0603707726

FORMER SHELL STATION (Continued) **S106716460**

Action Type:	RESPONSE
Date:	04/15/2010
Action:	Other Report / Document
Global Id:	T0603707726
Action Type:	RESPONSE
Date:	01/28/2010
Action:	Soil and Water Investigation Report
Global Id:	T0603707726
Action Type:	RESPONSE
Date:	09/20/2012
Action:	Request for Closure
Global Id:	T0603707726
Action Type:	RESPONSE
Date:	10/15/2009
Action:	Other Report / Document
Global Id:	T0603707726
Action Type:	RESPONSE
Date:	03/04/2009
Action:	Soil and Water Investigation Workplan
Global Id:	T0603707726
Action Type:	RESPONSE
Date:	04/15/2013
Action:	Well Destruction Report
Global Id:	T0603707726
Action Type:	ENFORCEMENT
Date:	02/14/2013
Action:	Closure/No Further Action Letter
Global Id:	T0603707726
Action Type:	RESPONSE
Date:	07/15/2011
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603707726
Action Type:	RESPONSE
Date:	08/02/2011
Action:	Soil and Water Investigation Report
Global Id:	T0603707726
Action Type:	RESPONSE
Date:	10/15/2011
Action:	Monitoring Report - Quarterly
Global Id:	T0603707726
Action Type:	Other
Date:	06/24/2002
Action:	Leak Discovery
Global Id:	T0603707726
Action Type:	RESPONSE
Date:	10/15/2008

FORMER SHELL STATION (Continued) **S106716460**

Action:	Other Report / Document
Global Id:	T0603707726
Action Type:	RESPONSE
Date:	01/15/2010
Action:	Other Report / Document
Global Id:	T0603707726
Action Type:	RESPONSE
Date:	04/15/2009
Action:	Other Report / Document
Global Id:	T0603707726
Action Type:	RESPONSE
Date:	07/15/2009
Action:	Other Report / Document
Global Id:	T0603707726
Action Type:	RESPONSE
Date:	01/15/2012
Action:	Monitoring Report - Quarterly
Global Id:	T0603707726
Action Type:	Other
Date:	08/13/2002
Action:	Leak Reported

AG388 **SHELL** **HIST UST** **S113086814**
SE **22235 S FIGUEROA** **HAZNET** **N/A**
< 1/8 **CARSON, CA 90745**
0.063 mi.
335 ft. **Site 5 of 6 in cluster AG**

Relative:
Higher

Actual:
42 ft.

HIST UST:

File Number:	0002855C
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002855C.pdf
Region:	Not reported
Facility ID:	Not reported
Facility Type:	Not reported
Other Type:	Not reported
Contact Name:	Not reported
Telephone:	Not reported
Owner Name:	Not reported
Owner Address:	Not reported
Owner City,St,Zip:	Not reported
Total Tanks:	Not reported
Tank Num:	Not reported
Container Num:	Not reported
Year Installed:	Not reported
Tank Capacity:	Not reported
Tank Used for:	Not reported
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	Not reported

SHELL (Continued) **S113086814**

Click here for Geo Tracker PDF:

HAZNET:

envid:	S113086814
Year:	1997
GEPAID:	CAL000162322
Contact:	EQUILON ENTERPRISES LLC
Telephone:	7132412258
Mailing Name:	Not reported
Mailing Address:	PO BOX 2099
Mailing City,St,Zip:	HOUSTON, TX 772522099
Gen County:	Not reported
TSD EPA ID:	CAD982484933
TSD County:	Not reported
Waste Category:	Empty containers less than 30 gallons
Disposal Method:	Not reported
Tons:	.4500
Cat Decode:	Empty containers less than 30 gallons
Method Decode:	Not reported
Facility County:	Los Angeles

AH389 **SERVICE STATION 2529** **HIST UST** **U001565766**
East **600 W CARSON** **N/A**
< 1/8 **CARSON, CA 90745**
0.069 mi.
365 ft. **Site 1 of 2 in cluster AH**

Relative:
Higher

Actual:
42 ft.

HIST UST:

File Number:	000292C6
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/000292C6.pdf
Region:	STATE
Facility ID:	00000029439
Facility Type:	Gas Station
Other Type:	Not reported
Contact Name:	DOO HYONG CHO
Telephone:	2133202307
Owner Name:	UNION OIL COMPANY OF CALIFORNI
Owner Address:	3701 WILSHIRE BOULEVARD-SUITE
Owner City,St,Zip:	LOS ANGELES, CA 90010
Total Tanks:	0003
Tank Num:	001
Container Num:	2529-1
Year Installed:	1966
Tank Capacity:	00009940
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor, Pressure Test
Tank Num:	002
Container Num:	2529-2
Year Installed:	1966
Tank Capacity:	00009940
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	Not reported

SERVICE STATION 2529 (Continued) **U001565766**

Leak Detection: Stock Inventor, Pressure Test

Tank Num: 003
Container Num: 2529-4
Year Installed: 1966
Tank Capacity: 00000000
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor, Pressure Test

Click here for Geo Tracker PDF:

AH390 **UNOCAL CORP SS 2529** **SWEEPS UST** **U002280502**
East **600 W CARSON ST** **LOS ANGELES CO. HMS** **N/A**
< 1/8 **CARSON, CA 90745**
0.069 mi.
365 ft. **Site 2 of 2 in cluster AH**

Relative:
Higher

Actual:
42 ft.

SWEEPS UST:
Status: Active
Comp Number: 6264
Number: 9
Board Of Equalization: 44-001057
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Owner Tank Id: Not reported
SWRCB Tank Id: 19-000-006264-000001
Tank Status: A
Capacity: Not reported
Active Date: 06-30-89
Tank Use: UNKNOWN
STG: W
Content: Not reported
Number Of Tanks: 3

Status: Active
Comp Number: 6264
Number: 9
Board Of Equalization: 44-001057
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Owner Tank Id: Not reported
SWRCB Tank Id: 19-000-006264-000002
Tank Status: A
Capacity: Not reported
Active Date: 06-30-89
Tank Use: UNKNOWN
STG: W
Content: Not reported
Number Of Tanks: Not reported

Status: Active
Comp Number: 6264
Number: 9
Board Of Equalization: 44-001057

UNOCAL CORP SS 2529 (Continued) **U002280502**

Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Owner Tank Id: Not reported
SWRCB Tank Id: 19-000-006264-000003
Tank Status: A
Capacity: Not reported
Active Date: 06-30-89
Tank Use: UNKNOWN
STG: W
Content: Not reported
Number Of Tanks: Not reported

LOS ANGELES CO. HMS:
Region: LA
Permit Category: T
Facility Id: 006049-006264
Facility Type: 0
Facility Status: Removed
Area: 22
Permit Number: 00004158T
Permit Status: Removed

Region: LA
Permit Category: I
Facility Id: 006049-I06264
Facility Type: 01
Facility Status: Closed
Area: 22
Permit Number: 000002153
Permit Status: Closed

Region: LA
Permit Category: I
Facility Id: 006049-I06264
Facility Type: 01
Facility Status: Closed
Area: 22
Permit Number: 000066708
Permit Status: Closed

AI391 **SO-CAL** **LUST** **S105035483**
East **21629 FIGUEROA ST S** **N/A**
< 1/8 **CARSON, CA 90745**
0.080 mi.
423 ft. **Site 1 of 4 in cluster AI**

Relative:
Higher

Actual:
42 ft.

LUST:
Region: STATE
Global Id: T0603704563
Latitude: 33.8318781
Longitude: -118.2861434
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 02/24/1986
Lead Agency: LOS ANGELES COUNTY
Case Worker: GLM

SO-CAL (Continued) **S105035483**

Local Agency: LOS ANGELES COUNTY
RB Case Number: R-01507
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603704563
Contact Type: Local Agency Caseworker
Contact Name: GILLIAN MINTIER
Organization Name: LOS ANGELES COUNTY
Address: 900 SOUTH FREMONT AVE
City: ALHAMBRA
Email: gmintier@ladpw.org
Phone Number: Not reported

Global Id: T0603704563
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Status History:
Global Id: T0603704563
Status: Completed - Case Closed
Status Date: 02/24/1986

Global Id: T0603704563
Status: Open - Case Begin Date
Status Date: 09/30/1985

Global Id: T0603704563
Status: Open - Site Assessment
Status Date: 09/30/1985

Regulatory Activities:
Global Id: T0603704563
Action Type: Other
Date: 09/30/1985
Action: Leak Reported

Global Id: T0603704563
Action Type: ENFORCEMENT
Date: 02/24/1986
Action: Closure/No Further Action Letter

LUST REG 4:
Region: 4

SO-CAL (Continued) **S105035483**

Regional Board:	04	
County:	Los Angeles	
Facility Id:	R-01507	
Status:	Leak being confirmed	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Soil	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603704563	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19000	
Cross Street:	216TH	
Enforcement Type:	Not reported	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		9/30/1985
Date Leak Record Entered:	8/12/1987	
Date Confirmation Began:	9/30/1985	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		7/22/1988
Date the Case was Closed:		Not reported
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		5923.97085768057208183936 8943
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	SO-CAL	
RP Address:	Not reported	
Program:	LUST	
Lat/Long:	33.8321228 / -1	
Local Agency Staff:	Not reported	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	OLD CASE #004036	

AI392 **SO-CAL RACING FUEL CO** **SWEEPS UST** **S101617963**
East **21629 S FIGUEROA ST** **HIST UST** **N/A**
< 1/8 **CARSON, CA 90745** **CA FID UST**
0.080 mi. **LOS ANGELES CO. HMS**
423 ft. **Site 2 of 4 in cluster AI**

Relative:
Higher

Actual:
42 ft.

SWEEPS UST:

Status:	Active
Comp Number:	1507
Number:	9
Board Of Equalization:	Not reported
Referral Date:	06-30-89
Action Date:	Not reported
Created Date:	06-30-89
Owner Tank Id:	Not reported
SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

HIST UST:

File Number:	0002634C
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002634C.pdf
Region:	Not reported
Facility ID:	Not reported
Facility Type:	Not reported
Other Type:	Not reported
Contact Name:	Not reported
Telephone:	Not reported
Owner Name:	Not reported
Owner Address:	Not reported
Owner City,St,Zip:	Not reported
Total Tanks:	Not reported
Tank Num:	Not reported
Container Num:	Not reported
Year Installed:	Not reported
Tank Capacity:	Not reported
Tank Used for:	Not reported
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	Not reported

Click here for Geo Tracker PDF:

CA FID UST:

Facility ID:	19001284
Regulated By:	UTNKA
Regulated ID:	00050452
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	8180000000
Mail To:	Not reported
Mailing Address:	21629 S FIGUEROA ST

SO-CAL RACING FUEL CO (Continued) **S101617963**

Mailing Address 2: Not reported
Mailing City,St,Zip: CARSON
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

LOS ANGELES CO. HMS:
Region: LA
Permit Category: Not reported
Facility Id: 001434-001507
Facility Type: Not reported
Facility Status: Removed
Area: 22
Permit Number: Not reported
Permit Status: Not reported

Region: LA
Permit Category: I
Facility Id: 001434-037198
Facility Type: 01
Facility Status: Closed
Area: 22
Permit Number: 000351662
Permit Status: Closed

Region: LA
Permit Category: I
Facility Id: 001434-I01507
Facility Type: 01
Facility Status: Closed
Area: 22
Permit Number: 000006352
Permit Status: Closed

AI393 **SO-CAL** **HIST CORTESE** **S104159928**
East **21629 FIGUEROA** **N/A**
< 1/8 **CARSON, CA 90745**
0.080 mi.
423 ft. **Site 3 of 4 in cluster AI**

Relative:
Higher

Actual:
42 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: R-01507

394
North
< 1/8
0.089 mi.
469 ft.

1022 W 209TH ST
TORRANCE, CA 90502

Database(s): **EDR Hist Cleaner**
EDR ID Number: **1014969112**
EPA ID Number: **N/A**

Relative:
Lower

Actual:
32 ft.

EDR Historical Cleaners:

Name:	INZO CLEANING SERVICE
Year:	2004
Address:	1022 W 209TH ST

AI395
East
< 1/8
0.098 mi.
516 ft.

21618 FIGUEROA ST
CARSON, CA 90745
Site 4 of 4 in cluster AI

Database(s): **EDR Hist Cleaner**
EDR ID Number: **1015019160**
EPA ID Number: **N/A**

Relative:
Higher

Actual:
42 ft.

EDR Historical Cleaners:

Name:	MIKE CLEANERS
Year:	2001
Address:	21618 FIGUEROA ST
Name:	MIKE CLEANERS
Year:	2002
Address:	21618 FIGUEROA ST
Name:	MIKES CLEANERS
Year:	2003
Address:	21618 FIGUEROA ST
Name:	MIKES CLEANERS
Year:	2006
Address:	21618 FIGUEROA ST
Name:	MIKES CLEANERS
Year:	2008
Address:	21618 FIGUEROA ST

AG396
SE
< 1/8
0.098 mi.
518 ft.

LAUSD WHITE JUNIOR HIGH SCHOOL
22102 S FIGUEROA ST
CARSON, CA 90745
Site 6 of 6 in cluster AG

Database(s): **RCRA-SQG, FINDS, ECHO**
EDR ID Number: **1000378755**
EPA ID Number: **CAD982025108**

Relative:
Higher

Actual:
42 ft.

RCRA-SQG:

Date form received by agency:	08/20/1987
Facility name:	LAUSD WHITE JUNIOR HIGH SCHOOL
Facility address:	22102 S FIGUEROA ST CARSON, CA 90745
EPA ID:	CAD982025108
Mailing address:	1425 S SAN PEDRO ST RM 215 LOS ANGELES, CA 90015
Contact:	ENVIRONMENTAL MANAGER
Contact address:	22102 S FIGUEROA ST CARSON, CA 90745
Contact country:	US
Contact telephone:	(213) 742-7371
Contact email:	Not reported

LAUSD WHITE JUNIOR HIGH SCHOOL (Continued) **1000378755**

EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Municipal
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: LAUSD
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Municipal
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002780704

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

LAUSD WHITE JUNIOR HIGH SCHOOL (Continued) **1000378755**

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ECHO:
Envid: 1000378755
Registry ID: 110002780704
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002780704

AJ397 **EDR Hist Auto** **1015339063**
SSW **22410 NORMANDIE AVE** **N/A**
< 1/8 **TORRANCE, CA 90502**
0.103 mi.
543 ft. **Site 1 of 8 in cluster AJ**

Relative:
Higher

Actual:
49 ft.

EDR Historical Auto Stations:

Name: CERVANTES AUTO REPAIR
Year: 1999
Address: 22410 NORMANDIE AVE

Name: CERVANTES AUTO REPAIR
Year: 2001
Address: 22410 NORMANDIE AVE

Name: DOUGS AUTO BODY
Year: 2002
Address: 22410 NORMANDIE AVE

Name: CERVANTES AUTO REPAIR
Year: 2003
Address: 22410 NORMANDIE AVE

Name: DOUGS AUTO BODY
Year: 2004
Address: 22410 NORMANDIE AVE

Name: CERVANTES AUTO REPAIR
Year: 2005
Address: 22410 NORMANDIE AVE

Name: DOUGS AUTO BODY
Year: 2006
Address: 22410 NORMANDIE AVE

Name: DOUGS AUTO BODY
Year: 2007
Address: 22410 NORMANDIE AVE

Name: CERVANTES AUTO REPAIR
Year: 2008
Address: 22410 NORMANDIE AVE

Name: DOUGS AUTO BODY

(Continued) **1015339063**

Year: 2009
Address: 22410 NORMANDIE AVE

Name: DOUGS AUTO BODY
Year: 2010
Address: 22410 NORMANDIE AVE

Name: CERVANTES AUTO REPAIR
Year: 2011
Address: 22410 NORMANDIE AVE

Name: CERVANTES AUTO REPAIR
Year: 2012
Address: 22410 NORMANDIE AVE

AJ398 **EDR Hist Auto** **1015339074**
SSW **22414 NORMANDIE AVE** **N/A**
< 1/8 **TORRANCE, CA 90502**
0.108 mi.
569 ft. **Site 2 of 8 in cluster AJ**

Relative:
Higher

Actual:
49 ft.

EDR Historical Auto Stations:
Name: EWING COMPLETE AUTO SERVICE
Year: 1999
Address: 22414 NORMANDIE AVE

Name: PACIFIC BRAKE & LUBE
Year: 2001
Address: 22414 NORMANDIE AVE

Name: PACIFIC BRAKE & LUBE
Year: 2002
Address: 22414 NORMANDIE AVE

Name: YOSHI AUTO BODY
Year: 2003
Address: 22414 NORMANDIE AVE

AJ399 **JEFF BIGGS SURFBOARDS** **RCRA-SQG** **1000226652**
SSW **22414 S NORMANDIE UNIT F** **FINDS** **CAD982522419**
< 1/8 **TORRANCE, CA 90502** **HAZNET**
0.108 mi. **ECHO**
569 ft. **Site 3 of 8 in cluster AJ**

Relative:
Higher

Actual:
49 ft.

RCRA-SQG:
Date form received by agency: 04/05/1989
Facility name: JEFF BIGGS SURFBOARDS
Facility address: 22414 S NORMANDIE UNIT F
TORRANCE, CA 90502
EPA ID: CAD982522419
Mailing address: 22414 S NOMANDIE UNIT F
TORRANCE, CA 90502
Contact: ENVIRONMENTAL MANAGER
Contact address: 22414 S NORMANDIE UNIT F
TORRANCE, CA 90502
Contact country: US

JEFF BIGGS SURFBOARDS (Continued) **1000226652**

Contact telephone: (213) 618-9118
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: JEFF BIGGS
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110009547605

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of

JEFF BIGGS SURFBOARDS (Continued) **1000226652**

events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:

envid:	1000226652
Year:	1994
GEPAID:	CAD982522419
Contact:	Not reported
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	22414 S NOMANDIE UNIT F
Mailing City,St,Zip:	TORRANCE, CA 905020000
Gen County:	Not reported
TSD EPA ID:	CAD089446710
TSD County:	Not reported
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Recycler
Tons:	.2293
Cat Decode:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Method Decode:	Recycler
Facility County:	Los Angeles

envid:	1000226652
Year:	1993
GEPAID:	CAD982522419
Contact:	Not reported
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	22414 S NOMANDIE UNIT F
Mailing City,St,Zip:	TORRANCE, CA 905020000
Gen County:	Not reported
TSD EPA ID:	CAD089446710
TSD County:	Not reported
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Recycler
Tons:	0.2293
Cat Decode:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Method Decode:	Recycler
Facility County:	Los Angeles

ECHO:

Envid:	1000226652
Registry ID:	110009547605
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110009547605

AJ400 **SOUTH BAY CORVETTE** **RCRA-SQG** **1000404983**
SSW **22414 NORMANDIE** **FINDS** **CAD982011132**
< 1/8 **TORRANCE, CA 90502** **ECHO**
0.108 mi.
569 ft. **Site 4 of 8 in cluster AJ**

Relative:
Higher

Actual:
49 ft.

RCRA-SQG:

Date form received by agency:	07/09/1987
Facility name:	SOUTH BAY CORVETTE
Facility address:	22414 NORMANDIE TORRANCE, CA 90502
EPA ID:	CAD982011132
Mailing address:	NORMANDIE TORRANCE, CA 90502
Contact:	ENVIRONMENTAL MANAGER
Contact address:	22414 NORMANDIE TORRANCE, CA 90502
Contact country:	US
Contact telephone:	(213) 618-1997
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	JIM BELSOLE OWNER
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No

SOUTH BAY CORVETTE (Continued) **1000404983**

Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002775694

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ECHO:
Envid: 1000404983
Registry ID: 110002775694
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002775694

AJ401 **SERVICE TECH** **RCRA-SQG** **1001217427**
SSW **22414 S NORMANDIE AVE UNIT G** **FINDS** **CAR000034264**
< 1/8 **TORRANCE, CA 90502** **ECHO**
0.108 mi.
569 ft. **Site 5 of 8 in cluster AJ**

Relative:
Higher

Actual:
49 ft.

RCRA-SQG:
Date form received by agency: 12/02/1997
Facility name: SERVICE TECH
Facility address: 22414 S NORMANDIE AVE UNIT G
TORRANCE, CA 90502
EPA ID: CAR000034264
Contact: LANCE NAKAMA
Contact address: 22414 S NORMANDIE AVE UNIT G
TORRANCE, CA 90502
Contact country: US
Contact telephone: (310) 212-6267
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: LANCE NAKAMA
Owner/operator address: 22414 S NORMANDIE AVE UNIT G

SERVICE TECH (Continued) **1001217427**

TORRANCE, CA 90502
Owner/operator country: Not reported
Owner/operator telephone: (310) 212-6267
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D008
. Waste name: LEAD

Violation Status: No violations found

FINDS:

Registry ID: 110009553189

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ECHO:
Envid: 1001217427
Registry ID: 110009553189
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110009553189

AJ402
SSW
< 1/8
0.110 mi.
581 ft.

22416 NORMANDIE AVE
TORRANCE, CA 90502

Site 6 of 8 in cluster AJ

EDR Hist Auto **1015339078**
N/A

Relative:
Higher

Actual:
49 ft.

EDR Historical Auto Stations:

Name:	CLASSIC AUTO HOUSE
Year:	1999
Address:	22416 NORMANDIE AVE
Name:	EUROPEAN AUTO REPAIR
Year:	2001
Address:	22416 NORMANDIE AVE
Name:	JUAREZ BODY SHOP
Year:	2002
Address:	22416 NORMANDIE AVE
Name:	JUAREZ BODY SHOP
Year:	2003
Address:	22416 NORMANDIE AVE

403
NNE
< 1/8
0.116 mi.
614 ft.

GARDENA VALLEY 1 & 2
20740 S. FIGUEROA, 225-305W TORRANCE BL
CARSON, CA

SWF/LF **S102360891**
N/A

Relative:
Lower

Actual:
39 ft.

SWF/LF (SWIS):

Region:	STATE
Facility ID:	19-AQ-0010
Lat/Long:	33.83333 / -118.28333
Owner Name:	London Pacific Investments
Owner Telephone:	3107871000
Owner Address:	Not reported
Owner Address2:	1010 Crenshaw Blvd Suite 100
Owner City,St,Zip:	Torrance, CA 90501
Operational Status:	Closed
Operator:	Not reported
Operator Phone:	Not reported
Operator Address:	Not reported
Operator Address2:	Not reported
Operator City,St,Zip:	Not reported
Permit Date:	Not reported
Permit Status:	Not reported
Permitted Acreage:	$0.00
Activity:	Solid Waste Disposal Site
Regulation Status:	To Be Determined
Landuse Name:	Urban,Commercial
GIS Source:	Map
Category:	Disposal
Unit Number:	01
Inspection Frequency:	Quarterly
Accepted Waste:	Not reported
Closure Date:	10/01/1959
Closure Type:	Estimated
Disposal Acreage:	$0.00
SWIS Num:	19-AQ-0010

Waste Discharge Requirement Num: Not reported

GARDENA VALLEY 1 & 2 (Continued) **S102360891**

Program Type: Not reported
Permitted Throughput with Units: Not reported
Actual Throughput with Units: Not reported
Permitted Capacity with Units: Not reported
Remaining Capacity: Not reported
Remaining Capacity with Units: Not reported
Lat/Long: 33.83333 / -118.28333

AJ404 **EOS ENTERPRISES INC** **RCRA NonGen / NLR** **1000112695**
SSW **22424 S NORMANDIE AVE** **FINDS** **CAD067780866**
< 1/8 **TORRANCE, CA 90502** **ECHO**
0.120 mi.
631 ft. **Site 7 of 8 in cluster AJ**

Relative:
Higher

Actual:
49 ft.

RCRA NonGen / NLR:
Date form received by agency: 03/25/1982
Facility name: EOS ENTERPRISES INC
Facility address: 22424 S NORMANDIE AVE
TORRANCE, CA 90502
EPA ID: CAD067780866
Mailing address: S NORMANDIE AVE
TORRANCE, CA 90502
Contact: ENVIRONMENTAL MANAGER
Contact address: 22424 S NORMANDIE AVE
TORRANCE, CA 90502
Contact country: US
Contact telephone: (213) 320-0643
Contact email: Not reported
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No

EOS ENTERPRISES INC (Continued) **1000112695**

Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

FINDS:

Registry ID: 110002655519

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ECHO:

Envid:	1000112695
Registry ID:	110002655519
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110002655519

AJ405 **EDR Hist Auto** **1015339129**
SSW **22424 NORMANDIE AVE** **N/A**
< 1/8 **TORRANCE, CA 90502**
0.120 mi.
631 ft. **Site 8 of 8 in cluster AJ**

Relative:
Higher

Actual:
49 ft.

EDR Historical Auto Stations:

Name:	CAR PARTS EXPRESS & AUTO RPR
Year:	2010
Address:	22424 NORMANDIE AVE
Name:	CAR PARTS EXPRESS & AUTO REPAIR
Year:	2012
Address:	22424 NORMANDIE AVE

406 SSW < 1/8 0.120 mi. 631 ft.

SIMPSON SPORTS
22412 SOUTH NORMANDIE AVE
TORRANCE, CA 90502

Database(s): RCRA-SQG, FINDS, ECHO

EDR ID Number: 1000349900
EPA ID Number: CAT080028657

Relative: Higher

Actual: 48 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	SIMPSON SPORTS
Facility address:	22412 SOUTH NORMANDIE AVE TORRANCE, CA 90502
EPA ID:	CAT080028657
Mailing address:	22630 SOUTH NORMANDIE AVE TORRANCE, CA 90502
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No

SIMPSON SPORTS (Continued) **1000349900**

Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/30/1981
Site name: SIMPSON SPORTS
Classification: Large Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110002954688

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ECHO:
Envid: 1000349900
Registry ID: 110002954688
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002954688

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407 South 1/8-1/4 0.165 mi. 873 ft.

Relative: Higher

Actual: 41 ft.

AERO ARC **RCRA-SQG** **1001967511**
22433 S VERMONT AVE **CAR000069955**
TORRANCE, CA 90502

RCRA-SQG:
Date form received by agency: 04/23/2001
Facility name: AERO ARC
Facility address: 22433 S VERMONT AVE
TORRANCE, CA 90502
EPA ID: CAR000069955
Contact: N L JUSTICE
Contact address: 22433 S VERMONT AVE
TORRANCE, CA 90502
Contact country: US
Contact telephone: (310) 381-0130
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of

AERO ARC (Continued) **1001967511**

hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: AERO ARC
Owner/operator address: 22433 S VERMONT AVE
TORRANCE, CA 90502
Owner/operator country: Not reported
Owner/operator telephone: (310) 381-0130
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

Violation Status: No violations found

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408 West 1/8-1/4 0.175 mi. 922 ft.

K & K AUTO PARTS
1407 W CARSON STREET
TORRANCE, CA 90504

RCRA-SQG 1000121167
FINDS CAD981463094
ECHO

Relative: Higher

Actual: 52 ft.

RCRA-SQG:
Date form received by agency: 04/01/1986
Facility name: K & K AUTO PARTS
Facility address: 1407 W CARSON STREET
TORRANCE, CA 90504
EPA ID: CAD981463094
Contact: ENVIRONMENTAL MANAGER
Contact address: 1407 W CARSON STREET
TORRANCE, CA 90504
Contact country: US
Contact telephone: (213) 328-2204
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous

K & K AUTO PARTS (Continued) **1000121167**

waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	K & K & T AUTO PARTS
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

FINDS:

Registry ID: 110002716053

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

K & K AUTO PARTS (Continued) **1000121167**

ECHO:
Envid: 1000121167
Registry ID: 110002716053
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002716053

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409 North 1/8-1/4 0.176 mi. 931 ft. **ROYAL BOULEVARD CLASS III DISPOSAL SITE** **ENVIROSTOR** **S100183993**
ROYAL BLVD BTWN 209TH AND 210TH STREETS **N/A**
TORRANCE, CA 90502

Relative: Lower

Actual: 37 ft.

ENVIROSTOR:
Facility ID: 19490205
Status: No Further Action
Status Date: 11/09/2010
Site Code: 400123
Site Type: Evaluation
Site Type Detailed: Evaluation
Acres: 7.3
NPL: NO
Regulatory Agencies: RWQCB 4 - Los Angeles
Lead Agency: RWQCB 4 - Los Angeles
Program Manager: Tayseer Mahmoud
Supervisor: Eileen Mananian
Division Branch: Cleanup Cypress
Assembly: 66
Senate: 35
Special Program: EPA - PASI
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 33.83889
Longitude: -118.2946
APN: NONE SPECIFIED
Past Use: LANDFILL - DOMESTIC
Potential COC: * UNSPECIFIED SLUDGE WASTE * BAGHOUSE WASTE * OTHER SPENT CATALYST
Lead Cadmium and compounds
Confirmed COC: NONE SPECIFIED
Potential Description: SOIL
Alias Name: ROYAL BOULEVARD LAND RECLAMATION SITE
Alias Type: Alternate Name
Alias Name: P43081
Alias Type: PCode
Alias Name: 400123
Alias Type: Project Code (Site Code)
Alias Name: 19490205
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: PA/SI Site Screening
Completed Date: 02/13/2009
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported

ROYAL BOULEVARD CLASS III DISPOSAL SITE (Continued) **S100183993**

Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

AK410 **ROYAL BOULEVARD LANDFILL** **SWF/LF** **S102360634**
North **20950 S. ROYAL BOULEVARD** **LDS** **N/A**
1/8-1/4 **TORRANCE, CA 90502**
0.182 mi.
961 ft. **Site 1 of 2 in cluster AK**

Relative:
Lower

Actual:
29 ft.

SWF/LF (SWIS):

Region:	STATE
Facility ID:	19-AA-0054
Lat/Long:	33.84028 / -118.29472
Owner Name:	Armco, Inc.
Owner Telephone:	5134255485
Owner Address:	Not reported
Owner Address2:	P.O. Box 600
Owner City,St,Zip:	Middletown, OH 45043
Operational Status:	Closed
Operator:	Armco, Inc.
Operator Phone:	5134255485
Operator Address:	Not reported
Operator Address2:	P.O. Box 600
Operator City,St,Zip:	Middletown, OH 45043
Permit Date:	Not reported
Permit Status:	Not reported
Permitted Acreage:	$0.00
Activity:	Solid Waste Disposal Site
Regulation Status:	Unpermitted
Landuse Name:	Residential,Commercial
GIS Source:	Map
Category:	Disposal
Unit Number:	01
Inspection Frequency:	Annual
Accepted Waste:	Not reported
Closure Date:	12/31/1987
Closure Type:	Estimated
Disposal Acreage:	$0.00
SWIS Num:	19-AA-0054
Waste Discharge Requirement Num:	Not reported
Program Type:	Not reported
Permitted Throughput with Units:	Not reported
Actual Throughput with Units:	Not reported
Permitted Capacity with Units:	Not reported
Remaining Capacity:	Not reported
Remaining Capacity with Units:	Not reported
Lat/Long:	33.84028 / -118.29472

LDS:

Global Id:	T10000003363
Latitude:	33.83975
Longitude:	-118.2947

ROYAL BOULEVARD LANDFILL (Continued) **S102360634**

Case Type:	Land Disposal Site
Status:	Completed - Case Closed
Status Date:	10/31/2013
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Caseworker:	EC
Local Agency:	Not reported
RB Case Number:	4B190302001
LOC Case Number:	Not reported
File Location:	Regional Board
Potential Media Affect:	Not reported
EDR Link ID:	T10000003363
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

AK411 **ROYAL BLVD. DUMP** **WMUDS/SWAT** **S103319239**
North **20950 S. ROYAL BLVD.** **N/A**
1/8-1/4 **CARSON, CA 90749**
0.188 mi.
995 ft. **Site 2 of 2 in cluster AK**

Relative:
Lower

Actual:
28 ft.

WMUDS/SWAT:

Edit Date:	Not reported
Complexity:	Not reported
Primary Waste:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Base Meridian:	SB
NPID:	Not reported
Tonnage:	0
Regional Board ID:	Not reported
Municipal Solid Waste:	False
Superorder:	False
Open To Public:	False
Waste List:	False
Agency Type:	Not reported
Agency Name:	NAT'L SUPPLY CO.
Agency Department:	Not reported
Agency Address:	1524 BORDER AVE
Agency City,St,Zip:	TORRANCE 90501
Agency Contact:	Not reported
Agency Telephone:	2137751141
Land Owner Name:	NAT'L SUPPLY CO
Land Owner Address:	1524 BORDER AVE
Land Owner City,St,Zip:	TORRANCE, CA 90501
Land Owner Contact:	Not reported
Land Owner Phone:	2137751141
Region:	4
Facility Type:	Not reported
Facility Description:	Not reported
Facility Telephone:	Not reported
SWAT Facility Name:	ROYAL BLVD. DUMP
Primary SIC:	Not reported
Secondary SIC:	Not reported
Comments:	Not reported

ROYAL BLVD. DUMP (Continued) **S103319239**

Last Facility Editors:	Not reported
Waste Discharge System:	False
Solid Waste Assessment Test Program:	True
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act:	False
Department of Defence:	False
Solid Waste Assessment Test Program:	NAT'L SUPPLY CO.
Threat to Water Quality:	Not reported
Sub Chapter 15:	False
Regional Board Project Officer:	LT
Number of WMUDS at Facility:	1
Section Range:	Not reported
RCRA Facility:	Not reported
Waste Discharge Requirements:	Not reported
Self-Monitoring Rept. Frequency:	Not reported
Waste Discharge System ID:	4 190243NUR
Solid Waste Information ID:	19-AA-0054

412
SSW
1/8-1/4
0.191 mi.
1010 ft.

M CS UNLIMITED
22517 NORMANDIE AVE
TORRANCE, CA 90501

RCRA-SQG **1000151431**
FINDS **CAD982321267**
ECHO

Relative:
Higher

Actual:
50 ft.

RCRA-SQG:

Date form received by agency:	11/19/1991
Facility name:	M CS UNLIMITED
Facility address:	22517 NORMANDIE AVE TORRANCE, CA 90501
EPA ID:	CAD982321267
Contact:	RICHARD LOPEZ
Contact address:	22517 NORMANDIE AVE TORRANCE, CA 90501
Contact country:	US
Contact telephone:	(213) 320-2066
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	RICHARD LOPEZ
Owner/operator address:	22517 NORMANDIE AVE TORRANCE, CA 90501
Owner/operator country:	Not reported
Owner/operator telephone:	(213) 320-2066
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported
Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED

M CS UNLIMITED (Continued) **1000151431**

NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002793709

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ECHO:
Envid: 1000151431
Registry ID: 110002793709
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002793709

AL413 **CITY OF CARSON - HURD & SNOW ENTERPRISES** **SLIC** **S106387034**
NE **329 TORRANCE** **N/A**
1/8-1/4 **CARSON, CA 90745**
0.199 mi.
1052 ft. **Site 1 of 3 in cluster AL**

Relative:
Lower

Actual:
28 ft.

SLIC:
Region: STATE
Facility Status: **Open - Inactive**
Status Date: 01/21/2015
Global Id: SLT43310308
Lead Agency: LOS ANGELES RWQCB (REGION 4)

CITY OF CARSON - HURD & SNOW ENTERPRISES (Continued) **S106387034**

Lead Agency Case Number:	Not reported
Latitude:	33.842045
Longitude:	-118.284561
Case Type:	Cleanup Program Site
Case Worker:	AGH
Local Agency:	Not reported
RB Case Number:	0496E1
File Location:	Not reported
Potential Media Affected:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

SLIC REG 4:

Region:	4
Facility Status:	Site Assessment
SLIC:	0496E1
Substance:	Not reported
Staff:	SSH

AM414 **NORMANDIE AVE. PROPERTY** **ENVIROSTOR** **S107027307**
NW **21000 NORMANDIE AVE.** **N/A**
1/8-1/4 **LOS ANGELES, CA 90502**
0.204 mi.
1078 ft. **Site 1 of 2 in cluster AM**

Relative:
Higher

Actual:
41 ft.

ENVIROSTOR:

Facility ID:	19650040
Status:	Refer: 1248 Local Agency
Status Date:	12/19/2002
Site Code:	Not reported
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Referred - Not Assigned
Division Branch:	Cleanup Cypress
Assembly:	55
Senate:	Not reported
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not Applicable
Latitude:	0
Longitude:	0
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	19650040
Alias Type:	Envirostor ID Number

NORMANDIE AVE. PROPERTY (Continued) **S107027307**

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

AM415 **MCDONNELL DOUGLAS AEROSPACE TA** **RCRA-SQG** **1000235712**
NW **21000 S NORMANDIE AVE** **FINDS** **CAD982014763**
1/8-1/4 **TORRANCE, CA 90502** **ECHO**
0.204 mi.
1078 ft. **Site 2 of 2 in cluster AM**

Relative:
Higher

Actual:
41 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	MCDONNELL DOUGLAS AEROSPACE TA
Facility address:	21000 S NORMANDIE AVE TORRANCE, CA 90502
EPA ID:	CAD982014763
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported
Owner/operator name:	MCDONNELL DOUGLAS CORP
Owner/operator address:	P O BOX 516 ST LOUIS, MO 63166

MCDONNELL DOUGLAS AEROSPACE TA (Continued) **1000235712**

Owner/operator country: Not reported
Owner/operator telephone: (314) 232-0232
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 02/02/1996
Site name: MCDONNELL DOUGLAS
Classification: Large Quantity Generator

Date form received by agency: 03/28/1994
Site name: MCDONNELL DOUGLAS AEROSPACE
Classification: Large Quantity Generator

Date form received by agency: 05/10/1993
Site name: MCDONNELL DOUGLAS AEROSPACE TA
Classification: Large Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110000898789

Environmental Interest/Information System
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ECHO:
Envid: 1000235712
Registry ID: 110000898789
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110000898789

AL416 **CITY OF CARSON - HICKS FAMILY PROPERTY** **SLIC** **S106387035**
NE **321 TORRANCE** **N/A**
1/8-1/4 **CARSON, CA 90745**
0.209 mi.
1106 ft. **Site 2 of 3 in cluster AL**

Relative:
Lower

Actual:
28 ft.

SLIC:

Region:	STATE
Facility Status:	**Open - Inactive**
Status Date:	01/21/2015
Global Id:	SLT43311309
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number:	Not reported
Latitude:	33.842045
Longitude:	-118.284561
Case Type:	Cleanup Program Site
Case Worker:	AGH
Local Agency:	Not reported
RB Case Number:	0496E2
File Location:	Not reported
Potential Media Affected:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

SLIC REG 4:

Region:	4
Facility Status:	Site Assessment
SLIC:	0496E2
Substance:	Not reported
Staff:	SSH

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417 **ROLLINS LEASING CORP FACI** **HIST CORTESE** **S110060838**
NNE **20425 HAMILTON** **N/A**
1/8-1/4 **CARSON, CA 90745**
0.224 mi.
1182 ft.

Relative:
Lower

Actual:
31 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	R-06281

AL418 **CITY OF CARSON - HICKS FAMILY PROPERTY** **SLIC** **S106387036**
NE **315 TORRANCE BLVD** **N/A**
1/8-1/4 **CARSON, CA 90745**
0.226 mi.
1195 ft. **Site 3 of 3 in cluster AL**

Relative:
Lower

Actual:
27 ft.

SLIC:

Region:	STATE
Facility Status:	**Open - Inactive**
Status Date:	01/21/2015
Global Id:	SLT43312310
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number:	Not reported

CITY OF CARSON - HICKS FAMILY PROPERTY (Continued) **S106387036**

Latitude:	33.842045
Longitude:	-118.284561
Case Type:	Cleanup Program Site
Case Worker:	AGH
Local Agency:	Not reported
RB Case Number:	0496E3
File Location:	Not reported
Potential Media Affected:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

SLIC REG 4:

Region:	4
Facility Status:	Site Assessment
SLIC:	0496E3
Substance:	Not reported
Staff:	SSH

AN419 **AST** **A100344715**
NNE **20425 S HAMILTON AVE** **N/A**
1/8-1/4 **TORRANCE, CA**
0.236 mi.
1246 ft. **Site 1 of 9 in cluster AN**

Relative:
Lower

Actual:
30 ft.

AST:

Certified Unified Program Agencies:	Los Angeles County
Owner:	PENSKE TRUCK LEASING CO LP
Total Gallons:	3702
CERSID:	Not reported
Facility ID:	Not reported
Business Name:	Not reported
Phone:	Not reported
Fax:	Not reported
Mailing Address:	Not reported
Mailing Address City:	Not reported
Mailing Address State:	Not reported
Mailing Address Zip Code:	Not reported
Operator Name:	Not reported
Operator Phone:	Not reported
Owner Phone:	Not reported
Owner Mail Address:	Not reported
Owner State:	Not reported
Owner Zip Code:	Not reported
Owner Country:	Not reported
Property Owner Name:	Not reported
Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	Not reported

AN420 **PENSKE TRUCK LEASING CO., LP** **AST** **A100423248**
NNE **20425 S HAMILTON AVE** **N/A**
1/8-1/4 **TORRANCE, CA 90502**
0.236 mi.
1246 ft. **Site 2 of 9 in cluster AN**

Relative: **Lower**

Actual: **30 ft.**

AST:

Certified Unified Program Agencies:	Not reported
Owner:	PENSKE TRUCK LEASING CO., L.P.
Total Gallons:	Not reported
CERSID:	10174255
Facility ID:	LACoFA0013219
Business Name:	Penske Truck Leasing Co., L.P.
Phone:	(310) 532-0404
Fax:	610-775-6442
Mailing Address:	RTE 10 GREEN HILLS PO BOX 7635
Mailing Address City:	READING
Mailing Address State:	PA
Mailing Address Zip Code:	Not reported
Operator Name:	Penske Truck Leasing Co., LP
Operator Phone:	(610) 775-6471
Owner Phone:	(610) 775-6298
Owner Mail Address:	ROUTE 10 GREEN HILLS, P. O. BOX 7635
Owner State:	PA
Owner Zip Code:	Not reported
Owner Country:	United States
Property Owner Name:	Penske Truck Leasing Co., LP
Property Owner Phone:	610-775-6298
Property Owner Mailing Address:	Route 10, Green Hills, P O Box 7635
Property Owner City:	Reading
Property Owner Stat :	PA
Property Owner Zip Code:	Not reported
Property Owner Country:	United States
EPAID:	CAL000183651

AN421 **ROLLINS LEASING CORP - BR#147B** **UST** **U003941385**
NNE **20425 HAMILTON AVE** **N/A**
1/8-1/4 **TORRANCE, CA 90502**
0.236 mi.
1246 ft. **Site 3 of 9 in cluster AN**

Relative: **Lower**

Actual: **30 ft.**

UST:

Facility ID:	6281
Permitting Agency:	LOS ANGELES COUNTY
Latitude:	33.846872
Longitude:	-118.285769

AN422 **PENSKE TRUCK LEASING** **RCRA NonGen / NLR** **1000285903**
NNE **20425 SOUTH HAMILTON AVENUE** **FINDS** **CAD982344897**
1/8-1/4 **TORRANCE, CA 90502** **ECHO**
0.236 mi.
1246 ft. **Site 4 of 9 in cluster AN**

Relative: **Lower**

Actual: **30 ft.**

RCRA NonGen / NLR:

Date form received by agency:	06/19/2001
Facility name:	ROLLINGS LEASING CORP
Facility address:	20425 SOUTH HAMILTON TORRANCE, CA 90502

PENSKE TRUCK LEASING (Continued) **1000285903**

EPA ID: CAD982344897
Contact: BRIAN YAZEMBOSKI
Contact address: RTE 10 GREEN HILLS P O BOX 563
READING, PA 19603
Contact country: US
Contact telephone: (610) 603-8450
Contact email: Not reported
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: LACTC
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002628425

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource

PENSKE TRUCK LEASING (Continued) **1000285903**

Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

ECHO:

Envid:	1000285903
Registry ID:	110002628425
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110002628425

AN423 **BRITE SOL CLEANING DIV MATLACK INC** **RCRA NonGen / NLR** **1000397678**
NNE **20425 S HAMILTON AVE** **CAD980880835**
1/8-1/4 **TORRANCE, CA 90502**
0.236 mi.
1246 ft. **Site 5 of 9 in cluster AN**

Relative:
Lower

Actual:
30 ft.

RCRA NonGen / NLR:

Date form received by agency:	09/19/2001
Facility name:	BRITE SOL CLEANING DIV MATLACK INC
Facility address:	20425 S HAMILTON AVE TORRANCE, CA 90502
EPA ID:	CAD980880835
Contact:	PAUL MOYER
Contact address:	1 ROLLINS PLAZA P O BOX 8789 WILMINGTON, DE 19899
Contact country:	US
Contact telephone:	(302) 426-2944
Contact email:	Not reported
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	MATLACK INC
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

BRITE SOL CLEANING DIV MATLACK INC (Continued) **1000397678**

Handler Activities Summary:
- U.S. importer of hazardous waste: No
- Mixed waste (haz. and radioactive): No
- Recycler of hazardous waste: No
- Transporter of hazardous waste: No
- Treater, storer or disposer of HW: No
- Underground injection activity: No
- On-site burner exemption: No
- Furnace exemption: No
- Used oil fuel burner: No
- Used oil processor: No
- User oil refiner: No
- Used oil fuel marketer to burner: No
- Used oil Specification marketer: No
- Used oil transfer facility: No
- Used oil transporter: No

Historical Generators:
- Date form received by agency: 09/01/1996
- Site name: BRITE SOL CLEANING DIV MATLACK INC
- Classification: Small Quantity Generator

Violation Status: No violations found

AN424 **PENSKE TRUCK LEASING** **RCRA NonGen / NLR** **1000249938**
NNE **20425 S HAMILTON AVE** **LOS ANGELES CO. HMS** **CAD000630046**
1/8-1/4 **TORRANCE, CA 90502**
0.236 mi.
1246 ft. **Site 6 of 9 in cluster AN**

Relative:
Lower

Actual:
30 ft.

RCRA NonGen / NLR:
- Date form received by agency: 12/27/2001
- Facility name: PENSKE TRUCK LEASING
- Facility address: 20425 S HAMILTON AVE
  TORRANCE, CA 90502
- EPA ID: CAD000630046
- Mailing address: RTE 10 GREEN HILLS
  P O BOX 7635
  READING, PA 19603
- Contact: MICHAEL COSTANZA
- Contact address: RTE 10 GREEN HILLS P O BOX 563
  READING, PA 19603
- Contact country: US
- Contact telephone: (610) 775-6471
- Contact email: Not reported
- EPA Region: 09
- Classification: Non-Generator
- Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
- Owner/operator name: PENSKE TRUCK LEASING CO L P
- Owner/operator address: RTE 10 GREEN HILLS P O BOX 563
  READING, PA 19603
- Owner/operator country: Not reported
- Owner/operator telephone: (610) 775-6000
- Legal status: Private
- Owner/Operator Type: Owner

PENSKE TRUCK LEASING (Continued) **1000249938**

Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D008
. Waste name: LEAD

. Waste code: D018
. Waste name: BENZENE

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: D040
. Waste name: TRICHLORETHYLENE

Historical Generators:
Date form received by agency: 09/01/1996
Site name: PENSKE TRUCK LEASING
Classification: Small Quantity Generator

Violation Status: No violations found

LOS ANGELES CO. HMS:
Region: LA
Permit Category: T
Facility Id: 009066-037673
Facility Type: 0
Facility Status: Permit
Area: 2
Permit Number: 000355162

PENSKE TRUCK LEASING (Continued) **1000249938**

Permit Status: Permit

Region: LA
Permit Category: S
Facility Id: 009066-038819
Facility Type: S5
Facility Status: Permit
Area: 2
Permit Number: 000529866
Permit Status: Permit

AN425 **PENSKE TRUCK PARKING LOT IMPROVEMENT** **LUST U001564104**
NNE **20425 HAMILTON AVE** **NPDES N/A**
1/8-1/4 **TORRANCE, CA 90502**
0.236 mi.
1246 ft. **Site 7 of 9 in cluster AN**

Relative:
Lower

Actual:
30 ft.

LUST:

Region:	STATE
Global Id:	T0603704727
Latitude:	33.845552
Longitude:	-118.287068
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	09/18/1997
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	JP
Local Agency:	LOS ANGELES COUNTY
RB Case Number:	R-06281
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Aviation
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603704727
Contact Type:	Local Agency Caseworker
Contact Name:	JOHN AWUJO
Organization Name:	LOS ANGELES COUNTY
Address:	900 S FREMONT AVE
City:	ALHAMBRA
Email:	jawujo@dpw.lacounty.gov
Phone Number:	6264583507

Global Id:	T0603704727
Contact Type:	Regional Board Caseworker
Contact Name:	JOSE PEREYRA
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	Not reported
City:	R4 UNKNOWN
Email:	Not reported
Phone Number:	Not reported

Status History:

Global Id:	T0603704727

PENSKE TRUCK PARKING LOT IMPROVEMENT (Continued) **U001564104**

Status: Completed - Case Closed
Status Date: 09/18/1997

Global Id: T0603704727
Status: Open - Case Begin Date
Status Date: 10/08/1987

Global Id: T0603704727
Status: Open - Site Assessment
Status Date: 07/07/1988

Regulatory Activities:
Global Id: T0603704727
Action Type: Other
Date: 10/08/1987
Action: Leak Reported

NPDES:
Npdes Number: CAS000002
Facility Status: Terminated
Agency Id: 0
Region: 4
Regulatory Measure Id: 424620
Order No: 2009-0009-DWQ
Regulatory Measure Type: Enrollee
Place Id: Not reported
WDID: 4 19C363196
Program Type: Construction
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 03/13/2012
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: 09/17/2013
Discharge Name: Penske Truck Leasing Co LP
Discharge Address: Rt 10 Green Hills PO Box 563
Discharge City: Reading
Discharge State: Pennsylvania
Discharge Zip: 19608
RECEIVED DATE: Not reported
PROCESSED DATE: Not reported
STATUS CODE NAME: Not reported
STATUS DATE: Not reported
PLACE SIZE: Not reported
PLACE SIZE UNIT: Not reported
FACILITY CONTACT NAME: Not reported
FACILITY CONTACT TITLE: Not reported
FACILITY CONTACT PHONE: Not reported
FACILITY CONTACT PHONE EXT: Not reported
FACILITY CONTACT EMAIL: Not reported
OPERATOR NAME: Not reported
OPERATOR ADDRESS: Not reported
OPERATOR CITY: Not reported
OPERATOR STATE: Not reported
OPERATOR ZIP: Not reported
OPERATOR CONTACT NAME: Not reported
OPERATOR CONTACT TITLE: Not reported

PENSKE TRUCK PARKING LOT IMPROVEMENT (Continued) **U001564104**

OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	4
Regulatory Measure Id:	424620
Order No:	Not reported
Regulatory Measure Type:	Construction
Place Id:	Not reported
WDID:	4 19C363196
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported

PENSKE TRUCK PARKING LOT IMPROVEMENT (Continued) **U001564104**

Discharge Zip:	Not reported
RECEIVED DATE:	3/8/2012
PROCESSED DATE:	3/13/2012
STATUS CODE NAME:	Active
STATUS DATE:	3/13/2012
PLACE SIZE:	5.1
PLACE SIZE UNIT:	52
FACILITY CONTACT NAME:	Joseph McQuillen
FACILITY CONTACT TITLE:	Senior Regional Facilities Manager
FACILITY CONTACT PHONE:	480-633-0756
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	joe.mcquillen@penske.com
OPERATOR NAME:	Penske Truck Leasing Co LP
OPERATOR ADDRESS:	Rt 10 Green Hills PO Box 563
OPERATOR CITY:	Reading
OPERATOR STATE:	Pennsylvania
OPERATOR ZIP:	19608
OPERATOR CONTACT NAME:	Joseph McQuillen
OPERATOR CONTACT TITLE:	Senior Regional Facilities Manager
OPERATOR CONTACT PHONE:	480-633-0756
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	joe.mcquillen@penske.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Penske Truck Leasing Co LP
DEVELOPER ADDRESS:	Rt 10 Green Hills PO Box 563
DEVELOPER CITY:	Reading
DEVELOPER STATE:	Arizona
DEVELOPER ZIP:	19608
DEVELOPER CONTACT NAME:	Joseph McQuillen
DEVELOPER CONTACT TITLE:	Senior Regional Facilities Manager
CONSTYPE LINEAR UTILITY IND:	N
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Y
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Torrance Carson Channel, to Dominguez Channel, to Los Angeles Harbor, to Pacific Ocear
CERTIFIER NAME:	Joseph McQuillen
CERTIFIER TITLE:	Sr Regional Facilities Manager
CERTIFICATION DATE:	08-MAR-12
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

AN426 **ROLLINS LEASING CORP FACILITY** **LUST** **S104025616**
NNE **20425 HAMILTON AVE** **N/A**
1/8-1/4 **TORRANCE, CA 90502**
0.236 mi.
1246 ft. **Site 8 of 9 in cluster AN**

Relative:
Lower

Actual:
30 ft.

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	R-06281	
Status:	Case Closed	
Substance:	1	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603704727	
W Global ID:	Not reported	
Staff:	JP	
Local Agency:	19000	
Cross Street:	DEL AMO BLVD W	
Enforcement Type:	Not reported	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		10/8/1987
Date Leak Record Entered:	3/23/1988	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		5/2/1997
Date the Case was Closed:		9/18/1997
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	Not reported	
Leak Source:	Not reported	
Operator:	OLD CASE #907450107	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		7480.98238671608102550299656 72
Source of Cleanup Funding:		Not reported
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		7/7/1988
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	ROLLINS LEASING CORP.	
RP Address:	ONE ROLLINS PLAZA, WILMINGTON, DE 19803	
Program:	LUST	
Lat/Long:	33.8459445 / -1	
Local Agency Staff:	Not reported	

ROLLINS LEASING CORP FACILITY (Continued) **S104025616**

Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: ADDITIONAL INFO RESPONSE. INSUFFICIENT INFO IN FILE. AWAITING ADD'L INFO EXTENDED SITE ADDRESS S/B 20425 NOT 20423 HAMILTON AVE

AN427 **ROLLINS LEASING CORP** **HIST UST** **1000286233**
NNE **20425 S HAMILTON AVE** **RCRA NonGen / NLR** **CAD981994809**
1/8-1/4 **TORRANCE, CA 90502** **FINDS**
0.236 mi. **HAZNET**
1246 ft. **Site 9 of 9 in cluster AN** **LOS ANGELES CO. HMS**
ECHO

Relative:
Lower

Actual:
30 ft.

HIST UST:
File Number: 00027ABB
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00027ABB.pdf
Region: Not reported
Facility ID: Not reported
Facility Type: Not reported
Other Type: Not reported
Contact Name: Not reported
Telephone: Not reported
Owner Name: Not reported
Owner Address: Not reported
Owner City,St,Zip: Not reported
Total Tanks: Not reported

Tank Num: Not reported
Container Num: Not reported
Year Installed: Not reported
Tank Capacity: Not reported
Tank Used for: Not reported
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Not reported

Tank Num: Not reported
Container Num: Not reported
Year Installed: Not reported
Tank Capacity: Not reported
Tank Used for: Not reported
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Not reported

Click here for Geo Tracker PDF:

RCRA NonGen / NLR:
Date form received by agency: 06/19/2001
Facility name: ROLLINS LEASING CORP
Facility address: 20425 S HAMILTON AVE
TORRANCE, CA 90502
EPA ID: CAD981994809
Contact: BRIAN YAZEMBOSKI
Contact address: RTE 10 GREEN HILLS P O BOX 563

ROLLINS LEASING CORP (Continued) **1000286233**

READING, PA 19603
Contact country: US
Contact telephone: (610) 603-8450
Contact email: Not reported
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: MATLACK INC
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110009533424

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA

ROLLINS LEASING CORP (Continued) **1000286233**

program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:

envid:	1000286233
Year:	2010
GEPAID:	CAD981994809
Contact:	MICHAEL COSTANZA MGR ENV SVS
Telephone:	6107756471
Mailing Name:	Not reported
Mailing Address:	RTE 10 GREEN HILLS
Mailing City,St,Zip:	READING, PA 19603
Gen County:	Not reported
TSD EPA ID:	CAT000613893
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.063
Cat Decode:	Aqueous solution with total organic residues less than 10 percent
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Los Angeles

envid:	1000286233
Year:	2010
GEPAID:	CAD981994809
Contact:	MICHAEL COSTANZA MGR ENV SVS
Telephone:	6107756471
Mailing Name:	Not reported
Mailing Address:	RTE 10 GREEN HILLS
Mailing City,St,Zip:	READING, PA 19603
Gen County:	Not reported
TSD EPA ID:	CAT000613893
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.063
Cat Decode:	Aqueous solution with total organic residues less than 10 percent
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Los Angeles

envid:	1000286233
Year:	2010
GEPAID:	CAD981994809
Contact:	MICHAEL COSTANZA MGR ENV SVS
Telephone:	6107756471
Mailing Name:	Not reported
Mailing Address:	RTE 10 GREEN HILLS
Mailing City,St,Zip:	READING, PA 19603
Gen County:	Not reported
TSD EPA ID:	CAT000613893
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent

ROLLINS LEASING CORP (Continued) **1000286233**

Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.063
Cat Decode:	Aqueous solution with total organic residues less than 10 percent
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Los Angeles

envid:	1000286233
Year:	2009
GEPAID:	CAD981994809
Contact:	ENV MGR
Telephone:	5105320404
Mailing Name:	Not reported
Mailing Address:	20425 S HAMILTON AVE
Mailing City,St,Zip:	TORRANCE, CA 905020000
Gen County:	Not reported
TSD EPA ID:	CAT000613893
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.4032
Cat Decode:	Aqueous solution with total organic residues less than 10 percent
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Los Angeles

envid:	1000286233
Year:	2009
GEPAID:	CAD981994809
Contact:	ENV MGR
Telephone:	5105320404
Mailing Name:	Not reported
Mailing Address:	20425 S HAMILTON AVE
Mailing City,St,Zip:	TORRANCE, CA 905020000
Gen County:	Not reported
TSD EPA ID:	CAT000613893
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.4032
Cat Decode:	Aqueous solution with total organic residues less than 10 percent
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
88 additional CA_HAZNET: record(s) in the EDR Site Report.

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	Not reported
Facility Id:	006066-044906
Facility Type:	Not reported
Facility Status:	OPEN

ROLLINS LEASING CORP (Continued) **1000286233**

Area: 2
Permit Number: Not reported
Permit Status: Not reported

ECHO:
Envid: 1000286233
Registry ID: 110009533424
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110009533424

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428 **ROYAL BOULEVARD CLASS III DISPOSAL SITE** **CA BOND EXP. PLAN** **S100833323**
NNW **ROYAL BOULEVARD BETWEEN 209TH & 210TH STREETS** **N/A**
1/8-1/4 **TORRANCE, CA 90055**
0.236 mi.
1248 ft.

Relative:
Lower

Actual:
24 ft.

CA BOND EXP. PLAN:
Reponsible Party: RESPONSIBLE PARTY LEAD SITE CLEANUP WORKPLAN
Project Revenue Source Company: Not reported
Project Revenue Source Addr: Not reported
Project Revenue Source City,St,Zip: Not reported
Project Revenue Source Desc: DHS will be issuing a remedial action order or entering into an enforceable agreement with the responsible parties (RPs). DHS has budgeted $50,000 for oversight/monitoring of cleanup efforts. DHS will recover 100 percent of direct costs plus staff Costs and overhead releated to the project. The RPs will pay all costs associated with remedial investigation and cleanup activities.
Site Description: This 7.3 acre site is located on both sides of Royal Boulevard between 209th and 210th Streets in Torrance. It was a landfill operated by National Supply Company, a division of Armco from 1956 through 1985.
Hazardous Waste Desc: During the preparation of the environmental audit and closure plan for the National Supply Company's Torrance facility, it was discovered that foundry sand and baghouse dust may have been disposed of at the Royal Boulevard site. The foundry sand andbaghouse dust waste may contain heavy metals.
Threat To Public Health & Env: This site is bordered by single-family residential units on the north, east, and south. There is potential for windblown dispersal of foundry sand. There is surface contamination, and offsite migration may result from storm water runoff. Depending on the form of contamination there is some potential for migration to ground water.
Site Activity Status: On July 16, 1986, the preliminary characterization plan was submitted to the Department and has been approved. The owner of the site, National Supply Company, a division of Armco, Inc., has conducted a limited remedial investigation.

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429 **GARDENA VALLEY #5 (GOLDEN EAGLE)** **SWF/LF** **S102360892**
NE **306 WEST TORRANCE BOULEVARD** **HAZNET** **N/A**
1/8-1/4 **CARSON, CA 90745**
0.248 mi.
1312 ft.

Relative:
Lower

Actual:
30 ft.

SWF/LF (SWIS):
Region: STATE
Facility ID: 19-AQ-0011
Lat/Long: 33.8421 / -118.2823
Owner Name: Lasmo Oil And Gas Inc
Owner Telephone: Not reported
Owner Address: Not reported
Owner Address2: 401 E. Ocean Blvd

GARDENA VALLEY #5 (GOLDEN EAGLE) (Continued) **S102360892**

Owner City,St,Zip:	Long Beach, CA 90802
Operational Status:	Closed
Operator:	Not reported
Operator Phone:	Not reported
Operator Address:	Not reported
Operator Address2:	Not reported
Operator City,St,Zip:	Not reported
Permit Date:	Not reported
Permit Status:	Not reported
Permitted Acreage:	$76.00
Activity:	Solid Waste Disposal Site
Regulation Status:	Pre-regulations
Landuse Name:	Residential,Commercial
GIS Source:	Map
Category:	Disposal
Unit Number:	01
Inspection Frequency:	Quarterly
Accepted Waste:	Inert,Liquid Waste,Mixed municipal
Closure Date:	09/12/1963
Closure Type:	Actual
Disposal Acreage:	$10.00
SWIS Num:	19-AQ-0011
Waste Discharge Requirement Num:	Not reported
Program Type:	Not reported
Permitted Throughput with Units:	Not reported
Actual Throughput with Units:	Not reported
Permitted Capacity with Units:	Not reported
Remaining Capacity:	Not reported
Remaining Capacity with Units:	Not reported
Lat/Long:	33.8421 / -118.2823

LOS ANGELES CO. LF:

Site ID:	1942
Alt. Address:	100 West Torrance Boulevard, Carson, CA; 20801 - 2100 South Figueroa Street, Carson, CA
Site Contact:	Not reported
Site Contact Phone:	Not reported
Site Email:	Not reported
Site Website:	Not reported
Site Type:	Designated Waste Landfill
Site SWIS Number:	19-AQ-0011
Beginning Operation Date:	Jan-62
Ending Operation Date:	Sep-63
Local Enforcement Agency:	County Public Health
Maximun Depth Fill(Ft):	45
Permitted Capacity:	Not reported
Present Use:	Vacant
Remaining Capacity(Million):	Not reported
Status:	Closed
Waste Accepted:	Inert; Liquid
Hours of Operation:	Not reported
Disposal Area (Acre):	10

Detail As Of 01/2014:

Operator Name:	Unknown
Operator Address:	Not reported
Operator City/State/Zip:	Not reported
Operator Contact:	Not reported

GARDENA VALLEY #5 (GOLDEN EAGLE) (Continued) **S102360892**

Operator Telephone:	Not reported
Operator Email:	Not reported
Owner Name:	Lasmo Oil And Gas INC.
Owner Address:	401 East Ocean Blvd
Owner City/State/Zip:	Long Beach, CA 90802
Owner Contact:	Not reported
Owner Telephone:	Not reported
Owner Email:	Not reported

HAZNET:

envid:	S102360892
Year:	2013
GEPAID:	CAC002731948
Contact:	JENNIFER ROTHMAN
Telephone:	7147309052
Mailing Name:	Not reported
Mailing Address:	1200 SMITH ST
Mailing City,St,Zip:	HOUSTON, TX 77002
Gen County:	Los Angeles
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.02085
Cat Decode:	Not reported
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Not reported

430
SW
1/4-1/2
0.266 mi.
1407 ft.

DGLP DEVELOPMENT **ENVIROSTOR** **S106665609**
1445-1455 WEST 225TH ST. **N/A**
LOS ANGELES, CA 90501

Relative:
Higher

Actual:
52 ft.

ENVIROSTOR:

Facility ID:	19000026
Status:	Refer: 1248 Local Agency
Status Date:	04/09/2004
Site Code:	Not reported
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Referred - Not Assigned
Division Branch:	Cleanup Cypress
Assembly:	55
Senate:	Not reported
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not Applicable
Latitude:	0

DGLP DEVELOPMENT (Continued) **S106665609**

Longitude: 0
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: 19000026
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

AO431 **SIMPSON GASOLINE ALLEY** **LUST** **S102592968**
SSW **22628 NORMANDIE AVE** **N/A**
1/4-1/2 **LOS ANGELES, CA 90710**
0.274 mi.
1447 ft. **Site 1 of 2 in cluster AO**

Relative:
Higher

Actual:
50 ft.

LUST:
Region: STATE
Global Id: T0603705486
Latitude: 33.7845147
Longitude: -118.2980245
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 07/23/1998
Lead Agency: LOS ANGELES COUNTY
Case Worker: JOA
Local Agency: LOS ANGELES COUNTY
RB Case Number: R-25096
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Aviation
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603705486
Contact Type: Local Agency Caseworker
Contact Name: JOHN AWUJO
Organization Name: LOS ANGELES COUNTY
Address: 900 S FREMONT AVE
City: ALHAMBRA

SIMPSON GASOLINE ALLEY (Continued) **S102592968**

Email:	jawujo@dpw.lacounty.gov
Phone Number:	6264583507
Global Id:	T0603705486
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Status History:

Global Id:	T0603705486
Status:	Completed - Case Closed
Status Date:	07/23/1998
Global Id:	T0603705486
Status:	Open - Case Begin Date
Status Date:	07/23/1998

Regulatory Activities:

Global Id:	T0603705486
Action Type:	Other
Date:	07/23/1998
Action:	Leak Reported

LUST REG 4:

Region:	4		
Regional Board:	04		
County:	Los Angeles		
Facility Id:	R-25096		
Status:	Case Closed		
Substance:	1		
Substance Quantity:	Not reported		
Local Case No:	Not reported		
Case Type:	Soil		
Abatement Method Used at the Site:		Not reported	
Global ID:	T0603705486		
W Global ID:	Not reported		
Staff:	UNK		
Local Agency:	19000		
Cross Street:	Not reported		
Enforcement Type:	Not reported		
Date Leak Discovered:	Not reported		
Date Leak First Reported:		7/23/1998	
Date Leak Record Entered:	7/31/1998		
Date Confirmation Began:	Not reported		
Date Leak Stopped:	Not reported		
Date Case Last Changed on Database:		7/23/1998	
Date the Case was Closed:		7/23/1998	
How Leak Discovered:	Not reported		
How Leak Stopped:	Not reported		
Cause of Leak:	Not reported		
Leak Source:	Not reported		

SIMPSON GASOLINE ALLEY (Continued) **S102592968**

Operator:	Not reported
Water System:	Not reported
Well Name:	Not reported
Approx. Dist To Production Well (ft):	5902.9816669443213198781736668
Source of Cleanup Funding:	Not reported
Preliminary Site Assessment Workplan Submitted:	Not reported
Preliminary Site Assessment Began:	Not reported
Pollution Characterization Began:	Not reported
Remediation Plan Submitted:	Not reported
Remedial Action Underway:	Not reported
Post Remedial Action Monitoring Began:	Not reported
Enforcement Action Date:	Not reported
Historical Max MTBE Date:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil:	Not reported
Significant Interim Remedial Action Taken:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	BILL SIMPSON
RP Address:	185 ROLLING HILLS RD., MOORESVILLE, NC 28115
Program:	LUST
Lat/Long:	33.7948763 / -1
Local Agency Staff:	Not reported
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	CLOSURE APPLICATION #194869

AP432 **GARDENA VALLEY DUMP #4 (ALPINE VILLAGE)** **SWF/LF** **S111075914**
NNE **736 WEST DEL AMO BOULEVARD** **N/A**
1/4-1/2 **TORRANCE, CA 90502**
0.279 mi.
1475 ft. **Site 1 of 2 in cluster AP**

Relative:
Lower

Actual:
32 ft.

LOS ANGELES CO. LF:

Site ID:	1944
Alt. Address:	833 West Torrance Avenue, Torrance, CA 90503
Site Contact:	Not reported
Site Contact Phone:	Not reported
Site Email:	Not reported
Site Website:	Not reported
Site Type:	Designated Waste Landfill
Site SWIS Number:	19-AA-5058
Beginning Operation Date:	Sep-59
Ending Operation Date:	May-62
Local Enforcement Agency:	County Public Health
Maximun Depth Fill(Ft):	30
Permitted Capacity:	Not reported
Present Use:	Residential; Commercial
Remaining Capacity(Million):	Not reported
Status:	Closed
Waste Accepted:	Commercial; Liquid; Residential
Hours of Operation:	Not reported
Disposal Area (Acre):	22.3

GARDENA VALLEY DUMP #4 (ALPINE VILLAGE) (Continued) **S111075914**

Detail As Of 01/2014:

Operator Name:	Unknown
Operator Address:	Not reported
Operator City/State/Zip:	Not reported
Operator Contact:	Not reported
Operator Telephone:	Not reported
Operator Email:	Not reported
Owner Name:	Multiple Owners (See Notes)
Owner Address:	Not reported
Owner City/State/Zip:	Not reported
Owner Contact:	Not reported
Owner Telephone:	Not reported
Owner Email:	Not reported

AP433 **THE EMPTY ATTIC** **ENVIROSTOR** **S106087289**
NNE **736 W. DEL AMO BOULEVARD** **VCP** **N/A**
1/4-1/2 **TORRANCE, CA 90502**
0.279 mi.
1475 ft. **Site 2 of 2 in cluster AP**

Relative:
Lower

Actual:
32 ft.

ENVIROSTOR:

Facility ID:	60000978
Status:	No Further Action
Status Date:	09/08/2009
Site Code:	401462
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	10
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	S. Steven Hariri
Supervisor:	Ju-Tseng Liu
Division Branch:	Cleanup Cypress
Assembly:	66
Senate:	35
Special Program:	Voluntary Cleanup Program
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	33.84607
Longitude:	-118.2863
APN:	7350001131
Past Use:	LDF
Potential COC:	Benzene Methane Tetrachloroethylene (PCE Trichloroethylene (TCE Vinyl chloride Barium and compounds Cadmium and compounds Chromium III Not reported
Confirmed COC:	30022-NO 30067-NO 30108-NO 30152-NO 30028-NO 30027-NO 30003-NO 30015-NO
Potential Description:	OTH, SOIL, SV
Alias Name:	7350001131
Alias Type:	APN
Alias Name:	401462
Alias Type:	Project Code (Site Code)
Alias Name:	60000978
Alias Type:	Envirostor ID Number

THE EMPTY ATTIC (Continued) **S106087289**

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Reimbursement Agreement
Completed Date:	09/30/2008
Comments:	Reimbursement Agreement for the review of an assessment workplan and report and other information pertinent to the Site.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	09/08/2009
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	06/10/2009
Comments:	DTSC approved the PEA.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

VCP:

Facility ID:	60000978
Site Type:	Voluntary Cleanup
Site Type Detail:	Voluntary Cleanup
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	10
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	S. Steven Hariri
Supervisor:	Ju-Tseng Liu
Division Branch:	Cleanup Cypress
Site Code:	401462
Assembly:	66
Senate:	35
Special Programs Code:	Voluntary Cleanup Program
Status:	No Further Action
Status Date:	09/08/2009
Restricted Use:	NO
Funding:	Responsible Party
Lat/Long:	33.84607 / -118.2863
APN:	7350001131
Past Use:	LDF
Potential COC:	30003, 30015, 30022, 30027, 30028, 30067, 30108, 30152
Confirmed COC:	30022-NO,30067-NO,30108-NO,30152-NO,30028-NO,30027-NO,30003-NO,

THE EMPTY ATTIC (Continued) **S106087289**

30015-NO
Potential Description: OTH, SOIL, SV
Alias Name: 7350001131
Alias Type: APN
Alias Name: 401462
Alias Type: Project Code (Site Code)
Alias Name: 60000978
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Reimbursement Agreement
Completed Date: 09/30/2008
Comments: Reimbursement Agreement for the review of an assessment workplan and report and other information pertinent to the Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 09/08/2009
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 06/10/2009
Comments: DTSC approved the PEA.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

AO434 **SIMPSON GASOLINE ALLEY** **HIST CORTESE** **S105027086**
SSW **22628 NORMANDIE** **N/A**
1/4-1/2 **TORRANCE, CA 90505**
0.299 mi.
1578 ft. **Site 2 of 2 in cluster AO**

Relative:
Higher

Actual:
50 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: R-25096

435
North
1/4-1/2
0.304 mi.
1604 ft.

DEL AMO HAZ WSTE
HARBOR, CA

ENVIROSTOR **S107736211**
N/A

Relative:
Lower

Actual:
37 ft.

ENVIROSTOR:

Facility ID:	80000628
Status:	Inactive - Needs Evaluation
Status Date:	07/01/2005
Site Code:	Not reported
Site Type:	Military Evaluation
Site Type Detailed:	FUDS
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Douglas Bautista
Division Branch:	Cleanup Cypress
Assembly:	66
Senate:	35
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	DERA
Latitude:	33.84583
Longitude:	-118.2930
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CA99799F591200
Alias Type:	Federal Facility ID
Alias Name:	J09CA1015
Alias Type:	INPR
Alias Name:	80000628
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Inventory Project Report (INPR)
Completed Date:	05/26/1994
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

AQ436 **BERADA CORPORATION-GARDENA VAL** **WMUDS/SWAT** **S103441298**
NE **100 WEST TORRANCE BOULVARD** **N/A**
1/4-1/2 **CARSON, CA**
0.334 mi.
1761 ft. **Site 1 of 3 in cluster AQ**

Relative:
Lower

Actual:
27 ft.

WMUDS/SWAT:

Edit Date:	Not reported
Complexity:	Not reported
Primary Waste:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Base Meridian:	Not reported
NPID:	Not reported
Tonnage:	0
Regional Board ID:	61-46
Municipal Solid Waste:	False
Superorder:	False
Open To Public:	False
Waste List:	False
Agency Type:	Not reported
Agency Name:	Not reported
Agency Department:	Not reported
Agency Address:	Not reported
Agency City,St,Zip:	Not reported
Agency Contact:	Not reported
Agency Telephone:	Not reported
Land Owner Name:	GOLDEN EAGLE REFINING CO., INC
Land Owner Address:	525 WEST THIRD STREET
Land Owner City,St,Zip:	HANFORD, CA 93230
Land Owner Contact:	STEVEN EPPERSON
Land Owner Phone:	2095833372
Region:	4
Facility Type:	Not reported
Facility Description:	Not reported
Facility Telephone:	Not reported
SWAT Facility Name:	Not reported
Primary SIC:	Not reported
Secondary SIC:	Not reported
Comments:	Not reported
Last Facility Editors:	Not reported
Waste Discharge System:	False
Solid Waste Assessment Test Program:	True
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act:	False
Department of Defence:	False
Solid Waste Assessment Test Program:	Not reported
Threat to Water Quality:	Not reported
Sub Chapter 15:	False
Regional Board Project Officer:	R_N
Number of WMUDS at Facility:	1
Section Range:	Not reported
RCRA Facility:	Not reported
Waste Discharge Requirements:	Not reported
Self-Monitoring Rept. Frequency:	Not reported
Waste Discharge System ID:	4 190011NUR
Solid Waste Information ID:	Not reported

437
East
1/4-1/2
0.340 mi.
1793 ft.

UNITED OIL STATION #65
300 CARSON ST W
CARSON, CA 90745

LUST
HIST CORTESE

S103891230
N/A

Relative:
Lower

Actual:
39 ft.

LUST:

Region:	STATE
Global Id:	T0603705540
Latitude:	33.8313529
Longitude:	-118.2818394
Case Type:	LUST Cleanup Site
Status:	Open - Remediation
Status Date:	06/21/2005
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	ALT
Local Agency:	LOS ANGELES COUNTY
RB Case Number:	R-26492
LOC Case Number:	Not reported
File Location:	Regional Board
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603705540
Contact Type:	Local Agency Caseworker
Contact Name:	JOHN AWUJO
Organization Name:	LOS ANGELES COUNTY
Address:	900 S FREMONT AVE
City:	ALHAMBRA
Email:	jawujo@dpw.lacounty.gov
Phone Number:	6264583507

Global Id:	T0603705540
Contact Type:	Regional Board Caseworker
Contact Name:	ADAM TAING
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 West 4th Street
City:	LOS ANGELES
Email:	adam.taing@waterboards.ca.gov
Phone Number:	2135766752

Status History:

Global Id:	T0603705540
Status:	Open - Case Begin Date
Status Date:	09/16/1998

Global Id:	T0603705540
Status:	Open - Remediation
Status Date:	06/21/2005

Global Id:	T0603705540
Status:	Open - Site Assessment
Status Date:	05/12/1999

Global Id:	T0603705540

UNITED OIL STATION #65 (Continued) **S103891230**

Status: Open - Site Assessment
Status Date: 03/19/2001

Global Id: T0603705540
Status: Open - Verification Monitoring
Status Date: 09/21/1998

Regulatory Activities:
Global Id: T0603705540
Action Type: ENFORCEMENT
Date: 06/21/2005
Action: Staff Letter

Global Id: T0603705540
Action Type: RESPONSE
Date: 01/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603705540
Action Type: RESPONSE
Date: 01/15/2014
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 04/15/2014
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 01/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 04/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 07/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 01/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 01/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 10/15/2006
Action: Monitoring Report - Quarterly

UNITED OIL STATION #65 (Continued) **S103891230**

Global Id: T0603705540
Action Type: RESPONSE
Date: 07/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 07/15/2015
Action: Corrective Action Plan / Remedial Action Plan - Regulator Responded

Global Id: T0603705540
Action Type: RESPONSE
Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 04/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 10/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: ENFORCEMENT
Date: 02/05/2003
Action: 13267 Requirement

Global Id: T0603705540
Action Type: RESPONSE
Date: 10/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: REMEDIATION
Date: 10/07/2008
Action: Soil Vapor Extraction (SVE)

Global Id: T0603705540
Action Type: RESPONSE
Date: 04/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: REMEDIATION
Date: 07/07/2004
Action: Other (Use Description Field)

Global Id: T0603705540
Action Type: RESPONSE
Date: 06/08/2010
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0603705540
Action Type: RESPONSE

UNITED OIL STATION #65 (Continued) **S103891230**

Date: 07/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603705540
Action Type: RESPONSE
Date: 04/15/2015
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 07/15/2014
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 10/17/2002
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 10/15/2012
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: ENFORCEMENT
Date: 01/14/2016
Action: Staff Letter

Global Id: T0603705540
Action Type: RESPONSE
Date: 10/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 07/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 01/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603705540
Action Type: RESPONSE
Date: 10/15/2014
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 01/15/2015
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 07/15/2015
Action: Monitoring Report - Semi-Annually

UNITED OIL STATION #65 (Continued) **S103891230**

Global Id:	T0603705540
Action Type:	RESPONSE
Date:	03/12/2009
Action:	Clean Up Fund - 5-Year Review Summary
Global Id:	T0603705540
Action Type:	RESPONSE
Date:	01/15/2010
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603705540
Action Type:	RESPONSE
Date:	05/10/2010
Action:	Well Destruction Report
Global Id:	T0603705540
Action Type:	RESPONSE
Date:	01/15/2013
Action:	Monitoring Report - Quarterly
Global Id:	T0603705540
Action Type:	REMEDIATION
Date:	05/07/2012
Action:	Pump & Treat (P&T) Groundwater
Global Id:	T0603705540
Action Type:	RESPONSE
Date:	07/15/2010
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603705540
Action Type:	RESPONSE
Date:	07/15/2013
Action:	Monitoring Report - Quarterly
Global Id:	T0603705540
Action Type:	RESPONSE
Date:	01/15/2009
Action:	Monitoring Report - Quarterly
Global Id:	T0603705540
Action Type:	RESPONSE
Date:	07/15/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0603705540
Action Type:	ENFORCEMENT
Date:	03/27/2003
Action:	13267 Requirement
Global Id:	T0603705540
Action Type:	RESPONSE
Date:	07/15/2011
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603705540
Action Type:	RESPONSE

UNITED OIL STATION #65 (Continued) **S103891230**

Date: 08/18/2011
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0603705540
Action Type: RESPONSE
Date: 10/15/2013
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: Other
Date: 09/16/1998
Action: Leak Discovery

Global Id: T0603705540
Action Type: RESPONSE
Date: 01/15/2016
Action: Monitoring Report - Semi-Annually

Global Id: T0603705540
Action Type: ENFORCEMENT
Date: 04/24/2015
Action: Staff Letter

Global Id: T0603705540
Action Type: Other
Date: 09/21/1998
Action: Leak Reported

Global Id: T0603705540
Action Type: RESPONSE
Date: 07/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0603705540
Action Type: RESPONSE
Date: 07/31/2002
Action: Other Report / Document

Global Id: T0603705540
Action Type: RESPONSE
Date: 07/15/2002
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 01/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 04/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: ENFORCEMENT
Date: 06/15/2009
Action: Staff Letter

UNITED OIL STATION #65 (Continued) **S103891230**

Global Id: T0603705540
Action Type: ENFORCEMENT
Date: 03/20/2001
Action: Staff Letter

Global Id: T0603705540
Action Type: ENFORCEMENT
Date: 07/03/2002
Action: Staff Letter

Global Id: T0603705540
Action Type: RESPONSE
Date: 09/13/2012
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0603705540
Action Type: RESPONSE
Date: 04/15/2016
Action: CAP/RAP - Final Remediation / Design Plan

Global Id: T0603705540
Action Type: RESPONSE
Date: 04/15/2002
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 07/15/2016
Action: Monitoring Report - Semi-Annually

Global Id: T0603705540
Action Type: RESPONSE
Date: 10/15/2002
Action: Well Installation Report

Global Id: T0603705540
Action Type: RESPONSE
Date: 04/18/2003
Action: Other Report / Document

Global Id: T0603705540
Action Type: RESPONSE
Date: 04/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 07/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 04/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE

UNITED OIL STATION #65 (Continued) **S103891230**

Date: 01/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 03/16/2004
Action: CAP/RAP - Feasibility Study Report

Global Id: T0603705540
Action Type: RESPONSE
Date: 07/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 10/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 04/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 10/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603705540
Action Type: RESPONSE
Date: 07/15/2005
Action: Other Report / Document

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: R-26492
Status: Pollution Characterization
Substance: Gasoline
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Groundwater
Abatement Method Used at the Site: OT
Global ID: T0603705540
W Global ID: Not reported
Staff: JW
Local Agency: 19000
Cross Street: MONETA AVE
Enforcement Type: DLLET
Date Leak Discovered: 9/16/1998
Date Leak First Reported: 9/21/1998
Date Leak Record Entered: 2/22/1999
Date Confirmation Began: Not reported
Date Leak Stopped: Not reported
Date Case Last Changed on Database: 7/22/2002

UNITED OIL STATION #65 (Continued) **S103891230**

Date the Case was Closed:		Not reported
How Leak Discovered:	OM	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		4649.9032992406571177762628
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		5/12/1999
Preliminary Site Assessment Began:		3/19/2001
Pollution Characterization Began:		3/19/2001
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		9/21/1998
Enforcement Action Date:		3/20/2001
Historical Max MTBE Date:		12/20/2001
Hist Max MTBE Conc in Groundwater:		2870
Hist Max MTBE Conc in Soil:		550
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	=	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	HOWARD ROSEN/RUTH B. DAVIS	
RP Address:	2759 CASIANO RD.	
Program:	LUST	
Lat/Long:	33.8313529 / -1	
Local Agency Staff:	Not reported	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	ADDITIONAL SITE INVESTIGATION IN THE FUTURE; 8/10/00 PRELIMINARY SITE INVESTIGATION, NEED TO REVIEW WP; 9/28/00 3RD QTR GW MON RPT; 12/29/00 4TH QTR GW MON RPT 2000	

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	R-26492

AR438 **CITY OF CARSON - REBEL MINI STORAGE** **SLIC** **S106387039**
NE **20501 MAIN** **N/A**
1/4-1/2 **CARSON, CA 90745**
0.349 mi.
1842 ft. **Site 1 of 2 in cluster AR**

Relative:
Lower

Actual:
22 ft.

SLIC:

Region:	STATE
Facility Status:	**Open - Inactive**
Status Date:	01/21/2015
Global Id:	SLT43315313
Lead Agency:	LOS ANGELES RWQCB (REGION 4)

CITY OF CARSON - REBEL MINI STORAGE (Continued) **S106387039**

Lead Agency Case Number:	Not reported
Latitude:	33.846265
Longitude:	-118.279236
Case Type:	Cleanup Program Site
Case Worker:	AGH
Local Agency:	Not reported
RB Case Number:	0496F3
File Location:	Not reported
Potential Media Affected:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

SLIC REG 4:

Region:	4
Facility Status:	Site Assessment
SLIC:	0496F3
Substance:	Not reported
Staff:	SSH

AR439 **REBEL MINI STORAGE** **ENVIROSTOR** **S106568207**
NE **20501 S. MAIN STREET** **VCP** **N/A**
1/4-1/2 **CARSON, CA 90745** **DEED**
0.349 mi.
1842 ft. **Site 2 of 2 in cluster AR**

Relative:
Lower

Actual:
22 ft.

ENVIROSTOR:

Facility ID:	19000020
Status:	Certified / Operation & Maintenance
Status Date:	12/08/2004
Site Code:	401267
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	12.8
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Poonam Acharya
Supervisor:	Emad Yemut
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	64
Senate:	35
Special Program:	Voluntary Cleanup Program
Restricted Use:	YES
Site Mgmt Req:	ASP, FOUN, DAY, ELD, HOS, EX, SCH, RES
Funding:	Responsible Party
Latitude:	33.84543
Longitude:	-118.2806
APN:	7336-00-3037, 7336-00-7338, 7336-00-7339, 7336-00-7340, 7336003037, 7336003038
Past Use:	LANDFILL - DOMESTIC
Potential COC:	Arsenic Benzene Total Chromium (1:6 ratio Cr VI:Cr III Lead Methane Barium and compounds Copper and compounds Ethylbenzene Nickel Toluene Vanadium and compounds Xylenes
Confirmed COC:	Arsenic Benzene Total Chromium (1:6 ratio Cr VI:Cr III Lead Methane Barium and compounds Copper and compounds Ethylbenzene Nickel Toluene

REBEL MINI STORAGE (Continued) **S106568207**

Vanadium and compounds Xylenes
Potential Description: SV
Alias Name: REBEL MINI STORAGE
Alias Type: Alternate Name
Alias Name: 7336-00-3037
Alias Type: APN
Alias Name: 7336-00-7338
Alias Type: APN
Alias Name: 7336-00-7339
Alias Type: APN
Alias Name: 7336-00-7340
Alias Type: APN
Alias Name: 7336003037
Alias Type: APN
Alias Name: 7336003038
Alias Type: APN
Alias Name: 110033612794
Alias Type: EPA (FRS #)
Alias Name: 401259
Alias Type: Project Code (Site Code)
Alias Name: 401267
Alias Type: Project Code (Site Code)
Alias Name: 19000020
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 07/28/2015
Comments: Branch Chief Memo uploaded and FA was established on the project.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 08/09/2004
Comments: DTSC entered into A Voluntary Cleanup Agreement (VCA) with the Dewey group for the Rebel Mini Storage Site. The purpose of the agreement is for DTSC to make a determination as to whether the site is suitable for its present use and whether additional sampling is necessary.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 11/29/2004
Comments: DTSC completed a Preliminary Endangerment Assessment for the Rebel Mini Storage Site. On 11/29/2004 a Conditional No Further Action was issued with the condition that (1) the present use of the site does not change from that of a storage facility; (2) the use of the Site not be changed from its present use without prior written approval from DTSC; and (3) a land use convenant/deed restriction approved by DTSC is recorded for the Site. In addition, on 11/29/04 an Operation and Maintenance Agreement was entered into by and between DTSC and Carson Storage Venture, LP, for the Rebel Mini Storage Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

REBEL MINI STORAGE (Continued) **S106568207**

Completed Document Type: Land Use Restriction
Completed Date: 12/08/2004
Comments: A Deed Restriction was recorded in the Los Angeles County Recorder's office on 12/08/2004 for the Rebel Mini Storage Site. The property is restricted to use as a self storage facility.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/29/2015
Comments: FY 1516 Cost Estimate.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 11/29/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/22/2006
Comments: Letter was sent to RP, accepting O&M Report and Repair certification.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 12/20/2006
Comments: Annual Methane Monitoring Report approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 01/03/2008
Comments: Report approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 11/21/2008
Comments: Annual Inspection Report received and accepted.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: 01/07/2013
Comments: Document Completed and accepted

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Financial Assurance Documentation
Completed Date: 07/29/2015
Comments: FA was established for the project.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)

REBEL MINI STORAGE (Continued) **S106568207**

Completed Date: 01/20/2006
Comments: Site Visit was conducted on January 20, 2006. Advised RP to conduct methane monitoring throughout the year not only for annual O&M Report. Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 12/24/2008
Comments: Deed Restriction Inpsection Report Completed. Next inpsection due to be completed during 2009-2010 fiscal year.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Land Use Restriction Monitoring Report
Completed Date: 12/29/2009
Comments: Document accepted for the 2009-2010 FY Annual Inspection Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 11/30/2011
Comments: 2012 Annual Cost Estimate letter sent to RP.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Land Use Restriction Monitoring Report
Completed Date: 11/22/2010
Comments: Document reviewed and approved. Letter sent to RP.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/30/2009
Comments: Cost Estimate letter sent to proponent via U.S. Mail

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Land Use Restriction Monitoring Report
Completed Date: 11/21/2011
Comments: Document accepted

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 06/16/2011
Comments: Collection reminder sent for past due balances on site codes 401259 & 401267.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 11/04/2013
Comments: 2014 Annual Cost Estimate letter sent to RP.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

REBEL MINI STORAGE (Continued) **S106568207**

Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 07/17/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 02/19/2015
Comments: Comments were sent on the Report. DTSC asked to comply with AQMD Rule and submit a new O&M Plan for site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Land Use Restriction Monitoring Report
Completed Date: 02/01/2016
Comments: Report was conditionally approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/25/2012
Comments: 2013 Annual Cost Estimate letter sent to RP.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 07/19/2011
Comments: Second collection letter sent certified mail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 12/04/2013
Comments: Monitoring report was received and reviewed. No comments were made and document was approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/20/2010
Comments: 2011 Cost Estimate and Schedule sent to RP.

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2018
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

VCP:
Facility ID: 19000020
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: ASP, FOUN, DAY, ELD, HOS, EX, SCH, RES

REBEL MINI STORAGE (Continued) **S106568207**

Acres:	12.8
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Poonam Acharya
Supervisor:	Emad Yemut
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	401267
Assembly:	64
Senate:	35
Special Programs Code:	Voluntary Cleanup Program
Status:	Certified / Operation & Maintenance
Status Date:	12/08/2004
Restricted Use:	YES
Funding:	Responsible Party
Lat/Long:	33.84543 / -118.2806
APN:	7336-00-3037, 7336-00-7338, 7336-00-7339, 7336-00-7340, 7336003037, 7336003038
Past Use:	LANDFILL - DOMESTIC
Potential COC:	30001, 30003, 30005, 30013, 30015, 30067, 30156, 30272, 30407, 30550, 30587, 30593
Confirmed COC:	30001,30003,30005,30013,30015,30067,30156,30272,30407,30550,30587, 30593
Potential Description:	SV
Alias Name:	REBEL MINI STORAGE
Alias Type:	Alternate Name
Alias Name:	7336-00-3037
Alias Type:	APN
Alias Name:	7336-00-7338
Alias Type:	APN
Alias Name:	7336-00-7339
Alias Type:	APN
Alias Name:	7336-00-7340
Alias Type:	APN
Alias Name:	7336003037
Alias Type:	APN
Alias Name:	7336003038
Alias Type:	APN
Alias Name:	110033612794
Alias Type:	EPA (FRS #)
Alias Name:	401259
Alias Type:	Project Code (Site Code)
Alias Name:	401267
Alias Type:	Project Code (Site Code)
Alias Name:	19000020
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Correspondence
Completed Date:	07/28/2015
Comments:	Branch Chief Memo uploaded and FA was established on the project.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Voluntary Cleanup Agreement

REBEL MINI STORAGE (Continued) **S106568207**

Completed Date: 08/09/2004
Comments: DTSC entered into A Voluntary Cleanup Agreement (VCA) with the Dewey group for the Rebel Mini Storage Site. The purpose of the agreement is for DTSC to make a determination as to whether the site is suitable for its present use and whether additional sampling is necessary.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 11/29/2004
Comments: DTSC completed a Preliminary Endangerment Assessment for the Rebel Mini Storage Site. On 11/29/2004 a Conditional No Further Action was issued with the condition that (1) the present use of the site does not change from that of a storage facility; (2) the use of the Site not be changed from its present use without prior written approval from DTSC; and (3) a land use convenant/deed restriction approved by DTSC is recorded for the Site. In addition, on 11/29/04 an Operation and Maintenance Agreement was entered into by and between DTSC and Carson Storage Venture, LP, for the Rebel Mini Storage Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 12/08/2004
Comments: A Deed Restriction was recorded in the Los Angeles County Recorder's office on 12/08/2004 for the Rebel Mini Storage Site. The property is restricted to use as a self storage facility.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/29/2015
Comments: FY 1516 Cost Estimate.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 11/29/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/22/2006
Comments: Letter was sent to RP, accepting O&M Report and Repair certification.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 12/20/2006
Comments: Annual Methane Monitoring Report approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 01/03/2008

REBEL MINI STORAGE (Continued) **S106568207**

Comments:	Report approved.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Operations and Maintenance Report
Completed Date:	11/21/2008
Comments:	Annual Inspection Report received and accepted.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	5 Year Review Reports
Completed Date:	01/07/2013
Comments:	Document Completed and accepted
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Financial Assurance Documentation
Completed Date:	07/29/2015
Comments:	FA was established for the project.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	01/20/2006
Comments:	Site Visit was conducted on January 20, 2006. Advised RP to conduct methane monitoring throughout the year not only for annual O&M Report. Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Land Use Restriction - Site Inspection/Visit
Completed Date:	12/24/2008
Comments:	Deed Restriction Inpsection Report Completed. Next inpsection due to be completed during 2009-2010 fiscal year.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Land Use Restriction Monitoring Report
Completed Date:	12/29/2009
Comments:	Document accepted for the 2009-2010 FY Annual Inspection Report.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	11/30/2011
Comments:	2012 Annual Cost Estimate letter sent to RP.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Land Use Restriction Monitoring Report
Completed Date:	11/22/2010
Comments:	Document reviewed and approved. Letter sent to RP.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	09/30/2009

REBEL MINI STORAGE (Continued) **S106568207**

Comments: Cost Estimate letter sent to proponent via U.S. Mail

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Land Use Restriction Monitoring Report
Completed Date: 11/21/2011
Comments: Document accepted

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 06/16/2011
Comments: Collection reminder sent for past due balances on site codes 401259 & 401267.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 11/04/2013
Comments: 2014 Annual Cost Estimate letter sent to RP.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 07/17/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 02/19/2015
Comments: Comments were sent on the Report. DTSC asked to comply with AQMD Rule and submit a new O&M Plan for site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Land Use Restriction Monitoring Report
Completed Date: 02/01/2016
Comments: Report was conditionally approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/25/2012
Comments: 2013 Annual Cost Estimate letter sent to RP.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 07/19/2011
Comments: Second collection letter sent certified mail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 12/04/2013
Comments: Monitoring report was received and reviewed. No comments were made

REBEL MINI STORAGE (Continued) **S106568207**

and document was approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/20/2010
Comments: 2011 Cost Estimate and Schedule sent to RP.

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2018
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

DEED:
Envirostor ID: 19000020
Area: PROJECT WIDE
Sub Area: Not reported
Site Type: VOLUNTARY CLEANUP
Status: CERTIFIED / OPERATION & MAINTENANCE
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): 12/08/2004

AS440 **CITY OF CARSON - THK CO.** **SLIC** **S102063973**
NNE **20350 S. FIGUEROA ST** **N/A**
1/4-1/2 **CARSON, CA 90745**
0.351 mi.
1853 ft. **Site 1 of 3 in cluster AS**

Relative:
Lower

Actual:
37 ft.

SLIC:
Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 08/13/2014
Global Id: SLT43309307
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number: Not reported
Latitude: 33.850226
Longitude: -118.283378
Case Type: Cleanup Program Site
Case Worker: AGH
Local Agency: Not reported
RB Case Number: 0496D4
File Location: Not reported
Potential Media Affected: Not reported
Potential Contaminants of Concern: Not reported
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

AS441
NNE
1/4-1/2
0.351 mi.
1853 ft.

CITY OF CARSON - THK CO.
20350 FIGUEROA
CARSON, CA 90745

Site 2 of 3 in cluster AS

Relative:
Lower

Actual:
37 ft.

SLIC **S105520902**
N/A

SLIC REG 4:
Region: 4
Facility Status: Site Assessment
SLIC: 0496D4
Substance: Not reported
Staff: SSH

442
South
1/4-1/2
0.352 mi.
1858 ft.

DON WILSON BUILDERS
22700 MEYLER ST
CARSON, CA 90502

ENVIROSTOR **S103281942**
LUST **N/A**
HIST CORTESE
LA Co. Site Mitigation

Relative:
Higher

Actual:
45 ft.

ENVIROSTOR:
Facility ID: 70000144
Status: Refer: 1248 Local Agency
Status Date: 10/05/2005
Site Code: Not reported
Site Type: Evaluation
Site Type Detailed: Evaluation
Acres: Not reported
NPL: NO
Regulatory Agencies: LA CNTY FIRE DEPT. (BILLING AND UST), LOS ANGELES COUNTY
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: * Greg Holmes
Division Branch: Cleanup Cypress
Assembly: 66
Senate: 35
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not Applicable
Latitude: 33.81948
Longitude: -118.2939
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: 70000144
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported

DON WILSON BUILDERS (Continued) **S103281942**

Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

LUST:
Region: STATE
Global Id: T0603705424
Latitude: 33.8200559
Longitude: -118.2945795
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 03/06/1998
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: Not reported
Local Agency: LOS ANGELES COUNTY
RB Case Number: R-23966
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603705424
Contact Type: Local Agency Caseworker
Contact Name: JOHN AWUJO
Organization Name: LOS ANGELES COUNTY
Address: 900 S FREMONT AVE
City: ALHAMBRA
Email: jawujo@dpw.lacounty.gov
Phone Number: 6264583507

Status History:
Global Id: T0603705424
Status: Completed - Case Closed
Status Date: 03/06/1998

Global Id: T0603705424
Status: Open - Case Begin Date
Status Date: 10/03/1996

Global Id: T0603705424
Status: Open - Site Assessment
Status Date: 10/03/1996

Global Id: T0603705424
Status: Open - Site Assessment
Status Date: 02/04/1997

Regulatory Activities:
Global Id: T0603705424
Action Type: Other

DON WILSON BUILDERS (Continued) **S103281942**

Date: 10/03/1996
Action: Leak Discovery

Global Id: T0603705424
Action Type: Other
Date: 05/28/1997
Action: Leak Reported

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	R-23966	
Status:	Case Closed	
Substance:	Diesel	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Soil	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603705424	
W Global ID:	Not reported	
Staff:	JT	
Local Agency:	19000	
Cross Street:	228TH ST	
Enforcement Type:	Not reported	
Date Leak Discovered:	10/3/1996	
Date Leak First Reported:		5/28/1997
Date Leak Record Entered:	6/12/1997	
Date Confirmation Began:	10/3/1996	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		1/26/1998
Date the Case was Closed:		3/6/1998
How Leak Discovered:	Tank Closure	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	Tank	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		5557.032894734686987494143015
Source of Cleanup Funding:		Tank
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		2/4/1997
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	

DON WILSON BUILDERS (Continued) **S103281942**

Responsible Party: MARIKO KODAIRA
RP Address: 22700 S. MEYLER ST., TORRANCE CA 90502
Program: LUST
Lat/Long: 33.8200559 / -1
Local Agency Staff: Not reported
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: ONE DIESEL TANK REMOVED BUT HOLES FOUND. INCREASING TPH W/ DEPTH. NO TPH BELOW 30'. 11/03/97 WP FOR ADD'L SITE ASSESSMENT 01/26/98 SAR RPT RECEIVED; 3/2/98 NO GW ENCOU

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: R-23966

LA Co. Site Mitigation:
Facility ID: Not reported
Site ID: SD0000167
Jurisdiction: State
Case ID: RO0000171
Abated: Yes
Assigned To: Kim Clark
Entered Date: 09/28/2005
Abated Date: 10/08/2014

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443 ESE 1/4-1/2 0.352 mi. 1860 ft.

ACE ROLL-OFF **SWF/LF** **S112205496**
22022 MONETA AVE **N/A**
WILMINGTON, CA 90745

Relative: Higher

Actual: 40 ft.

LOS ANGELES CO. LF:
Site ID: 215
Alt. Address: N/A
Site Contact: Not reported
Site Contact Phone: (310) 518-0259
Site Email: Not reported
Site Website: Not reported
Site Type: Waste Hauler
Site SWIS Number: 19-AS-0038
Beginning Operation Date: Not reported
Ending Operation Date: Not reported
Local Enforcement Agency: Not reported
Maximun Depth Fill(Ft): Not reported
Permitted Capacity: Not reported
Present Use: Not reported
Remaining Capacity(Million): Not reported
Status: Active
Waste Accepted: Not reported
Hours of Operation: Not reported
Disposal Area (Acre): Not reported

ACE ROLL-OFF (Continued) **S112205496**

Detail As Of 01/2014:

Operator Name:	Ace Roll-Off
Operator Address:	22022 Moneta Avenue
Operator City/State/Zip:	Carson, CA 90745-2813
Operator Contact:	Jesus De La Torre
Operator Telephone:	(310) 518-0259
Operator Email:	acerolloff@aol.com
Owner Name:	Unknown
Owner Address:	Not reported
Owner City/State/Zip:	Not reported
Owner Contact:	Not reported
Owner Telephone:	Not reported
Owner Email:	Not reported

AT444 **BLUE DIAMOND MATERIALS** **LUST** **S101297176**
NNW **20860 NORMANDIE AVE S** **HIST CORTESE** **N/A**
1/4-1/2 **LOS ANGELES, CA 90502**
0.358 mi.
1890 ft. **Site 1 of 5 in cluster AT**

Relative:
Higher

Actual:
41 ft.

LUST:

Region:	STATE
Global Id:	T0603703630
Latitude:	33.8411769
Longitude:	-118.2991933
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	01/16/1997
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	YR
Local Agency:	LOS ANGELES COUNTY
RB Case Number:	I-10585
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603703630
Contact Type:	Local Agency Caseworker
Contact Name:	JOHN AWUJO
Organization Name:	LOS ANGELES COUNTY
Address:	900 S FREMONT AVE
City:	ALHAMBRA
Email:	jawujo@dpw.lacounty.gov
Phone Number:	6264583507

Global Id:	T0603703630
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

BLUE DIAMOND MATERIALS (Continued) **S101297176**

Status History:

Global Id:	T0603703630
Status:	Completed - Case Closed
Status Date:	01/16/1997
Global Id:	T0603703630
Status:	Open - Case Begin Date
Status Date:	07/14/1988
Global Id:	T0603703630
Status:	Open - Site Assessment
Status Date:	04/14/1992

Regulatory Activities:

Global Id:	T0603703630
Action Type:	Other
Date:	07/14/1988
Action:	Leak Stopped
Global Id:	T0603703630
Action Type:	Other
Date:	07/14/1988
Action:	Leak Discovery
Global Id:	T0603703630
Action Type:	Other
Date:	04/14/1992
Action:	Leak Reported

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	I-10585	
Status:	Case Closed	
Substance:	Diesel	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Soil	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603703630	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19000	
Cross Street:	Not reported	
Enforcement Type:	Not reported	
Date Leak Discovered:	7/14/1988	
Date Leak First Reported:		4/14/1992
Date Leak Record Entered:	4/28/1992	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	7/14/1988	
Date Case Last Changed on Database:		6/30/1992
Date the Case was Closed:		1/16/1997
How Leak Discovered:	OM	
How Leak Stopped:	Not reported	

BLUE DIAMOND MATERIALS (Continued) **S101297176**

Cause of Leak:	UNK
Leak Source:	UNK
Operator:	BLYTHE, JOHN
Water System:	Not reported
Well Name:	Not reported
Approx. Dist To Production Well (ft):	5961.58697223059330525638504 72
Source of Cleanup Funding:	UNK
Preliminary Site Assessment Workplan Submitted:	4/14/1992
Preliminary Site Assessment Began:	Not reported
Pollution Characterization Began:	Not reported
Remediation Plan Submitted:	Not reported
Remedial Action Underway:	Not reported
Post Remedial Action Monitoring Began:	Not reported
Enforcement Action Date:	Not reported
Historical Max MTBE Date:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil:	Not reported
Significant Interim Remedial Action Taken:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	BEAZER WEST, INC.
RP Address:	3000 E. SOUTH ST., BOX 5399, LONG BEACH, 90805
Program:	LUST
Lat/Long:	33.8407444 / -1
Local Agency Staff:	Not reported
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	Not reported

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	I-10585

AQ445 **GARDENA VALLEY DUMP #5** **SEMS-ARCHIVE** **1003879391**
NE **100 W TORRANCE BLVD** **LOS ANGELES CO. HMS** **CAD982404865**
1/4-1/2 **CARSON, CA 90745**
0.360 mi.
1901 ft. **Site 2 of 3 in cluster AQ**

Relative:
Lower

Actual:
27 ft.

SEMS-ARCHIVE:

Site ID:	903470
EPA ID:	CAD982404865
Federal Facility:	N
NPL:	Not on the NPL
Non NPL Status:	NFRAP-Site does not qualify for the NPL based on existing information

Following information was gathered from the prior CERCLIS update completed in 10/2013:

Site ID:	0903470
Federal Facility:	Not a Federal Facility
NPL Status:	Not on the NPL

GARDENA VALLEY DUMP #5 (Continued) **1003879391**

Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Site Contact Details:
Contact Sequence ID: 13290568.00000
Person ID: 13003854.00000

Contact Sequence ID: 13296163.00000
Person ID: 13003858.00000

Contact Sequence ID: 13302021.00000
Person ID: 13004003.00000

CERCLIS-NFRAP Site Alias Name(s):
Alias Name: GOLDEN EAGLE REFINERY CO INC (OWNER)
Alias Address: Not reported
CA

Alias Name: THE BERADA CORP (OPERATOR)
Alias Address: Not reported
CA

CERCLIS-NFRAP Assessment History:
Action: PRELIMINARY ASSESSMENT
Date Started: 08/01/85
Date Completed: 02/01/86
Priority Level: Low priority for further assessment

Action: DISCOVERY
Date Started: / /
Date Completed: 09/01/85
Priority Level: Not reported

Action: ARCHIVE SITE
Date Started: / /
Date Completed: 12/06/89
Priority Level: Not reported

Action: SITE INSPECTION
Date Started: / /
Date Completed: 12/06/89
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 11/21/88
Priority Level: Low priority for further assessment

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 004925-I05111
Facility Type: 00
Facility Status: Closed
Area: 22
Permit Number: 000002717

GARDENA VALLEY DUMP #5 (Continued) **1003879391**

Permit Status: Closed

AQ446 **GARDENA VALLEY NO. 1 & 2** **WMUDS/SWAT** **S103441296**
NE **101 WEST TORRANCE BOULVARD** **N/A**
1/4-1/2 **CARSON, CA**
0.360 mi.
1901 ft. **Site 3 of 3 in cluster AQ**

Relative:
Lower

Actual:
27 ft.

WMUDS/SWAT:

Edit Date:	Not reported
Complexity:	Not reported
Primary Waste:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Base Meridian:	Not reported
NPID:	Not reported
Tonnage:	0
Regional Board ID:	56-133
Municipal Solid Waste:	False
Superorder:	False
Open To Public:	False
Waste List:	False
Agency Type:	Not reported
Agency Name:	LONDON PACIFIC INVESTMENT INC.
Agency Department:	Not reported
Agency Address:	835 HOPKINS WAY, SUITE 406
Agency City,St,Zip:	REDONDO BEACH 90277
Agency Contact:	MR. JULES WALDER
Agency Telephone:	Not reported
Land Owner Name:	Not reported
Land Owner Address:	Not reported
Land Owner City,St,Zip:	CA
Land Owner Contact:	Not reported
Land Owner Phone:	Not reported
Region:	4
Facility Type:	Not reported
Facility Description:	Not reported
Facility Telephone:	Not reported
SWAT Facility Name:	Not reported
Primary SIC:	Not reported
Secondary SIC:	Not reported
Comments:	Not reported
Last Facility Editors:	Not reported
Waste Discharge System:	False
Solid Waste Assessment Test Program:	True
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act:	False
Department of Defence:	False
Solid Waste Assessment Test Program:	LONDON PACIFIC INVESTMENT INC.
Threat to Water Quality:	Not reported
Sub Chapter 15:	False
Regional Board Project Officer:	R_N
Number of WMUDS at Facility:	1
Section Range:	Not reported
RCRA Facility:	Not reported
Waste Discharge Requirements:	Not reported
Self-Monitoring Rept. Frequency:	Not reported

GARDENA VALLEY NO. 1 & 2 (Continued) **S103441296**

Waste Discharge System ID: 4 190006NUR
Solid Waste Information ID: Not reported

AT447 **AKZO COATINGS (SILKENS)** **LUST** **S104159765**
NNW **20846 NORMANDIE AVE S** **N/A**
1/4-1/2 **CARSON, CA 90502**
0.370 mi.
1956 ft. **Site 2 of 5 in cluster AT**

Relative:
Higher

Actual:
41 ft.

LUST:

Region:	STATE
Global Id:	T0603704538
Latitude:	33.8410134
Longitude:	-118.2991129
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	07/22/1996
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	YR
Local Agency:	LOS ANGELES COUNTY
RB Case Number:	R-00715
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Toluene
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603704538
Contact Type:	Local Agency Caseworker
Contact Name:	JOHN AWUJO
Organization Name:	LOS ANGELES COUNTY
Address:	900 S FREMONT AVE
City:	ALHAMBRA
Email:	jawujo@dpw.lacounty.gov
Phone Number:	6264583507

Global Id:	T0603704538
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Status History:

Global Id:	T0603704538
Status:	Completed - Case Closed
Status Date:	07/22/1996

Global Id:	T0603704538
Status:	Open - Case Begin Date
Status Date:	05/04/1984

Global Id:	T0603704538

AKZO COATINGS (SILKENS) (Continued) **S104159765**

Status: Open - Site Assessment
Status Date: 10/09/1989

Regulatory Activities:
Global Id: T0603704538
Action Type: Other
Date: 05/04/1984
Action: Leak Discovery

Global Id: T0603704538
Action Type: Other
Date: 10/14/1993
Action: Leak Reported

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	R-00715	
Status:	Case Closed	
Substance:	Toluene	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Vent Soil
Global ID:	T0603704538	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19000	
Cross Street:	Not reported	
Enforcement Type:	Not reported	
Date Leak Discovered:	5/4/1984	
Date Leak First Reported:		10/14/1993
Date Leak Record Entered:	11/3/1989	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		3/18/1997
Date the Case was Closed:		7/22/1996
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	Not reported	
Leak Source:	Not reported	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		6006.3701707450628730760497464
Source of Cleanup Funding:		Not reported
Preliminary Site Assessment Workplan Submitted:		10/9/1989
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported

AKZO COATINGS (SILKENS) (Continued) **S104159765**

Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil: Not reported
Significant Interim Remedial Action Taken: Yes
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Owner Contact: Not reported
Responsible Party: AKZO COATINGS INC.
RP Address: 1845 MAXWELL, TROY, MI 48007
Program: LUST
Lat/Long: 33.8410134 / -1
Local Agency Staff: Not reported
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: Not reported

AT448 **ECOLOGY CONTROL INDUSTRIES, INC.** **ENVIROSTOR** **S105024657**
NNW **20846 NORMANDIE AVENUE** **HIST CORTESE** **N/A**
1/4-1/2 **TORRANCE, CA 90502** **HWT**
0.370 mi. **NPDES**
1956 ft. **Site 3 of 5 in cluster AT**

Relative:
Higher

Actual:
41 ft.

ENVIROSTOR:
Facility ID: 19300232
Status: Refer: RWQCB
Status Date: 05/01/1995
Site Code: Not reported
Site Type: Historical
Site Type Detailed: * Historical
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Referred - Not Assigned
Division Branch: Cleanup Cypress
Assembly: 66
Senate: 35
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 33.84086
Longitude: -118.2981
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: AZKO
Alias Type: Alternate Name
Alias Name: SIKKENS
Alias Type: Alternate Name
Alias Name: 19300232
Alias Type: Envirostor ID Number

ECOLOGY CONTROL INDUSTRIES, INC. (Continued) **S105024657**

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 05/01/1995
Comments: EPA'S PA REPORT INDICATES THAT RWQCB IS CURRENTLY THE LEAD AGENCY OVERSEEING INVESTIGATION AND REMEDIAL ACTIVITIES ON THIS SITE. THEREFORE, NFA FOR DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 06/09/1993
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 02/22/1993
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 07/30/1992
Comments: The AZKO site was identified as a potential hazardous waste site and entered into the CERCLIS database, following receipt of a memo listing industrial sites near the Del Amo NPL site in Torrance.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: R-00715

HWT:
Reg Num: 1533
Expiration Date: 07/31/2016

NPDES:
Npdes Number: CAS000002
Facility Status: Active
Agency Id: 0
Region: 4
Regulatory Measure Id: 450561

ECOLOGY CONTROL INDUSTRIES, INC. (Continued) **S105024657**

Order No:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	4 19C371280
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	10/28/2014
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Ecology Control Industries
Discharge Address:	20846 Normandie Ave
Discharge City:	Torrance
Discharge State:	California
Discharge Zip:	90502
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported

ECOLOGY CONTROL INDUSTRIES, INC. (Continued) **S105024657**

CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	4
Regulatory Measure Id:	190380
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	4 19I012624
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008
PROCESSED DATE:	10/30/1996
STATUS CODE NAME:	Active
STATUS DATE:	10/30/1996
PLACE SIZE:	8
PLACE SIZE UNIT:	52
FACILITY CONTACT NAME:	Jeanne Delperdang
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	jdelperdang@ecologycontrol.com
OPERATOR NAME:	Ecology Control Industries
OPERATOR ADDRESS:	20846 Normandie Ave
OPERATOR CITY:	Torrance
OPERATOR STATE:	California
OPERATOR ZIP:	90502
OPERATOR CONTACT NAME:	Jeanne Delperdang
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	310-354-9999
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	jdelperdang@ecologycontrol.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported

ECOLOGY CONTROL INDUSTRIES, INC. (Continued) **S105024657**

DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	310-354-9999
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Dominguez Channel
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	4212-Local Trucking Without Storage
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	4
Regulatory Measure Id:	190380
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	4 19I012624
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	10/30/1996
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Ecology Control Industries
Discharge Address:	20846 Normandie Ave
Discharge City:	Torrance
Discharge State:	California
Discharge Zip:	90502
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported

ECOLOGY CONTROL INDUSTRIES, INC. (Continued) **S105024657**

PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

AT449 **ECOLOGY CONTROL INDUSTRIES** **SEMS-ARCHIVE** **1015732796**
NNW **20846 S NORMANDIE AVE** **RCRA-SQG** **CAD085941789**
1/4-1/2 **TORRANCE, CA 90502**
0.370 mi.
1956 ft. **Site 4 of 5 in cluster AT**

Relative:
Higher

Actual:
41 ft.

SEMS-ARCHIVE:
Site ID: 904528
EPA ID: CAD085941789
Federal Facility: N
NPL: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

Following information was gathered from the prior CERCLIS update completed in 10/2013:
Site ID: 0904528
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Site Contact Details:
Contact Sequence ID: 13289148.00000
Person ID: 13003854.00000

Contact Sequence ID: 13294743.00000
Person ID: 13003858.00000

Contact Sequence ID: 13300601.00000
Person ID: 13004003.00000

CERCLIS-NFRAP Site Alias Name(s):
Alias Name: AZKO COATINGS
Alias Address: Not reported
CA

CERCLIS-NFRAP Assessment History:
Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 01/21/93
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

Action: ARCHIVE SITE
Date Started: / /
Date Completed: 01/21/93
Priority Level: Not reported

Action: DISCOVERY
Date Started: / /
Date Completed: 07/23/92
Priority Level: Not reported

RCRA-SQG:
Date form received by agency: 07/17/1998
Facility name: ECOLOGY CONTROL INDUSTRIES
Facility address: 20846 S NORMANDIE AVE
TORRANCE, CA 90502
EPA ID: CAD085941789
Mailing address: 20846 NORMANDIE AVE

ECOLOGY CONTROL INDUSTRIES (Continued) **1015732796**

TORRANCE, CA 90502
Contact: FRED WENDLAND
Contact address: 20846 S NORMANDIE AVE
TORRANCE, CA 90502
Contact country: US
Contact telephone: (310) 320-2555
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: ECOLOGY CONTROL INDUSTRIES
Owner/operator address: 20846 NORMANDIE AVE
TORRANCE, CA 90502
Owner/operator country: Not reported
Owner/operator telephone: (310) 320-2555
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

ECOLOGY CONTROL INDUSTRIES (Continued) **1015732796**

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D008
. Waste name: LEAD

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Historical Generators:
Date form received by agency: 09/01/1996
Site name: ECOLOGY CONTROL INDUSTRIES
Classification: Small Quantity Generator

Violation Status: No violations found

AU450 **DEL AMO** **US BROWNFIELDS** **1016679671**
North **1000 WEST 204TH STREET** **N/A**
1/4-1/2 **TORRANCE, CA 90502**
0.378 mi.
1996 ft. **Site 1 of 2 in cluster AU**

Relative:
Higher

Actual:
40 ft.

US BROWNFIELDS:
Recipient name: R9 TBA (STAG Funded)
Grant type: TBA
Property name: DEL AMO
Property #: Numerous
Parcel size: 10
Property Description: Presumed undeveloped before construction of 65 residences in the 1950s; Currently vacant.
Latitude: 33.845822
Longitude: -118.293586
HCM label: Interpolation-Map
Map scale: Not reported
Point of reference: Center of a Facility or Station
Datum: North American Datum of 1983
ACRES property ID: 175901
Start date: Not reported
Completed date: Not reported

DEL AMO (Continued) **1016679671**

Acres cleaned up:	Not reported
Cleanup funding:	Not reported
Cleanup funding source:	Not reported
Assessment funding:	19440
Assessment funding source:	US EPA - TBA Funding
Redevelopment funding:	Not reported
Redev. funding source:	Not reported
Redev. funding entity name:	Not reported
Redevelopment start date:	Not reported
Assessment funding entity:	EPA
Cleanup funding entity:	Not reported
Grant type:	Hazardous & Petroleum
Accomplishment type:	Phase I Environmental Assessment
Accomplishment count:	1
Cooperative agreement #:	n/a
Ownership entity:	Private
Current owner:	Triton Diagnostics
Did owner change:	N
Cleanup required:	No
Video available:	No
Photo available:	Yes
Institutional controls required:	U
IC Category proprietary controls:	Not reported
IC cat. info. devices:	Not reported
IC cat. gov. controls:	Not reported
IC cat. enforcement permit tools:	Not reported
IC in place date:	Not reported
IC in place:	No
State/tribal program date:	Not reported
State/tribal program ID:	Not reported
State/tribal NFA date:	Not reported
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controled substance found:	Not reported
Controled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Y
Groundwater cleaned:	Not reported
Lead contaminant found:	Not reported
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Not reported
Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Not reported
PAHs cleaned up:	Not reported
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Not reported
Petro products cleaned:	Not reported
Sediments found:	Not reported

DEL AMO (Continued) **1016679671**

Sediments cleaned:	Not reported
Soil affected:	Y
Soil cleaned up:	Not reported
Surface water cleaned:	Not reported
VOCs found:	Not reported
VOCs cleaned:	Not reported
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	10
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	10
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	Not reported
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported
mercury cleaned up:	Not reported
nickel cleaned up:	Not reported
No clean up:	Not reported
Pesticides cleaned up:	Not reported
Selenium cleaned up:	Not reported
SVOCs cleaned up:	Not reported
Unknown clean up:	Not reported
Arsenic contaminant found:	Not reported
Cadmium contaminant found:	Not reported
Chromium contaminant found:	Not reported
Copper contaminant found:	Not reported
Iron contaminant found:	Not reported
Mercury contaminant found:	Not reported
Nickel contaminant found:	Not reported
No contaminant found:	Not reported
Pesticides contaminant found:	Not reported
Selenium contaminant found:	Not reported
SVOCs contaminant found:	Not reported
Unknown contaminant found:	Not reported
Future Use: Multistory	Not reported
Media affected Bluiding Material:	Not reported
Media affected indoor air:	Not reported
Building material media cleaned up:	Not reported
Indoor air media cleaned up:	Not reported
Unknown media cleaned up:	Not reported
Past Use: Multistory	Not reported
Highlights:	Not reported
IC Data Address:	Not reported
Redev Completition Date:	Not reported
# Below Poverty:	505
% Below Poverty:	8.4%
# Low Income:	1194
% Low Income:	3.5%
Meidan Income:	9053

DEL AMO (Continued) **1016679671**

# Unemployed:	289
% Unemployed:	14.6%
# Vacant Housing:	175
% Vacant Housing:	24.1%

AU451 **DEL AMO NEIGHBORHOOD PARK** **ENVIROSTOR** **S118098163**
North **1000 WEST 204TH STREET** **VCP** **N/A**
1/4-1/2 **TORRANCE, CA 90502**
0.378 mi.
1996 ft. **Site 2 of 2 in cluster AU**

Relative:
Higher

Actual:
40 ft.

ENVIROSTOR:

Facility ID:	60002199
Status:	Active
Status Date:	06/25/2015
Site Code:	401720
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	8.45
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Safouh Sayed
Supervisor:	Robert Senga
Division Branch:	Cleanup Cypress
Assembly:	, 66
Senate:	, 35
Special Program:	Voluntary Cleanup Program
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	33.84561
Longitude:	-118.2946
APN:	7350-007-016, 7350-007-017, 7350-007-018, 7350-007-019, 7350-007-020, 7350-007-045, 7350-015-001, 7350-015-043, 7350-015-045, 7350-015-046, 7350-015-047, 7350-015-048, 7350-015-049, 7350-015-050, 7350-015-051, 7350-015-052, 7350-015-053, 7350-015-054, 7350-015-055, 7350-015-056, 7350-015-057, 7350-015-058, 7350-016-002, 7350-016-003, 7350-016-004, 7350-016-012, 7350-016-025, 7350-016-026, 7350-016-027, 7350-016-028, 7350-016-029, 7350-016-030, 7350-016-031, 7350-016-032, 7350-016-033, 7350-016-034, 7350-016-035, 7350-016-036, 7350-016-037, 7350-016-038, 7350-016-041, 7350-017-035, 7350-017-036, 7350-017-037, 7350-017-038, 7350-017-039, 7350-017-040, 7350-018-001, 7350-018-002, 7350-018-003, 7350-018-004, 7350-018-005, 7350-018-006
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	7350-007-016
Alias Type:	APN
Alias Name:	7350-007-017
Alias Type:	APN
Alias Name:	7350-007-018
Alias Type:	APN
Alias Name:	7350-007-019
Alias Type:	APN
Alias Name:	7350-007-020
Alias Type:	APN

DEL AMO NEIGHBORHOOD PARK (Continued) **S118098163**

Alias Name:	7350-007-045
Alias Type:	APN
Alias Name:	7350-015-001
Alias Type:	APN
Alias Name:	7350-015-043
Alias Type:	APN
Alias Name:	7350-015-045
Alias Type:	APN
Alias Name:	7350-015-046
Alias Type:	APN
Alias Name:	7350-015-047
Alias Type:	APN
Alias Name:	7350-015-048
Alias Type:	APN
Alias Name:	7350-015-049
Alias Type:	APN
Alias Name:	7350-015-050
Alias Type:	APN
Alias Name:	7350-015-051
Alias Type:	APN
Alias Name:	7350-015-052
Alias Type:	APN
Alias Name:	7350-015-053
Alias Type:	APN
Alias Name:	7350-015-054
Alias Type:	APN
Alias Name:	7350-015-055
Alias Type:	APN
Alias Name:	7350-015-056
Alias Type:	APN
Alias Name:	7350-015-057
Alias Type:	APN
Alias Name:	7350-015-058
Alias Type:	APN
Alias Name:	7350-016-002
Alias Type:	APN
Alias Name:	7350-016-003
Alias Type:	APN
Alias Name:	7350-016-004
Alias Type:	APN
Alias Name:	7350-016-012
Alias Type:	APN
Alias Name:	7350-016-025
Alias Type:	APN
Alias Name:	7350-016-026
Alias Type:	APN
Alias Name:	7350-016-027
Alias Type:	APN
Alias Name:	7350-016-028
Alias Type:	APN
Alias Name:	7350-016-029
Alias Type:	APN
Alias Name:	7350-016-030
Alias Type:	APN
Alias Name:	7350-016-031
Alias Type:	APN
Alias Name:	7350-016-032

DEL AMO NEIGHBORHOOD PARK (Continued) **S118098163**

Alias Type: APN
Alias Name: 7350-016-033
Alias Type: APN
Alias Name: 7350-016-034
Alias Type: APN
Alias Name: 7350-016-035
Alias Type: APN
Alias Name: 7350-016-036
Alias Type: APN
Alias Name: 7350-016-037
Alias Type: APN
Alias Name: 7350-016-038
Alias Type: APN
Alias Name: 7350-016-041
Alias Type: APN
Alias Name: 7350-017-035
Alias Type: APN
Alias Name: 7350-017-036
Alias Type: APN
Alias Name: 7350-017-037
Alias Type: APN
Alias Name: 7350-017-038
Alias Type: APN
Alias Name: 7350-017-039
Alias Type: APN
Alias Name: 7350-017-040
Alias Type: APN
Alias Name: 7350-018-001
Alias Type: APN
Alias Name: 7350-018-002
Alias Type: APN
Alias Name: 7350-018-003
Alias Type: APN
Alias Name: 7350-018-004
Alias Type: APN
Alias Name: 7350-018-005
Alias Type: APN
Alias Name: 7350-018-006
Alias Type: APN
Alias Name: 401720
Alias Type: Project Code (Site Code)
Alias Name: 60002199
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 11/05/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Prospective Purchaser Agreement
Completed Date: 11/18/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE

DEL AMO NEIGHBORHOOD PARK (Continued) **S118098163**

Completed Sub Area Name: Not reported
Completed Document Type: California Land Reuse and Revitalization Agreement
Completed Date: 11/18/2015
Comments: Not reported

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Removal Action Completion Report
Future Due Date: 2018
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Design/Implementation Workplan
Future Due Date: 2017
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Plan
Future Due Date: 2018
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Land Use Restriction
Future Due Date: 2018
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Community Profile
Schedule Due Date: 04/20/2017
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Fact Sheets
Schedule Due Date: 05/18/2017
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Public Notice
Schedule Due Date: 05/09/2017
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Removal Action Workplan
Schedule Due Date: 04/04/2017
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Site Characterization Report
Schedule Due Date: 12/26/2016
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: CEQA - Notice of Exemption
Schedule Due Date: 03/11/2017
Schedule Revised Date: Not reported

VCP:
Facility ID: 60002199
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED

DEL AMO NEIGHBORHOOD PARK (Continued) **S118098163**

Acres:	8.45
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Safouh Sayed
Supervisor:	Robert Senga
Division Branch:	Cleanup Cypress
Site Code:	401720
Assembly:	, 66
Senate:	, 35
Special Programs Code:	Voluntary Cleanup Program
Status:	Active
Status Date:	06/25/2015
Restricted Use:	NO
Funding:	Responsible Party
Lat/Long:	33.84561 / -118.2946
APN:	7350-007-016, 7350-007-017, 7350-007-018, 7350-007-019, 7350-007-020, 7350-007-045, 7350-015-001, 7350-015-043, 7350-015-045, 7350-015-046, 7350-015-047, 7350-015-048, 7350-015-049, 7350-015-050, 7350-015-051, 7350-015-052, 7350-015-053, 7350-015-054, 7350-015-055, 7350-015-056, 7350-015-057, 7350-015-058, 7350-016-002, 7350-016-003, 7350-016-004, 7350-016-012, 7350-016-025, 7350-016-026, 7350-016-027, 7350-016-028, 7350-016-029, 7350-016-030, 7350-016-031, 7350-016-032, 7350-016-033, 7350-016-034, 7350-016-035, 7350-016-036, 7350-016-037, 7350-016-038, 7350-016-041, 7350-017-035, 7350-017-036, 7350-017-037, 7350-017-038, 7350-017-039, 7350-017-040, 7350-018-001, 7350-018-002, 7350-018-003, 7350-018-004, 7350-018-005, 7350-018-006
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	7350-007-016
Alias Type:	APN
Alias Name:	7350-007-017
Alias Type:	APN
Alias Name:	7350-007-018
Alias Type:	APN
Alias Name:	7350-007-019
Alias Type:	APN
Alias Name:	7350-007-020
Alias Type:	APN
Alias Name:	7350-007-045
Alias Type:	APN
Alias Name:	7350-015-001
Alias Type:	APN
Alias Name:	7350-015-043
Alias Type:	APN
Alias Name:	7350-015-045
Alias Type:	APN
Alias Name:	7350-015-046
Alias Type:	APN
Alias Name:	7350-015-047
Alias Type:	APN
Alias Name:	7350-015-048
Alias Type:	APN
Alias Name:	7350-015-049

DEL AMO NEIGHBORHOOD PARK (Continued) **S118098163**

Alias Type:	APN
Alias Name:	7350-015-050
Alias Type:	APN
Alias Name:	7350-015-051
Alias Type:	APN
Alias Name:	7350-015-052
Alias Type:	APN
Alias Name:	7350-015-053
Alias Type:	APN
Alias Name:	7350-015-054
Alias Type:	APN
Alias Name:	7350-015-055
Alias Type:	APN
Alias Name:	7350-015-056
Alias Type:	APN
Alias Name:	7350-015-057
Alias Type:	APN
Alias Name:	7350-015-058
Alias Type:	APN
Alias Name:	7350-016-002
Alias Type:	APN
Alias Name:	7350-016-003
Alias Type:	APN
Alias Name:	7350-016-004
Alias Type:	APN
Alias Name:	7350-016-012
Alias Type:	APN
Alias Name:	7350-016-025
Alias Type:	APN
Alias Name:	7350-016-026
Alias Type:	APN
Alias Name:	7350-016-027
Alias Type:	APN
Alias Name:	7350-016-028
Alias Type:	APN
Alias Name:	7350-016-029
Alias Type:	APN
Alias Name:	7350-016-030
Alias Type:	APN
Alias Name:	7350-016-031
Alias Type:	APN
Alias Name:	7350-016-032
Alias Type:	APN
Alias Name:	7350-016-033
Alias Type:	APN
Alias Name:	7350-016-034
Alias Type:	APN
Alias Name:	7350-016-035
Alias Type:	APN
Alias Name:	7350-016-036
Alias Type:	APN
Alias Name:	7350-016-037
Alias Type:	APN
Alias Name:	7350-016-038
Alias Type:	APN
Alias Name:	7350-016-041
Alias Type:	APN

DEL AMO NEIGHBORHOOD PARK (Continued) **S118098163**

Alias Name:	7350-017-035
Alias Type:	APN
Alias Name:	7350-017-036
Alias Type:	APN
Alias Name:	7350-017-037
Alias Type:	APN
Alias Name:	7350-017-038
Alias Type:	APN
Alias Name:	7350-017-039
Alias Type:	APN
Alias Name:	7350-017-040
Alias Type:	APN
Alias Name:	7350-018-001
Alias Type:	APN
Alias Name:	7350-018-002
Alias Type:	APN
Alias Name:	7350-018-003
Alias Type:	APN
Alias Name:	7350-018-004
Alias Type:	APN
Alias Name:	7350-018-005
Alias Type:	APN
Alias Name:	7350-018-006
Alias Type:	APN
Alias Name:	401720
Alias Type:	Project Code (Site Code)
Alias Name:	60002199
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	11/05/2015
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Prospective Purchaser Agreement
Completed Date:	11/18/2015
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	11/18/2015
Comments:	Not reported
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Removal Action Completion Report
Future Due Date:	2018
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Design/Implementation Workplan
Future Due Date:	2017
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported

DEL AMO NEIGHBORHOOD PARK (Continued) **S118098163**

Future Document Type:	Operations and Maintenance Plan
Future Due Date:	2018
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Land Use Restriction
Future Due Date:	2018
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Community Profile
Schedule Due Date:	04/20/2017
Schedule Revised Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Fact Sheets
Schedule Due Date:	05/18/2017
Schedule Revised Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Public Notice
Schedule Due Date:	05/09/2017
Schedule Revised Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Removal Action Workplan
Schedule Due Date:	04/04/2017
Schedule Revised Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Site Characterization Report
Schedule Due Date:	12/26/2016
Schedule Revised Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	CEQA - Notice of Exemption
Schedule Due Date:	03/11/2017
Schedule Revised Date:	Not reported

AS452 **MB LANDSCAPING AND NURSERY, INC.** **SWF/LF** **S106387032**
NNE **20300 SOUTH FIGUEROA** **SLIC** **N/A**
1/4-1/2 **CARSON, CA 90248**
0.387 mi.
2045 ft. **Site 3 of 3 in cluster AS**

Relative:
Lower

Actual:
36 ft.

LOS ANGELES CO. LF:

Site ID:	2769
Alt. Address:	N/A
Site Contact:	Not reported
Site Contact Phone:	(310) 527-7750
Site Email:	sales@mbnursery.com
Site Website:	N/A
Site Type:	Composting Facility
Site SWIS Number:	19-AA-1070
Beginning Operation Date:	N/A
Ending Operation Date:	N/A
Local Enforcement Agency:	County of Los Angeles Department of Public Health
Maximun Depth Fill(Ft):	N/A
Permitted Capacity:	12
Present Use:	Composting Operation (Green Waste)

MB LANDSCAPING AND NURSERY, INC. (Continued) **S106387032**

Remaining Capacity(Million): N/A
Status: Active
Waste Accepted: Green Materials;
Hours of Operation: Monday-Friday 6 am -5 pm; Saturday 6 am -4 pm; Sunday 7 am-3pm
Disposal Area (Acre): N/A

Detail As Of 01/2014:
Operator Name: MB Landscaping and Nusery, Inc.
Operator Address: 20300 SOUTH FEGUEROA
Operator City/State/Zip: CARSON, ca 90745
Operator Contact: Socorro Garrido
Operator Telephone: (310) 527-7750
Operator Email: Not reported
Owner Name: Watson Land Company
Owner Address: 22010 South Wilmington Ave; Suite 400
Owner City/State/Zip: Carson, CA 90745
Owner Contact: Mike Genewick
Owner Telephone: (310) 755-3486
Owner Email: Not reported

SLIC:
Region: STATE
Facility Status: **Open - Inactive**
Status Date: 01/21/2015
Global Id: SLT43306304
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number: Not reported
Latitude: 33.850226
Longitude: -118.283378
Case Type: Cleanup Program Site
Case Worker: AGH
Local Agency: Not reported
RB Case Number: 0496D1
File Location: Not reported
Potential Media Affected: Not reported
Potential Contaminants of Concern: Not reported
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

SLIC REG 4:
Region: 4
Facility Status: Site Assessment
SLIC: 0496D1
Substance: Not reported
Staff: SSH

AV453 **OIL WELL PROPERTY(FORMER)** **ENVIROSTOR** **S106843224**
SSW **22800 S.NORMANDIE AVE.** **N/A**
1/4-1/2 **TORRANCE, CA 90502**
0.389 mi.
2052 ft. **Site 1 of 2 in cluster AV**

Relative:
Higher

Actual:
51 ft.

ENVIROSTOR:
Facility ID: 19130120
Status: Refer: 1248 Local Agency
Status Date: 11/16/2004

OIL WELL PROPERTY(FORMER) (Continued) **S106843224**

Site Code:	Not reported
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Referred - Not Assigned
Division Branch:	Cleanup Cypress
Assembly:	55
Senate:	Not reported
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not Applicable
Latitude:	0
Longitude:	0
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	19130120
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Comments:	Not reported

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

AV454 **A-1 MATERIALS** **HIST CORTESE** **S102064165**
SSW **23003 MARIPOSA** **N/A**
1/4-1/2 **HARBOR CITY, CA 90710**
0.391 mi.
2062 ft. **Site 2 of 2 in cluster AV**

Relative:
Higher

Actual:
51 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	I-21513

455
NNE
1/4-1/2
0.397 mi.
2096 ft.

GS NURSERY
20331 MAIN STREET
CARSON, CA 90745

ENVIROSTOR
SWF/LF
VCP
LIENS

S109426926
N/A

Relative:
Lower

Actual:
24 ft.

ENVIROSTOR:

Facility ID:	60000514
Status:	Inactive - Action Required
Status Date:	07/08/2011
Site Code:	401326
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	5.42
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Eileen Mananian
Supervisor:	Eileen Mananian
Division Branch:	Cleanup Cypress
Assembly:	64
Senate:	35
Special Program:	Voluntary Cleanup Program
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	33.84670
Longitude:	-118.2820
APN:	7336004010
Past Use:	LANDFILL - CONSTRUCTION
Potential COC:	Benzene DDD DDE DDT Methane TPH-diesel Bis(2-ethylhexyl)phthalate (DEHP) Butyl benzyl phthalate Chlorobenzene 1,4-Dichlorobenzene Ethylbenzene Naphthalene Isopropylbenzene (see Cumene n-Propylbenzene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene Xylenes
Confirmed COC:	Not reported
Potential Description:	OTH, SOIL, SV, OTH, SOIL, SV
Alias Name:	7336004010
Alias Type:	APN
Alias Name:	110033620776
Alias Type:	EPA (FRS #)
Alias Name:	401326
Alias Type:	Project Code (Site Code)
Alias Name:	60000514
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Voluntary Cleanup Agreement
Completed Date:	12/12/2006
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Correspondence
Completed Date:	11/16/2007
Comments:	Letter for 2008 Annual Cost Estimate sent to Project Proponent.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported

GS NURSERY (Continued) **S109426926**

Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	09/30/2009
Comments:	Cost Estimate letter sent to proponent via U.S. Mail and email
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Letter - Demand
Completed Date:	12/14/2009
Comments:	Cost Recovery Demand Letter send certified mail.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Lien
Completed Date:	05/19/2011
Comments:	Lien filed with the County of Los Angeles on May 19, 2011. Due to failure to submit payment plan or making payments towards amount owed. Once payments are made in full, the lien will be rescinded.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Letter - Demand
Completed Date:	01/19/2010
Comments:	Second Cost Recovery Demand Letter sent by Certified mail.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Letter - Demand
Completed Date:	07/20/2010
Comments:	Third Cost Recovery Letter was sent to the RP via certified mail. RP was given until August 30, 2010 to respond.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Letter - Demand
Completed Date:	04/12/2011
Comments:	Letter sent to RP.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Correspondence
Completed Date:	10/16/2008
Comments:	Annual Cost Estimate letter sent
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	10/18/2010
Comments:	2011 Cost Estimate and Schedule sent to RP.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Workplan
Completed Date:	07/12/2007
Comments:	Workplan accepted based on discussion of Response to Comments at 6/20 meeting. Workplan was carried out late June 2007. Final letter sent 7-12-2007.

GS NURSERY (Continued) **S109426926**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/04/2009
Comments: PEA Report (Landfill Assessment Report - LAR) approved.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SWF/LF (SWIS):
Region: STATE
Facility ID: 19-AA-1066
Lat/Long: 33.84733 / -118.281
Owner Name: GS Brothers, Inc.
Owner Telephone: 3108331369
Owner Address: Robert Gaudenti, President
Owner Address2: 2215 North Gaffey Street
Owner City,St,Zip: San Padero, CA 90731
Operational Status: Active
Operator: GS Brothers, Inc.
Operator Phone: 3108331369
Operator Address: Robert Gaudenti, President
Operator Address2: 2215 North Gaffey Street
Operator City,St,Zip: San Padero, CA 90731
Permit Date: 11/02/2004
Permit Status: Notification
Permitted Acreage: $1.80
Activity: Composting Operation (Green Waste)
Regulation Status: Notification
Landuse Name: Not reported
GIS Source: Map
Category: Composting
Unit Number: 01
Inspection Frequency: Quarterly
Accepted Waste: Green Materials
Closure Date: Not reported
Closure Type: Not reported
Disposal Acreage: Not reported
SWIS Num: 19-AA-1066
Waste Discharge Requirement Num: Not reported
Program Type: Not reported
Permitted Throughput with Units: 100
Actual Throughput with Units: Tons/day
Permitted Capacity with Units: 220000
Remaining Capacity: Not reported
Remaining Capacity with Units: Tons/year
Lat/Long: 33.84733 / -118.281

LOS ANGELES CO. LF:

GS NURSERY (Continued) **S109426926**

Site ID:	2766
Alt. Address:	N/A
Site Contact:	Not reported
Site Contact Phone:	(310) 906-7298
Site Email:	Not reported
Site Website:	http://www.gsbrothers.com/
Site Type:	Composting Facility
Site SWIS Number:	19-AA-1066
Beginning Operation Date:	N/A
Ending Operation Date:	N/A
Local Enforcement Agency:	County of Los Angeles Department of Public Health
Maximun Depth Fill(Ft):	N/A
Permitted Capacity:	100
Present Use:	Composting Operation (Green Waste)
Remaining Capacity(Million):	N/A
Status:	Active
Waste Accepted:	Green Materials;
Hours of Operation:	Monday - Friday 7am-4pm
Disposal Area (Acre):	N/A

Detail As Of 01/2014:

Operator Name:	Unknown
Operator Address:	Not reported
Operator City/State/Zip:	Not reported
Operator Contact:	Not reported
Operator Telephone:	Not reported
Operator Email:	Not reported
Owner Name:	Unknown
Owner Address:	Not reported
Owner City/State/Zip:	Not reported
Owner Contact:	Not reported
Owner Telephone:	Not reported
Owner Email:	Not reported

VCP:

Facility ID:	60000514
Site Type:	Voluntary Cleanup
Site Type Detail:	Voluntary Cleanup
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	5.42
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Eileen Mananian
Supervisor:	Eileen Mananian
Division Branch:	Cleanup Cypress
Site Code:	401326
Assembly:	64
Senate:	35
Special Programs Code:	Voluntary Cleanup Program
Status:	Inactive - Action Required
Status Date:	07/08/2011
Restricted Use:	NO
Funding:	Responsible Party
Lat/Long:	33.84670 / -118.2820
APN:	7336004010

GS NURSERY (Continued) **S109426926**

Past Use: LANDFILL - CONSTRUCTION
Potential COC: 30003, 30006, 30007, 30008, 30015, 30024, 30088, 30106, 30127, 30187, 30272, 30484, 30498, 30499, 30577, 30578, 30593
Confirmed COC: ,
Potential Description: OTH, SOIL, SV, OTH, SOIL, SV
Alias Name: 7336004010
Alias Type: APN
Alias Name: 110033620776
Alias Type: EPA (FRS #)
Alias Name: 401326
Alias Type: Project Code (Site Code)
Alias Name: 60000514
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 12/12/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 11/16/2007
Comments: Letter for 2008 Annual Cost Estimate sent to Project Proponent.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/30/2009
Comments: Cost Estimate letter sent to proponent via U.S. Mail and email

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 12/14/2009
Comments: Cost Recovery Demand Letter send certified mail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Lien
Completed Date: 05/19/2011
Comments: Lien filed with the County of Los Angeles on May 19, 2011. Due to failure to submit payment plan or making payments towards amount owed. Once payments are made in full, the lien will be rescinded.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 01/19/2010
Comments: Second Cost Recovery Demand Letter sent by Certified mail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 07/20/2010
Comments: Third Cost Recovery Letter was sent to the RP via certified mail. RP

GS NURSERY (Continued) **S109426926**

was given until August 30, 2010 to respond.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 04/12/2011
Comments: Letter sent to RP.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 10/16/2008
Comments: Annual Cost Estimate letter sent

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/18/2010
Comments: 2011 Cost Estimate and Schedule sent to RP.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 07/12/2007
Comments: Workplan accepted based on discussion of Response to Comments at 6/20 meeting. Workplan was carried out late June 2007. Final letter sent 7-12-2007.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/04/2009
Comments: PEA Report (Landfill Assessment Report - LAR) approved.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

LIENS:
Envirostor Id: 60000514
Latitude: 33.846700
Longitude: -118.28207
Project Mgr: EILEEN MANANIAN
Project Code: 401326
If Satisfied: NO
Date Satisfied: Not reported
Site Status: INACTIVE - ACTION REQUIRED
Site Type: VOLUNTARY CLEANUP
Completed: 05/19/2011
Lien Amount: $17,270.70
Amount Remaining: Not reported

GS NURSERY (Continued) **S109426926**

Description: The Site has been occupied by GS Nursery, a wholesale nursery supplier, since 1981. The Site had been undeveloped from the time that Pioneer purchased the property in 1973 through 1981 when GS Nursery began operations. Prior to 1973, the Site had been owned by several parties, including Four Corners Pipeline and Petroleum Lakes Glazer Company.

456
NE
1/4-1/2
0.399 mi.
2105 ft.

Relative:
Lower

Actual:
18 ft.

WERDIN DUMP **SWF/LF** **S102360895**
20600 SOUTH MAIN STREET **N/A**
CARSON, CA

SWF/LF (SWIS):

Region:	STATE
Facility ID:	19-AQ-0017
Lat/Long:	33.83333 / -118.27778
Owner Name:	Vista Loma Trailer Park
Owner Telephone:	Not reported
Owner Address:	Not reported
Owner Address2:	20400 Main St.
Owner City,St,Zip:	Carson, CA
Operational Status:	Closed
Operator:	Not reported
Operator Phone:	Not reported
Operator Address:	Not reported
Operator Address2:	Not reported
Operator City,St,Zip:	Not reported
Permit Date:	Not reported
Permit Status:	Not reported
Permitted Acreage:	$0.00
Activity:	Solid Waste Disposal Site
Regulation Status:	Pre-regulations
Landuse Name:	Urban,Residential
GIS Source:	Map
Category:	Disposal
Unit Number:	01
Inspection Frequency:	Annual
Accepted Waste:	Not reported
Closure Date:	Not reported
Closure Type:	Not reported
Disposal Acreage:	$0.00
SWIS Num:	19-AQ-0017
Waste Discharge Requirement Num:	Not reported
Program Type:	Not reported
Permitted Throughput with Units:	0
Actual Throughput with Units:	Not reported
Permitted Capacity with Units:	0
Remaining Capacity:	0
Remaining Capacity with Units:	Not reported
Lat/Long:	33.83333 / -118.27778

LOS ANGELES CO. LF:

Site ID:	2056
Alt. Address:	20420 South Main Street, Carson, CA
Site Contact:	Not reported
Site Contact Phone:	Not reported

WERDIN DUMP (Continued) **S102360895**

Site Email:	Not reported
Site Website:	Not reported
Site Type:	Designated Waste Landfill
Site SWIS Number:	19-AQ-0017
Beginning Operation Date:	Dec-64
Ending Operation Date:	Feb-68
Local Enforcement Agency:	County Public Health
Maximun Depth Fill(Ft):	17
Permitted Capacity:	Not reported
Present Use:	Residential
Remaining Capacity(Million):	Not reported
Status:	Closed
Waste Accepted:	Inert
Hours of Operation:	Not reported
Disposal Area (Acre):	8.7

Detail As Of 01/2014:

Operator Name:	Unknown
Operator Address:	Not reported
Operator City/State/Zip:	Not reported
Operator Contact:	Not reported
Operator Telephone:	Not reported
Operator Email:	Not reported
Owner Name:	Estate of Russell Werdin
Owner Address:	20600 Main St
Owner City/State/Zip:	Carson, CA
Owner Contact:	Not reported
Owner Telephone:	Not reported
Owner Email:	Not reported

AW457 **WESTERN BRASS** **LUST** **S102441180**
SSW **1338 228TH ST W** **N/A**
1/4-1/2 **LOS ANGELES, CA 90501**
0.402 mi.
2120 ft. **Site 1 of 2 in cluster AW**

Relative:
Higher

Actual:
55 ft.

LUST:

Region:	STATE
Global Id:	T0603701446
Latitude:	33.818398
Longitude:	-118.300701
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	09/05/1996
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	YR
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	905010061
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603701446
Contact Type:	Regional Board Caseworker

WESTERN BRASS (Continued) **S102441180**

Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Global Id: T0603701446
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

Status History:
Global Id: T0603701446
Status: Completed - Case Closed
Status Date: 09/05/1996

Global Id: T0603701446
Status: Open - Case Begin Date
Status Date: 08/22/1995

Global Id: T0603701446
Status: Open - Site Assessment
Status Date: 06/28/1996

Regulatory Activities:
Global Id: T0603701446
Action Type: Other
Date: 08/22/1995
Action: Leak Stopped

Global Id: T0603701446
Action Type: Other
Date: 08/22/1995
Action: Leak Discovery

Global Id: T0603701446
Action Type: Other
Date: 08/22/1995
Action: Leak Reported

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 905010061
Status: Case Closed
Substance: Diesel
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Soil

WESTERN BRASS (Continued) **S102441180**

Abatement Method Used at the Site:		Not reported
Global ID:	T0603701446	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	SEPULVEDA BLVD	
Enforcement Type:	Not reported	
Date Leak Discovered:	8/22/1995	
Date Leak First Reported:		8/22/1995
Date Leak Record Entered:	7/22/1996	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	8/22/1995	
Date Case Last Changed on Database:		6/28/1996
Date the Case was Closed:		9/5/1996
How Leak Discovered:	Tank Closure	
How Leak Stopped:	Not reported	
Cause of Leak:	Not reported	
Leak Source:	Not reported	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		4582.2528896854603441258332158
Source of Cleanup Funding:		Not reported
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		6/28/1996
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	MULLIGAN GROUP, INC.	
RP Address:	1313 W SEPULVEDA BLVD., TORRANCE CA 90501	
Program:	LUST	
Lat/Long:	33.8188548 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	Not reported	

AT458 **ECOLOGY CONTROL INDUSTRIES (FORMER AKZO SIKKENS FACILITY)** **ENVIROSTOR** **S117038661**
NNW **20802,20846 AND 20850 NORMANDIE AVENUE SOUTH** **VCP** **N/A**
1/4-1/2 **TORRANCE, CA 90502**
0.402 mi.
2122 ft. **Site 5 of 5 in cluster AT**

Relative:
Lower

Actual:
39 ft.

ENVIROSTOR:

Facility ID:	60001994
Status:	Active
Status Date:	02/04/2014
Site Code:	401661
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	9
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Willard Garrett
Supervisor:	Manny Alonzo
Division Branch:	Cleanup Cypress
Assembly:	66
Senate:	35
Special Program:	Voluntary Cleanup Program
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	33.84159
Longitude:	-118.2987
APN:	7348-020-004, 7348-020-007
Past Use:	AEROSPACE MANUFACTURING/MAINTENANCE
Potential COC:	Benzene Chlordane DDE DDT Endrin Tetrachloroethylene (PCE Toluene Trichloroethylene (TCE
Confirmed COC:	Benzene Chlordane DDE DDT Endrin Tetrachloroethylene (PCE Toluene Trichloroethylene (TCE
Potential Description:	AQUI, SOIL, SV, UE
Alias Name:	7348-020-004
Alias Type:	APN
Alias Name:	7348-020-007
Alias Type:	APN
Alias Name:	401661
Alias Type:	Project Code (Site Code)
Alias Name:	60001994
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	06/30/2014
Comments:	DTSC Approved Phase II
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	06/30/2014
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Workplan

ECOLOGY CONTROL INDUSTRIES (FORMER AKZO SIKKENS FACILITY) (Continued) **S117038661**

Completed Date: 06/24/2015
Comments: DTSC Approved the RAW

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 08/26/2014
Comments: DTSC Approved SSI

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 11/05/2014
Comments: Fact Sheet Approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 11/05/2014
Comments: DTSC Approved the Public Notice

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 11/05/2014
Comments: DTSC Approved the Community Profile.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 06/24/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 11/30/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 11/04/2014
Comments: DTSC Approved the NOE

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 02/04/2014
Comments: VCA with Ecology Control Industries executed.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported

ECOLOGY CONTROL INDUSTRIES (FORMER AKZO SIKKENS FACILITY) (Continued) **S117038661**

Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

VCP:
Facility ID: 60001994
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 9
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Willard Garrett
Supervisor: Manny Alonzo
Division Branch: Cleanup Cypress
Site Code: 401661
Assembly: 66
Senate: 35
Special Programs Code: Voluntary Cleanup Program
Status: Active
Status Date: 02/04/2014
Restricted Use: NO
Funding: Responsible Party
Lat/Long: 33.84159 / -118.2987
APN: 7348-020-004, 7348-020-007
Past Use: AEROSPACE MANUFACTURING/MAINTENANCE
Potential COC: 30003, 30004, 30007, 30008, 30010, 30022, 30550, 30027
Confirmed COC: 30003,30004,30007,30008,30010,30022,30550,, ,30027
Potential Description: AQUI, SOIL, SV, UE
Alias Name: 7348-020-004
Alias Type: APN
Alias Name: 7348-020-007
Alias Type: APN
Alias Name: 401661
Alias Type: Project Code (Site Code)
Alias Name: 60001994
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 06/30/2014
Comments: DTSC Approved Phase II

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 06/30/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 06/24/2015

ECOLOGY CONTROL INDUSTRIES (FORMER AKZO SIKKENS FACILITY) (Continued) **S117038661**

Comments: DTSC Approved the RAW

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 08/26/2014
Comments: DTSC Approved SSI

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 11/05/2014
Comments: Fact Sheet Approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 11/05/2014
Comments: DTSC Approved the Public Notice

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 11/05/2014
Comments: DTSC Approved the Community Profile.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 06/24/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 11/30/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 11/04/2014
Comments: DTSC Approved the NOE

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 02/04/2014
Comments: VCA with Ecology Control Industries executed.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported

ECOLOGY CONTROL INDUSTRIES (FORMER AKZO SIKKENS FACILITY) (Continued) **S117038661**

Schedule Due Date: Not reported
Schedule Revised Date: Not reported

AW459 **WESTERN BRASS** **HIST CORTESE** **S105027090**
SSW **1338 228TH** **N/A**
1/4-1/2 **TORRANCE, CA 90501**
0.410 mi.
2167 ft. **Site 2 of 2 in cluster AW**

Relative:
Higher

Actual:
55 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 905010061

AX460 **ALLAN'S ARCO MINI MARKET** **HIST CORTESE** **S105027084**
West **1605 CARSON** **N/A**
1/4-1/2 **TORRANCE, CA 90501**
0.426 mi.
2248 ft. **Site 1 of 2 in cluster AX**

Relative:
Higher

Actual:
57 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 905020016

AX461 **ALLAN'S ARCO MINI MARKET** **LUST** **S103065168**
West **1605 CARSON ST W** **ENF** **N/A**
1/4-1/2 **LOS ANGELES, CA 90501**
0.426 mi.
2248 ft. **Site 2 of 2 in cluster AX**

Relative:
Higher

Actual:
57 ft.

LUST:
Region: STATE
Global Id: T0603701458
Latitude: 33.83178
Longitude: -118.306714
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 02/21/2007
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: AT
Local Agency: LOS ANGELES, CITY OF
RB Case Number: 905020016
LOC Case Number: Not reported
File Location: Regional Board
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603701458

ALLAN'S ARCO MINI MARKET (Continued) **S103065168**

Contact Type:	Regional Board Caseworker
Contact Name:	ARMAN TOUMARI
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 WEST 4TH STREET, SUITE 200
City:	LOS ANGELES
Email:	atoumari@waterboards.ca.gov
Phone Number:	2135766708

Global Id:	T0603701458
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T0603701458
Status:	Completed - Case Closed
Status Date:	02/21/2007

Global Id:	T0603701458
Status:	Open - Case Begin Date
Status Date:	06/03/1994

Global Id:	T0603701458
Status:	Open - Remediation
Status Date:	01/14/2002

Global Id:	T0603701458
Status:	Open - Remediation
Status Date:	09/29/2003

Global Id:	T0603701458
Status:	Open - Site Assessment
Status Date:	01/14/2002

Regulatory Activities:

Global Id:	T0603701458
Action Type:	ENFORCEMENT
Date:	01/31/2007
Action:	Site Visit / Inspection / Sampling

Global Id:	T0603701458
Action Type:	REMEDIATION
Date:	09/29/2003
Action:	Soil Vapor Extraction (SVE)

Global Id:	T0603701458
Action Type:	RESPONSE
Date:	01/15/2005
Action:	Monitoring Report - Quarterly

Global Id:	T0603701458
Action Type:	RESPONSE

ALLAN'S ARCO MINI MARKET (Continued) **S103065168**

Date: 10/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603701458
Action Type: RESPONSE
Date: 07/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603701458
Action Type: RESPONSE
Date: 04/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603701458
Action Type: RESPONSE
Date: 01/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603701458
Action Type: RESPONSE
Date: 03/05/2007
Action: Other Report / Document

Global Id: T0603701458
Action Type: ENFORCEMENT
Date: 01/14/2002
Action: 13267 Requirement

Global Id: T0603701458
Action Type: ENFORCEMENT
Date: 02/05/2007
Action: Notification - Preclosure

Global Id: T0603701458
Action Type: RESPONSE
Date: 04/15/2002
Action: Monitoring Report - Quarterly

Global Id: T0603701458
Action Type: ENFORCEMENT
Date: 06/20/2002
Action: Staff Letter

Global Id: T0603701458
Action Type: ENFORCEMENT
Date: 05/23/2002
Action: 13267 Requirement

Global Id: T0603701458
Action Type: Other
Date: 06/03/1994
Action: Leak Stopped

Global Id: T0603701458
Action Type: ENFORCEMENT
Date: 02/21/2007
Action: Closure/No Further Action Letter

ALLAN'S ARCO MINI MARKET (Continued) **S103065168**

Global Id: T0603701458
Action Type: Other
Date: 06/03/1994
Action: Leak Discovery

Global Id: T0603701458
Action Type: Other
Date: 06/03/1994
Action: Leak Reported

Global Id: T0603701458
Action Type: RESPONSE
Date: 07/31/2002
Action: Other Report / Document

Global Id: T0603701458
Action Type: RESPONSE
Date: 07/15/2002
Action: Monitoring Report - Quarterly

Global Id: T0603701458
Action Type: RESPONSE
Date: 04/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603701458
Action Type: RESPONSE
Date: 10/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603701458
Action Type: RESPONSE
Date: 01/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603701458
Action Type: RESPONSE
Date: 07/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603701458
Action Type: RESPONSE
Date: 01/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603701458
Action Type: RESPONSE
Date: 04/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603701458
Action Type: RESPONSE
Date: 07/15/2002
Action: Soil and Water Investigation Report

Global Id: T0603701458
Action Type: RESPONSE

ALLAN'S ARCO MINI MARKET (Continued) **S103065168**

Date:	10/15/2004
Action:	Monitoring Report - Quarterly
Global Id:	T0603701458
Action Type:	RESPONSE
Date:	07/15/2004
Action:	Monitoring Report - Quarterly
Global Id:	T0603701458
Action Type:	RESPONSE
Date:	04/15/2005
Action:	Monitoring Report - Quarterly

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	905020016	
Status:	Remediation Plan	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603701458	
W Global ID:	Not reported	
Staff:	AT	
Local Agency:	19050	
Cross Street:	HARVARD ST	
Enforcement Type:	LET	
Date Leak Discovered:	6/3/1994	
Date Leak First Reported:		6/3/1994
Date Leak Record Entered:	6/18/1996	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	6/3/1994	
Date Case Last Changed on Database:		7/12/2002
Date the Case was Closed:		Not reported
How Leak Discovered:	Tank Closure	
How Leak Stopped:	Not reported	
Cause of Leak:	Not reported	
Leak Source:	Not reported	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		2928.34152391484537317915918 07
Source of Cleanup Funding:		Not reported
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		1/14/2002
Remediation Plan Submitted:		1/14/2002
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		5/23/2000
Historical Max MTBE Date:		9/27/2000
Hist Max MTBE Conc in Groundwater:		1600
Hist Max MTBE Conc in Soil:		50000

ALLAN'S ARCO MINI MARKET (Continued) **S103065168**

Significant Interim Remedial Action Taken: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Owner Contact: Not reported
Responsible Party: WILLIAM B. HENRY
RP Address: 2936 E. CORONADO ST.
Program: LUST
Lat/Long: 33.8314055 / -1
Local Agency Staff: PEJ
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: 11/1/99 3RD QTR GW MON RPT 1999; 1/11/00 4TH QTR GW MON RPT; 7/14/00 2ND QTR GW MON RPT 2000; 10/18/00 3RD QTR GW MON RPT 2000; 1/23/01 4TH QTR GW MON RPT 2000

ENF:
Region: 4
Facility Id: 205119
Agency Name: ARCO Allan's Mini Market
Place Type: Facility
Place Subtype: Not reported
Facility Type: Not reported
Agency Type: Privately-Owned Business
Of Agencies: 1
Place Latitude: 33.831472
Place Longitude: -118.306641
SIC Code 1: Not reported
SIC Desc 1: Not reported
SIC Code 2: Not reported
SIC Desc 2: Not reported
SIC Code 3: Not reported
SIC Desc 3: Not reported
NAICS Code 1: Not reported
NAICS Desc 1: Not reported
NAICS Code 2: Not reported
NAICS Desc 2: Not reported
NAICS Code 3: Not reported
NAICS Desc 3: Not reported
Of Places: 1
Source Of Facility: Reg Meas
Design Flow: Not reported
Threat To Water Quality: Not reported
Complexity: Not reported
Pretreatment: Not reported
Facility Waste Type: Not reported
Facility Waste Type 2: Not reported
Facility Waste Type 3: Not reported
Facility Waste Type 4: Not reported
Program: UST
Program Category1: TANKS
Program Category2: TANKS
Of Programs: 1
WDID: 905020016

ALLAN'S ARCO MINI MARKET (Continued) **S103065168**

Reg Measure Id:	167345
Reg Measure Type:	Unregulated
Region:	4
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/20/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	248395
Region:	4
Order / Resolution Number:	NOV
Enforcement Action Type:	Notice of Violation
Effective Date:	05/31/2002
Adoption/Issuance Date:	Not reported
Achieve Date:	7/18/2000
Termination Date:	05/31/2002
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 905020016
Description:	NOV sent 5/31/02 for incomplete PSCM.
Program:	UST
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0

Region:	4
Facility Id:	205119
Agency Name:	ARCO Allan's Mini Market
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	Not reported
Agency Type:	Privately-Owned Business

ALLAN'S ARCO MINI MARKET (Continued) **S103065168**

# Of Agencies:	1
Place Latitude:	33.831472
Place Longitude:	-118.306641
SIC Code 1:	Not reported
SIC Desc 1:	Not reported
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	UST
Program Category1:	TANKS
Program Category2:	TANKS
# Of Programs:	1
WDID:	905020016
Reg Measure Id:	167345
Reg Measure Type:	Unregulated
Region:	4
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/20/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	230217

ALLAN'S ARCO MINI MARKET (Continued) **S103065168**

Region:	4
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	Staff Enforcement Letter
Effective Date:	05/24/2000
Adoption/Issuance Date:	Not reported
Achieve Date:	7/18/2000
Termination Date:	05/24/2000
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 905020016
Description:	Level 1 enforcement letter sent 5/24/00 reminding the RP to submit the 2Q00 groundwater monitoring report on time.
Program:	UST
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0

Region:	4
Facility Id:	205119
Agency Name:	ARCO Allan's Mini Market
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	Not reported
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	33.831472
Place Longitude:	-118.306641
SIC Code 1:	Not reported
SIC Desc 1:	Not reported
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	UST

ALLAN'S ARCO MINI MARKET (Continued) **S103065168**

Program Category1:	TANKS
Program Category2:	TANKS
# Of Programs:	1
WDID:	905020016
Reg Measure Id:	167345
Reg Measure Type:	Unregulated
Region:	4
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/20/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	230216
Region:	4
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	Oral Communication
Effective Date:	05/17/2000
Adoption/Issuance Date:	Not reported
Achieve Date:	7/18/2000
Termination Date:	05/17/2000
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 905020016
Description:	Board staff phoned RP's consultant 5/17/00 about the overdue groundwater monitoring report.
Program:	UST
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0

462
NNW
1/4-1/2
0.427 mi.
2254 ft.

TCE NORMANDIE SITE
VARIOUS SITES EAST AND WEST OF NORMANDIE AVENUE BETWEEN KNOX
TORRANCE & LOS ANGELES, CA 90502

ENVIROSTOR **S117038719**
N/A

Relative:
Higher

Actual:
41 ft.

ENVIROSTOR:

Facility ID:	60002080
Status:	Active
Status Date:	09/04/2014
Site Code:	401693
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	2
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Safouh Sayed
Supervisor:	Douglas Bautista
Division Branch:	Cleanup Cypress
Assembly:	66
Senate:	35
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	33.84194
Longitude:	-118.2995
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	401693
Alias Type:	Project Code (Site Code)
Alias Name:	60002080
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

AY463 **WERDIN DUMP** **SEMS-ARCHIVE** **1000189294**
NE **20420 S MAIN ST** **LOS ANGELES CO. HMS** **CAD981576622**
1/4-1/2 **CARSON, CA 90745**
0.451 mi.
2380 ft. **Site 1 of 6 in cluster AY**

Relative:
Lower

Actual:
27 ft.

SEMS-ARCHIVE:
Site ID: 902459
EPA ID: CAD981576622
Federal Facility: N
NPL: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

Following information was gathered from the prior CERCLIS update completed in 10/2013:
Site ID: 0902459
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Site Contact Details:
Contact Sequence ID: 13288399.00000
Person ID: 13003854.00000

Contact Sequence ID: 13293994.00000
Person ID: 13003858.00000

Contact Sequence ID: 13299852.00000
Person ID: 13004003.00000

CERCLIS-NFRAP Site Alias Name(s):
Alias Name: WERDIN LDFL (1964-1968)
Alias Address: Not reported
CA

Alias Name: MOBIL HOME PARK (1968 TO PRES)
Alias Address: Not reported
CA

CERCLIS-NFRAP Assessment History:
Action: PRELIMINARY ASSESSMENT
Date Started: 11/01/86
Date Completed: 07/01/87
Priority Level: Low priority for further assessment

Action: DISCOVERY
Date Started: / /
Date Completed: 11/01/86
Priority Level: Not reported

Action: ARCHIVE SITE
Date Started: / /
Date Completed: 03/28/02
Priority Level: Not reported

Action: SITE INSPECTION
Date Started: 11/07/01
Date Completed: 03/28/02
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

WERDIN DUMP (Continued) **1000189294**

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 000885-I00928
Facility Type: 00
Facility Status: Closed
Area: 22
Permit Number: 000003332
Permit Status: Closed

AY464 **WERDIN DUMP** **HIST CORTESE** **S105023096**
NE **20402 MAIN** **N/A**
1/4-1/2 **CARSON, CA 90745**
0.464 mi.
2451 ft. **Site 2 of 6 in cluster AY**

Relative:
Lower

Actual:
26 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: CALSI
Reg Id: 19490104

AY465 **WERDIN DUMP** **ENVIROSTOR** **S102279529**
NE **20402 S MAIN ST** **N/A**
1/4-1/2 **CARSON, CA 90745**
0.464 mi.
2451 ft. **Site 3 of 6 in cluster AY**

Relative:
Lower

Actual:
26 ft.

ENVIROSTOR:
Facility ID: 19490104
Status: Refer: RWQCB
Status Date: 01/18/1995
Site Code: Not reported
Site Type: Historical
Site Type Detailed: * Historical
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: * Mmonroy
Division Branch: Cleanup Cypress
Assembly: Not reported
Senate: Not reported
Special Program: * Site Char & Assess Grant (CERCLA 104)
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 0
Longitude: 0
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: * HOUSEHOLD WASTES * OTHER INORGANIC SOLID WASTE
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: 19490104

WERDIN DUMP (Continued) **S102279529**

Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 04/15/1982
Comments: FACILITY IDENTIFIED LA CO 630 SERIES BASE COORD MAP (1973)

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 04/14/1982
Comments: FACILITY IDENTIFIED CO ENGR INACTIVE WASTE DISPOSAL FACILITY

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 01/18/1995
Comments: DATABASE VALIDATION PROGRAM CONFIRMS NFA FOR DTSC.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

AZ466 **DEXOL INDUSTRIES INC** **RCRA-SQG** **1000333380**
SW **1450 W 228TH ST** **LUST** **CAD086506300**
1/4-1/2 **TORRANCE, CA 90501** **SWEEPS UST**
0.466 mi. **HIST UST**
2459 ft. **Site 1 of 2 in cluster AZ** **CA FID UST**
FTTS
Relative: **HIST FTTS**
Higher **EMI**

Actual: **56 ft.**

RCRA-SQG:
Date form received by agency: 09/01/1996
Facility name: DEXOL INDUSTRIES INC
Facility address: 1450 W 228TH ST
TORRANCE, CA 90501
EPA ID: CAD086506300
Contact: Not reported
Contact address: Not reported
Not reported
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of

DEXOL INDUSTRIES INC (Continued) **1000333380**

hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: DEXOL INDUSTRIES
Owner/operator address: 1450 W 228TH ST
TORRANCE, CA 90501
Owner/operator country: Not reported
Owner/operator telephone: (310) 326-8373
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 02/11/1994
Site name: DEXOL INDUSTRIES INC
Classification: Large Quantity Generator

Date form received by agency: 04/13/1990
Site name: DEXOL INDUSTRIES INC
Classification: Large Quantity Generator

Violation Status: No violations found

LUST:
Region: STATE
Global Id: T0603730842
Latitude: 33.816362
Longitude: -118.302829

DEXOL INDUSTRIES INC (Continued) **1000333380**

Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	07/02/1997
Lead Agency:	LOS ANGELES, CITY OF
Case Worker:	EL
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	Not reported
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Heating Oil / Fuel Oil
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603730842
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0603730842
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T0603730842
Status:	Completed - Case Closed
Status Date:	07/02/1997

Global Id:	T0603730842
Status:	Open - Case Begin Date
Status Date:	10/14/1992

Global Id:	T0603730842
Status:	Open - Site Assessment
Status Date:	10/19/1993

Global Id:	T0603730842
Status:	Open - Verification Monitoring
Status Date:	10/19/1993

Global Id:	T0603730842
Status:	Open - Verification Monitoring
Status Date:	07/02/1997

Regulatory Activities:

Global Id:	T0603730842

DEXOL INDUSTRIES INC (Continued) **1000333380**

Action Type: ENFORCEMENT
Date: 07/02/1997
Action: Closure/No Further Action Letter - #1

Global Id: T0603730842
Action Type: Other
Date: 10/14/1992
Action: Leak Discovery

Global Id: T0603730842
Action Type: Other
Date: 12/30/1992
Action: Leak Reported

SWEEPS UST:
Status: Not reported
Comp Number: 1156
Number: Not reported
Board Of Equalization: 44-011634
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001156-000001
Tank Status: Not reported
Capacity: 2000
Active Date: Not reported
Tank Use: CHEMICAL
STG: PRODUCT
Content: UNKNOWN
Number Of Tanks: 2

Status: Not reported
Comp Number: 1156
Number: Not reported
Board Of Equalization: 44-011634
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001156-000002
Tank Status: Not reported
Capacity: 8000
Active Date: Not reported
Tank Use: CHEMICAL
STG: PRODUCT
Content: UNKNOWN
Number Of Tanks: Not reported

HIST UST:
File Number: 000276DC
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/000276DC.pdf
Region: STATE
Facility ID: 00000017257
Facility Type: Other

DEXOL INDUSTRIES INC (Continued) **1000333380**

Other Type:	MANUFACTURER
Contact Name:	LANE KOLAR
Telephone:	2133268373
Owner Name:	DEXOL INDUSTRIES
Owner Address:	1450 W. 228TH ST.
Owner City,St,Zip:	TORRANCE, CA 90501
Total Tanks:	0002
Tank Num:	001
Container Num:	1
Year Installed:	1964
Tank Capacity:	00002000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	None
Tank Num:	002
Container Num:	2
Year Installed:	1964
Tank Capacity:	00008000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	None

Click here for Geo Tracker PDF:

CA FID UST:

Facility ID:	19030063
Regulated By:	UTNKI
Regulated ID:	00017257
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	7148266320
Mail To:	Not reported
Mailing Address:	1450 W 228TH ST
Mailing Address 2:	Not reported
Mailing City,St,Zip:	TORRANCE 905010000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Inactive

FTTS:

Case Number:	Not reported
Docket Number:	EPCRA09-97-0007
Complaint Issue Date:	03/31/97
Abatement Amount:	0.0000
Proposed Penalty:	5506.0000
Final Assessment:	0.0000
Final Order Date:	12/01/97
Close Date:	/ /

DEXOL INDUSTRIES INC (Continued) **1000333380**

Violations(s): EPCRA, Nonreporting/Failure to RPT to EPA

HIST FTTS:

Case Number:	Not reported
Docket Number:	EPCRA09-97-0007
Complaint Issue Date:	03/31/1997
Abatement Amount:	0.0000
Proposed Penalty:	5506.0000
Final Assessment:	0.0000
Final Order Date:	12/01/1997
Close Date:	/ /
Violations(s):	EPCRA, Nonreporting/Failure to RPT to EPA

EMI:

Year:	1990
County Code:	19
Air Basin:	SC
Facility ID:	20710
Air District Name:	SC
SIC Code:	2873
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

AY467 **TETRA TECH** **RESPONSE** **S101480945**
NE **20400 MAIN ST** **ENVIROSTOR** **N/A**
1/4-1/2 **CARSON, CA 90745** **SWF/LF**
0.466 mi. **LDS**
2460 ft. **Site 4 of 6 in cluster AY** **Cortese**
HIST CORTESE
Relative: **LOS ANGELES CO. HMS**
Lower **NPDES**

Actual: **26 ft.**

RESPONSE:

Facility ID:	19490019
Site Type:	State Response
Site Type Detail:	State Response or NPL
Acres:	157
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Daniel Zogaib
Supervisor:	Emad Yemut
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	401716
Site Mgmt. Req.:	NONE SPECIFIED
Assembly:	64
Senate:	35

TETRA TECH (Continued) **S101480945**

Special Program Status:	Designation of Single Agency
Status:	Active
Status Date:	04/18/1996
Restricted Use:	NO
Funding:	Responsible Party
Latitude:	33.84260
Longitude:	-118.2723
APN:	NONE SPECIFIED
Past Use:	LANDFILL - DOMESTIC, LANDFILL - DOMESTIC
Potential COC :	Methane Polychlorinated biphenyls (PCBs Tetrachloroethylene (PCE TPH-gas 1,1,1-Trichloroethane (TCA Trichloroethylene (TCE Vinyl chloride Polychlorinated biphenyls (PCBs, see IRIS Xylenes
Confirmed COC:	Polychlorinated biphenyls (PCBs, see IRIS Polychlorinated biphenyls (PCBs Tetrachloroethylene (PCE TPH-gas 1,1,1-Trichloroethane (TCA Trichloroethylene (TCE Vinyl chloride Methane Xylenes No Contaminants found
Potential Description:	OTH, SOIL, OTH
Alias Name:	Avalon at South Bay
Alias Type:	Alternate Name
Alias Name:	Carson Marketplace
Alias Type:	Alternate Name
Alias Name:	The Boulevards at South Bay
Alias Type:	Alternate Name
Alias Name:	CAD980735955
Alias Type:	EPA Identification Number
Alias Name:	110014015243
Alias Type:	EPA (FRS #)
Alias Name:	110033617281
Alias Type:	EPA (FRS #)
Alias Name:	SL204411577
Alias Type:	GeoTracker Global ID
Alias Name:	P41008
Alias Type:	PCode
Alias Name:	400721
Alias Type:	Project Code (Site Code)
Alias Name:	401325
Alias Type:	Project Code (Site Code)
Alias Name:	401580
Alias Type:	Project Code (Site Code)
Alias Name:	401716
Alias Type:	Project Code (Site Code)
Alias Name:	19490019
Alias Type:	Envirostor ID Number
Alias Name:	http://www.boulevardsatsouthbay.com/
Alias Type:	External Website Link / URL

Completed Info:

Completed Area Name:	Lower Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	* Cost Recovery Settlements/Decrees
Completed Date:	07/16/2003
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Cost Recovery Settlements/Decrees
Completed Date:	02/04/2004
Comments:	Not reported

TETRA TECH (Continued) **S101480945**

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: 09/28/2006
Comments: Compliance Framework Agreement between DTSC and Carson Marketplace, LLC

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Cell 3
Completed Document Type: Correspondence
Completed Date: 08/06/2014
Comments: Completed and sent.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: 05/18/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 03/23/2015
Comments: Completed

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 01/25/2005
Comments: Notice of Exemption sent to the State Clearinghouse.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 11/16/2015
Comments: Not reported

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 08/07/2015
Comments: Completed and sent.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 08/20/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Cell 2
Completed Document Type: Correspondence
Completed Date: 07/19/2016
Comments: Completed and sent.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

TETRA TECH (Continued) **S101480945**

Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 11/16/2015
Comments: Completed

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Unilateral Order (I/SE, RAO, CAO, EPA AO)
Completed Date: 04/12/1999
Comments: Letter Agreement to investigate the lower Operable Unit at the site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Neg. Declaration
Completed Date: 10/25/1995
Comments: DTSC completed its review of the RAP for the Cal Compact Landfill Upper Operable Unit, and has determined that the plan meets statutory requirements. CEQA documents were filed and approved accordingly.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Unilateral Order (I/SE, RAO, CAO, EPA AO)
Completed Date: 05/25/1995
Comments: DTSC issues a Remedial Action Order and Consent Order to BKK Corporation for the Cal Compact site. The Order applies to the Upper Operable Unit.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Unilateral Order (I/SE, RAO, CAO, EPA AO)
Completed Date: 03/30/1988
Comments: Remedial Action Order issued to the Defense Group to investigate the Lower Operable Unit

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 04/01/1979
Comments: Facility Identified: On Eckhardt List as Cal & Monsanto. Site used by Tennco Chemical.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: * Cost Recovery Settlements/Decrees
Completed Date: 03/07/2001
Comments: Consent decree with 3M Company. Consent decree with site owners - "supplemental decree".

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/30/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/16/2015

TETRA TECH (Continued) **S101480945**

Comments:	Completed
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Correspondence
Completed Date:	03/09/2016
Comments:	Completed
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	08/27/2015
Comments:	Complete
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	09/24/2015
Comments:	Complete
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	10/22/2015
Comments:	Completed
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	04/14/2016
Comments:	Completed
Completed Area Name:	Lower Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	* Cost Recovery Settlements/Decrees
Completed Date:	04/11/2001
Comments:	As part of a lawsuit settlement between the Defense Group and 3M Company and DTSC, DTSC would be paid past costs, future oversight costs, and remediation costs.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Prospective Purchaser Agreement
Completed Date:	08/14/1995
Comments:	The Department of Toxic Substances Control enters into this Consent Decree with the Commercial Realty Projects, Inc. (CRP) to provide for certain environmental response actions at, and to resolve certain liability claims with respect to, the Cal Compact landfill site located in the city of Carson.
Completed Area Name:	Lower Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Long Term Monitoring Report
Completed Date:	11/02/2005
Comments:	Report was acceptable
Completed Area Name:	Upper Operable Unit

TETRA TECH (Continued) **S101480945**

Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 10/09/1992
Comments: Baseline Risk Assessment completed on 10/9/1992

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 09/01/2000
Comments: Report of Hydrostratigraphic Investigation was deemed acceptable. It was performed to determine the depth of the Bellflower Aquifer and start of the Gage Aquifer.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/22/2007
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/01/1999
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/02/1999
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/29/1999
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/31/1999
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/05/1999
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/10/2000
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported

TETRA TECH (Continued) **S101480945**

Completed Document Type: Monitoring Report
Completed Date: 05/31/2000
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/22/2000
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/08/2001
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/18/2001
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/09/2001
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/24/2001
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/14/2002
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/23/2002
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/14/2003
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/21/2003
Comments: Completed

TETRA TECH (Continued) **S101480945**

Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Monitoring Report
Completed Date:	10/13/2004
Comments:	Completed

Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Monitoring Report
Completed Date:	06/07/2005
Comments:	Approved

Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Monitoring Report
Completed Date:	08/23/2005
Comments:	Completed

Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Monitoring Report
Completed Date:	03/30/2006
Comments:	Completed

Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Monitoring Report
Completed Date:	07/31/2006
Comments:	Completed

Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Monitoring Report
Completed Date:	03/19/2007
Comments:	Completed

Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Quality Assurance Workplan
Completed Date:	02/10/2006
Comments:	This document was approved verbally on 2/10/2006 because it was to be inserted into the Final Landfill Cover Soil Sampling Work Plan, which was approved on 3/15/2006. Letter approving that document has been uploaded as it also states that the DQOs were approved as well.

Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Workplan
Completed Date:	03/15/2006
Comments:	Approved

Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Design - Preliminary/Intermediate
Completed Date:	08/23/2006
Comments:	Accepted

TETRA TECH (Continued) **S101480945**

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 03/15/2006
Comments: Accepted

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Quality Assurance Workplan
Completed Date: 11/09/2007
Comments: Accepted

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Pilot Study/Treatability Workplan
Completed Date: 06/23/2006
Comments: Accepted

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 05/27/2008
Comments: Sent email approval on May 2, 2008

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/02/2008
Comments: Report was acceptable.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 04/09/2008
Comments: Completed.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 04/17/2008
Comments: Completed.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 02/11/2008
Comments: Completed.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 02/29/2008
Comments: Completed.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Implementation Workplan

TETRA TECH (Continued) **S101480945**

Completed Date: 02/15/2008
Comments: Completed.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Health & Safety Plan
Completed Date: 02/15/2008
Comments: Completed.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Newsletter
Completed Date: 04/24/2008
Comments: Completed.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Newsletter
Completed Date: 05/08/2008
Comments: Completed.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 01/30/2008
Comments: Approved.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 05/01/2008
Comments: Approved.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan w/ESD
Completed Date: 07/30/2009
Comments: Document ready for public review.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/10/2011
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/14/2011
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/10/2011
Comments: Approved

TETRA TECH (Continued) **S101480945**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 10/21/2011
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 10/21/2011
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/18/2011
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/14/2011
Comments: Not reported

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/14/2011
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Well Completion Report
Completed Date: 10/21/2011
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/20/2011
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/22/2011
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 03/01/1981
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report

TETRA TECH (Continued) **S101480945**

Completed Date: 06/01/1982
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 07/05/1978
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 06/01/1983
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 08/20/1984
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 09/01/1984
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 03/01/1985
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 10/22/1986
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 09/10/1987
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Health & Safety Plan
Completed Date: 06/01/1988
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 01/18/1990
Comments: Completed

TETRA TECH (Continued) **S101480945**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 07/01/1990
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 01/17/1991
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 01/25/1991
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 04/02/1991
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 05/21/1991
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/29/1991
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 06/12/1991
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Health & Safety Plan
Completed Date: 07/15/1991
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 08/14/1991
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

TETRA TECH (Continued) **S101480945**

Completed Date: 09/23/1991
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 10/31/1991
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/17/1992
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/09/1992
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Treatability Study Report
Completed Date: 06/19/1992
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/17/1992
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 12/17/1992
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Feasibility Study Report
Completed Date: 11/01/1993
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 12/01/1993
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 01/01/1994
Comments: Completed

TETRA TECH (Continued) **S101480945**

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Treatability Study Workplan
Completed Date: 09/26/1995
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Feasibility Study Report
Completed Date: 08/08/1995
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 08/01/1995
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Treatability Study Workplan
Completed Date: 09/07/1995
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Health & Safety Plan
Completed Date: 10/31/1995
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 05/02/1996
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Treatability Study Report
Completed Date: 12/05/1995
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Treatability Study Report
Completed Date: 12/08/1995
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 03/01/1996
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate

TETRA TECH (Continued) **S101480945**

Completed Date: 05/02/1996
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Quality Assurance Workplan
Completed Date: 05/16/1996
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 06/01/1996
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Quality Assurance Workplan
Completed Date: 05/24/1997
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 12/01/1997
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 03/03/1998
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 05/07/1998
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 07/15/1998
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 08/18/1998
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Well Decommissioning Workplan
Completed Date: 09/15/1998
Comments: Completed

TETRA TECH (Continued) **S101480945**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Well Decommissioning Workplan
Completed Date: 12/03/1998
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 04/21/1999
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 06/29/1999
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 06/01/1999
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/05/1999
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 08/05/1999
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 08/23/1999
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/23/1999
Comments: Completed

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 12/03/1999
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Soils Management Plan

TETRA TECH (Continued) **S101480945**

Completed Date: 02/21/2000
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Well Decommissioning Workplan
Completed Date: 05/30/2000
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Well Installation Workplan
Completed Date: 06/07/2000
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/09/2001
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/03/2001
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/09/2001
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/14/2001
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/24/2001
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/05/2002
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/07/2002
Comments: Completed

TETRA TECH (Continued) **S101480945**

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Pilot Study/Treatability Workplan
Completed Date: 10/08/2002
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/21/2002
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/12/2002
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 02/05/2003
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 04/08/2003
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/13/2003
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/30/2003
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Pilot/Treatability Study Report
Completed Date: 02/22/2004
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/29/2004
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received

TETRA TECH (Continued) **S101480945**

Completed Date: 02/20/2004
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 12/27/2004
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 12/27/2004
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/09/2005
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/09/2005
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/09/2005
Comments: Approved

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/09/2005
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 03/18/2005
Comments: Approved

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/31/2005
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Well Completion Report
Completed Date: 07/14/2005
Comments: Approved

TETRA TECH (Continued) **S101480945**

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/10/2005
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/15/2005
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 08/29/2005
Comments: Received

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/31/2006
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/31/2006
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/31/2006
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/11/2006
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/15/2006
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/29/2006
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report

TETRA TECH (Continued) **S101480945**

Completed Date: 02/08/2006
Comments: Received

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Workplan
Completed Date: 08/15/2006
Comments: Approved

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/20/2006
Comments: Approved

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/27/2006
Comments: Approved

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/20/2006
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 01/01/2006
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 02/13/2007
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 03/05/2007
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Health & Safety Plan
Completed Date: 02/09/2007
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/07/2007
Comments: Approved

TETRA TECH (Continued) **S101480945**

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 03/27/2007
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 05/24/2007
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Well Decommissioning Workplan
Completed Date: 05/24/2007
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 03/14/2007
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 06/28/2007
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Health & Safety Plan
Completed Date: 07/27/2007
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 08/01/2007
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/17/2007
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/19/2007
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report

TETRA TECH (Continued) **S101480945**

Completed Date: 10/31/2007
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/09/2012
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/01/2012
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/01/2012
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 10/01/2008
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/13/2015
Comments: Complete

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/20/2015
Comments: completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/30/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/04/2015
Comments: completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/11/2015
Comments: completed

TETRA TECH (Continued) **S101480945**

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/18/2015
Comments: completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/28/2015
Comments: completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/05/2016
Comments: complete

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/08/2016
Comments: completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/15/2016
Comments: completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/22/2016
Comments: completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/29/2016
Comments: completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/05/2016
Comments: completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/12/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

TETRA TECH (Continued) **S101480945**

Completed Date: 02/19/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/04/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/11/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/18/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/25/2016
Comments: Complete

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/04/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/08/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/15/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/22/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/29/2016
Comments: Completed

TETRA TECH (Continued) **S101480945**

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/06/2016
Comments: Complete

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/13/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/20/2016
Comments: complete

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/27/2016
Comments: complete

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/03/2016
Comments: complete

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/10/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/17/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/24/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/01/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

TETRA TECH (Continued) **S101480945**

Completed Date: 07/08/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/30/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/30/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/30/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/31/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/28/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/01/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/31/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/04/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/07/2015
Comments: Completed

TETRA TECH (Continued) **S101480945**

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/03/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/06/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/14/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/01/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/03/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/03/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/03/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/31/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/05/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

TETRA TECH (Continued) **S101480945**

Completed Date: 11/04/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/03/2016
Comments: completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/04/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/11/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/03/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/08/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/05/2016
Comments: complete

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/02/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/05/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Cell 3
Completed Document Type: Monitoring Report
Completed Date: 10/10/2014
Comments: Completed

TETRA TECH (Continued) **S101480945**

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Quality Assurance Workplan
Completed Date: 12/13/2014
Comments: Complete

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 09/25/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 10/13/2014
Comments: Completed and accepted.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 04/16/2015
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Workplan
Completed Date: 02/10/2015
Comments: Approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 07/29/2009
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 08/24/2009
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 10/28/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 11/09/2015
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report

TETRA TECH (Continued) **S101480945**

Completed Date: 11/09/2015
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 11/09/2015
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 12/29/2015
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 06/27/2016
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 07/29/2015
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 11/13/2013
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 06/08/2015
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 07/13/2015
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/16/2015
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/20/2015
Comments: Approved

TETRA TECH (Continued) **S101480945**

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/22/2016
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/03/2016
Comments: Consultant will not be submitting report until February 2016

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/31/2016
Comments: Approved.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 08/16/2015
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 11/16/2015
Comments: Conditionally approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 11/16/2015
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 11/16/2015
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 03/08/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Cell 2
Completed Document Type: Technical Workplan
Completed Date: 04/05/2016
Comments: Conditionally approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Environmental Impact Report

TETRA TECH (Continued) **S101480945**

Completed Date: 11/01/1993
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 07/01/1990
Comments: Received

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Consent Decree
Completed Date: 02/04/2004
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 10/25/2011
Comments: Reminder letter sent for unpaid past due invoice #10SM3071.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 07/28/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Imminent and/or Substantial Endangerment Order
Completed Date: 03/18/1988
Comments: Not reported

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 06/26/1996
Comments: Not reported

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 10/25/1995
Comments: Not reported

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/21/1995
Comments: The Remedial Investigation/Feasibility Study for the Cal Compact Landfill site prepared by Brown & Root Environmental is approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: 12/30/1989
Comments: Not reported

TETRA TECH (Continued) **S101480945**

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation / Feasibility Study
Completed Date: 03/20/2001
Comments: Remedial investigation of Lower OU (OU2) completed. An FS will not be done. However, a RAP is required.

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 01/24/2005
Comments: DTSC revised the LOURAP and therefore there is no approval letter.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Environmental Impact Report
Completed Date: 02/08/2006
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Soils Management Plan
Completed Date: 08/04/2008
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 05/01/2009
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/15/2012
Comments: approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/15/2012
Comments: approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/25/2012
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/06/2013
Comments: Approved.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported

TETRA TECH (Continued) **S101480945**

Completed Document Type: Financial Assurance Documentation
Completed Date: 10/24/2013
Comments: This document is no longer valid as the project has changed and so has the FA.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/13/2013
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/25/2013
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/10/2013
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 05/20/2013
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/16/2013
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 08/08/2014
Comments: Discussed RDP with Carson Marketplace during meeting. No DTSC letter will be required.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/02/2014
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Health & Safety Plan
Completed Date: 01/16/2014
Comments: Completed.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

TETRA TECH (Continued) **S101480945**

Completed Date: 04/09/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 10/14/2014
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Design
Completed Date: 12/23/2008
Comments: Conditionally approved the 95% designs.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/17/2014
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Manual
Completed Date: 06/11/2015
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 10/01/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/06/2015
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/11/2015
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/11/2015
Comments: Monitoring was not conducted due to land transfer and funding issues.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/07/2014
Comments: Completed

TETRA TECH (Continued) **S101480945**

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/14/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/21/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/28/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/04/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/11/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/18/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/26/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/01/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/08/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

TETRA TECH (Continued) **S101480945**

Completed Date: 09/15/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/22/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/29/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/06/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/13/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/20/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/27/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/04/2014
Comments: Completed.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/10/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/17/2014
Comments: Completed.

TETRA TECH (Continued) **S101480945**

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/24/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/04/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/09/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/16/2014
Comments: Completed. No Letter necessary.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/23/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/06/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/06/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/13/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/21/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

TETRA TECH (Continued) **S101480945**

Completed Date: 01/28/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/03/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/10/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/18/2015
Comments: Complered

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/24/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/06/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/12/2015
Comments: Complete

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/19/2015
Comments: completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/24/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/03/2015
Comments: Completed

TETRA TECH (Continued) **S101480945**

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/08/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/15/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/22/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/30/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/06/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/15/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/21/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/27/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/05/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

TETRA TECH (Continued) **S101480945**

Completed Date: 06/12/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/19/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/26/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/03/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/10/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/17/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/24/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/31/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/07/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/14/2015
Comments: Completed

TETRA TECH (Continued) **S101480945**

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/21/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/28/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/04/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/11/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/18/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/25/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/02/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/09/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/16/2015
Comments: Complete

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

TETRA TECH (Continued) **S101480945**

Completed Date:	10/23/2015
Comments:	Completed
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Monitoring Report
Completed Date:	10/30/2015
Comments:	Completed
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Monitoring Report
Completed Date:	11/06/2015
Comments:	Completed
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	* Cost Recovery Settlements/Decrees
Completed Date:	12/25/1995
Comments:	Not reported
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Correspondence
Completed Date:	06/18/2014
Comments:	Completed
Future Area Name:	Upper Operable Unit
Future Sub Area Name:	Not reported
Future Document Type:	Remedial Action Completion Report
Future Due Date:	2017
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Operations and Maintenance Plan
Future Due Date:	2018
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	5 Year Review Reports
Future Due Date:	2024
Future Area Name:	Upper Operable Unit
Future Sub Area Name:	Not reported
Future Document Type:	Remedy Constructed: Operating Properly & Successfully
Future Due Date:	2019
Future Area Name:	Upper Operable Unit
Future Sub Area Name:	Not reported
Future Document Type:	Certification
Future Due Date:	2019
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Remedial Action Completion Report
Schedule Due Date:	06/13/2016
Schedule Revised Date:	Not reported
Schedule Area Name:	Upper Operable Unit
Schedule Sub Area Name:	Cell 3
Schedule Document Type:	Remedial Action Completion Report
Schedule Due Date:	10/13/2016
Schedule Revised Date:	Not reported

TETRA TECH (Continued) **S101480945**

ENVIROSTOR:

Facility ID:	19490019
Status:	Active
Status Date:	04/18/1996
Site Code:	401716
Site Type:	State Response
Site Type Detailed:	State Response or NPL
Acres:	157
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Daniel Zogaib
Supervisor:	Emad Yemut
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	64
Senate:	35
Special Program:	Designation of Single Agency
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	33.84260
Longitude:	-118.2723
APN:	NONE SPECIFIED
Past Use:	LANDFILL - DOMESTIC, LANDFILL - DOMESTIC
Potential COC:	Methane Polychlorinated biphenyls (PCBs Tetrachloroethylene (PCE TPH-gas 1,1,1-Trichloroethane (TCA Trichloroethylene (TCE Vinyl chloride Polychlorinated biphenyls (PCBs, see IRIS Xylenes
Confirmed COC:	Polychlorinated biphenyls (PCBs, see IRIS Polychlorinated biphenyls (PCBs Tetrachloroethylene (PCE TPH-gas 1,1,1-Trichloroethane (TCA Trichloroethylene (TCE Vinyl chloride Methane Xylenes No Contaminants found
Potential Description:	OTH, SOIL, OTH
Alias Name:	Avalon at South Bay
Alias Type:	Alternate Name
Alias Name:	Carson Marketplace
Alias Type:	Alternate Name
Alias Name:	The Boulevards at South Bay
Alias Type:	Alternate Name
Alias Name:	CAD980735955
Alias Type:	EPA Identification Number
Alias Name:	110014015243
Alias Type:	EPA (FRS #)
Alias Name:	110033617281
Alias Type:	EPA (FRS #)
Alias Name:	SL204411577
Alias Type:	GeoTracker Global ID
Alias Name:	P41008
Alias Type:	PCode
Alias Name:	400721
Alias Type:	Project Code (Site Code)
Alias Name:	401325
Alias Type:	Project Code (Site Code)
Alias Name:	401580
Alias Type:	Project Code (Site Code)
Alias Name:	401716
Alias Type:	Project Code (Site Code)
Alias Name:	19490019

TETRA TECH (Continued) **S101480945**

Alias Type: Envirostor ID Number
Alias Name: http://www.boulevardsatsouthbay.com/
Alias Type: External Website Link / URL

Completed Info:
Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: * Cost Recovery Settlements/Decrees
Completed Date: 07/16/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Cost Recovery Settlements/Decrees
Completed Date: 02/04/2004
Comments: Not reported

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: 09/28/2006
Comments: Compliance Framework Agreement between DTSC and Carson Marketplace, LLC

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Cell 3
Completed Document Type: Correspondence
Completed Date: 08/06/2014
Comments: Completed and sent.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: 05/18/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 03/23/2015
Comments: Completed

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 01/25/2005
Comments: Notice of Exemption sent to the State Clearinghouse.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 11/16/2015
Comments: Not reported

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 08/07/2015

TETRA TECH (Continued) **S101480945**

Comments:	Completed and sent.
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	08/20/2015
Comments:	Completed
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Cell 2
Completed Document Type:	Correspondence
Completed Date:	07/19/2016
Comments:	Completed and sent.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	11/16/2015
Comments:	Completed
Completed Area Name:	Lower Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Unilateral Order (I/SE, RAO, CAO, EPA AO)
Completed Date:	04/12/1999
Comments:	Letter Agreement to investigate the lower Operable Unit at the site.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	CEQA - Initial Study/ Neg. Declaration
Completed Date:	10/25/1995
Comments:	DTSC completed its review of the RAP for the Cal Compact Landfill Upper Operable Unit, and has determined that the plan meets statutory requirements. CEQA documents were filed and approved accordingly.
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Unilateral Order (I/SE, RAO, CAO, EPA AO)
Completed Date:	05/25/1995
Comments:	DTSC issues a Remedial Action Order and Consent Order to BKK Corporation for the Cal Compact site. The Order applies to the Upper Operable Unit.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Unilateral Order (I/SE, RAO, CAO, EPA AO)
Completed Date:	03/30/1988
Comments:	Remedial Action Order issued to the Defense Group to investigate the Lower Operable Unit
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Discovery
Completed Date:	04/01/1979
Comments:	Facility Identified: On Eckhardt List as Cal & Monsanto. Site used by Tennco Chemical.
Completed Area Name:	Upper Operable Unit

TETRA TECH (Continued) **S101480945**

Completed Sub Area Name: Not reported
Completed Document Type: * Cost Recovery Settlements/Decrees
Completed Date: 03/07/2001
Comments: Consent decree with 3M Company. Consent decree with site owners - "supplemental decree".

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/30/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/16/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 03/09/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 08/27/2015
Comments: Complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 09/24/2015
Comments: Complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 10/22/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 04/14/2016
Comments: Completed

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: * Cost Recovery Settlements/Decrees
Completed Date: 04/11/2001
Comments: As part of a lawsuit settlement between the Defense Group and 3M Company and DTSC, DTSC would be paid past costs, future oversight costs, and remediation costs.

Completed Area Name: PROJECT WIDE

TETRA TECH (Continued) **S101480945**

Completed Sub Area Name: Not reported
Completed Document Type: Prospective Purchaser Agreement
Completed Date: 08/14/1995
Comments: The Department of Toxic Substances Control enters into this Consent Decree with the Commercial Realty Projects, Inc. (CRP) to provide for certain environmental response actions at, and to resolve certain liability claims with respect to, the Cal Compact landfill site located in the city of Carson.

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Long Term Monitoring Report
Completed Date: 11/02/2005
Comments: Report was acceptable

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 10/09/1992
Comments: Baseline Risk Assessment completed on 10/9/1992

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 09/01/2000
Comments: Report of Hydrostratigraphic Investigation was deemed acceptable. It was performed to determine the depth of the Bellflower Aquifer and start of the Gage Aquifer.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/22/2007
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/01/1999
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/02/1999
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/29/1999
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/31/1999

TETRA TECH (Continued) **S101480945**

Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/05/1999
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/10/2000
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/31/2000
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/22/2000
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/08/2001
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/18/2001
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/09/2001
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/24/2001
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/14/2002
Comments: Completed

Completed Area Name: Upper Operable Unit

TETRA TECH (Continued) **S101480945**

Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/23/2002
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/14/2003
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/21/2003
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/13/2004
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/07/2005
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/23/2005
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/30/2006
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/31/2006
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/19/2007
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Quality Assurance Workplan
Completed Date: 02/10/2006

TETRA TECH (Continued) **S101480945**

Comments:	This document was approved verbally on 2/10/2006 because it was to be inserted into the Final Landfill Cover Soil Sampling Work Plan, which was approved on 3/15/2006. Letter approving that document has been uploaded as it also states that the DQOs were approved as well.
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Workplan
Completed Date:	03/15/2006
Comments:	Approved
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Design - Preliminary/Intermediate
Completed Date:	08/23/2006
Comments:	Accepted
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Workplan
Completed Date:	03/15/2006
Comments:	Accepted
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Quality Assurance Workplan
Completed Date:	11/09/2007
Comments:	Accepted
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Pilot Study/Treatability Workplan
Completed Date:	06/23/2006
Comments:	Accepted
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Workplan
Completed Date:	05/27/2008
Comments:	Sent email approval on May 2, 2008
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Monitoring Report
Completed Date:	06/02/2008
Comments:	Report was acceptable.
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Action Implementation Workplan
Completed Date:	04/09/2008
Comments:	Completed.
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Action Implementation Workplan
Completed Date:	04/17/2008

TETRA TECH (Continued) **S101480945**

Comments:	Completed.
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Action Implementation Workplan
Completed Date:	02/11/2008
Comments:	Completed.
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Action Implementation Workplan
Completed Date:	02/29/2008
Comments:	Completed.
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Action Implementation Workplan
Completed Date:	02/15/2008
Comments:	Completed.
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Health & Safety Plan
Completed Date:	02/15/2008
Comments:	Completed.
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Newsletter
Completed Date:	04/24/2008
Comments:	Completed.
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Newsletter
Completed Date:	05/08/2008
Comments:	Completed.
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Fact Sheets
Completed Date:	01/30/2008
Comments:	Approved.
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Workplan
Completed Date:	05/01/2008
Comments:	Approved.
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Action Plan w/ESD
Completed Date:	07/30/2009
Comments:	Document ready for public review.
Completed Area Name:	Upper Operable Unit

TETRA TECH (Continued) **S101480945**

Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/10/2011
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/14/2011
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/10/2011
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 10/21/2011
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 10/21/2011
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/18/2011
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/14/2011
Comments: Not reported

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/14/2011
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Well Completion Report
Completed Date: 10/21/2011
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/20/2011

TETRA TECH (Continued) **S101480945**

Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/22/2011
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 03/01/1981
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 06/01/1982
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 07/05/1978
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 06/01/1983
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 08/20/1984
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 09/01/1984
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 03/01/1985
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 10/22/1986
Comments: Completed

Completed Area Name: PROJECT WIDE

TETRA TECH (Continued) **S101480945**

Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 09/10/1987
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Health & Safety Plan
Completed Date: 06/01/1988
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 01/18/1990
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 07/01/1990
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 01/17/1991
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 01/25/1991
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 04/02/1991
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 05/21/1991
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/29/1991
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 06/12/1991

TETRA TECH (Continued) **S101480945**

Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Health & Safety Plan
Completed Date: 07/15/1991
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 08/14/1991
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/23/1991
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 10/31/1991
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/17/1992
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/09/1992
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Treatability Study Report
Completed Date: 06/19/1992
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/17/1992
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 12/17/1992
Comments: Completed

Completed Area Name: Upper Operable Unit

TETRA TECH (Continued) **S101480945**

Completed Sub Area Name: Not reported
Completed Document Type: Feasibility Study Report
Completed Date: 11/01/1993
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 12/01/1993
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 01/01/1994
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Treatability Study Workplan
Completed Date: 09/26/1995
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Feasibility Study Report
Completed Date: 08/08/1995
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 08/01/1995
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Treatability Study Workplan
Completed Date: 09/07/1995
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Health & Safety Plan
Completed Date: 10/31/1995
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 05/02/1996
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Treatability Study Report
Completed Date: 12/05/1995

TETRA TECH (Continued) **S101480945**

Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Treatability Study Report
Completed Date: 12/08/1995
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 03/01/1996
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 05/02/1996
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Quality Assurance Workplan
Completed Date: 05/16/1996
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 06/01/1996
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Quality Assurance Workplan
Completed Date: 05/24/1997
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 12/01/1997
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 03/03/1998
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 05/07/1998
Comments: Completed

Completed Area Name: Upper Operable Unit

TETRA TECH (Continued) **S101480945**

Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 07/15/1998
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 08/18/1998
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Well Decommissioning Workplan
Completed Date: 09/15/1998
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Well Decommissioning Workplan
Completed Date: 12/03/1998
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 04/21/1999
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 06/29/1999
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 06/01/1999
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/05/1999
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 08/05/1999
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 08/23/1999

TETRA TECH (Continued) **S101480945**

Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/23/1999
Comments: Completed

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 12/03/1999
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Soils Management Plan
Completed Date: 02/21/2000
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Well Decommissioning Workplan
Completed Date: 05/30/2000
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Well Installation Workplan
Completed Date: 06/07/2000
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/09/2001
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/03/2001
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/09/2001
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/14/2001
Comments: Completed

Completed Area Name: Upper Operable Unit

TETRA TECH (Continued) **S101480945**

Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/24/2001
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/05/2002
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/07/2002
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Pilot Study/Treatability Workplan
Completed Date: 10/08/2002
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/21/2002
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/12/2002
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 02/05/2003
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 04/08/2003
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/13/2003
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/30/2003

TETRA TECH (Continued) **S101480945**

Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Pilot/Treatability Study Report
Completed Date: 02/22/2004
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/29/2004
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 02/20/2004
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 12/27/2004
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 12/27/2004
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/09/2005
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/09/2005
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/09/2005
Comments: Approved

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/09/2005
Comments: Approved

Completed Area Name: Upper Operable Unit

TETRA TECH (Continued) **S101480945**

Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 03/18/2005
Comments: Approved

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/31/2005
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Well Completion Report
Completed Date: 07/14/2005
Comments: Approved

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/10/2005
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/15/2005
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 08/29/2005
Comments: Received

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/31/2006
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/31/2006
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/31/2006
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/11/2006

TETRA TECH (Continued) **S101480945**

Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/15/2006
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/29/2006
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/08/2006
Comments: Received

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Workplan
Completed Date: 08/15/2006
Comments: Approved

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/20/2006
Comments: Approved

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/27/2006
Comments: Approved

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/20/2006
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 01/01/2006
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 02/13/2007
Comments: Approved

Completed Area Name: Upper Operable Unit

TETRA TECH (Continued) **S101480945**

Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 03/05/2007
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Health & Safety Plan
Completed Date: 02/09/2007
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/07/2007
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 03/27/2007
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 05/24/2007
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Well Decommissioning Workplan
Completed Date: 05/24/2007
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 03/14/2007
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 06/28/2007
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Health & Safety Plan
Completed Date: 07/27/2007
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 08/01/2007

TETRA TECH (Continued) **S101480945**

Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/17/2007
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/19/2007
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 10/31/2007
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/09/2012
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/01/2012
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/01/2012
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 10/01/2008
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/13/2015
Comments: Complete

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/20/2015
Comments: completed

Completed Area Name: Upper Operable Unit

TETRA TECH (Continued) **S101480945**

Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/30/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/04/2015
Comments: completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/11/2015
Comments: completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/18/2015
Comments: completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/28/2015
Comments: completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/05/2016
Comments: complete

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/08/2016
Comments: completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/15/2016
Comments: completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/22/2016
Comments: completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/29/2016

TETRA TECH (Continued) **S101480945**

Comments: completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/05/2016
Comments: completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/12/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/19/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/04/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/11/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/18/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/25/2016
Comments: Complete

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/04/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/08/2016
Comments: Completed

Completed Area Name: Upper Operable Unit

TETRA TECH (Continued) **S101480945**

Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/15/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/22/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/29/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/06/2016
Comments: Complete

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/13/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/20/2016
Comments: complete

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/27/2016
Comments: complete

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/03/2016
Comments: complete

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/10/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/17/2016

TETRA TECH (Continued) **S101480945**

Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/24/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/01/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/08/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/30/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/30/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/30/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/31/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/28/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/01/2014
Comments: Completed

Completed Area Name: Upper Operable Unit

TETRA TECH (Continued) **S101480945**

Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/31/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/04/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/07/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/03/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/06/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/14/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/01/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/03/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/03/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/03/2015

TETRA TECH (Continued) **S101480945**

Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/31/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/05/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/04/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/03/2016
Comments: completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/04/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/11/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/03/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/08/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/05/2016
Comments: complete

Completed Area Name: Upper Operable Unit

TETRA TECH (Continued) **S101480945**

Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/02/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/05/2016
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Cell 3
Completed Document Type: Monitoring Report
Completed Date: 10/10/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Quality Assurance Workplan
Completed Date: 12/13/2014
Comments: Complete

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 09/25/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 10/13/2014
Comments: Completed and accepted.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 04/16/2015
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Workplan
Completed Date: 02/10/2015
Comments: Approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 07/29/2009
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 08/24/2009

TETRA TECH (Continued) **S101480945**

Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 10/28/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 11/09/2015
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 11/09/2015
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 11/09/2015
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 12/29/2015
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 06/27/2016
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 07/29/2015
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 11/13/2013
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 06/08/2015
Comments: Approved

Completed Area Name: Upper Operable Unit

TETRA TECH (Continued) **S101480945**

Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 07/13/2015
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/16/2015
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/20/2015
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/22/2016
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/03/2016
Comments: Consultant will not be submitting report until February 2016

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/31/2016
Comments: Approved.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 08/16/2015
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 11/16/2015
Comments: Conditionally approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 11/16/2015
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 11/16/2015

TETRA TECH (Continued) **S101480945**

Comments:	Approved
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Workplan
Completed Date:	03/08/2016
Comments:	Completed
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Cell 2
Completed Document Type:	Technical Workplan
Completed Date:	04/05/2016
Comments:	Conditionally approved.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	CEQA - Initial Study/ Environmental Impact Report
Completed Date:	11/01/1993
Comments:	Completed
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Correspondence
Completed Date:	07/01/1990
Comments:	Received
Completed Area Name:	Lower Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Consent Decree
Completed Date:	02/04/2004
Comments:	Approved
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Letter - Demand
Completed Date:	10/25/2011
Comments:	Reminder letter sent for unpaid past due invoice #10SM3071.
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Correspondence
Completed Date:	07/28/2014
Comments:	Completed
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Imminent and/or Substantial Endangerment Order
Completed Date:	03/18/1988
Comments:	Not reported
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Design/Implementation Workplan
Completed Date:	06/26/1996
Comments:	Not reported
Completed Area Name:	Upper Operable Unit

TETRA TECH (Continued) **S101480945**

Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 10/25/1995
Comments: Not reported

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/21/1995
Comments: The Remedial Investigation/Feasibility Study for the Cal Compact Landfill site prepared by Brown & Root Environmental is approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: 12/30/1989
Comments: Not reported

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation / Feasibility Study
Completed Date: 03/20/2001
Comments: Remedial investigation of Lower OU (OU2) completed. An FS will not be done. However, a RAP is required.

Completed Area Name: Lower Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 01/24/2005
Comments: DTSC revised the LOURAP and therefore there is no approval letter.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Environmental Impact Report
Completed Date: 02/08/2006
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Soils Management Plan
Completed Date: 08/04/2008
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 05/01/2009
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/15/2012
Comments: approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported

TETRA TECH (Continued) **S101480945**

Completed Document Type: Monitoring Report
Completed Date: 08/15/2012
Comments: approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/25/2012
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/06/2013
Comments: Approved.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Financial Assurance Documentation
Completed Date: 10/24/2013
Comments: This document is no longer valid as the project has changed and so has the FA.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/13/2013
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/25/2013
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/10/2013
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 05/20/2013
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/16/2013
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 08/08/2014

TETRA TECH (Continued) **S101480945**

Comments:	Discussed RDP with Carson Marketplace during meeting. No DTSC letter will be required.
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Monitoring Report
Completed Date:	01/02/2014
Comments:	Approved
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Health & Safety Plan
Completed Date:	01/16/2014
Comments:	Completed.
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Monitoring Report
Completed Date:	04/09/2014
Comments:	Completed
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Monitoring Plan
Completed Date:	10/14/2014
Comments:	Approved
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Design
Completed Date:	12/23/2008
Comments:	Conditionally approved the 95% designs.
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Monitoring Report
Completed Date:	07/17/2014
Comments:	Approved
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Operations and Maintenance Manual
Completed Date:	06/11/2015
Comments:	Approved
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Workplan
Completed Date:	10/01/2014
Comments:	Completed
Completed Area Name:	Upper Operable Unit
Completed Sub Area Name:	Not reported
Completed Document Type:	Monitoring Report
Completed Date:	01/06/2015
Comments:	Approved

TETRA TECH (Continued) **S101480945**

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/11/2015
Comments: Approved

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/11/2015
Comments: Monitoring was not conducted due to land transfer and funding issues.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/07/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/14/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/21/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/28/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/04/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/11/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/18/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

TETRA TECH (Continued) **S101480945**

Completed Date: 08/26/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/01/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/08/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/15/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/22/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/29/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/06/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/13/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/20/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/27/2014
Comments: Completed

TETRA TECH (Continued) **S101480945**

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/04/2014
Comments: Completed.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/10/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/17/2014
Comments: Completed.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/24/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/04/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/09/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/16/2014
Comments: Completed. No Letter necessary.

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/23/2014
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/06/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

TETRA TECH (Continued) **S101480945**

Completed Date: 01/06/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/13/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/21/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/28/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/03/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/10/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/18/2015
Comments: Complered

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/24/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/06/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/12/2015
Comments: Complete

TETRA TECH (Continued) **S101480945**

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/19/2015
Comments: completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/24/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/03/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/08/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/15/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/22/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/30/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/06/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/15/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

TETRA TECH (Continued) **S101480945**

Completed Date: 05/21/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/27/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/05/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/12/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/19/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/26/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/03/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/10/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/17/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/24/2015
Comments: Completed

TETRA TECH (Continued) **S101480945**

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/31/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/07/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/14/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/21/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/28/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/04/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/11/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/18/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/25/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

TETRA TECH (Continued) **S101480945**

Completed Date: 10/02/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/09/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/16/2015
Comments: Complete

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/23/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/30/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/06/2015
Comments: Completed

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: * Cost Recovery Settlements/Decrees
Completed Date: 12/25/1995
Comments: Not reported

Completed Area Name: Upper Operable Unit
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/18/2014
Comments: Completed

Future Area Name: Upper Operable Unit
Future Sub Area Name: Not reported
Future Document Type: Remedial Action Completion Report
Future Due Date: 2017
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Plan
Future Due Date: 2018
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2024

TETRA TECH (Continued) **S101480945**

Future Area Name:	Upper Operable Unit
Future Sub Area Name:	Not reported
Future Document Type:	Remedy Constructed: Operating Properly & Successfully
Future Due Date:	2019
Future Area Name:	Upper Operable Unit
Future Sub Area Name:	Not reported
Future Document Type:	Certification
Future Due Date:	2019
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Remedial Action Completion Report
Schedule Due Date:	06/13/2016
Schedule Revised Date:	Not reported
Schedule Area Name:	Upper Operable Unit
Schedule Sub Area Name:	Cell 3
Schedule Document Type:	Remedial Action Completion Report
Schedule Due Date:	10/13/2016
Schedule Revised Date:	Not reported

SWF/LF (SWIS):

Region:	STATE
Facility ID:	19-AQ-0012
Lat/Long:	33.84413 / -118.27322
Owner Name:	City Of Carson
Owner Telephone:	Not reported
Owner Address:	Not reported
Owner Address2:	701 East Carson St
Owner City,St,Zip:	Carson, CA 90749
Operational Status:	Closed
Operator:	Not reported
Operator Phone:	Not reported
Operator Address:	Not reported
Operator Address2:	Not reported
Operator City,St,Zip:	Not reported
Permit Date:	Not reported
Permit Status:	Not reported
Permitted Acreage:	$0.00
Activity:	Solid Waste Disposal Site
Regulation Status:	Unpermitted
Landuse Name:	Urban,Residential,Golf Course,Commercial
GIS Source:	Map
Category:	Disposal
Unit Number:	01
Inspection Frequency:	Quarterly
Accepted Waste:	Not reported
Closure Date:	Not reported
Closure Type:	Not reported
Disposal Acreage:	$0.00
SWIS Num:	19-AQ-0012
Waste Discharge Requirement Num:	Not reported
Program Type:	Not reported
Permitted Throughput with Units:	Not reported
Actual Throughput with Units:	Not reported
Permitted Capacity with Units:	Not reported
Remaining Capacity:	Not reported
Remaining Capacity with Units:	Not reported
Lat/Long:	33.84413 / -118.27322

TETRA TECH (Continued) **S101480945**

LOS ANGELES CO. LF:

Site ID:	1889
Alt. Address:	20402 South Main Street, Carson, CA; 20300 South Main Street, Carson, CA 90745
Site Contact:	Not reported
Site Contact Phone:	Not reported
Site Email:	Not reported
Site Website:	Not reported
Site Type:	Designated Waste Landfill
Site SWIS Number:	19-AQ-0012
Beginning Operation Date:	Jul-59
Ending Operation Date:	1964
Local Enforcement Agency:	County Public Health
Maximun Depth Fill(Ft):	69
Permitted Capacity:	Not reported
Present Use:	Vacant
Remaining Capacity(Million):	Not reported
Status:	Closed
Waste Accepted:	Not reported
Hours of Operation:	Not reported
Disposal Area (Acre):	157

Detail As Of 01/2014:

Operator Name:	BKK Corporation (Carson)
Operator Address:	1550 127th Street
Operator City/State/Zip:	TORRANCE, CA
Operator Contact:	Ben Kazarian
Operator Telephone:	Not reported
Operator Email:	Not reported
Owner Name:	Carson Reality Project Inc. (City of Carson)
Owner Address:	701 EAST CARSON ST
Owner City/State/Zip:	Carson, CA 90745
Owner Contact:	Not reported
Owner Telephone:	Not reported
Owner Email:	Not reported

LDS:

Global Id:	T10000009325
Latitude:	33.84377
Longitude:	-118.2779
Case Type:	Land Disposal Site
Status:	Completed - Case Closed
Status Date:	09/01/2016
Lead Agency:	Not reported
Caseworker:	Not reported
Local Agency:	Not reported
RB Case Number:	64-059
LOC Case Number:	Not reported
File Location:	Regional Board
Potential Media Affect:	Not reported
EDR Link ID:	T10000009325
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

TETRA TECH (Continued) **S101480945**

Global Id:	T10000005544
Latitude:	33.84270
Longitude:	-118.2720
Case Type:	Land Disposal Site
Status:	Completed - Case Closed
Status Date:	05/23/2016
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Caseworker:	WY
Local Agency:	Not reported
RB Case Number:	95-075
LOC Case Number:	Not reported
File Location:	Regional Board
Potential Media Affect:	Not reported
EDR Link ID:	T10000005544
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

CORTESE:

Region:	CORTESE
Envirostor Id:	19490019
Site/Facility Type:	STATE RESPONSE
Cleanup Status:	ACTIVE
Status Date:	04/18/1996
Site Code:	400721, 401325, 401580, 401716
Latitude:	33.842604
Longitude:	-118.27233
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	envirostor
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	CALSI
Reg Id:	19490019

LOS ANGELES CO. HMS:

Region:	LA
Permit Category:	I
Facility Id:	032716-053034
Facility Type:	S4
Facility Status:	Permit
Area:	22
Permit Number:	000675948
Permit Status:	Permit

TETRA TECH (Continued) **S101480945**

Region: LA
Permit Category: I
Facility Id: 032716-053034
Facility Type: S4
Facility Status: Permit
Area: 22
Permit Number: 000675949
Permit Status: Permit

Region: LA
Permit Category: I
Facility Id: 032716-053034
Facility Type: S4
Facility Status: Permit
Area: 22
Permit Number: 000675950
Permit Status: Permit

Region: LA
Permit Category: I
Facility Id: 032716-053034
Facility Type: S4
Facility Status: Permit
Area: 22
Permit Number: 000675951
Permit Status: Permit

Region: LA
Permit Category: I
Facility Id: 032716-053034
Facility Type: S4
Facility Status: Permit
Area: 22
Permit Number: 000675952
Permit Status: Permit

Region: LA
Permit Category: I
Facility Id: 032716-053034
Facility Type: 02
Facility Status: Permit
Area: 22
Permit Number: 000020895
Permit Status: Permit

Region: LA
Permit Category: I
Facility Id: 032716-053034
Facility Type: 02
Facility Status: Permit
Area: 22
Permit Number: 000020574
Permit Status: Closed

NPDES:
Npdes Number: Not reported
Facility Status: Not reported

TETRA TECH (Continued) **S101480945**

Agency Id:	Not reported
Region:	4
Regulatory Measure Id:	337845
Order No:	Not reported
Regulatory Measure Type:	Construction
Place Id:	Not reported
WDID:	4 19C349993
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008
PROCESSED DATE:	12/12/2007
STATUS CODE NAME:	Active
STATUS DATE:	12/12/2007
PLACE SIZE:	157
PLACE SIZE UNIT:	52
FACILITY CONTACT NAME:	Javier Weckmann
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	909-967-2504
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Carson Marketplace LLC
OPERATOR ADDRESS:	4350 Von Karman Ave Ste 200
OPERATOR CITY:	Newport Beach
OPERATOR STATE:	California
OPERATOR ZIP:	92660
OPERATOR CONTACT NAME:	Seelye Arms
OPERATOR CONTACT TITLE:	PM
OPERATOR CONTACT PHONE:	949-885-8233
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	SArms@LNRProperty.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Carson Marketplace LLC
DEVELOPER ADDRESS:	4350 Von Karman Ave Ste 200
DEVELOPER CITY:	Newport Beach
DEVELOPER STATE:	California
DEVELOPER ZIP:	92660
DEVELOPER CONTACT NAME:	Seelye Arms
DEVELOPER CONTACT TITLE:	PM
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Y
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported

TETRA TECH (Continued) **S101480945**

CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Y
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Torrance Channel Dominquez Channel
CERTIFIER NAME:	Javier Weckmann
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	16-JUN-10
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	4
Regulatory Measure Id:	333459
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	4 19I021247
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	1/15/2009
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008
PROCESSED DATE:	10/29/2007
STATUS CODE NAME:	Terminated
STATUS DATE:	1/15/2009
PLACE SIZE:	140.16
PLACE SIZE UNIT:	52
FACILITY CONTACT NAME:	Ryan Jones
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	999-999-9999
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Cal Compact Landfill
OPERATOR ADDRESS:	4350 Von Karman Ave Ste 200
OPERATOR CITY:	Newprot Beach
OPERATOR STATE:	California
OPERATOR ZIP:	92660
OPERATOR CONTACT NAME:	Ryan Jones
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	949-885-8500
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported

TETRA TECH (Continued) **S101480945**

OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	4953-Refuse Systems
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	CAS000002
Facility Status:	Active
Agency Id:	0
Region:	4
Regulatory Measure Id:	337845
Order No:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	4 19C349993
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	12/12/2007
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Carson Marketplace LLC
Discharge Address:	4350 Von Karman Ave Ste 200
Discharge City:	Newport Beach
Discharge State:	California
Discharge Zip:	92660
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported

TETRA TECH (Continued) **S101480945**

STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

AY468 **CARSON RECLAMATION AUTHORITY STADIUM SITE** **HIST Cal-Sites** **S105689594**
NE **20400 MAIN STREET** **NPDES** **N/A**
1/4-1/2 **CARSON, CA 90745** **WDS**
0.466 mi.
2460 ft. **Site 5 of 6 in cluster AY**

Relative:
Lower

Actual:
26 ft.

Calsite:

Region:	CYPRESS
Facility ID:	19490019
Facility Type:	RP
Type:	RESPONSIBLE PARTY
Branch:	SB
Branch Name:	SO CAL - CYPRESS
File Name:	Not reported
State Senate District:	04181996
Status:	ANNUAL WORKPLAN (AWP) - ACTIVE SITE
Status Name:	ANNUAL WORKPLAN - ACTIVE SITE
Lead Agency:	DEPT OF TOXIC SUBSTANCES CONTROL
NPL:	Not Listed
SIC Code:	49
SIC Name:	ELECTRIC, GAS & SANITARY SERVICES
Access:	Not reported
Cortese:	Not reported
Hazardous Ranking Score:	Not reported
Date Site Hazard Ranked:	Not reported
Groundwater Contamination:	Confirmed
Staff Member Responsible for Site:	DZOGAIB
Supervisor Responsible for Site:	Not reported
Region Water Control Board:	LA
Region Water Control Board Name:	LOS ANGELES
Lat/Long Direction:	Not reported
Lat/Long (dms):	0 0 0 / 0 0 0
Lat/long Method:	Not reported
Lat/Long Description:	Not reported
State Assembly District Code:	55
State Senate District Code:	28
Facility ID:	19490019
Activity:	RMDL
Activity Name:	REMEDIAL ACTION (RAP REQUIRED)
AWP Code:	OU-1
Proposed Budget:	0
AWP Completion Date:	12312006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	L
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0

CARSON RECLAMATION AUTHORITY STADIUM SITE (Continued) **S105689594**

Unknown Type:	0
Facility ID:	19490019
Activity:	OM
Activity Name:	OPERATION & MAINTENANCE
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	06302032
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	L
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19490019
Activity:	ORDER
Activity Name:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	08311998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19490019
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	06302009
Revised Due Date:	Not reported
Comments Date:	Not reported

CARSON RECLAMATION AUTHORITY STADIUM SITE (Continued) **S105689594**

Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19490019
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	LOU
Proposed Budget:	0
AWP Completion Date:	12312004
Revised Due Date:	Not reported
Comments Date:	01242005
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19490019
Activity:	RMDL
Activity Name:	REMEDIAL ACTION (RAP REQUIRED)
AWP Code:	LOU
Proposed Budget:	0
AWP Completion Date:	12312006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported

CARSON RECLAMATION AUTHORITY STADIUM SITE (Continued) **S105689594**

Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19490019
Activity:	DES
Activity Name:	DESIGN
AWP Code:	LOU
Proposed Budget:	0
AWP Completion Date:	09302005
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19490019
Activity:	COST
Activity Name:	COST RECOVERY
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	04112001
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19490019
Activity:	ORDER

CARSON RECLAMATION AUTHORITY STADIUM SITE (Continued) **S105689594**

Activity Name:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code:	CNDEC
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	10122000
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19490019
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	LOU
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	03202001
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19490019
Activity:	ORDER
Activity Name:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code:	3M
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	03072001
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported

CARSON RECLAMATION AUTHORITY STADIUM SITE (Continued) **S105689594**

Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19490019
Activity:	ORDER
Activity Name:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code:	SUPPL
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	03072001
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19490019
Activity:	DISC
Activity Name:	DISCOVERY
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	04011979
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported

CARSON RECLAMATION AUTHORITY STADIUM SITE (Continued) **S105689594**

For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19490019
Activity:	SS
Activity Name:	SITE SCREENING
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	02191988
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19490019
Activity:	ORDER
Activity Name:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code:	RAO
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	03301988
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19490019
Activity:	PPP
Activity Name:	PUBLIC PARTICIPATION PLAN
AWP Code:	Not reported
Proposed Budget:	0

CARSON RECLAMATION AUTHORITY STADIUM SITE (Continued) **S105689594**

AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	12301989
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19490019
Activity:	ORDER
Activity Name:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code:	OU-1
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	05251995
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19490019
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	OU-1
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	08211995
Est Person-Yrs to complete:	0.35000
Estimated Size:	L
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0

CARSON RECLAMATION AUTHORITY STADIUM SITE (Continued) **S105689594**

Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19490019
Activity:	PPA
Activity Name:	PROSPECTIVE PURCHASER AGREEMENT
AWP Code:	OU-1
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	08141995
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19490019
Activity:	CEQA
Activity Name:	CEQA INCLUDING NEGATIVE DECS
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	10251995
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0

CARSON RECLAMATION AUTHORITY STADIUM SITE (Continued) **S105689594**

Unknown Type:	0
Facility ID:	19490019
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	OU-1
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	10251995
Est Person-Yrs to complete:	0
Estimated Size:	L
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19490019
Activity:	ORDER
Activity Name:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code:	OU-2
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	04121999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19490019
Activity:	DES
Activity Name:	DESIGN
AWP Code:	OU-1
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	06261996

CARSON RECLAMATION AUTHORITY STADIUM SITE (Continued) **S105689594**

Est Person-Yrs to complete:	0
Estimated Size:	L
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Alternate Address:	20300 SOUTH MAIN STREET
Alternate City,St,Zip:	CARSON, CA 90745
Alternate Address:	DEL AMO BLVD BETW MAIN ST & SAN DIEGO FW
Alternate City,St,Zip:	CARSON, CA 90745
Alternate Address:	20400 SOUTH MAIN STREET
Alternate City,St,Zip:	CARSON, CA 90745
Alternate Address:	20400 MAIN ST
Alternate City,St,Zip:	CARSON, CA 90745
Background Info:	The Cal Compact Landfill is a former Class II landfill that occupies approximately 157 acres. Operations at this facility were conducted from 1959 to 1968. The landfill was designated as a Class II facility, and at least 250,000 cubic yards of hazardous waste liquids and sludges were disposed. Previous limited investigations show the presence of heavy metals, (lead, nickel, arsenic) dichloradiphenyl-trichloroethane (DDT), herbicides, organic resins, hydrocarbons, and solvents in the soil and landfill leachate at the site. There is a potential for contaminants to migrate to groundwater, surface water and air. Exposure of humans to airborne volatile organic compounds in air may be facilitated by movement of these substances from decomposing landfill material to the atmosphere. Although the fill material was capped with about 3 to 20 feet of cover soil when the landfill ceased operations, landfill gas containing methane has been detected escaping from cracks in the cover material and offsite. These gases may contain hazardous volatile organic substances. There is a potential threat to groundwater posed by landfill leachate. Contamination has been found in the unused perched aquifer, which may be hydrologically connected to deeper, usable aquifers. The site is adjacent to the Dominguez Channel, a waterway that flows into the Los Angeles Harbor. Should landfill materials become exposed, they may be transported as rain runoff to the Channel. A RAO was issued in March 1988 to 14 PRP's. Twelve of the 14 PRPs have been found in noncompliance with the RAO. Due to the bankruptcy of the Landowner, the RI did not start until September 1990. This work is being conducted by a trustee of the bankruptcy court.
Comments Date:	01081981
Comments:	Determination requested by City of Carson.

CARSON RECLAMATION AUTHORITY STADIUM SITE (Continued) **S105689594**

Comments Date:	01152004
Comments:	LFG extraction test completed.
Comments Date:	01242005
Comments:	Groundwater monitoring of Gage aquifer.
Comments Date:	01252005
Comments:	Notice of Exemption sent to the State Clearinghouse.
Comments Date:	02191988
Comments:	Site Screening Done: Site is part of the State Bond Expenditure
Comments Date:	02191988
Comments:	Plan.
Comments Date:	02231993
Comments:	A conference call was held with Metro 2000 and its consultant
Comments Date:	02231993
Comments:	regarding the Lynwood and Silverado aquifer investigation.
Comments Date:	03072001
Comments:	Consent decree with 3M Company. Consent decree with site
Comments Date:	03072001
Comments:	owners - "supplemental decree".
Comments Date:	03131981
Comments:	Determination requested by Developer.
Comments Date:	03202001
Comments:	Remedial investigation of Lower OU (OU2) completed. An FS
Comments Date:	03202001
Comments:	will not be done. However, a RAP is required.
Comments Date:	04011979
Comments:	Facility Identified: On Eckhardt List as Cal & Monsanto.
Comments Date:	04011979
Comments:	Site used by Tennco Chemical.
Comments Date:	04041995
Comments:	L.A. MetroMall has proposed to construct a retail outlet mall at
Comments Date:	04041995
Comments:	the Cal Compact Landfill site. The mall, if constructed, will be
Comments Date:	04041995
Comments:	one of the largest outlet shopping centers in the nation. This
Comments Date:	04041995
Comments:	proposed project will generate hundreds of new jobs and millions
Comments Date:	04112001
Comments:	As part of a lawsuit settlement between the Defense Group and
Comments Date:	04112001
Comments:	3M Company and DTSC, DTSC would be paid past costs, future
Comments Date:	04112001
Comments:	oversight costs, and remediation costs.
Comments Date:	04121999
Comments:	Letter Agreement to investigate the lower Operable Unit at the
Comments Date:	04121999
Comments:	site.
Comments Date:	05011981
Comments:	HMMS sampling.
Comments Date:	05082003
Comments:	Supplemental decree with site owners.
Comments Date:	05251995
Comments:	DTSC issues a Remedial Action Order and Consent Order to BKK
Comments Date:	05251995
Comments:	Corporation for the Cal Compact site. The Order applies to the
Comments Date:	05251995
Comments:	Upper Operable Unit.
Comments Date:	06182003

CARSON RECLAMATION AUTHORITY STADIUM SITE (Continued) **S105689594**

Comments:	Consent Decree with municipalities.
Comments Date:	07251991
Comments:	Former Class I landfill. Contaminants include drilling muds,
Comments Date:	07251991
Comments:	petrochemicals, solvents, paints, heavy metals (Pb, Ni, As),
Comments Date:	07251991
Comments:	pesticides, DDT, and herbicides.
Comments Date:	08141995
Comments:	The Department of Toxic Substances Control enters into this
Comments Date:	08141995
Comments:	Consent Decree with the Commercial Realty Projects, Inc.
Comments Date:	08141995
Comments:	(CRP) to provide for certain environmental response actions
Comments Date:	08141995
Comments:	at, and to resolve certain liability claims with respect to,
Comments Date:	08141995
Comments:	the Cal Compact landfill site located in the city of Carson.
Comments Date:	08211995
Comments:	The Remedial Investigation/Feasibility Study for the Cal Compact
Comments Date:	08211995
Comments:	Landfill site prepared by Brown & Root Environmental is approved.
Comments Date:	08252003
Comments:	DTSC approved LFG System Pilot Study Workplan.
Comments Date:	09091998
Comments:	Agreement to perform work signed. Workplan to locate abandoned
Comments Date:	09091998
Comments:	oil and water wells, develop plans to abandon those wells, if
Comments Date:	09091998
Comments:	located, conduct groundwater monitoring.
Comments Date:	09202001
Comments:	DTSC met with RP's representative and consultant to discuss
Comments Date:	09202001
Comments:	installation of interim landfill gas collection system.
Comments Date:	10122000
Comments:	Consent Decree with Defense Group. Consent Decree with 3M Co.
Comments Date:	10122000
Comments:	Supplemental Decree.
Comments Date:	10151980
Comments:	Received Eckhardt Survey.
Comments Date:	10231980
Comments:	Facility Drive-By: Site looks suspicious.
Comments Date:	10251995
Comments:	DTSC completed its review of the RAP for the Cal Compact Landfill
Comments Date:	10251995
Comments:	Upper Operable Unit, and has determined that the plan meets
Comments Date:	10251995
Comments:	statutory requirements. CEQA documents were filed and approved
Comments Date:	10251995
Comments:	accordingly.
Comments Date:	11131980
Comments:	Met with property-owner representatives.
Comments Date:	12021980
Comments:	Sampling by HMMS.
Comments Date:	12052003
Comments:	LFG pilot test wells installed.
Comments Date:	12102003
Comments:	LFG pilot test headerline installed.

CARSON RECLAMATION AUTHORITY STADIUM SITE (Continued) **S105689594**

Comments Date:	12191989
Comments:	EPA's reassessment of Screening Site Assessment recommends
Comments Date:	12191989
Comments:	Listing Site Inspection (high-priority).
Comments Date:	12191996
Comments:	In December 1996, the U.S. District Court approved the Consent
Comments Date:	12191996
Comments:	Decree. PRPs opposing the Consent Decree filed an appeal with
Comments Date:	12191996
Comments:	the 9th circuit Court of Appeals. The appeal is not scheduled
Comments Date:	12191996
Comments:	to be heard until mid 1998.
Comments Date:	12271995
Comments:	The Attorney General's Office lodged athe Consent Decree, on
Comments Date:	12271995
Comments:	behalf of DTSC, with the US District Court for the Central
Comments Date:	12271995
Comments:	District of California, in case #95-8773-JMI (JRx). A 30
Comments Date:	12271995
Comments:	day public notice period was held and ran through 3/7/96.
Comments Date:	04041995
Comments:	of dollars of revenue for the state and local economy.
ID Name:	CALSTARS CODE
ID Value:	400019
ID Name:	BEP DATABASE PCODE
ID Value:	P41008
ID Name:	EPA IDENTIFICATION NUMBER
ID Value:	CAD980735955
Alternate Name:	CAL COMPACT LANDFILL
Alternate Name:	Not reported
Special Programs Code:	Not reported
Special Programs Name:	Not reported

NPDES:

Npdes Number:	CAS000002
Facility Status:	Active
Agency Id:	0
Region:	4
Regulatory Measure Id:	465924
Order No:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	4 19C374699
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	11/23/2015
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Carson Reclamation Authority
Discharge Address:	701 East Carson Street
Discharge City:	Carson
Discharge State:	California
Discharge Zip:	90745
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported

CARSON RECLAMATION AUTHORITY STADIUM SITE (Continued) **S105689594**

PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

WDS:

Facility ID:	4 19I012013
Facility Type:	Not reported
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is

CARSON RECLAMATION AUTHORITY STADIUM SITE (Continued) **S105689594**

	under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	4
Facility Telephone:	Not reported
Facility Contact:	Not reported
Agency Name:	L.A. METROMALL L.L.C.
Agency Address:	Not reported
Agency City,St,Zip:	0
Agency Contact:	Not reported
Agency Telephone:	Not reported
Agency Type:	Not reported
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

AY469 **WERDIN SITE-CARSON** **WMUDS/SWAT** **S104156384**
NE **20400 SOUTH MAIN** **N/A**
1/4-1/2 **CARSON, CA**
0.466 mi.
2460 ft. **Site 6 of 6 in cluster AY**

Relative:
Lower

Actual:
26 ft.

WMUDS/SWAT:

Edit Date:	Not reported
Complexity:	Not reported
Primary Waste:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Base Meridian:	Not reported
NPID:	Not reported
Tonnage:	0
Regional Board ID:	64-59
Municipal Solid Waste:	False
Superorder:	False
Open To Public:	False

WERDIN SITE-CARSON (Continued) **S104156384**

Waste List:	False
Agency Type:	Not reported
Agency Name:	WERDIN
Agency Department:	Not reported
Agency Address:	Not reported
Agency City,St,Zip:	Not reported
Agency Contact:	Not reported
Agency Telephone:	Not reported
Land Owner Name:	Not reported
Land Owner Address:	Not reported
Land Owner City,St,Zip:	CA
Land Owner Contact:	Not reported
Land Owner Phone:	Not reported
Region:	4
Facility Type:	Not reported
Facility Description:	Not reported
Facility Telephone:	Not reported
SWAT Facility Name:	Not reported
Primary SIC:	Not reported
Secondary SIC:	Not reported
Comments:	Not reported
Last Facility Editors:	Not reported
Waste Discharge System:	False
Solid Waste Assessment Test Program:	True
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act:	False
Department of Defence:	False
Solid Waste Assessment Test Program:	WERDIN
Threat to Water Quality:	Not reported
Sub Chapter 15:	False
Regional Board Project Officer:	Not reported
Number of WMUDS at Facility:	1
Section Range:	Not reported
RCRA Facility:	Not reported
Waste Discharge Requirements:	Not reported
Self-Monitoring Rept. Frequency:	Not reported
Waste Discharge System ID:	4 190456NUR
Solid Waste Information ID:	Not reported

470
NNW
1/4-1/2
0.473 mi.
2495 ft.

A & B AUTO REPAIR **LUST** **S111345542**
20530 NORMANDIE AVE **N/A**
TORRANCE, CA 90502

Relative:
Higher

Actual:
43 ft.

LUST:

Region:	STATE
Global Id:	T10000003417
Latitude:	33.8437581925442
Longitude:	-118.298839330673
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	07/03/2012
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	MB
Local Agency:	LOS ANGELES COUNTY
RB Case Number:	R-22235
LOC Case Number:	Not reported

A & B AUTO REPAIR (Continued) **S111345542**

File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Waste Oil / Motor / Hydraulic / Lubricating
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T10000003417
Contact Type: Local Agency Caseworker
Contact Name: KATTYA BATRES RINZE
Organization Name: LOS ANGELES COUNTY
Address: 900 SOUTH FREMONT AVE
City: ALHAMBRA
Email: gbatres@dpw.lacounty.gov
Phone Number: Not reported

Global Id: T10000003417
Contact Type: Regional Board Caseworker
Contact Name: MAGDY BAIADY
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: LOS ANGELES
Email: mbaiady@waterboards.ca.gov
Phone Number: 2135766699

Status History:
Global Id: T10000003417
Status: Completed - Case Closed
Status Date: 07/03/2012

Global Id: T10000003417
Status: Open - Case Begin Date
Status Date: 10/20/2011

Global Id: T10000003417
Status: Open - Site Assessment
Status Date: 12/06/2011

Regulatory Activities:
Global Id: T10000003417
Action Type: Other
Date: 10/20/2011
Action: Leak Discovery

Global Id: T10000003417
Action Type: ENFORCEMENT
Date: 01/09/2012
Action: Staff Letter

Global Id: T10000003417
Action Type: Other
Date: 12/06/2011
Action: Leak Reported

Global Id: T10000003417
Action Type: ENFORCEMENT

A & B AUTO REPAIR (Continued) **S111345542**

Date:	12/21/2011
Action:	Referral to Regional Board
Global Id:	T10000003417
Action Type:	ENFORCEMENT
Date:	07/03/2012
Action:	Closure/No Further Action Letter
Global Id:	T10000003417
Action Type:	Other
Date:	10/20/2011
Action:	Leak Stopped
Global Id:	T10000003417
Action Type:	ENFORCEMENT
Date:	07/03/2012
Action:	Closure/No Further Action Letter
Global Id:	T10000003417
Action Type:	RESPONSE
Date:	02/06/2012
Action:	Other Report / Document

AZ471 **MULTI-TENANT OFFICE-WAREHOUSE PROPERTY** **SLIC** **S117624747**
SW **1500-1510 WEST 228TH STREET** **N/A**
1/4-1/2 **TORRANCE, CA 90501**
0.474 mi.
2501 ft. **Site 2 of 2 in cluster AZ**

Relative:
Higher

Actual:
57 ft.

SLIC:

Region:	STATE
Facility Status:	**Open - Site Assessment**
Status Date:	10/06/2015
Global Id:	T10000006519
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number:	Not reported
Latitude:	33.8186776
Longitude:	-118.3042368
Case Type:	Cleanup Program Site
Case Worker:	PC
Local Agency:	Not reported
RB Case Number:	1294
File Location:	Regional Board
Potential Media Affected:	Other Groundwater (uses other than drinking water), Soil, Soil Vapor
Potential Contaminants of Concern:	Tetrachloroethylene (PCE)
Site History:	In September 2013, a Phase I Environmental Site Assessment was prepared and identified various industrial land uses including machine shops, manufacturing tenants, auto restoration operations and auto parts manufacturing. In 2013, tetrachloroethene (PCE) was detected in soil vapor at concentrations ranging from 12.5 to 8,500 parts per billion by volume and in groundwater up to 240 micrograms per liter. Responsible Party proposed further investigation for groundwater impact.

Click here to access the California GeoTracker records for this facility:

BA472 **CAL COMPACT LANDFILL** **CA BOND EXP. PLAN** **S100833309**
NNE **20300 SOUTH MAIN STREET** **N/A**
1/2-1 **CARSON, CA 90749**
0.521 mi.
2751 ft. **Site 1 of 2 in cluster BA**

Relative:
Lower

Actual:
23 ft.

CA BOND EXP. PLAN:

Reponsible Party:	RESPONSIBLE PARTY LEAD SITE CLEANUP WORKPLAN
Project Revenue Source Company:	Not reported
Project Revenue Source Addr:	Not reported
Project Revenue Source City,St,Zip:	Not reported
Project Revenue Source Desc:	DHS issued a RAO to the PRPs. DHS has budgeted $70,000 for oversight and monitoring of cleanup efforts and will recover 100 percent of the direct costs, plus staff costs and overhead related to the project. The responsible parties are expected to pay all costs associated with remedial investigation and cleanup activities.
Site Description:	The Cal Compact Landfill is a former Class II landfill that occupies approximately 180 acres. Operations at this facility were conducted from 1959 to the late 1960's. The exact closure date is uncertain. Although the landfill was designated as a Class II facility, at least 250,000 cubic yards of hazardous waste liquids and sludges were disposed of at this site.
Hazardous Waste Desc:	This site has a documented history of having received a broad range of petrochemicals, paints, solvents, dyes, organic resins, and inorganic salts. Heavy metals, pesticides such as DDD and DDE; herbicides (4,6-dinitrocresol and PCP), and solvents have been identified in the soil and landfill leachate at the site.
Threat To Public Health & Env:	There is a potential for contaminants to migrate to ground water, surface water and air. Exposure of humans to airborne volatile organic compounds in air may be facilitated by movement of these substances from decomposing landfill material to the atmosphere. Although the fill material is capped with about three feet of cover soil, landfill gas containing methane has been detected escaping from cracks in the cover material and offsite. These gases may contain hazardous volatile organic substances. There is a potential threat to ground water posed by landfill leachate. Contamination has been found in the unused perched aquifer, which may be hydrologically connected to deeper, usable aquifers. The site is adjacent to the Dominguez Channel, a waterway that flows into Los Angeles Harbor. Should landfill materials become exposed, they may be transported as rain runoff to the Channel.
Site Activity Status:	Substantial leachate and soil sampling on a 63-acre portion of the site was completed by a previous landowner. Further site characterization on the 63-acre portion and the remaining 117 acres is necessary. A RAO was issued to 14 potentially responsible parties (PRPs) on March 18, 1988. There are 12 PRPs that have been determined to be in noncompliance with the RAO. The remaining PRPs are expected to conduct RI/FS activities commencing in Winter, 1989.

BA473 **SOUTHWEST CONSERVATION** **ENVIROSTOR** **S105023095**
NNE **20300 MAIN** **LDS** **N/A**
1/2-1 **CARSON, CA 90745** **HIST CORTESE**
0.521 mi.
2751 ft. **Site 2 of 2 in cluster BA**

Relative:
Lower

Actual:
23 ft.

ENVIROSTOR:

Facility ID:	19490193
Status:	Inactive - Needs Evaluation
Status Date:	05/09/2007
Site Code:	Not reported
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	0
NPL:	NO

SOUTHWEST CONSERVATION (Continued) **S105023095**

Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: * Greg Holmes
Division Branch: Cleanup Cypress
Assembly: 64
Senate: 35
Special Program: EPA - PASI
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: EPA Grant
Latitude: 33.84648
Longitude: -118.2796
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: * HOUSEHOLD WASTES * Metals - Sludge Asbestos Containing Materials (ACM * UNSPECIFIED OIL CONTAINING WASTE * DRILLING MUD
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: MAIN STREET DUMP
Alias Type: Alternate Name
Alias Name: SOUTH BAY SIX THEATERS
Alias Type: Alternate Name
Alias Name: CAD980636492
Alias Type: EPA Identification Number
Alias Name: CAD980636500
Alias Type: EPA Identification Number
Alias Name: 19490193
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 09/28/1983
Comments: FACILITY IDENTIFIED ID FROM ERRIS

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 04/15/1982
Comments: FACILITY IDENTIFIED LA CO 630 SERIES BASE COORD MAP (1973)

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 04/14/1982
Comments: FACILITY IDENTIFIED CO ENGR INACTIVE WASTE DISPOSAL FACILITY

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 10/27/1994
Comments: Site screening/file search concludes NFA for DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening

SOUTHWEST CONSERVATION (Continued) **S105023095**

Completed Date: 11/10/1987
Comments: SITE SCREENING DONE ON SWAT LIST

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 03/01/1984
Comments: PRELIM ASSESS DONE RCRA 3012

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

LDS:

Global Id: T10000004290
Latitude: 33.84272
Longitude: -118.2726
Case Type: Land Disposal Site
Status: Completed - Case Closed
Status Date: 09/26/2012
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Caseworker: WY
Local Agency: Not reported
RB Case Number: 59-045
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Not reported
EDR Link ID: T10000004290
Potential Contaminants of Concern: Not reported
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: CALSI
Reg Id: 19490193

474
North
1/2-1
0.567 mi.
2995 ft.

DOW CHEMICALS CO.

TORRANCE, CA

ENVIROSTOR **S107736233**
N/A

Relative:
Higher

Actual:
40 ft.

ENVIROSTOR:

Facility ID:	80001003
Status:	Inactive - Needs Evaluation
Status Date:	12/11/2015
Site Code:	Not reported
Site Type:	Military Evaluation
Site Type Detailed:	FUDS
Acres:	10
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Douglas Bautista
Division Branch:	Cleanup Cypress
Assembly:	64
Senate:	35
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	DERA
Latitude:	33.85
Longitude:	-118.2930
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CA99799FA39100
Alias Type:	Federal Facility ID
Alias Name:	J09CA7364
Alias Type:	INPR
Alias Name:	80001003
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

BB475 **BODY GLOVE INTERNATIONAL** **SEMS-ARCHIVE** **1000921601**
NW **20700 DENKER AVE UNIT A** **CORRACTS** **CAD980665582**
1/2-1 **TORRANCE, CA 90501** **RCRA-TSDF**
0.575 mi. **RCRA NonGen / NLR**
3034 ft. **Site 1 of 2 in cluster BB**

Relative:
Higher

Actual:
47 ft.

SEMS-ARCHIVE:
Site ID: 900181
EPA ID: CAD980665582
Federal Facility: N
NPL: Not on the NPL
Non NPL Status: Deferred to RCRA

Following information was gathered from the prior CERCLIS update completed in 10/2013:
Site ID: 0900181
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: Deferred to RCRA

CERCLIS-NFRAP Site Contact Details:
Contact Sequence ID: 13290136.00000
Person ID: 13003854.00000

Contact Sequence ID: 13295731.00000
Person ID: 13003858.00000

Contact Sequence ID: 13301589.00000
Person ID: 13004003.00000

Program Priority:
Description: RCRA Deferral Audit

Description: RCRA Deferral - Lead Confirmed

Description: RCRA Deferral - Further Superfund Assessment

CERCLIS-NFRAP Assessment History:
Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 06/06/90
Priority Level: Deferred to RCRA (Subtitle C)

Action: DISCOVERY
Date Started: / /
Date Completed: 11/07/89
Priority Level: Not reported

Action: ARCHIVE SITE
Date Started: / /
Date Completed: 01/23/96
Priority Level: Not reported

CORRACTS:

EPA ID: CAD980665582
EPA Region: 09
Area Name: ENTIRE FACILITY

BODY GLOVE INTERNATIONAL (Continued) **1000921601**

Actual Date: 19900606
Action: CA075LO - CA Prioritization, Facility or area was assigned a low corrective action priority
NAICS Code(s): Not reported
Original schedule date: Not reported
Schedule end date: Not reported

RCRA-TSDF:
Date form received by agency: 05/13/1994
Facility name: BODY GLOVE INTERNATIONAL
Facility address: 20700 DENKER AVE UNIT A
TORRANCE, CA 905011923
EPA ID: CAD980665582
Contact: FERNANDO CORRAL
Contact address: 20700 DENKER AVE UNIT A
TORRANCE, CA 905011923
Contact country: US
Contact telephone: (310) 782-0207
Contact email: Not reported
EPA Region: 09
Land type: Private
Classification: TSDF
Description: Handler is engaged in the treatment, storage or disposal of hazardous waste
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: NORTHROP AIRCRAFT DIV
Owner/operator address: ONE NORTHROP AVE
HAWTHORNE, CA 90250
Owner/operator country: Not reported
Owner/operator telephone: (213) 332-3062
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: BODY GLOVE
Owner/operator address: P O BOX 511
REDONDO BEACH, CA 90277
Owner/operator country: Not reported
Owner/operator telephone: (310) 374-4074
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No

BODY GLOVE INTERNATIONAL (Continued) **1000921601**

Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 04/12/1990
Site name: NORTHROP CORP. AIRCRAFT DIV.
Classification: Large Quantity Generator

Date form received by agency: 08/18/1980
Site name: BODY GLOVE INTERNATIONAL
Classification: Not a generator, verified

Corrective Action Summary:
Event date: 06/06/1990
Event: CA029ST

Event date: 06/06/1990
Event: CA Prioritization, Facility or area was assigned a low corrective action priority.

Event date: 06/06/1990
Event: CA074LO

Event date: 06/06/1990
Event: CA049PA

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 01/04/1988
Date achieved compliance: 09/15/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/24/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 12/28/1992
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/21/1992

BODY GLOVE INTERNATIONAL (Continued) **1000921601**

Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State
Evaluation date:	10/08/1992
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State
Evaluation date:	11/21/1991
Evaluation:	FINANCIAL RECORD REVIEW
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State
Evaluation date:	01/04/1988
Evaluation:	FINANCIAL RECORD REVIEW
Area of violation:	TSD - Financial Requirements
Date achieved compliance:	09/15/1988
Evaluation lead agency:	State
Evaluation date:	12/21/1987
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State

BB476 **NORTHROP CORP. AIRCRAFT DIV.** **ENVIROSTOR** **S109467205**
NW **20700 DENKER AVE** **HWP** **N/A**
1/2-1 **LOS ANGELES, CA 90032**
0.584 mi.
3082 ft. **Site 2 of 2 in cluster BB**

Relative:
Higher

Actual:
49 ft.

ENVIROSTOR:

Facility ID:	80001740
Status:	* Inactive
Status Date:	01/01/2008
Site Code:	Not reported
Site Type:	Corrective Action
Site Type Detailed:	Corrective Action
Acres:	0
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	WM
Program Manager:	Maria Fabella
Supervisor:	Philip Chandler
Division Branch:	Cleanup Chatsworth
Assembly:	64
Senate:	35
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	33.84275
Longitude:	-118.3039
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED

NORTHROP CORP. AIRCRAFT DIV. (Continued) **S109467205**

Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: Body Glove
Alias Type: Alternate Name
Alias Name: CAD980665582
Alias Type: EPA Identification Number
Alias Name: 80001740
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 06/06/1990
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

HWP:
EPA Id: CAD980665582
Cleanup Status: CLOSED
Latitude: 33.84275
Longitude: -118.3039
Facility Type: Historical - Non-Operating
Facility Size: Not reported
Team: Not reported
Supervisor: Not reported
Site Code: Not reported
Assembly District: 64
Senate District: 35
Public Information Officer: Not reported
Public Information Officer: Not reported

Activities:
EPA Id: CAD980665582
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - PUBLIC COMMENT (BEGIN)
Actual Date: 08/31/1983

EPA Id: CAD980665582
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - FINAL PERMIT
Actual Date: 12/30/1983

EPA Id: CAD980665582
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1

NORTHROP CORP. AIRCRAFT DIV. (Continued) **S109467205**

Event Description: New Operating Permit - FINAL PERMIT (EXPIRES)
Actual Date: 12/30/1988

EPA Id: CAD980665582
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - FINAL PERMIT (EFFECTIVE)
Actual Date: 12/30/1983

EPA Id: CAD980665582
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - APPLICATION PART B RECEIVED
Actual Date: 08/01/1983

EPA Id: CAD980665582
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - APPLICATION PART A RECEIVED
Actual Date: 09/17/1994

EPA Id: CAD980665582
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - PERMIT TERMINATED - TERMINATION RECEIVED
Actual Date: 11/24/1987

EPA Id: CAD980665582
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - PERMIT TERMINATED - TERMINATION APPROVED
Actual Date: 03/28/1991

Closure:
EPA Id: CAD980665582
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: Closure Final - ISSUE CLOSURE VERIFICATION
Actual Date: 01/01/1995

EPA Id: CAD980665582
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: Closure Final - RECEIVE CLOSURE CERTIFICATION
Actual Date: 02/03/1992

---

477 SW 1/2-1 0.589 mi. 3111 ft. **ALFA CORPORATION** **ENVIROSTOR** **S106665630**
1638 W. 227TH ST. **N/A**
TORRANCE, CA 90501

Relative: Higher

Actual: 68 ft.

ENVIROSTOR:
Facility ID: 19990046
Status: Refer: 1248 Local Agency
Status Date: 07/30/2004

ALFA CORPORATION (Continued) **S106665630**

Site Code:	Not reported
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Referred - Not Assigned
Division Branch:	Cleanup Cypress
Assembly:	55
Senate:	Not reported
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not Applicable
Latitude:	0
Longitude:	0
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	19990046
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Comments:	Not reported

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

478
NNE
1/2-1
0.666 mi.
3515 ft.

FIRST IMAGE MANAGEMENT CO. **ENVIROSTOR** **S110493842**
19701 S. HAMILTON AVENUE #130 **N/A**
TORRANCE, CA 90508

Relative:
Lower

Actual:
27 ft.

ENVIROSTOR:

Facility ID:	71003267
Status:	Refer: Other Agency
Status Date:	Not reported
Site Code:	Not reported
Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	Not reported
NPL:	NO

FIRST IMAGE MANAGEMENT CO. (Continued) **S110493842**

Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Chatsworth
Assembly: Not reported
Senate: Not reported
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 0
Longitude: 0
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAL000060870
Alias Type: EPA Identification Number
Alias Name: 71003267
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

479
NNW
1/2-1
0.698 mi.
3683 ft.

Relative:
Higher

Actual:
46 ft.

HYDRO RUBBER AND PLASTICS INC **RCRA-SQG** **1000366292**
1200 FRANCISCO ST **ENVIROSTOR** **CAD981691397**
TORRANCE, CA 90502 **FINDS**
EMI
HAZNET
ECHO

RCRA-SQG:
Date form received by agency: 12/05/1986
Facility name: HYDRO RUBBER & PLASTIC INC
Facility address: 1200 FRANCISCO ST
TORRANCE, CA 90502
EPA ID: CAD981691397
Mailing address: FRANCISCO ST
TORRANCE, CA 90502
Contact: ENVIRONMENTAL MANAGER
Contact address: 1200 FRANCISCO ST
TORRANCE, CA 90502

HYDRO RUBBER AND PLASTICS INC (Continued) **1000366292**

Contact country: US
Contact telephone: (213) 532-4444
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: UNDER SEA INDUSTRIES
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

ENVIROSTOR:
Facility ID: 19300238
Status: No Further Action
Status Date: 02/23/1995
Site Code: Not reported
Site Type: Historical

HYDRO RUBBER AND PLASTICS INC (Continued) **1000366292**

Site Type Detailed: * Historical
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: * Mmonroy
Division Branch: Cleanup Cypress
Assembly: 64
Senate: 35
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 33.84997
Longitude: -118.2974
APN: 7351036017
Past Use: MANUFACTURING - OTHER
Potential COC: 1,1,1-Trichloroethane (TCA 1,1-Dichloroethane
Confirmed COC: 1,1,1-Trichloroethane (TCA 1,1-Dichloroethane
Potential Description: SOIL
Alias Name: HYDRO RUBBER & PLASTICS
Alias Type: Alternate Name
Alias Name: 7351036017
Alias Type: APN
Alias Name: 19300238
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 01/18/1995
Comments: Site was discovered through Dames & Moore notifying the Dept of the completion of an Environmental Investigation on this property. During investigation, Dames & Moore excavated the contaminated area and backfilled with clean soil. "It is Dames & Moore's professional opinion that no additional site remedial activities are warranted at this time." However, due to evidence of a release, a PEA is required by the Dept.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

FINDS:

Registry ID: 110002754617

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource

HYDRO RUBBER AND PLASTICS INC (Continued) **1000366292**

Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS AIR POLLUTANT MAJOR

EMI:

Year:	1987
County Code:	19
Air Basin:	SC
Facility ID:	16023
Air District Name:	SC
SIC Code:	3069
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1990
County Code:	19
Air Basin:	SC
Facility ID:	16023
Air District Name:	SC
SIC Code:	3080
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

HAZNET:

envid:	1000366292
Year:	1993
GEPAID:	CAD981691397
Contact:	Not reported
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	222 MAIN ST STE 400
Mailing City,St,Zip:	RACINE, WI 534030000
Gen County:	Not reported
TSD EPA ID:	CAD009522988
TSD County:	Not reported

HYDRO RUBBER AND PLASTICS INC (Continued) **1000366292**

Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: 14.4155
Cat Decode: Waste oil and mixed oil
Method Decode: Recycler
Facility County: Los Angeles

ECHO:
Envid: 1000366292
Registry ID: 110002754617
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002754617

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480 WNW 1/2-1 0.707 mi. 3731 ft. **STAR BIOCHEMICALS, SUBDIV. OF MALLINCKRODTE** **ENVIROSTOR** **S110494340**
20916 HIGGING CT **N/A**
TORRANCE, CA 90501

Relative: Higher

Actual: 54 ft.

ENVIROSTOR:
Facility ID: 71003115
Status: Refer: Other Agency
Status Date: Not reported
Site Code: Not reported
Site Type: Tiered Permit
Site Type Detailed: Tiered Permit
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Chatsworth
Assembly: 66
Senate: 35
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 33.84012
Longitude: -118.3100
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD982522427
Alias Type: EPA Identification Number
Alias Name: 71003115
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported

STAR BIOCHEMICALS, SUBDIV. OF MALLINCKRODTE (Continued) **S110494340**

Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

481
WSW
1/2-1
0.713 mi.
3766 ft.

HALBERT'S LUMBER, INC.
2026 ABALONE AVENUE
TORRENCE, CA 90501

RESPONSE **U001564041**
ENVIROSTOR **N/A**
HIST UST
Cortese

Relative:
Higher

Actual:
65 ft.

RESPONSE:

Facility ID:	19240022
Site Type:	State Response
Site Type Detail:	State Response or NPL
Acres:	1
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP, LOS ANGELES COUNTY
Lead Agency Description:	Not reported
Project Manager:	Joseph Cully
Supervisor:	Douglas Bautista
Division Branch:	Cleanup Cypress
Site Code:	Not reported
Site Mgmt. Req.:	NONE SPECIFIED
Assembly:	66
Senate:	35
Special Program Status:	Not reported
Status:	Backlog
Status Date:	01/16/2008
Restricted Use:	NO
Funding:	Not Applicable
Latitude:	33.82722
Longitude:	-118.3116
APN:	NONE SPECIFIED
Past Use:	ILLEGAL DUMPING, MANUFACTURING - LUMBER/WOOD PRODUCTS
Potential COC :	Lead Chromium VI Copper and compounds Zinc
Confirmed COC:	NONE SPECIFIED
Potential Description:	SOIL
Alias Name:	110033605542
Alias Type:	EPA (FRS #)
Alias Name:	19240022
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Assessment Report
Completed Date:	03/06/1997
Comments:	Site was referred to DTSC by US EPA as a result of EPA doing a Preliminary Assessment. EPA found site to be NFA according to their criteria. However, due to the evidence of contamination at the site, a PEA is required by DTSC. A letter was sent to RP dated 2-23-95 recommending that a PEA be done.

HALBERT'S LUMBER, INC. (Continued) **U001564041**

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 19240022
Status: Backlog
Status Date: 01/16/2008
Site Code: Not reported
Site Type: State Response
Site Type Detailed: State Response or NPL
Acres: 1
NPL: NO
Regulatory Agencies: SMBRP, LOS ANGELES COUNTY
Lead Agency: NONE SPECIFIED
Program Manager: Joseph Cully
Supervisor: Douglas Bautista
Division Branch: Cleanup Cypress
Assembly: 66
Senate: 35
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not Applicable
Latitude: 33.82722
Longitude: -118.3116
APN: NONE SPECIFIED
Past Use: ILLEGAL DUMPING, MANUFACTURING - LUMBER/WOOD PRODUCTS
Potential COC: Lead Chromium VI Copper and compounds Zinc
Confirmed COC: NONE SPECIFIED
Potential Description: SOIL
Alias Name: 110033605542
Alias Type: EPA (FRS #)
Alias Name: 19240022
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 03/06/1997
Comments: Site was referred to DTSC by US EPA as a result of EPA doing a Preliminary Assessment. EPA found site to be NFA according to their criteria. However, due to the evidence of contamination at the site, a PEA is required by DTSC. A letter was sent to RP dated 2-23-95 recommending that a PEA be done.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported

HALBERT'S LUMBER, INC. (Continued) **U001564041**

Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

HIST UST:
File Number: 000266BD
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/000266BD.pdf
Region: STATE
Facility ID: 00000003712
Facility Type: Other
Other Type: LUMBER CO.
Contact Name: Not reported
Telephone: 2133208830
Owner Name: BAYVIEW SUPPLY CORP.
Owner Address: 2026 ABALONE AVE. P.O. BOX 392
Owner City,St,Zip: TORRANCE, CA 90501
Total Tanks: 0001

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: None

Click here for Geo Tracker PDF:

CORTESE:
Region: CORTESE
Envirostor Id: 19240022
Site/Facility Type: STATE RESPONSE
Cleanup Status: BACKLOG
Status Date: 01/16/2008
Site Code: Not reported
Latitude: 33.827222
Longitude: -118.31166
Owner: Not reported
Enf Type: Not reported
Swat R: Not reported
Flag: envirostor
Order No: Not reported
Waste Discharge System No: Not reported
Effective Date: Not reported
Region 2: Not reported
WID Id: Not reported
Solid Waste Id No: Not reported
Waste Management Uit Name: Not reported

482 **DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY** **ENVIROSTOR** **S101295807**
NNE **19800 S. MAIN STREET** **LUST** **N/A**
1/2-1 **CARSON, CA 90745** **VCP**
0.736 mi. **HAZNET**
3884 ft. **HIST CORTESE**
LOS ANGELES CO. HMS

Relative:
Lower

Actual:
32 ft.

ENVIROSTOR:

Facility ID:	60000597
Status:	Active
Status Date:	10/10/2006
Site Code:	401640
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	81.1
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Daniel Zogaib
Supervisor:	Emad Yemut
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	64
Senate:	35
Special Program:	Voluntary Cleanup Program
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	33.84899
Longitude:	-118.2771
APN:	7336-009-006, 7336-009-008, 7336-009-009, 7336009006, 7336009008, 7336009009
Past Use:	LDF, LANDFILL - DOMESTIC
Potential COC:	Arsenic Benzene Total Chromium (1:6 ratio Cr VI:Cr III Methane Polychlorinated biphenyls (PCBs Tetrachloroethylene (PCE TPH-diesel TPH-gas TPH-JET FUEL TPH-MOTOR OIL 1,1,1-Trichloroethane (TCA Trichloroethylene (TCE Vinyl chloride
Confirmed COC:	Arsenic Benzene Total Chromium (1:6 ratio Cr VI:Cr III Methane Tetrachloroethylene (PCE TPH-diesel TPH-gas 1,1,1-Trichloroethane (TCA TPH-JET FUEL TPH-MOTOR OIL Trichloroethylene (TCE Vinyl chloride 30018-NO
Potential Description:	OTH, SOIL, SV, OTH, SOIL, SV
Alias Name:	Porsche Experience Center Los Angeles
Alias Type:	Alternate Name
Alias Name:	7336-009-006
Alias Type:	APN
Alias Name:	7336-009-008
Alias Type:	APN
Alias Name:	7336-009-009
Alias Type:	APN
Alias Name:	7336009006
Alias Type:	APN
Alias Name:	7336009008
Alias Type:	APN
Alias Name:	7336009009
Alias Type:	APN
Alias Name:	110033617682
Alias Type:	EPA (FRS #)
Alias Name:	401324
Alias Type:	Project Code (Site Code)

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Alias Name: 401640
Alias Type: Project Code (Site Code)
Alias Name: 60000597
Alias Type: Envirostor ID Number
Alias Name: http://www.porsche.com/losangeles/experience/
Alias Type: External Website Link / URL

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 05/11/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 10/06/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 03/24/2016
Comments: Completed and sent.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/02/2015
Comments: FY 1516 Annual Oversight Cost Estimate.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 02/26/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Reimbursement Agreement
Completed Date: 10/10/2006
Comments: Reimbursement Agreement with the Hopkins Real Estate Group was fully executed on 10/10/2006.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consultative Service Agreement
Completed Date: 07/07/2010
Comments: Amendement #5 fully executed. The amendment extends the term of the agreement to 10/31/2011 and amends the total maximum amount of the agreement.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 10/27/2011
Comments: Completed

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	CEQA - Initial Study/ Environmental Impact Report
Completed Date:	11/21/2012
Comments:	Completed

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Workplan
Completed Date:	06/21/2007
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Fieldwork
Completed Date:	06/20/2007
Comments:	First wk of a three week sampling event, CPT, hydropunch wk of 6/18/07-6/21/07, soil and soil gas wk of 6/25/07-6/27/07

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Characterization Workplan
Completed Date:	04/27/2010
Comments:	We had already conditionally approved the WP and were just waiting to get the revised document.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Risk Assessment Report
Completed Date:	01/10/2011
Comments:	Approved

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Investigation Workplan
Completed Date:	05/03/2011
Comments:	Conditionally approved

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Action Plan
Completed Date:	11/26/2012
Comments:	Approved

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Investigation Report
Completed Date:	08/29/2012
Comments:	Approved

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Workplan
Completed Date:	12/01/2011
Comments:	We advised the responsible party that the probe spacing was AQMD's call.

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 01/13/2012
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 03/19/2012
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 02/06/2012
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 02/25/2013
Comments: Conditionally Approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 01/28/2013
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 01/03/2013
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 01/28/2013
Comments: Conditionally approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/12/2012
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 01/10/2013
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Date: 03/26/2013
Comments: Conditionally approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 03/05/2013
Comments: Conditionally approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 03/18/2013
Comments: Conditionally approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 03/27/2013
Comments: Conditionally approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 06/04/2013
Comments: Reduced

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 05/13/2013
Comments: Conditionally approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 08/29/2012
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 07/30/2013
Comments: Approved by South Coast Air Quality Management District

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 05/08/2014
Comments: Conditionally approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 05/01/2014
Comments: Completed

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 05/08/2014
Comments: Conditionally approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 06/25/2014
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 06/30/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Workplan
Completed Date: 05/11/2015
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/30/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/07/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/14/2014
Comments: Completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/21/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/28/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Date: 08/04/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/11/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/18/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/25/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/01/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/08/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/15/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/22/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/29/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/06/2014
Comments: Completed

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/13/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/20/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/27/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/04/2014
Comments: Completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/10/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/17/2014
Comments: Completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/24/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/04/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/09/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Date: 12/16/2014
Comments: Completed. No letter necessary.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/23/2014
Comments: Complete..

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/06/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/12/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/20/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/28/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/03/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/10/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/18/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/24/2015
Comments: Completed

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/06/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/12/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/19/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/24/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/03/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/10/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/14/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/23/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/01/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Date: 05/06/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/14/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/21/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/29/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/03/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/10/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/18/2015
Comments: Completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/24/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/02/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/08/2015
Comments: Completed

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/15/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/21/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/29/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/05/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/12/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/19/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/26/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/02/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/09/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Date: 09/16/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/23/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/01/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/07/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/14/2015
Comments: Complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/21/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/28/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/04/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/12/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/18/2015
Comments: completed

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/25/2015
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/02/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/09/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/16/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/23/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/30/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Workplan
Completed Date: 09/16/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 11/17/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 10/17/2014
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Date: 08/28/2014
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 09/19/2014
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 11/14/2014
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 06/09/2015
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 06/19/2015
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 06/24/2015
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 08/14/2015
Comments: Accepted

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 08/26/2015
Comments: Accepted

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 08/25/2015
Comments: Accepted

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 07/30/2015
Comments: Accepted based on opinion of Electrical Engineer of Record and Code Authority.

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/30/2013
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/30/2013
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/31/2013
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/31/2013
Comments: Complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/30/2013
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/31/2013
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/30/2013
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/31/2013
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/31/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Date: 02/28/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/31/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/30/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/30/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/30/2014
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/31/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/31/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/30/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/31/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/30/2014
Comments: Completed

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/31/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/31/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/28/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/31/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/30/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/31/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/30/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/30/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/31/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Date: 11/09/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/11/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/10/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/17/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/20/2016
Comments: Complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/19/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/03/2016
Comments: complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/03/2016
Comments: complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 07/31/2015
Comments: Reviewed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/06/2016
Comments: Completed

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/13/2016
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/20/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/27/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/03/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/10/2016
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/17/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/24/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/03/2016
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/09/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Date: 03/16/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/23/2016
Comments: Complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/30/2016
Comments: Complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/06/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/13/2016
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/20/2016
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/27/2016
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/04/2016
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/11/2016
Comments: complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/18/2016
Comments: Completed

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/25/2016
Comments: complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/02/2016
Comments: complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/08/2016
Comments: Complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/15/2016
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/22/2016
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/29/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/06/2016
Comments: complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 04/13/2016
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 04/13/2016
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Date: 10/28/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 08/08/2013
Comments: Completed

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2023
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Remedy Constructed: Operating Properly & Successfully
Future Due Date: 2017
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Certification
Future Due Date: 2018
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Land Use Restriction
Future Due Date: 2017
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Operations and Maintenance Plan
Schedule Due Date: 12/14/2016
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Remedial Action Completion Report
Schedule Due Date: 06/24/2016
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Prospective Purchaser Agreement
Schedule Due Date: 10/20/2015
Schedule Revised Date: Not reported

LUST:
Region: STATE
Global Id: T0603704401
Latitude: 33.852341
Longitude: -118.2803457
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 02/27/1998
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: JP
Local Agency: LOS ANGELES COUNTY
RB Case Number: I-16281
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603704401
Contact Type: Local Agency Caseworker
Contact Name: JOHN AWUJO
Organization Name: LOS ANGELES COUNTY
Address: 900 S FREMONT AVE
City: ALHAMBRA
Email: jawujo@dpw.lacounty.gov
Phone Number: 6264583507

Global Id: T0603704401
Contact Type: Regional Board Caseworker
Contact Name: JOSE PEREYRA
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: Not reported
City: R4 UNKNOWN
Email: Not reported
Phone Number: Not reported

Status History:
Global Id: T0603704401
Status: Completed - Case Closed
Status Date: 02/27/1998

Global Id: T0603704401
Status: Open - Case Begin Date
Status Date: 01/10/1994

Global Id: T0603704401
Status: Open - Site Assessment
Status Date: 01/10/1994

Global Id: T0603704401
Status: Open - Site Assessment
Status Date: 07/19/1994

Global Id: T0603704401
Status: Open - Site Assessment
Status Date: 11/07/1997

Regulatory Activities:
Global Id: T0603704401
Action Type: Other
Date: 01/10/1994
Action: Leak Stopped

Global Id: T0603704401
Action Type: Other
Date: 01/10/1994
Action: Leak Discovery

Global Id: T0603704401
Action Type: Other

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Date: 01/19/1994
Action: Leak Reported

Global Id: T0603704401
Action Type: ENFORCEMENT
Date: 09/04/1997
Action: * Historical Enforcement

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	I-16281	
Status:	Case Closed	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Excavate and Dispose
Global ID:	T0603704401	
W Global ID:	Not reported	
Staff:	JP	
Local Agency:	19000	
Cross Street:	Not reported	
Enforcement Type:	EF	
Date Leak Discovered:	1/10/1994	
Date Leak First Reported:		1/19/1994
Date Leak Record Entered:	2/11/1994	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	1/10/1994	
Date Case Last Changed on Database:		1/22/1998
Date the Case was Closed:		2/27/1998
How Leak Discovered:	Tank Closure	
How Leak Stopped:	Not reported	
Cause of Leak:	Corrosion	
Leak Source:	Tank	
Operator:	A.G.C. DOMINGUEZ HILLS GOLF	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		7706.762392182262803388658 1054
Source of Cleanup Funding:		Tank
Preliminary Site Assessment Workplan Submitted:		1/10/1994
Preliminary Site Assessment Began:		7/19/1994
Pollution Characterization Began:		11/7/1997
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		9/4/1997
Historical Max MTBE Date:		1/1/1965
Hist Max MTBE Conc in Groundwater:		1500
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Yes
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Responsible Party:	AMERICAN GOLF CORPORATION	
RP Address:	1633 26TH ST., SANTA MONICA, CA 90404	
Program:	LUST	
Lat/Long:	33.8511925 / -1	
Local Agency Staff:	Not reported	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	11/07/97 WP FOR ADD'L PHASE II ENVIRON. ADD'L PHASE II ENVIRON. SITE ASSESSMENT	01/22/98

VCP:

Facility ID:	60000597
Site Type:	Voluntary Cleanup
Site Type Detail:	Voluntary Cleanup
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	81.1
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Daniel Zogaib
Supervisor:	Emad Yemut
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	401640
Assembly:	64
Senate:	35
Special Programs Code:	Voluntary Cleanup Program
Status:	Active
Status Date:	10/10/2006
Restricted Use:	NO
Funding:	Responsible Party
Lat/Long:	33.84899 / -118.2771
APN:	7336-009-006, 7336-009-008, 7336-009-009, 7336009006, 7336009008, 7336009009
Past Use:	LDF, LANDFILL - DOMESTIC
Potential COC:	30001, 30003, 30005, 30015, 30018, 30022, 30024, 30025, 3002501, 3002502, 30026, 30027, 30028
Confirmed COC:	30001,30003,30005,30015,30022,30024,30025,30026,3002501,3002502,30027, 30028,30018-NO
Potential Description:	OTH, SOIL, SV, OTH, SOIL, SV
Alias Name:	Porsche Experience Center Los Angeles
Alias Type:	Alternate Name
Alias Name:	7336-009-006
Alias Type:	APN
Alias Name:	7336-009-008
Alias Type:	APN
Alias Name:	7336-009-009
Alias Type:	APN
Alias Name:	7336009006
Alias Type:	APN
Alias Name:	7336009008
Alias Type:	APN
Alias Name:	7336009009
Alias Type:	APN

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Alias Name: 110033617682
Alias Type: EPA (FRS #)
Alias Name: 401324
Alias Type: Project Code (Site Code)
Alias Name: 401640
Alias Type: Project Code (Site Code)
Alias Name: 60000597
Alias Type: Envirostor ID Number
Alias Name: http://www.porsche.com/losangeles/experience/
Alias Type: External Website Link / URL

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 05/11/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 10/06/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 03/24/2016
Comments: Completed and sent.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/02/2015
Comments: FY 1516 Annual Oversight Cost Estimate.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 02/26/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Reimbursement Agreement
Completed Date: 10/10/2006
Comments: Reimbursement Agreement with the Hopkins Real Estate Group was fully executed on 10/10/2006.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consultative Service Agreement
Completed Date: 07/07/2010
Comments: Amendement #5 fully executed. The amendment extends the term of the agreement to 10/31/2011 and amends the total maximum amount of the agreement.

Completed Area Name: PROJECT WIDE

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 10/27/2011
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Environmental Impact Report
Completed Date: 11/21/2012
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 06/21/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 06/20/2007
Comments: First wk of a three week sampling event, CPT, hydropunch wk of 6/18/07-6/21/07, soil and soil gas wk of 6/25/07-6/27/07

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 04/27/2010
Comments: We had already conditionally approved the WP and were just waiting to get the revised document.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 01/10/2011
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 05/03/2011
Comments: Conditionally approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 11/26/2012
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/29/2012
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Document Type: Technical Workplan
Completed Date: 12/01/2011
Comments: We advised the responsible party that the probe spacing was AQMD's call.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 01/13/2012
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 03/19/2012
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 02/06/2012
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 02/25/2013
Comments: Conditionally Approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 01/28/2013
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 01/03/2013
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 01/28/2013
Comments: Conditionally approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/12/2012
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 01/10/2013

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 03/26/2013
Comments: Conditionally approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 03/05/2013
Comments: Conditionally approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 03/18/2013
Comments: Conditionally approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 03/27/2013
Comments: Conditionally approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 06/04/2013
Comments: Reduced

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 05/13/2013
Comments: Conditionally approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 08/29/2012
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 07/30/2013
Comments: Approved by South Coast Air Quality Management District

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 05/08/2014
Comments: Conditionally approved.

Completed Area Name: PROJECT WIDE

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 05/01/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 05/08/2014
Comments: Conditionally approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 06/25/2014
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 06/30/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Workplan
Completed Date: 05/11/2015
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/30/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/07/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/14/2014
Comments: Completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/21/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/28/2014

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/04/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/11/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/18/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/25/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/01/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/08/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/15/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/22/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/29/2014
Comments: Completed

Completed Area Name: PROJECT WIDE

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/06/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/13/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/20/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/27/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/04/2014
Comments: Completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/10/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/17/2014
Comments: Completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/24/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/04/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/09/2014

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/16/2014
Comments: Completed. No letter necessary.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/23/2014
Comments: Complete..

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/06/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/12/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/20/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/28/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/03/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/10/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/18/2015
Comments: Completed

Completed Area Name: PROJECT WIDE

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/24/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/06/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/12/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/19/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/24/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/03/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/10/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/14/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/23/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/01/2015

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/06/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/14/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/21/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/29/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/03/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/10/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/18/2015
Comments: Completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/24/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/02/2015
Comments: Completed

Completed Area Name: PROJECT WIDE

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/08/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/15/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/21/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/29/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/05/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/12/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/19/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/26/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/02/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/09/2015

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/16/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/23/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/01/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/07/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/14/2015
Comments: Complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/21/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/28/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/04/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/12/2015
Comments: Completed

Completed Area Name: PROJECT WIDE

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/18/2015
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/25/2015
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/02/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/09/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/16/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/23/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/30/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Workplan
Completed Date: 09/16/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 11/17/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 10/17/2014

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 08/28/2014
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 09/19/2014
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 11/14/2014
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 06/09/2015
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 06/19/2015
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 06/24/2015
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 08/14/2015
Comments: Accepted

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 08/26/2015
Comments: Accepted

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 08/25/2015
Comments: Accepted

Completed Area Name: PROJECT WIDE

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 07/30/2015
Comments: Accepted based on opinion of Electrical Engineer of Record and Code Authority.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/30/2013
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/30/2013
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/31/2013
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/31/2013
Comments: Complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/30/2013
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/31/2013
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/30/2013
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/31/2013
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Date: 01/31/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/28/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/31/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/30/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/30/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/30/2014
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/31/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/31/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/30/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/31/2014
Comments: Completed

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/30/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/31/2014
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/31/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/28/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/31/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/30/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/31/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/30/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/30/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Date: 07/31/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/09/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/11/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/10/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/17/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/20/2016
Comments: Complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/19/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/03/2016
Comments: complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/03/2016
Comments: complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 07/31/2015
Comments: Reviewed

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/06/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/13/2016
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/20/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/27/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/03/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/10/2016
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/17/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/24/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/03/2016
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Date: 03/09/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/16/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/23/2016
Comments: Complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/30/2016
Comments: Complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/06/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/13/2016
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/20/2016
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/27/2016
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/04/2016
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/11/2016
Comments: complete

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/18/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/25/2016
Comments: complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/02/2016
Comments: complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/08/2016
Comments: Complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/15/2016
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/22/2016
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/29/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/06/2016
Comments: complete

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 04/13/2016
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Implementation Workplan

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

Completed Date: 04/13/2016
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 10/28/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 08/08/2013
Comments: Completed

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2023
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Remedy Constructed: Operating Properly & Successfully
Future Due Date: 2017
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Certification
Future Due Date: 2018
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Land Use Restriction
Future Due Date: 2017
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Operations and Maintenance Plan
Schedule Due Date: 12/14/2016
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Remedial Action Completion Report
Schedule Due Date: 06/24/2016
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Prospective Purchaser Agreement
Schedule Due Date: 10/20/2015
Schedule Revised Date: Not reported

HAZNET:
envid: S101295807
Year: 2013
GEPAID: CAC002745805
Contact: BRETT COCHRUM
Telephone: 7142356401
Mailing Name: Not reported
Mailing Address: 22010 WILMINGTON AVE.
Mailing City,St,Zip: CARSON, CA 90745
Gen County: Los Angeles

DOMINGUEZ GOLF COURSE & ADJACENT PROPERTY (Continued) **S101295807**

TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.63
Cat Decode: Not reported
Method Decode: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County: Not reported

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: I-16281

LOS ANGELES CO. HMS:
Region: LA
Permit Category: I
Facility Id: 033828-057916
Facility Type: 01
Facility Status: Permit
Area: 22
Permit Number: 000802047
Permit Status: Permit

Region: LA
Permit Category: I
Facility Id: 033828-057916
Facility Type: S4
Facility Status: Permit
Area: 22
Permit Number: 000804493
Permit Status: Permit

Region: LA
Permit Category: T
Facility Id: 015207-016281
Facility Type: 1
Facility Status: Removed
Area: 22
Permit Number: 000075550
Permit Status: Removed

BC483 **MONTROSE CHEMICAL** **CA BOND EXP. PLAN** **S100833425**
NNW **20201 NORMANDIE AVENUE** **N/A**
1/2-1 **TORRANCE, CA 90502**
0.747 mi.
3946 ft. **Site 1 of 2 in cluster BC**

Relative:
Higher

Actual:
50 ft.

CA BOND EXP. PLAN:
Reponsible Party: NPL SITE CLEANUP WORKPLAN
Project Revenue Source Company: Not reported
Project Revenue Source Addr: Not reported
Project Revenue Source City,St,Zip: Not reported
Project Revenue Source Desc: EPA is currenlty conducting the RI/FS, which is funded by CERCLA. The site has

MONTROSE CHEMICAL (Continued) **S100833425**

been proposed for listing on the NPL. It is uncertain at this time as to whether the RP, Montrose Chemical Corporation, will fund the RAP development and implementation. For the purpose of preparing this Plan, DHS is assuming that the RP will develop the ROD/RAP and fund the selected remedy. DHS has budgeted $50,000 for its oversight and monitoring costs. DHS will seek cost recovery of its direct costs plus staff costs and overhead related to the project.

Site Description: Montrose Chemical Corporation operated a dichlorodiphenyltrichloroethane (DDT) manufacturing plant from 1947 to 1982 at this location. The 13 acre facility was closed and subsequently dismantled in 1985. The soil is contaminated with DDT as a resultof facility operations and disposal of wastes into a pond onsite.

Hazardous Waste Desc: Montrose Chemical's sampling results showed onsite soils containing 300 to 400 tons of DDT throughout the facility. EPA studies have found DDT to exist in surface water runoff and sediments leaving the Montrose property. High concentrations of DDT have also been identified in sewers that received Montrose wastes before 1972. Other substances of concern that were also found in the investigation include chlorobenzene (MCB), dichlorobenzene (and isomers), chloroform, acetone, benzene hexachloride (BHC and isomers) and benzene.BHC and isomers) and benzene.

Threat To Public Health & Env: The site is located in a light industrial and residential area with about 3,000 people living within a quarter mile of the property. Evidence suggests that DDT has been released from the Montrose site into the surrounding environment. Prior to asphalt capping, DDT-contaminated dust was transported into the nearby residences. Ground water and soils beneath the site are contaminated and may be threatening usable aquifers.

Site Activity Status: EPA completed offsite surface water, offsite soil, onsite ground water, and onsite soil sampling in November, 1986. Further soils and ground water sampling took place during 1987 and more is scheduled for 1988-89. An investigation of DDT contamination of local sewers was completed in September, 1987. A feasibility study is being performed by the responsible party under EPA oversight to evaluate the possible cleanup options. Based upon the findings of the feasibility study, a ROD/RAP will be developed and implemented.

BC484 **MONTROSE CHEMICAL CORP** **ENVIROSTOR** **S101272760**
NNW **20201 NORMANDIE AVENUE** **HIST Cal-Sites** **N/A**
1/2-1 **TORRANCE, CA 90502** **Cortese**
0.747 mi. **HIST CORTESE**
3946 ft. **Site 2 of 2 in cluster BC**

Relative: Higher

Actual: 50 ft.

ENVIROSTOR:

Facility ID:	19280024
Status:	Active
Status Date:	04/22/1996
Site Code:	401628
Site Type:	Federal Superfund
Site Type Detailed:	State Response or NPL
Acres:	55
NPL:	YES
Regulatory Agencies:	SMBRP, US EPA
Lead Agency:	US EPA
Program Manager:	Willard Garrett
Supervisor:	Manny Alonzo
Division Branch:	Cleanup Cypress
Assembly:	64
Senate:	35
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED

MONTROSE CHEMICAL CORP (Continued) **S101272760**

Funding: Responsible Party
Latitude: 33.84769
Longitude: -118.3019
APN: NONE SPECIFIED
Past Use: MANUFACTURING - CHEMICALS
Potential COC: * Pesticides - Rinse Waters * Pesticides - Wastes From Production * EMPTY PESTICIDE CONTAINERS, 30 GALLONS OR MORE
Confirmed COC: NONE SPECIFIED
Potential Description: AQUI, SOIL, SURFW
Alias Name: ATKENIX 37
Alias Type: Alternate Name
Alias Name: AVENTIS CROP SCIENCE
Alias Type: Alternate Name
Alias Name: MONTROSE CHEMICAL
Alias Type: Alternate Name
Alias Name: MONTROSE CHEMICAL CORP OF CALIFORNIA
Alias Type: Alternate Name
Alias Name: RHONE - POULENC BASIC CHEMICALS CO.
Alias Type: Alternate Name
Alias Name: WESTINGHOUSE ELECTRIC CORP.
Alias Type: Alternate Name
Alias Name: 110002630608
Alias Type: EPA (FRS #)
Alias Name: CAD008242711
Alias Type: HWTS Identification Code
Alias Name: P41026
Alias Type: PCode
Alias Name: 400100
Alias Type: Project Code (Site Code)
Alias Name: 401297
Alias Type: Project Code (Site Code)
Alias Name: 401298
Alias Type: Project Code (Site Code)
Alias Name: 401628
Alias Type: Project Code (Site Code)
Alias Name: 19280024
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 11/22/2013
Comments: Completed

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 11/19/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 11/25/2015
Comments: Annual Cost Estimate Completed 11-25-2016

Completed Area Name: OU 3G

MONTROSE CHEMICAL CORP (Continued) **S101272760**

Completed Sub Area Name: Not reported
Completed Document Type: Unilateral Order (I/SE, RAO, CAO, EPA AO)
Completed Date: 05/08/2003
Comments: Completion of Unilateral Administrative Order (UAO) Number 2003-06 for initial groundwater activities with respect to the groundwater operable unit at the Montrose Chemical and Del Amo Superfund Sites.

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Consent Order
Completed Date: 07/30/1989
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 01/02/1981
Comments: Facility Identified: Anonymous tip.

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: * Cost Recovery Settlements/Decrees
Completed Date: 10/18/2000
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: * Cost Recovery Settlements/Decrees
Completed Date: 05/31/2001
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: * Cost Recovery Settlements/Decrees
Completed Date: 07/19/2001
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: * Cost Recovery Settlements/Decrees
Completed Date: 06/24/2002
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: * Cost Recovery Settlements/Decrees
Completed Date: 08/26/2002
Comments: Amendment to Consent Decree for past costs lodged and approved.

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 07/31/2002
Comments: Removal action of DDT-contaminated soils from residential front yards on Kenwood Avenue, in Los Angeles, adjacent to Torrance. A total of 22 properties were excavated.

MONTROSE CHEMICAL CORP (Continued) **S101272760**

Completed Area Name:	OU 1
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Completion Report
Completed Date:	10/09/1998
Comments:	Not reported

Completed Area Name:	Sewers
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Completion Report
Completed Date:	02/28/1999
Comments:	Not reported

Completed Area Name:	OU 1
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Completion Report
Completed Date:	03/13/1995
Comments:	On March 24, 1994, U.S. EPA, Region IX, authorized a time- critical removal action to remove and properly dispose of the DDT contaminated soil from 1055 and 1051 204th Street. Approximately 1340 cubic yards of soil was excavated at the site.

Completed Area Name:	OU 1
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Completion Report
Completed Date:	12/31/1988
Comments:	Removal Action: Site cover.

Completed Area Name:	OU 1
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening
Completed Date:	12/04/1987
Comments:	Site Screening Done: BEP site. DDT found onsite and in surface water runoff.

Completed Area Name:	OU 1
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Completion Report
Completed Date:	12/31/1985
Comments:	Not reported

Completed Area Name:	OU 1
Completed Sub Area Name:	Not reported
Completed Document Type:	Public Participation Plan / Community Relations Plan
Completed Date:	12/31/1985
Comments:	Removal Action: Asphalt cap.

Completed Area Name:	OU 1
Completed Sub Area Name:	Not reported
Completed Document Type:	Feasibility Study Report
Completed Date:	05/08/2013
Comments:	Not reported

Completed Area Name:	OU 3G
Completed Sub Area Name:	Not reported
Completed Document Type:	Monitoring Plan
Completed Date:	11/24/2013
Comments:	Task Completed

MONTROSE CHEMICAL CORP (Continued) **S101272760**

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Feasibility Study Report
Completed Date: 01/09/2014
Comments: Complete

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 11/24/2014
Comments: Not reported

Completed Area Name: OU 3G
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: 09/24/2015
Comments: Not reported

Completed Area Name: OU 3G
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/27/2016
Comments: Received MACR from Montrose on March 21, 2016

Completed Area Name: OU 3G
Completed Sub Area Name: Not reported
Completed Document Type: Remedy Constructed: Operating Properly & Successfully
Completed Date: 01/28/2016
Comments: Phase 1B completed on 10/7/2015, Phase 1C completed on 10/16/2015 and Phase 2 functional test completed on 11/20/2015.

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 12/26/2012
Comments: Complete

Future Area Name: OU 3G
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2021
Schedule Area Name: OU 3D
Schedule Sub Area Name: Not reported
Schedule Document Type: Record of Decision
Schedule Due Date: 09/27/2016
Schedule Revised Date: 07/28/2017
Schedule Area Name: OU 3D
Schedule Sub Area Name: Not reported
Schedule Document Type: Proposed Plan
Schedule Due Date: 05/11/2016
Schedule Revised Date: 02/28/2017

Calsite:
Region: CYPRESS
Facility ID: 19280024
Facility Type: NPRP
Type: NPL SITE, RP-FUNDED

MONTROSE CHEMICAL CORP (Continued) **S101272760**

Branch: SB
Branch Name: SO CAL - CYPRESS
File Name: Not reported
State Senate District: 04221996
Status: ANNUAL WORKPLAN (AWP) - ACTIVE SITE
Status Name: ANNUAL WORKPLAN - ACTIVE SITE
Lead Agency: ENVIRONMENTAL PROTECTION AGENCY
NPL: Listed
SIC Code: 28
SIC Name: MANU - CHEMICALS & ALLIED PRODUCTS
Access: Not reported
Cortese: Not reported
Hazardous Ranking Score: Not reported
Date Site Hazard Ranked: Not reported
Groundwater Contamination: Confirmed
Staff Member Responsible for Site: YAREF
Supervisor Responsible for Site: Not reported
Region Water Control Board: LA
Region Water Control Board Name: LOS ANGELES
Lat/Long Direction: Not reported
Lat/Long (dms): 0 0 0 / 0 0 0
Lat/long Method: Not reported
Lat/Long Description: Not reported
State Assembly District Code: 55
State Senate District Code: 28
Facility ID: 19280024
Activity: DISC
Activity Name: DISCOVERY
AWP Code: Not reported
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 01021981
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19280024
Activity: PPP
Activity Name: PUBLIC PARTICIPATION PLAN
AWP Code: Not reported
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 12311985

MONTROSE CHEMICAL CORP (Continued) **S101272760**

Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	CAP
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	12311985
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	SS
Activity Name:	SITE SCREENING
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	12041987
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported

MONTROSE CHEMICAL CORP (Continued) **S101272760**

Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	COVER
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	12311988
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	ORDER
Activity Name:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code:	AGREE
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	07301989
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	RA

MONTROSE CHEMICAL CORP (Continued) **S101272760**

Activity Name:	REMOVAL ACTION
AWP Code:	SOIL
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	03131995
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	1340
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	1340 CY OF SOIL EXCAVATED.
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	SOIL
Proposed Budget:	0
AWP Completion Date:	06302005
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	L
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	GW1
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	03301999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported

MONTROSE CHEMICAL CORP (Continued) **S101272760**

Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	DES
Activity Name:	DESIGN
AWP Code:	SOIL
Proposed Budget:	0
AWP Completion Date:	06302006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	L
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	RMDL
Activity Name:	REMEDIAL ACTION (RAP REQUIRED)
AWP Code:	GW2
Proposed Budget:	0
AWP Completion Date:	12312006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported

MONTROSE CHEMICAL CORP (Continued) **S101272760**

For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	OM
Activity Name:	OPERATION & MAINTENANCE
AWP Code:	SOIL
Proposed Budget:	0
AWP Completion Date:	06302038
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	L
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	GW1
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	05201998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	GW2
Proposed Budget:	0

MONTROSE CHEMICAL CORP (Continued) **S101272760**

AWP Completion Date:	06302005
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	DES
Activity Name:	DESIGN
AWP Code:	GW1
Proposed Budget:	0
AWP Completion Date:	12312004
Revised Due Date:	06302006
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	DES
Activity Name:	DESIGN
AWP Code:	GW2
Proposed Budget:	0
AWP Completion Date:	06302006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0

MONTROSE CHEMICAL CORP (Continued) **S101272760**

Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	SOIL
Proposed Budget:	0
AWP Completion Date:	09302004
Revised Due Date:	06302005
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	SEWER
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	02281999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	480
Liquids Treated (Gals):	480
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0

MONTROSE CHEMICAL CORP (Continued) **S101272760**

Unknown Type:	0
Facility ID:	19280024
Activity:	RMDL
Activity Name:	REMEDIAL ACTION (RAP REQUIRED)
AWP Code:	SOIL
Proposed Budget:	0
AWP Completion Date:	06302007
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	204TH
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	10091998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	1338
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	COST
Activity Name:	COST RECOVERY
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	10182000

MONTROSE CHEMICAL CORP (Continued) **S101272760**

Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	COST
Activity Name:	COST RECOVERY
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	05312001
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	COST
Activity Name:	COST RECOVERY
AWP Code:	CNST
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	07192001
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported

MONTROSE CHEMICAL CORP (Continued) **S101272760**

Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	COST
Activity Name:	COST RECOVERY
AWP Code:	CNSNT
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	06242002
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	RMDL
Activity Name:	REMEDIAL ACTION (RAP REQUIRED)
AWP Code:	GW1
Proposed Budget:	0
AWP Completion Date:	06302006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	OM

MONTROSE CHEMICAL CORP (Continued) **S101272760**

Activity Name:	OPERATION & MAINTENANCE
AWP Code:	GW1
Proposed Budget:	0
AWP Completion Date:	12312036
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	GW2
Proposed Budget:	0
AWP Completion Date:	12312004
Revised Due Date:	06302005
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	OM
Activity Name:	OPERATION & MAINTENANCE
AWP Code:	GW2
Proposed Budget:	0
AWP Completion Date:	06302037
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported

MONTROSE CHEMICAL CORP (Continued) **S101272760**

Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	07312002
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	10098
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19280024
Activity:	COST
Activity Name:	COST RECOVERY
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	08262002
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported

MONTROSE CHEMICAL CORP (Continued) **S101272760**

For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19280024
Activity: ORDER
Activity Name: I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code: GW1
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 05082003
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19280024
Activity: CERT
Activity Name: CERTIFICATION
AWP Code: Not reported
Proposed Budget: 0
AWP Completion Date: 06302008
Revised Due Date: Not reported
Comments Date: Not reported
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Alternate Address: 20201 NORMANDIE AVENUE
Alternate City,St,Zip: TORRANCE, CA 90502
Alternate Address: 20201 S NORMANDIE AVENUE
Alternate City,St,Zip: TORRANCE, CA 90502
Background Info: Montrose Chemical Corporation operated a dichlorodiphenyl-

MONTROSE CHEMICAL CORP (Continued) **S101272760**

trichloroethane (DDT) manufacturing plant from 1947 to 1982 at this location near the city of Torrance. The 13-acre facility was closed and subsequently dismantled in 1985. The soil is highly contaminated with DDT as a result of facility operations and disposal of wastes into an onsite unlined pond. The pond was lined with concrete in 1970.
Not reported
Montrose's sampling results showed onsite soils with 300 to 400 tons of DDT throughout the facility. U.S. EPA studies have found DDT to exist in surface water runoff and sediments leaving the Montrose property. High concentrations of DDT have also been identified in sewers that received Montrose wastes before 1971.
Not reported
Other substances of concern that were found in the soil and groundwater investigations include chlorobenzene (MCB), dichlorobenzene (and isomers), chloroform, acetone, benzene hexachloride (BHC and isomers), and benzene.
Not reported
The site is located in a light industrial and residential area with about 3,000 people living within a quarter-mile of the property. Evidence suggests that DDT has been released from the Montrose site into the surrounding environment. In 1988, Montrose placed an asphalt cover over the areas immediately surrounding the former manufacturing facility.
Not reported
Under a Consent Order with U.S. EPA, Montrose conducted offsite surface water, offsite soil, onsite groundwater, and onsite soil sampling. Further soil and groundwater sampling took place. Groundwater and soils beneath the site are contaminated and may be threatening usable aquifers; however, the three aquifers found to be contaminated are not currently used as drinking water sources. The closest drinking water well is two miles southeast of the site and draws from the deepest aquifer.
Not reported
The site has been split into operable units. The Soils and DNAPL, the groundwater, surface water pathway, sewers, and neighborhood study area.
Not reported
U.S. EPA approved the dual site groundwater ROD on 3/30/1999 for both the Montrose and Del Amo sites. This ROD addresses the dissovled Monochlorobenzene plume emanating from the Montrose site to approximately Torrance Blvd. to the south. It also addresses the dissolved benzene groundwater plume emanating from the Del Amo site to just south of the Del Amo Pits. The plumes from both sites overlap each other to the east of Montrose and to the west of Del Amo, approximately around Normandie Avenue. These dissolved plumes are referred to as "GW1" in this report. The Montrose remedy consists of a pump and treat system with reinjection of treated water into the groundwater aquifer. The Del Amo remedy consists of intrinsic bioremediation with pumping for containment from the lower unit and subsequent discharge. The LNAPL at the Del Amo site will be dealt with along with the soils remedy, and is noted in this report as the Study Area. The DNAPL at the Montrose site will be evaluated separately and is

MONTROSE CHEMICAL CORP (Continued) **S101272760**

	noted as "GW2" in this report.
Comments Date:	06301999
Comments:	residential community, adjacent to the City of Torrance. Site
Comments Date:	06301999
Comments:	de-mobilized in October 1998. Completion report by U.S. EPA
Comments Date:	06301999
Comments:	completed on 06/30/1999.
Comments Date:	07241994
Comments:	Soil Sampling conducted in the backyards of the residences of
Comments Date:	07241994
Comments:	West 204th Street, Torrance, as part of the Del Amo Superfund
Comments Date:	07241994
Comments:	site investigative work revealed that DDT contaminated soil
Comments Date:	07241994
Comments:	was present in the backyards of two homes. A removal action
Comments Date:	07241994
Comments:	was completed by U.S. EPA on July 24, 1994. Additional soil
Comments Date:	07241994
Comments:	sampling conducted by U.S. EPA in July of 1994 revealed that
Comments Date:	07241994
Comments:	a historic low lying area had been filled with DDT contaminated
Comments Date:	07241994
Comments:	material which extended beyond the two homes. The "fill" area
Comments Date:	07241994
Comments:	has now been defined to include 1055, 1051, and 1043 1/2 West
Comments Date:	07241994
Comments:	204th Street.
Comments Date:	07251991
Comments:	DDT manufacturing facility. Contaminants include DDT in soil and
Comments Date:	07251991
Comments:	MCB in groundwater in addition to benzene, chloroform, acetone,
Comments Date:	07251991
Comments:	BHC, and dichlorobenzene.
Comments Date:	07312002
Comments:	Removal action of DDT-contaminated soils from residential
Comments Date:	07312002
Comments:	front yards on Kenwood Avenue, in Los Angeles, adjacent to
Comments Date:	07312002
Comments:	Torrance. A total of 22 properties were excavated.
Comments Date:	08262002
Comments:	Amendment to Consent Decree for past costs lodged and approved.
Comments Date:	09011987
Comments:	An investigation of DDT contamination of local sewers was
Comments Date:	09011987
Comments:	completed in September 1987.
Comments Date:	12012001
Comments:	A DDT removal along Kenwood Avenue (along the former Kenwood
Comments Date:	12012001
Comments:	ditch) has been underway since July 2001. It is expected to
Comments Date:	12012001
Comments:	be completed this month.
Comments Date:	12041987
Comments:	Site Screening Done: BEP site. DDT found onsite and in surface
Comments Date:	12041987
Comments:	water runoff.
Comments Date:	12152002
Comments:	Seven pilot test workplans were submitted to DTSC for review

MONTROSE CHEMICAL CORP (Continued) **S101272760**

Comments Date:	12152002
Comments:	for soil & DNAPL. Comments were provided and revised workplans
Comments Date:	12152002
Comments:	have been re-submitted.
Comments Date:	12311985
Comments:	Removal Action: Asphalt cap.
Comments Date:	12311988
Comments:	Removal Action: Site cover.
Comments Date:	01011985
Comments:	This is the date the site was first listed pursuant to
Comments Date:	01011985
Comments:	section 25356.
Comments Date:	01021981
Comments:	Facility Identified: Anonymous tip.
Comments Date:	01061981
Comments:	Ground photos taken (slides).
Comments Date:	01071981
Comments:	Facility Drive-By: Active site. DDT storage.
Comments Date:	02152000
Comments:	Neighborhood Sampling Phase I completed. Includes aerial
Comments Date:	02152000
Comments:	dispersion, surface water pathways, low-lying areas and fill
Comments Date:	02152000
Comments:	material investigation. Phase II to begin in February/March
Comments Date:	02152000
Comments:	2000.
Comments Date:	02191982
Comments:	Site referred to LA County Enforcement.
Comments Date:	03131995
Comments:	On March 24, 1994, U.S. EPA, Region IX, authorized a time-
Comments Date:	03131995
Comments:	critical removal action to remove and properly dispose of the
Comments Date:	03131995
Comments:	DDT contaminated soil from 1055 and 1051 204th Street.
Comments Date:	03131995
Comments:	Approximately 1340 cubic yards of soil was excavated at the site.
Comments Date:	04091999
Comments:	A joint groundwater ROD was signed on 03/30/1999. It addresses
Comments Date:	04091999
Comments:	the dissolved phase contamination (chlorobenzene and benzene)
Comments Date:	04091999
Comments:	for the Montrose and Del Amo sites.
Comments Date:	05082003
Comments:	Completion of Unilateral Administrative Order (UAO) Number
Comments Date:	05082003
Comments:	2003-06 for initial groundwater activities with respect to the
Comments Date:	05082003
Comments:	groundwater operable unit at the Montrose Chemical and Del Amo
Comments Date:	05082003
Comments:	Superfund Sites.
Comments Date:	05201998
Comments:	Completion of Remedial Investigation for the Groundwater Operable
Comments Date:	05201998
Comments:	Unit, dated 05/18/1998 and the Joint Groundwater Feasibility
Comments Date:	05201998
Comments:	study dated 05/18/1998, for the Montrose U.S.EPA Superfund site,
Comments Date:	05201998

MONTROSE CHEMICAL CORP (Continued) **S101272760**

Comments:	Groundwater Operable Unit.
Comments Date:	06091999
Comments:	Removal of DDT-contaminated sediments in a 3600-foot reach of
Comments Date:	06091999
Comments:	57" J.O. "D" sewer between manholes D32 and A468.
Comments Date:	06091999
Comments:	Not reported
Comments Date:	06172003
Comments:	RD GW modeling meeting between Shell (for Del Amo), Montrose,
Comments Date:	06172003
Comments:	DTSC, & EPA @ CH2MHill office in S.A.
Comments Date:	06301999
Comments:	Phase II of removal that began in 1994 was completed in October
Comments Date:	06301999
Comments:	1998. Removal of DDT contaminated soil from the 204th Street
ID Name:	CALSTARS CODE
ID Value:	400100
ID Name:	HWIS IDENTIFICATION CODE
ID Value:	CAD008242711
ID Name:	BEP DATABASE PCODE
ID Value:	P41026
Alternate Name:	MONTROSE CHEMICAL
Alternate Name:	MONTROSE CHEMICAL CORP OF CALIFORNIA
Alternate Name:	MONTROSE CHEMICAL CORP
Alternate Name:	RHONE - POULENC BASIC CHEMICALS CO.
Alternate Name:	WESTINGHOUSE ELECTRIC CORP.
Alternate Name:	ATKENIX 37
Alternate Name:	AVENTIS CROP SCIENCE
Alternate Name:	Not reported
Special Programs Code:	MSCA
Special Programs Name:	MULTI-SITE COOPERATIVE AGREEMENT

CORTESE:

Region:	CORTESE
Envirostor Id:	19280024
Site/Facility Type:	FEDERAL SUPERFUND - LISTED
Cleanup Status:	ACTIVE
Status Date:	04/22/1996
Site Code:	400100, 401297, 401298, 401628
Latitude:	33.847695
Longitude:	-118.30195
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	envirostor
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19

MONTROSE CHEMICAL CORP (Continued) **S101272760**

Reg By: CALSI
Reg Id: 19280024

485
ENE
1/2-1
0.775 mi.
4090 ft.

MARTIN ADAMS DUMP
213 ST TO 21111 DOLORES
CARSON, CA 90745

SEMS **1000412290**
ENVIROSTOR **CAD981399520**
SWF/LF
CHMIRS

Relative:
Lower

Actual:
25 ft.

SEMS:
Site ID: 902315
EPA ID: CAD981399520
Federal Facility: N
NPL: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

Following information was gathered from the prior CERCLIS update completed in 10/2013:
Site ID: 0902315
EPA ID: CAD981399520
Facility County: LOS ANGELES
Short Name: MARTIN ADAMS DUMP
Congressional District: 31
IFMS ID: Not reported
SMSA Number: 4480
USGC Hydro Unit: 18070104
Federal Facility: Not a Federal Facility
DMNSN Number: 0.00000
Site Orphan Flag: N
RCRA ID: Not reported
USGS Quadrangle: Not reported
Site Init By Prog: Not reported
NFRAP Flag: Not reported
Parent ID: Not reported
RST Code: Not reported
EPA Region: 09
Classification: Not reported
Site Settings Code: Not reported
NPL Status: Not on the NPL
DMNSN Unit Code: Not reported
RBRAC Code: Not reported
RResp Fed Agency Code: Not reported
Non NPL Status: Assessment Complete - Decision Needed
Non NPL Status Date: 03/22/13
Site Fips Code: 06037
CC Concurrence Date: / /
CC Concurrence FY: Not reported
Alias EPA ID: Not reported
Site FUDS Flag: Not reported

CERCLIS Site Contact Name(s):
Contact ID: 13003854.00000
Contact Name: Leslie Ramirez
Contact Tel: (415) 972-3978
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Contact ID: 13003858.00000

MARTIN ADAMS DUMP (Continued) **1000412290**

Contact Name: Sharon Murray
Contact Tel: (415) 972-4250
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Contact ID: 13004003.00000
Contact Name: Carl Brickner
Contact Tel: Not reported
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

CERCLIS Site Alias Name(s):
Alias ID: 101
Alias Name: IMPERIAL MOBLIL EST MOBLIE HOME PK
Alias Address: Not reported
CA
Alias ID: 201
Alias Name: MARTIN ADAMS,VIRGLE&LUZ CHACON (OWNERS)
Alias Address: Not reported
CA
Alias ID: 201
Alias ID: 101
Alias Comments: PREVIOUS EPA ID# AZD 981 416 977PREVIOUS EPA ID# AZD 981 416 977
Site Description: Site needs to be addressed for possible inclusion into the remediation taking place in the vicinity of Del Amo and Victoria Golf Course CA DTSC
ENVIROSTOR LOC DATA: MARTIN ADAMS DUMP (19530002) - (MAP) - (GOOGLE MAP)
21111 DOLORES STREET CARSON , CA 90745 ACTIVITIES REPORT
LOS ANGELES COUNTY

CERCLIS Assessment History:

Action Code: 001
Action: DISCOVERY
Date Started: / /
Date Completed: 05/01/86
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 12/01/87
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: PRELIMINARY ASSESSMENT

MARTIN ADAMS DUMP (Continued) **1000412290**

Date Started: / /
Date Completed: 06/01/88
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: SITE INSPECTION
Date Started: / /
Date Completed: 09/12/89
Priority Level: Higher priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: EXPANDED SITE INSPECTION
Date Started: 09/27/95
Date Completed: 11/12/02
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

ENVIROSTOR:
Facility ID: 19530002
Status: Inactive - Action Required
Status Date: 08/04/2015
Site Code: 400551
Site Type: Evaluation
Site Type Detailed: Evaluation
Acres: 20
NPL: NO
Regulatory Agencies: US EPA
Lead Agency: US EPA
Program Manager: Not reported
Supervisor: * Greg Holmes
Division Branch: Cleanup Cypress
Assembly: 64
Senate: 35
Special Program: EPA - PASI
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: EPA Grant
Latitude: 33.83688
Longitude: -118.2726
APN: NONE SPECIFIED

MARTIN ADAMS DUMP (Continued) **1000412290**

Past Use: LANDFILL - CONSTRUCTION, LANDFILL - DOMESTIC, LANDFILL - HAZARDOUS WASTE
Potential COC: * UNSPECIFIED ACID SOLUTION * OTHER SPENT CATALYST Benzene Methane Tetrachloroethylene (PCE 1,1,1-Trichloroethane (TCA Trichloroethylene (TCE Vinyl chloride Acetone Carbon tetrachloride Chlorobenzene Cyclohexane 1,2-Dichloroethylene (cis Ethylbenzene Methyl ethyl ketone (2-Butanone Toluene Xylenes
Confirmed COC: 20013-NO 10193-NO Benzene Methane Tetrachloroethylene (PCE 1,1,1-Trichloroethane (TCA Acetone Cyclohexane 1,2-Dichloroethylene (cis Ethylbenzene Toluene Carbon tetrachloride Xylenes Vinyl chloride Trichloroethylene (TCE Methyl ethyl ketone (2-Butanone Chlorobenzene
Potential Description: IA, SOIL, SV
Alias Name: IMPERIAL CARSON MOBILE ESTATES TRAILR PK
Alias Type: Alternate Name
Alias Name: CAD981399520
Alias Type: EPA Identification Number
Alias Name: 400551
Alias Type: Project Code (Site Code)
Alias Name: 19530002
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: PA/SI Reassessment
Completed Date: 05/29/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 01/15/1981
Comments: FACILITY IDENTIFIED CO ENGR. INDEX

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 03/14/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Site Inspection (SI) Report
Completed Date: 02/10/1998
Comments: Sampled soil and groundwater and used results to prepare an Expanded Site Inspection Report (ESI) per USEPA standards. ESI sent to U.S. EPA.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 09/12/1989
Comments: SITE SCREENING DONE EPA COMPLETED SCREENING SITE INSPECTION AND RECOMMEND LISTING SITE INSPECTION.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening

MARTIN ADAMS DUMP (Continued) **1000412290**

Completed Date: 06/22/2006
Comments: Site Screening Completed

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SWF/LF (SWIS):
Region: STATE
Facility ID: 19-AQ-0006
Lat/Long: 33.83694 / -118.27278
Owner Name: Coogan/Browning Reality
Owner Telephone: 7145469911
Owner Address: Not reported
Owner Address2: 2009 Swan Dr
Owner City,St,Zip: Costa Mesa, CA 92626
Operational Status: Closed
Operator: Adams, M
Operator Phone: 7134652347
Operator Address: Not reported
Operator Address2: 12910 Figaro
Operator City,St,Zip: Houston, TX 77024
Permit Date: Not reported
Permit Status: Not reported
Permitted Acreage: $20.00
Activity: Solid Waste Disposal Site
Regulation Status: Pre-regulations
Landuse Name: Residential
GIS Source: Map
Category: Disposal
Unit Number: 01
Inspection Frequency: Quarterly
Accepted Waste: Not reported
Closure Date: 12/31/1958
Closure Type: Estimated
Disposal Acreage: $20.00
SWIS Num: 19-AQ-0006
Waste Discharge Requirement Num: Not reported
Program Type: Not reported
Permitted Throughput with Units: Not reported
Actual Throughput with Units: Not reported
Permitted Capacity with Units: Not reported
Remaining Capacity: Not reported
Remaining Capacity with Units: Not reported
Lat/Long: 33.83694 / -118.27278

LOS ANGELES CO. LF:
Site ID: 1963
Alt. Address: Not reported
Site Contact: Not reported

MARTIN ADAMS DUMP (Continued) **1000412290**

Site Contact Phone:	Not reported
Site Email:	Not reported
Site Website:	Not reported
Site Type:	Unknown
Site SWIS Number:	19-AQ-0006
Beginning Operation Date:	1948
Ending Operation Date:	Dec-58
Local Enforcement Agency:	County Public Health
Maximun Depth Fill(Ft):	34
Permitted Capacity:	Not reported
Present Use:	Residential
Remaining Capacity(Million):	Not reported
Status:	Closed
Waste Accepted:	Commercial; Inert; Liquid; Residential
Hours of Operation:	Not reported
Disposal Area (Acre):	20

Detail As Of 01/2014:

Operator Name:	M. Adams
Operator Address:	12910 Figaro Drive
Operator City/State/Zip:	HUSTON, TX 77024
Operator Contact:	Not reported
Operator Telephone:	(713) 465-2347
Operator Email:	Not reported
Owner Name:	Coogan-Browning Reality
Owner Address:	2009 Swan Drive
Owner City/State/Zip:	Costa Mesa, CA 92626
Owner Contact:	Wayne Browning
Owner Telephone:	(714) 546-9911
Owner Email:	Not reported

CHMIRS:

OES Incident Number:	10-7307
OES notification:	12/06/2010
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported

MARTIN ADAMS DUMP (Continued) **1000412290**

Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Yes
Waterway:	storm drain
Spill Site:	Residence
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Unknown
Other:	Not reported
Date/Time:	1000
Year:	2010
Agency:	City of Carson
Incident Date:	12/6/2010
Admin Agency:	LACoFD Health Haz-Mat
Amount:	Not reported
Contained:	Unknown
Site Type:	storm drain
E Date:	Not reported
Substance:	Sewage
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	The caller is reporting a sewage spill from a private residence. The sewage spilled into the gutter and into a storm drain. The storm drain has been diked off.

BD486 **JCI JONES CHEMICALS INC** **HWP** **U001564056**
NNW **1401 DEL AMO BLVD** **N/A**
1/2-1 **TORRANCE, CA 90501**
0.780 mi.
4121 ft. **Site 1 of 2 in cluster BD**

Relative:
Higher

Actual:
50 ft.

HWP:

EPA Id:	CAD008352205
Cleanup Status:	NON-OPERATING
Latitude:	33.84678
Longitude:	-118.3030
Facility Type:	Historical - Non-Operating
Facility Size:	Not reported
Team:	Not reported

JCI JONES CHEMICALS INC (Continued) **U001564056**

Supervisor: Not reported
Site Code: N/A
Assembly District: 64
Senate District: 35
Public Information Officer: Not reported
Public Information Officer: Not reported

Activities:
EPA Id: CAD008352205
Facility Type: Historical - Non-Operating
Unit Names: Not reported
Event Description: New Operating Permit - APPLICATION PART A RECEIVED
Actual Date: 02/19/1981

Alias:
EPA Id: CAD008352205
Facility Type: Historical - Non-Operating
Alias Type: Project Code (Site Code)
Alias: N/A

EPA Id: CAD008352205
Facility Type: Historical - Non-Operating
Alias Type: Envirostor ID Number
Alias: 19280124

EPA Id: CAD008352205
Facility Type: Historical - Non-Operating
Alias Type: FRS
Alias: 110000475236

BD487 **JONES CHEMICAL** **ENVIROSTOR** **S100714273**
NNW **1401 DEL AMO** **HIST CORTESE** **N/A**
1/2-1 **TORRANCE, CA 90501** **NPDES**
0.780 mi.
4121 ft. **Site 2 of 2 in cluster BD**

Relative:
Higher

Actual:
50 ft.

ENVIROSTOR:
Facility ID: 80001566
Status: Inactive - Needs Evaluation
Status Date: 11/10/2010
Site Code: Not reported
Site Type: Corrective Action
Site Type Detailed: Corrective Action
Acres: 0
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: WM
Program Manager: Christine Brown
Supervisor: * Unknown
Division Branch: Cleanup Cypress
Assembly: 64
Senate: 35
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 33.84678

JONES CHEMICAL (Continued) **S100714273**

Longitude: -118.3030
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD008352205
Alias Type: EPA Identification Number
Alias Name: 110000475236
Alias Type: EPA (FRS #)
Alias Name: 19280124
Alias Type: Envirostor ID Number
Alias Name: 80001566
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/04/2010
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Facility ID: 19280124
Status: Refer: EPA
Status Date: 06/30/1995
Site Code: 400422
Site Type: Evaluation
Site Type Detailed: Evaluation
Acres: 0
NPL: NO
Regulatory Agencies: DTSC
Lead Agency: DTSC
Program Manager: Safouh Sayed
Supervisor: Robert Senga
Division Branch: Cleanup Cypress
Assembly: 64
Senate: 35
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 33.84722
Longitude: -118.3
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: * HALOGENATED SOLVENTS * CONTAMINATED SOIL * ACID SOLUTION WITHOUT METALS * ALKALINE SOLUTION WITHOUT METALS * UNSPECIFIED ALKALINE SOLUTIONS * ORGANIC LIQUIDS (NONSOLVENTS) WITH HALOGENS

JONES CHEMICAL (Continued) **S100714273**

Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: MONTROSE CHEMICAL
Alias Type: Alternate Name
Alias Name: CAD008352205
Alias Type: EPA Identification Number
Alias Name: 110000475236
Alias Type: EPA (FRS #)
Alias Name: 400422
Alias Type: Project Code (Site Code)
Alias Name: 19280124
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 06/30/1995
Comments: The Department reviewed the PEA Report prepared for the Jones Chemicals, Inc. site. The PEA Report recommended additional investigation be conducted at the site and pro- posed two removal actions. The site was referred to U.S. EPA due to it's proximity to the Montrose Chemical Superfund site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 11/10/1986
Comments: SITE SCREENING DONE

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 02/15/1981
Comments: FACILITY IDENTIFIED TIP 3 ANIMAL DIED NEAR JONES' DITCH AND POND

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: CALSI
Reg Id: 19280124

NPDES:
Npdes Number: Not reported
Facility Status: Not reported
Agency Id: Not reported
Region: 4

JONES CHEMICAL (Continued) **S100714273**

Regulatory Measure Id:	188677
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	4 19I000723
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008
PROCESSED DATE:	3/19/1992
STATUS CODE NAME:	Active
STATUS DATE:	3/19/1992
PLACE SIZE:	5
PLACE SIZE UNIT:	52
FACILITY CONTACT NAME:	TIM Ross
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	310-787-1441
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	tross@jcichem.com
OPERATOR NAME:	Jones Chemicals Inc
OPERATOR ADDRESS:	100 Sunny Sol Blvd
OPERATOR CITY:	Caledonia
OPERATOR STATE:	New York
OPERATOR ZIP:	14482
OPERATOR CONTACT NAME:	TIM Gaffney
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	585-538-2314
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	tgaffney@jcichem.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported

JONES CHEMICAL (Continued) **S100714273**

CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Dominguez Channel
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	2819-Industrial Inorganic Chemicals, NEC
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	4
Regulatory Measure Id:	188677
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	4 19I000723
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	03/19/1992
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Jones Chemicals Inc
Discharge Address:	100 Sunny Sol Blvd
Discharge City:	Caledonia
Discharge State:	New York
Discharge Zip:	14482
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported

JONES CHEMICAL (Continued) **S100714273**

DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

488
NE
1/2-1
0.817 mi.
4312 ft.

LA-405 DOMINGUEZ GOLF COURSE **ENVIROSTOR** **S108484742**
RIGHT-OF-WAY BETWEEN DEL AMO BLVD AND MAIN STREET (CALTRANS **VCP** **N/A**
CARSON, CA 90745

Relative:
Lower

Actual:
26 ft.

ENVIROSTOR:

Facility ID:	60000633
Status:	Inactive - Action Required
Status Date:	10/13/2010
Site Code:	401375
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	8
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Daniel Zogaib
Supervisor:	Emad Yemut
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	64
Senate:	35
Special Program:	Voluntary Cleanup Program
Restricted Use:	NO

LA-405 DOMINGUEZ GOLF COURSE (Continued) **S108484742**

Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 33.85058
Longitude: -118.2763
APN: NONE SPECIFIED
Past Use: LANDFILL - CONSTRUCTION, LANDFILL - DOMESTIC, LANDFILL - HAZARDOUS WASTE
Potential COC: Under Investigation
Confirmed COC: NONE SPECIFIED
Potential Description: OTH, SOIL
Alias Name: 110033607504
Alias Type: EPA (FRS #)
Alias Name: 401375
Alias Type: Project Code (Site Code)
Alias Name: 60000633
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 05/18/2007
Comments: Conditional approval of scope of work for investigation of 405 easement.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 05/22/2007
Comments: Angle drilling to determine if waste exists under the freeway

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 07/16/2010
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

VCP:
Facility ID: 60000633
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 8
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program

LA-405 DOMINGUEZ GOLF COURSE (Continued) **S108484742**

Project Manager:	Daniel Zogaib
Supervisor:	Emad Yemut
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	401375
Assembly:	64
Senate:	35
Special Programs Code:	Voluntary Cleanup Program
Status:	Inactive - Action Required
Status Date:	10/13/2010
Restricted Use:	NO
Funding:	Responsible Party
Lat/Long:	33.85058 / -118.2763
APN:	NONE SPECIFIED
Past Use:	LANDFILL - CONSTRUCTION, LANDFILL - DOMESTIC, LANDFILL - HAZARDOUS WASTE
Potential COC:	31001
Confirmed COC:	NONE SPECIFIED
Potential Description:	OTH, SOIL
Alias Name:	110033607504
Alias Type:	EPA (FRS #)
Alias Name:	401375
Alias Type:	Project Code (Site Code)
Alias Name:	60000633
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Characterization Workplan
Completed Date:	05/18/2007
Comments:	Conditional approval of scope of work for investigation of 405 easement.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Fieldwork
Completed Date:	05/22/2007
Comments:	Angle drilling to determine if waste exists under the freeway

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	07/16/2010
Comments:	Not reported

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

489 West 1/2-1 0.818 mi. 4319 ft.

ARMCO STEEL CORP NATIONAL SUPPLY DIV
1524 BORDER AVE
TORRANCE, CA 90501

RESPONSE
ENVIROSTOR
HIST Cal-Sites
FINDS
ECHO

1000177827
N/A

Relative: Higher

Actual: 72 ft.

RESPONSE:

Facility ID:	19350468
Site Type:	State Response
Site Type Detail:	State Response or NPL
Acres:	39.79
National Priorities List:	NO
Cleanup Oversight Agencies:	NONE SPECIFIED
Lead Agency Description:	Not reported
Project Manager:	Not reported
Supervisor:	Sayareh Amirebrahimi
Division Branch:	Cleanup Chatsworth
Site Code:	Not reported
Site Mgmt. Req.:	NONE SPECIFIED
Assembly:	66
Senate:	35
Special Program Status:	Not reported
Status:	Certified
Status Date:	11/16/1987
Restricted Use:	NO
Funding:	Responsible Party
Latitude:	33.83361
Longitude:	-118.3130
APN:	NONE SPECIFIED
Past Use:	MANUFACTURING - INDUSTRIAL MACHINERY
Potential COC :	Total Chromium (1:6 ratio Cr VI:Cr III Lead TPH-gas TPH-JET FUEL
Confirmed COC:	Total Chromium (1:6 ratio Cr VI:Cr III Lead TPH-gas TPH-JET FUEL
Potential Description:	SOIL, SV
Alias Name:	NATIONAL SUPPLY DIVISION
Alias Type:	Alternate Name
Alias Name:	110033616095
Alias Type:	EPA (FRS #)
Alias Name:	19350468
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Certification
Completed Date:	11/16/1987
Comments:	Certified. About 15,000 cu yds of solid waste and 158,000 gal of liquid were excavated and disposed of.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Final Remedial Action
Completed Date:	08/24/1987
Comments:	Remedial action ends.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Action Plan
Completed Date:	01/27/1986
Comments:	DHS reviewed and approved the sampling analysis procedures, health and safety protections, removal/disposal procedures, and the removal

ARMCO STEEL CORP NATIONAL SUPPLY DIV (Continued) **1000177827**

action plan.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 19350468
Status: Certified
Status Date: 11/16/1987
Site Code: Not reported
Site Type: State Response
Site Type Detailed: State Response or NPL
Acres: 39.79
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Sayareh Amirebrahimi
Division Branch: Cleanup Chatsworth
Assembly: 66
Senate: 35
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 33.83361
Longitude: -118.3130
APN: NONE SPECIFIED
Past Use: MANUFACTURING - INDUSTRIAL MACHINERY
Potential COC: Total Chromium (1:6 ratio Cr VI:Cr III Lead TPH-gas TPH-JET FUEL
Confirmed COC: Total Chromium (1:6 ratio Cr VI:Cr III Lead TPH-gas TPH-JET FUEL
Potential Description: SOIL, SV
Alias Name: NATIONAL SUPPLY DIVISION
Alias Type: Alternate Name
Alias Name: 110033616095
Alias Type: EPA (FRS #)
Alias Name: 19350468
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 11/16/1987
Comments: Certified. About 15,000 cu yds of solid waste and 158,000 gal of liquid were excavated and disposed of.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Final Remedial Action

ARMCO STEEL CORP NATIONAL SUPPLY DIV (Continued) **1000177827**

Completed Date: 08/24/1987
Comments: Remedial action ends.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 01/27/1986
Comments: DHS reviewed and approved the sampling analysis procedures, health and safety protections, removal/disposal procedures, and the removal action plan.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Calsite:
Region: GLENDALE
Facility ID: 19350468
Facility Type: RP
Type: RESPONSIBLE PARTY
Branch: SA
Branch Name: SO CAL - GLENDALE
File Name: Not reported
State Senate District: 11161987
Status: CERTIFIED AS HAVING BEEN REMEDIED SATISFACTORILY UNDER DTSC OVERSIGHT
Status Name: CERTIFIED
Lead Agency: N/A
NPL: Not reported
SIC Code: 35
SIC Name: MANU - INDUSTRIAL MACHINERY & EQUIPMENT
Access: Not reported
Cortese: Not reported
Hazardous Ranking Score: Not reported
Date Site Hazard Ranked: Not reported
Groundwater Contamination: Not reported
Staff Member Responsible for Site: Not reported
Supervisor Responsible for Site: Not reported
Region Water Control Board: Not reported
Region Water Control Board Name: Not reported
Lat/Long Direction: Not reported
Lat/Long (dms): 0 0 0 / 0 0 0
Lat/long Method: Not reported
Lat/Long Description: Not reported
State Assembly District Code: 53
State Senate District Code: 28
Facility ID: 19350468
Activity: RAP
Activity Name: REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code: Not reported
Proposed Budget: 0
AWP Completion Date: Not reported

ARMCO STEEL CORP NATIONAL SUPPLY DIV (Continued) **1000177827**

Revised Due Date:	Not reported
Comments Date:	01271986
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19350468
Activity:	FRA
Activity Name:	FINAL REMEDIAL ACTION
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	08241987
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19350468
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	11161987
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	15000
Liquids Treated (Gals):	0

ARMCO STEEL CORP NATIONAL SUPPLY DIV (Continued) **1000177827**

Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	EXCAVATION AND REDISPOSAL
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Alternate Address:	1541 BORDER AVENUE
Alternate City,St,Zip:	TORRANCE, CA 90501
Background Info:	National Supply COnmpany (NSC), a division of Armco, Inc., operated a steel and machinery manufacturing facility on a 39.79 acre parcel of land in East Torrance from 1926 through February of 1985. The remedial investigation by Armco's consultant revealed the prescence of total petroleum hydrocarbons and heavy metals. All structures were demolished and the site has been remediated. The property will be sold and developed within the next year (1987).
Comments Date:	01271986
Comments:	DHS reviewed and approved the sampling analysis procedures,
Comments Date:	01271986
Comments:	health and safety protections, removal/disposal procedures,
Comments Date:	01271986
Comments:	and the removal action plan.
Comments Date:	08241987
Comments:	Remedial action ends.
Comments Date:	09291986
Comments:	Remedial Action begins.
Comments Date:	11161987
Comments:	Certified. About 15,000 cu yds of solid waste and 158,000
Comments Date:	11161987
Comments:	gal of liquid were excavated and disposed of.
ID Name:	Not reported
ID Value:	Not reported
Alternate Name:	ARMCO, INC.
Alternate Name:	NATIONAL SUPPLY DIVISION
Alternate Name:	Not reported
Special Programs Code:	Not reported
Special Programs Name:	Not reported

FINDS:

Registry ID: 110002631340

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ECHO:

Envid: 1000177827

ARMCO STEEL CORP NATIONAL SUPPLY DIV (Continued) **1000177827**

Registry ID: 110002631340
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002631340

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490 WNW 1/2-1 0.842 mi. 4445 ft.

AMERICAN HONDA MOTOR CO., INC. **ENVIROSTOR** **S108936077**
1919 TORRANCE BOULEVARD (BLDG 510 PARKING LOT) **VCP** **N/A**
TORRANCE, CA 90501 **DEED**

Relative: Higher

Actual: 60 ft.

ENVIROSTOR:

Facility ID:	60000736
Status:	Certified O&M - Land Use Restrictions Only
Status Date:	11/15/2009
Site Code:	401396
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	0.9
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Malek Itani
Supervisor:	Emad Yemut
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	66
Senate:	35
Special Program:	Voluntary Cleanup Program
Restricted Use:	YES
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	33.8362
Longitude:	-118.3157
APN:	NONE SPECIFIED
Past Use:	MANUFACTURING - METAL
Potential COC:	Arsenic Lead Polychlorinated biphenyls (PCBs Antimony and compounds Bis(2-ethylhexyl)phthalate (DEHP) Cadmium and compounds Chromium III Copper and compounds 1,4-Dioxane Molybdenum Nickel PCBs (unspeciated mixture, high risk, e.g. Aroclor 1254 Anthracene Benz[a]anthracene Benzo[b]fluoranthene Benzo[k]fluoranthene Benzo[a]pyrene Chrysene Dibenz[ah]anthracene Fluoranthene Fluorene Indeno[1,2,3-cd]pyrene Naphthalene Pyrene Zinc
Confirmed COC:	Arsenic Lead Antimony and compounds PCBs (unspeciated mixture, high risk, e.g. Aroclor 1254 Anthracene Benzo[b]fluoranthene Benzo[k]fluoranthene Chrysene Fluoranthene Naphthalene Pyrene Cadmium and compounds Chromium III Copper and compounds 1,4-Dioxane Molybdenum Nickel Zinc Benz[a]anthracene Benzo[a]pyrene Dibenz[ah]anthracene Indeno[1,2,3-cd]pyrene Polychlorinated biphenyls (PCBs Bis(2-ethylhexyl)phthalate (DEHP) Fluorene
Potential Description:	SOIL
Alias Name:	110033614220
Alias Type:	EPA (FRS #)
Alias Name:	SLT4L0351763
Alias Type:	GeoTracker Global ID
Alias Name:	401396
Alias Type:	Project Code (Site Code)
Alias Name:	60000736
Alias Type:	Envirostor ID Number

Completed Info:

AMERICAN HONDA MOTOR CO., INC. (Continued) **S108936077**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 08/31/2015
Comments: FY 1516 Annual Cost Estimate completed and letter mailed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 10/15/2007
Comments: VCA Agreement was signed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 11/15/2009
Comments: LUC is complete and sent to RP to send to County.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 06/19/2012
Comments: Document received and accepted

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/30/2009
Comments: Letter sent to proponent via US Mail and email

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/18/2010
Comments: 2011 Cost Estimate letter sent to RP.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 05/17/2010
Comments: Document accepted.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 06/05/2013
Comments: LUC Inspection Report completed by RP and sent for DTSC review. Based on review, the Site is in compliance with the LUC and therefore DTSC approves the Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 11/28/2011
Comments: Cost Estimate Letter and Schedule for 2012 calendar year sent

Completed Area Name: PROJECT WIDE

AMERICAN HONDA MOTOR CO., INC. (Continued) **S108936077**

Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/25/2012
Comments: 2013 Annual Cost Estimate letter sent to RP

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 05/11/2011
Comments: LUC received. Site is in compliance with parameters set within the LUC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 10/31/2007
Comments: Per discussions from a Scoping Meeting with LFR and American Honda on 12/6/2007, a Preliminary Endangerment Assessment Workplan will be developed to further investigate Site conditions.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 10/06/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 04/16/2008
Comments: PEA Workplan approval letter sent on April 16, 2008. Fieldwork will be scheduled to start within the month.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 12/24/2008
Comments: PEA Report approved. Construction of parking lot will begin in January 2009. A soils management document will be submitted by consultants prior to the start of construction.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 05/06/2008
Comments: Since the scope of this project directly impacts workers on the American Honda campus, it was determined that a public notice for fieldwork would need to be sent to employees of American Honda. Field work took place on May 9, 2008 and employees were adequately noticed. No other form of public participation efforts are determined to be necessary at this time.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Soils Management Plan
Completed Date: 05/07/2009
Comments: SMP approved by DTSC.

AMERICAN HONDA MOTOR CO., INC. (Continued) **S108936077**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 12/23/2008
Comments: Letter Received

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 04/20/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 08/11/2014
Comments: FY 1415 Annual Oversight Cost Estimate and Letter sent.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 11/26/2013
Comments: Cost Estimate Letter was sent out.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

VCP:
Facility ID: 60000736
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 0.9
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Malek Itani
Supervisor: Emad Yemut
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 401396
Assembly: 66
Senate: 35
Special Programs Code: Voluntary Cleanup Program
Status: Certified O&M - Land Use Restrictions Only
Status Date: 11/15/2009
Restricted Use: YES
Funding: Responsible Party
Lat/Long: 33.8362 / -118.3157
APN: NONE SPECIFIED

AMERICAN HONDA MOTOR CO., INC. (Continued) **S108936077**

Past Use: MANUFACTURING - METAL
Potential COC: 30001, 30013, 30018, 30058, 30088, 30108, 30152, 30156, 30246, 30402, 30407, 30470, 30474, 30475, 30476, 30477, 30478, 30479, 30480, 30481, 30482, 30483, 30484, 30485, 30594
Confirmed COC: 30001,30013,30058,30470,30474,30476,30477,30479,30481,30484,30485, 30108,30152,30156,30246,30402,30407,30594,30475,30478,30480,30483, 30018,30088,30482
Potential Description: SOIL
Alias Name: 110033614220
Alias Type: EPA (FRS #)
Alias Name: SLT4L0351763
Alias Type: GeoTracker Global ID
Alias Name: 401396
Alias Type: Project Code (Site Code)
Alias Name: 60000736
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 08/31/2015
Comments: FY 1516 Annual Cost Estimate completed and letter mailed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 10/15/2007
Comments: VCA Agreement was signed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 11/15/2009
Comments: LUC is complete and sent to RP to send to County.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 06/19/2012
Comments: Document received and accepted

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/30/2009
Comments: Letter sent to proponent via US Mail and email

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/18/2010
Comments: 2011 Cost Estimate letter sent to RP.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 05/17/2010

AMERICAN HONDA MOTOR CO., INC. (Continued) **S108936077**

Comments: Document accepted.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 06/05/2013
Comments: LUC Inspection Report completed by RP and sent for DTSC review. Based on review, the Site is in compliance with the LUC and therefore DTSC approves the Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 11/28/2011
Comments: Cost Estimate Letter and Schedule for 2012 calendar year sent

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/25/2012
Comments: 2013 Annual Cost Estimate letter sent to RP

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 05/11/2011
Comments: LUC received. Site is in compliance with parameters set within the LUC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 10/31/2007
Comments: Per discussions from a Scoping Meeting with LFR and American Honda on 12/6/2007, a Preliminary Endangerment Assessment Workplan will be developed to further investigate Site conditions.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 10/06/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 04/16/2008
Comments: PEA Workplan approval letter sent on April 16, 2008. Fieldwork will be scheduled to start within the month.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 12/24/2008
Comments: PEA Report approved. Construction of parking lot will begin in January 2009. A soils management document will be submitted by consultants prior to the start of construction.

AMERICAN HONDA MOTOR CO., INC. (Continued) **S108936077**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 05/06/2008
Comments: Since the scope of this project directly impacts workers on the American Honda campus, it was determined that a public notice for fieldwork would need to be sent to employees of American Honda. Field work took place on May 9, 2008 and employees were adequately noticed. No other form of public participation efforts are determined to be necessary at this time.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Soils Management Plan
Completed Date: 05/07/2009
Comments: SMP approved by DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 12/23/2008
Comments: Letter Received

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 04/20/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 08/11/2014
Comments: FY 1415 Annual Oversight Cost Estimate and Letter sent.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 11/26/2013
Comments: Cost Estimate Letter was sent out.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

DEED:
Envirostor ID: 60000736
Area: PROJECT WIDE
Sub Area: Not reported
Site Type: VOLUNTARY CLEANUP
Status: CERTIFIED O&M - LAND USE RESTRICTIONS ONLY

AMERICAN HONDA MOTOR CO., INC. (Continued) **S108936077**

Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): 11/15/2009

491
NNW
1/2-1
0.852 mi.
4497 ft.

Relative:
Higher

Actual:
51 ft.

REDMAN EQUIPMENT AND MANUFACTURING CO
19800 NORMANDIE AVE
TORRANCE, CA 90502

RCRA-LQG **1000295487**
ENVIROSTOR **CAD008247900**
LUST
VCP
SWEEPS UST
ICIS
FINDS
ENF
HIST CORTESE
NPDES
ECHO

RCRA-LQG:
Date form received by agency: 03/01/2014
Facility name: REDMAN EQUIPMENT AND MANUFACTURING CO
Facility address: 19800 NORMANDIE AVE
TORRANCE, CA 90502
EPA ID: CAD008247900
Mailing address: NORMANDIE AVE
TORRANCE, CA 90502
Contact: DALE BOTTS
Contact address: NORMANDIE AVE
TORRANCE, CA 90502
Contact country: Not reported
Contact telephone: (310) 329-1134
Contact email: DALE@REDMANEQ.COM
EPA Region: 09
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: NORMANDIE BRR PROPERTIES
Owner/operator address: NORMANDIE AVE
TORRANCE, CA 90502
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1989
Owner/Op end date: Not reported

Owner/operator name: REDMAN EQUIPMENT AND MFG CO

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

Owner/operator address: NORMANDIE AVE
TORRANCE, CA 90502
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 04/01/1962
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: K050
. Waste name: HEAT EXCHANGER BUNDLE CLEANING SLUDGE FROM THE PETROLEUM REFINING INDUSTRY.

Historical Generators:
Date form received by agency: 03/28/2012
Site name: REDMAN EQUIPMENT& MANUFACTURING COMPANY
Classification: Large Quantity Generator

. Waste code: K050
. Waste name: HEAT EXCHANGER BUNDLE CLEANING SLUDGE FROM THE PETROLEUM REFINING INDUSTRY.

Date form received by agency: 08/10/2010
Site name: REDMAN EQUIPMENT & MFG. CO.
Classification: Large Quantity Generator

. Waste code: 352
. Waste name: 352

. Waste code: K050
. Waste name: HEAT EXCHANGER BUNDLE CLEANING SLUDGE FROM THE PETROLEUM REFINING INDUSTRY.

Date form received by agency: 02/19/2008
Site name: REDMAN EQUIPMENT & MFG. CO.
Classification: Large Quantity Generator

. Waste code: K050
. Waste name: HEAT EXCHANGER BUNDLE CLEANING SLUDGE FROM THE PETROLEUM REFINING

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

INDUSTRY.

Date form received by agency: 03/13/2006
Site name: REDMAN EQUIPMENT & MFG. CO.
Classification: Large Quantity Generator

. Waste code: K050
. Waste name: HEAT EXCHANGER BUNDLE CLEANING SLUDGE FROM THE PETROLEUM REFINING INDUSTRY.

Date form received by agency: 02/23/2004
Site name: REDMAN EQUIPMENT AND MFG
Classification: Large Quantity Generator

. Waste code: K050
. Waste name: HEAT EXCHANGER BUNDLE CLEANING SLUDGE FROM THE PETROLEUM REFINING INDUSTRY.

Date form received by agency: 02/19/2002
Site name: REDMAN EQUIPMENT & MFG. CO.
Classification: Large Quantity Generator

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: K050
. Waste name: HEAT EXCHANGER BUNDLE CLEANING SLUDGE FROM THE PETROLEUM REFINING INDUSTRY.

Date form received by agency: 10/12/2000
Site name: REDMAN EQUIP. & MFG.
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Site name: REDMAN EQUIPMENT & MFG CO
Classification: Large Quantity Generator

Date form received by agency: 03/29/1996
Site name: REDMAN EQUIPMENT & MFG. CO.
Classification: Large Quantity Generator

Date form received by agency: 03/30/1994
Site name: REDMAN EQUIPMENT & MFG CO
Classification: Large Quantity Generator

Date form received by agency: 06/15/1992
Site name: REDMAN EQUIPMENT & MFG CO
Classification: Large Quantity Generator

Date form received by agency: 09/15/1987
Site name: REDMAN EQUIPMENT & MFG CO
Classification: Large Quantity Generator

Biennial Reports:

Last Biennial Reporting Year: 2013

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

Annual Waste Handled:
Waste code: K050
Waste name: HEAT EXCHANGER BUNDLE CLEANING SLUDGE FROM THE PETROLEUM REFINING INDUSTRY
Amount (Lbs): 69553

Violation Status: No violations found

ENVIROSTOR:
Facility ID: 60001366
Status: Active
Status Date: 06/23/2015
Site Code: 401548
Site Type: Voluntary Cleanup
Site Type Detailed: Voluntary Cleanup
Acres: 3.2
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Hossein Nassiri
Supervisor: Emad Yemut
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 64
Senate: 35
Special Program: Voluntary Cleanup Program
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 33.85106
Longitude: -118.2986
APN: NONE SPECIFIED
Past Use: MANUFACTURING - METAL, UNDERGROUND STORAGE TANKS
Potential COC: Tetrachloroethylene (PCE Trichloroethylene (TCE 1,2-Dichloroethylene (cis Naphthalene 1,2,4-Trimethylbenzene Xylenes
Confirmed COC: Tetrachloroethylene (PCE Naphthalene 1,2-Dichloroethylene (cis Xylenes 1,2,4-Trimethylbenzene Trichloroethylene (TCE
Potential Description: SOIL, SV
Alias Name: 401548
Alias Type: Project Code (Site Code)
Alias Name: 60001366
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 12/01/2010
Comments: Document reviewed and discussed in a team meeting. Meeting notes that contained recommendations/comments sent to RP’s attorney as discussion items for future activities.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 06/09/2011
Comments: Workplan approved. RP will provide 2 weeks notification prior to fieldwork commencing

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 02/10/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 10/28/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 01/20/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 09/10/2014
Comments: Confirmation was made that project has been closed out in the Cost Recovery Billing System.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 11/23/2015
Comments: .

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Reimbursement Agreement
Completed Date: 10/28/2010
Comments: Agreement fully executed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Reimbursement Agreement
Completed Date: 10/24/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Reimbursement Agreement
Completed Date: 10/26/2012
Comments: Reimbursement Agreement Extension executed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Reimbursement Agreement
Completed Date: 10/07/2013
Comments: Reimbursement Agreement Extension completed and executed

Future Area Name: Not reported
Future Sub Area Name: Not reported

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Certification
Schedule Due Date:	12/26/2016
Schedule Revised Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Land Use Restriction
Schedule Due Date:	05/26/2017
Schedule Revised Date:	Not reported

LUST:

Region:	STATE
Global Id:	T0603703251
Latitude:	33.8510626
Longitude:	-118.2991983
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	08/17/2007
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	AT
Local Agency:	LOS ANGELES COUNTY
RB Case Number:	I-06699
LOC Case Number:	06699
File Location:	Regional Board
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603703251
Contact Type:	Local Agency Caseworker
Contact Name:	GILLIAN MINTIER
Organization Name:	LOS ANGELES COUNTY
Address:	900 SOUTH FREMONT AVE
City:	ALHAMBRA
Email:	gmintier@ladpw.org
Phone Number:	Not reported

Global Id:	T0603703251
Contact Type:	Regional Board Caseworker
Contact Name:	ARMAN TOUMARI
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 WEST 4TH STREET, SUITE 200
City:	LOS ANGELES
Email:	atoumari@waterboards.ca.gov
Phone Number:	2135766708

Status History:

Global Id:	T0603703251
Status:	Completed - Case Closed
Status Date:	08/17/2007

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

Global Id: T0603703251
Status: Open - Case Begin Date
Status Date: 09/07/1994

Global Id: T0603703251
Status: Open - Site Assessment
Status Date: 09/08/1994

Global Id: T0603703251
Status: Open - Site Assessment
Status Date: 12/01/2006

Regulatory Activities:

Global Id: T0603703251
Action Type: RESPONSE
Date: 11/15/2006
Action: Other Report / Document

Global Id: T0603703251
Action Type: RESPONSE
Date: 12/01/2006
Action: Soil and Water Investigation Report

Global Id: T0603703251
Action Type: RESPONSE
Date: 06/11/2007
Action: Request for Closure

Global Id: T0603703251
Action Type: ENFORCEMENT
Date: 10/18/2006
Action: Staff Letter

Global Id: T0603703251
Action Type: RESPONSE
Date: 12/01/2006
Action: Request for Closure

Global Id: T0603703251
Action Type: ENFORCEMENT
Date: 02/22/2007
Action: Site Visit / Inspection / Sampling

Global Id: T0603703251
Action Type: Other
Date: 09/07/1994
Action: Leak Discovery

Global Id: T0603703251
Action Type: Other
Date: 09/08/1994
Action: Leak Reported

Global Id: T0603703251
Action Type: ENFORCEMENT
Date: 08/17/2007
Action: Closure/No Further Action Letter

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	I-06699	
Status:	Leak being confirmed	
Substance:	Diesel	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Soil	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603703251	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19000	
Cross Street:	190TH STREET	
Enforcement Type:	Not reported	
Date Leak Discovered:	9/7/1994	
Date Leak First Reported:		9/8/1994
Date Leak Record Entered:	1/20/1995	
Date Confirmation Began:	9/8/1994	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		9/8/1994
Date the Case was Closed:		Not reported
How Leak Discovered:	Tank Closure	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	Tank	
Operator:	JERRY REDMAN	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		8259.573940703036542483561216
Source of Cleanup Funding:		Tank
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	REDMAN EQUIPMENT	
RP Address:	Not reported	
Program:	LUST	
Lat/Long:	33.8513412 / -1	
Local Agency Staff:	Not reported	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

Assigned Name: Not reported
Summary: Not reported

VCP:
Facility ID: 60001366
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 3.2
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Hossein Nassiri
Supervisor: Emad Yemut
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 401548
Assembly: 64
Senate: 35
Special Programs Code: Voluntary Cleanup Program
Status: Active
Status Date: 06/23/2015
Restricted Use: NO
Funding: Responsible Party
Lat/Long: 33.85106 / -118.2986
APN: NONE SPECIFIED
Past Use: MANUFACTURING - METAL, UNDERGROUND STORAGE TANKS
Potential COC: 30022, 30027, 30195, 30484, 30577, 30593
Confirmed COC: 30022,30484,30195,30593,30577,30027
Potential Description: SOIL, SV
Alias Name: 401548
Alias Type: Project Code (Site Code)
Alias Name: 60001366
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 12/01/2010
Comments: Document reviewed and discussed in a team meeting. Meeting notes that contained recommendations/comments sent to RP's attorney as discussion items for future activities.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 06/09/2011
Comments: Workplan approved. RP will provide 2 weeks notification prior to fieldwork commencing

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 02/10/2014
Comments: Not reported

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 10/28/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 01/20/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 09/10/2014
Comments: Confirmation was made that project has been closed out in the Cost Recovery Billing System.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 11/23/2015
Comments: .

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Reimbursement Agreement
Completed Date: 10/28/2010
Comments: Agreement fully executed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Reimbursement Agreement
Completed Date: 10/24/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Reimbursement Agreement
Completed Date: 10/26/2012
Comments: Reimbursement Agreement Extension executed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Reimbursement Agreement
Completed Date: 10/07/2013
Comments: Reimbursement Agreement Extension completed and executed

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Certification
Schedule Due Date: 12/26/2016

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Land Use Restriction
Schedule Due Date: 05/26/2017
Schedule Revised Date: Not reported

SWEEPS UST:
Status: Not reported
Comp Number: 3650
Number: Not reported
Board Of Equalization: 44-013180
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-003650-000001
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 1

ICIS:
Enforcement Action ID: CA-N00003682
FRS ID: 110000902630
Action Name: REDMAN EQUIPMENT & MFG CO (Permit CA0058726) Viol. Notice To Regultd Entity
Facility Name: REDMAN EQUIPMENT & MFG CO
Facility Address: 19800 NORMANDIE AVE
TORRANCE, CA 90502
Enforcement Action Type: Notice of Violation
Facility County: LOS ANGELES
Program System Acronym: NPDES
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: 3443
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.851306
Longitude in Decimal Degrees: -118.299028
Permit Type Desc: NPDES Individual Permit
Program System Acronym: CA0058726
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: CA-N00001518
FRS ID: 110000902630
Action Name: REDMAN EQUIPMENT & MFG CO (Permit CA0058726) Viol. Notice To Regultd Entity
Facility Name: REDMAN EQUIPMENT & MFG CO
Facility Address: 19800 NORMANDIE AVE
TORRANCE, CA 90502
Enforcement Action Type: Notice of Violation
Facility County: LOS ANGELES

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

Program System Acronym: NPDES
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: 3443
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.851306
Longitude in Decimal Degrees: -118.299028
Permit Type Desc: NPDES Individual Permit
Program System Acronym: CA0058726
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: CA-N00001517
FRS ID: 110000902630
Action Name: REDMAN EQUIPMENT & MFG CO (Permit CA0058726) Letter Of Violation/Warning Letter
Facility Name: REDMAN EQUIPMENT & MFG CO
Facility Address: 19800 NORMANDIE AVE
TORRANCE, CA 90502
Enforcement Action Type: Letter of Violation/ Warning Letter
Facility County: LOS ANGELES
Program System Acronym: NPDES
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: LOVWL
Facility SIC Code: 3443
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.851306
Longitude in Decimal Degrees: -118.299028
Permit Type Desc: NPDES Individual Permit
Program System Acronym: CA0058726
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: CA-N00000837
FRS ID: 110000902630
Action Name: REDMAN EQUIPMENT & MFG CO (Permit CA0058726) Penalty Ao Issued By State
Facility Name: REDMAN EQUIPMENT & MFG CO
Facility Address: 19800 NORMANDIE AVE
TORRANCE, CA 90502
Enforcement Action Type: State CWA Penalty AO
Facility County: LOS ANGELES
Program System Acronym: NPDES
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCWAAPO
Facility SIC Code: 3443
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 33.851306
Longitude in Decimal Degrees: -118.299028
Permit Type Desc: NPDES Individual Permit
Program System Acronym: CA0058726
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Enforcement Action ID: CA-2010-1143
FRS ID: 110000902630
Action Name: Redman Equipment & Mfg Co - EPL

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

Facility Name:	REDMAN EQUIPMENT & MFG CO
Facility Address:	19800 NORMANDIE AVE TORRANCE, CA 90502
Enforcement Action Type:	State CWA Penalty AO
Facility County:	LOS ANGELES
Program System Acronym:	NPDES
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	SCWAAPO
Facility SIC Code:	3443
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	33.851306
Longitude in Decimal Degrees:	-118.299028
Permit Type Desc:	NPDES Individual Permit
Program System Acronym:	CA0058726
Facility NAICS Code:	Not reported
Tribal Land Code:	Not reported

Enforcement Action ID:	CA-2009-1187
FRS ID:	110000902630
Action Name:	Redman Equipment & Mfg Co - EPL
Facility Name:	REDMAN EQUIPMENT & MFG CO
Facility Address:	19800 NORMANDIE AVE TORRANCE, CA 90502
Enforcement Action Type:	State CWA Penalty AO
Facility County:	LOS ANGELES
Program System Acronym:	NPDES
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	SCWAAPO
Facility SIC Code:	3443
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	33.851306
Longitude in Decimal Degrees:	-118.299028
Permit Type Desc:	NPDES Individual Permit
Program System Acronym:	CA0058726
Facility NAICS Code:	Not reported
Tribal Land Code:	Not reported

Enforcement Action ID:	09-2009-3001
FRS ID:	110000902630
Action Name:	Redman Equipment & Manufacturing Company
Facility Name:	REDMAN EQUIPMEMT & MANUFACTURING COMPANY
Facility Address:	19800 NORMANDIE AVE. TORRANCE, CA 90505-1182
Enforcement Action Type:	EPCRA 325 Action For Penalty
Facility County:	LOS ANGELES
Program System Acronym:	ICIS
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	325
Facility SIC Code:	Not reported
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	33.851728
Longitude in Decimal Degrees:	-118.29924
Permit Type Desc:	Not reported
Program System Acronym:	600044696
Facility NAICS Code:	Not reported
Tribal Land Code:	Not reported

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

Facility Name: REDMAN EQUIPMENT & MANUFACTURING CO
Address: 19800 NORMANDIE AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: REDMAN EQUIPMENT & MANUFACTURING CO
Address: 19800 NORMANDIE AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: REDMAN EQUIPMENT & MANUFACTURING CO
Address: 19800 NORMANDIE AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: REDMAN EQUIPMENT & MANUFACTURING CO
Address: 19800 NORMANDIE AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: REDMAN EQUIPMENT & MANUFACTURING CO
Address: 19800 NORMANDIE AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: REDMAN EQUIPMENT & MANUFACTURING CO
Address: 19800 NORMANDIE AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: REDMAN EQUIPMENT & MANUFACTURING CO
Address: 19800 NORMANDIE AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

FINDS:

Registry ID: 110000902630

Environmental Interest/Information System
US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

transported off-site.

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

STATE MASTER

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

ENF:

Region:	4
Facility Id:	253949
Agency Name:	Redman Equipment & Manufacturing Company
Place Type:	Manufacturing
Place Subtype:	Manufacturing NEC
Facility Type:	Industrial
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	33.851866
Place Longitude:	-118.299227
SIC Code 1:	3443
SIC Desc 1:	Fabricated Plate Work (Boiler Shops)
SIC Code 2:	Not reported

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	0.052
Threat To Water Quality:	3
Complexity:	C
Pretreatment:	X - Facility is not a POTW
Facility Waste Type:	Stormwater runoff
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	NPDESWW
Program Category1:	NPDESWW
Program Category2:	NPDESWW
# Of Programs:	1
WDID:	4B192090001
Reg Measure Id:	147717
Reg Measure Type:	NPDES Permits
Region:	4
Order #:	00-065
Npdes# CA#:	CA0058726
Major-Minor:	Minor
Npdes Type:	OTH
Reclamation:	N - No
Dredge Fill Fee:	Not reported
301H:	N
Application Fee Amt Received:	Not reported
Status:	Historical
Status Date:	10/05/2005
Effective Date:	05/25/2000
Expiration/Review Date:	04/10/2005
Termination Date:	10/04/2005
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	358095
Region:	4
Order / Resolution Number:	SWB-2008-4-0070
Enforcement Action Type:	Admin Civil Liability
Effective Date:	07/15/2009
Adoption/Issuance Date:	07/15/2009
Achieve Date:	Not reported

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

Termination Date:	08/17/2009
ACL Issuance Date:	12/09/2008
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Expedited Payment Letter for Redman Equipment & Mfg Co
Description:	MMP Amount for Effluent Violations (4 Serious Violations) $3,000 = $12,000 to the Cleanup & Abatement Account
Program:	NPDESWW
Latest Milestone Completion Date:	8/17/2009
# Of Programs1:	1
Total Assessment Amount:	12000
Initial Assessed Amount:	12000
Liability $ Amount:	12000
Project $ Amount:	0
Liability $ Paid:	12000
Project $ Completed:	0
Total $ Paid/Completed Amount:	12000
Region:	4
Facility Id:	253949
Agency Name:	Redman Equipment & Manufacturing Company
Place Type:	Manufacturing
Place Subtype:	Manufacturing NEC
Facility Type:	Industrial
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	33.851866
Place Longitude:	-118.299227
SIC Code 1:	3443
SIC Desc 1:	Fabricated Plate Work (Boiler Shops)
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	0.052
Threat To Water Quality:	3
Complexity:	C
Pretreatment:	X - Facility is not a POTW
Facility Waste Type:	Stormwater runoff
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	NPDESWW
Program Category1:	NPDESWW
Program Category2:	NPDESWW
# Of Programs:	1
WDID:	4B192090001
Reg Measure Id:	147717
Reg Measure Type:	NPDES Permits

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

Region:	4
Order #:	00-065
Npdes# CA#:	CA0058726
Major-Minor:	Minor
Npdes Type:	OTH
Reclamation:	N - No
Dredge Fill Fee:	Not reported
301H:	N
Application Fee Amt Received:	Not reported
Status:	Historical
Status Date:	10/05/2005
Effective Date:	05/25/2000
Expiration/Review Date:	04/10/2005
Termination Date:	10/04/2005
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	306015
Region:	4
Order / Resolution Number:	NOV
Enforcement Action Type:	Notice of Violation
Effective Date:	05/19/2006
Adoption/Issuance Date:	05/19/2006
Achieve Date:	Not reported
Termination Date:	06/19/2006
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	CI 6465 NOV Redman Equipment (05/19/06)
Description:	NOV sent 05/19/06 to Redman Equipment and Manufacturing Company for 7 effluent violations, 6 reporting violations, inspection violations.
Program:	NPDESWW
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0

Region:	4
Facility Id:	253949
Agency Name:	Redman Equipment & Manufacturing Company
Place Type:	Manufacturing
Place Subtype:	Manufacturing NEC
Facility Type:	Industrial
Agency Type:	Privately-Owned Business

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

# Of Agencies:	1
Place Latitude:	33.851866
Place Longitude:	-118.299227
SIC Code 1:	3443
SIC Desc 1:	Fabricated Plate Work (Boiler Shops)
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	0.052
Threat To Water Quality:	3
Complexity:	C
Pretreatment:	X - Facility is not a POTW
Facility Waste Type:	Stormwater runoff
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	NPDESWW
Program Category1:	NPDESWW
Program Category2:	NPDESWW
# Of Programs:	1
WDID:	4B192090001
Reg Measure Id:	147717
Reg Measure Type:	NPDES Permits
Region:	4
Order #:	00-065
Npdes# CA#:	CA0058726
Major-Minor:	Minor
Npdes Type:	OTH
Reclamation:	N - No
Dredge Fill Fee:	Not reported
301H:	N
Application Fee Amt Received:	Not reported
Status:	Historical
Status Date:	10/05/2005
Effective Date:	05/25/2000
Expiration/Review Date:	04/10/2005
Termination Date:	10/04/2005
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	230341

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

Region:	4
Order / Resolution Number:	NOV
Enforcement Action Type:	Notice of Violation
Effective Date:	04/24/2000
Adoption/Issuance Date:	04/24/2000
Achieve Date:	Not reported
Termination Date:	05/24/2000
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	CI 6465 NOV Redman Equipment (04/24/00)
Description:	Notice of Violation sent 4/24/00 for effluent violations.
Program:	NPDESWW
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0

Region:	4
Facility Id:	253949
Agency Name:	Redman Equipment & Manufacturing Company
Place Type:	Manufacturing
Place Subtype:	Manufacturing NEC
Facility Type:	Industrial
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	33.851866
Place Longitude:	-118.299227
SIC Code 1:	3443
SIC Desc 1:	Fabricated Plate Work (Boiler Shops)
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	0.052
Threat To Water Quality:	3
Complexity:	C
Pretreatment:	X - Facility is not a POTW
Facility Waste Type:	Stormwater runoff
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	NPDESWW
Program Category1:	NPDESWW

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

Program Category2:	NPDESWW
# Of Programs:	1
WDID:	4B192090001
Reg Measure Id:	147717
Reg Measure Type:	NPDES Permits
Region:	4
Order #:	00-065
Npdes# CA#:	CA0058726
Major-Minor:	Minor
Npdes Type:	OTH
Reclamation:	N - No
Dredge Fill Fee:	Not reported
301H:	N
Application Fee Amt Received:	Not reported
Status:	Historical
Status Date:	10/05/2005
Effective Date:	05/25/2000
Expiration/Review Date:	04/10/2005
Termination Date:	10/04/2005
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	228740
Region:	4
Order / Resolution Number:	R4-2000-0187R
Enforcement Action Type:	Admin Civil Liability
Effective Date:	01/12/2001
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	01/29/2001
ACL Issuance Date:	01/12/2001
EPL Issuance Date:	Not reported
Status:	Historical
Title:	CI 6465 MMP R4-2000-0187R (01/12/01)
Description:	Complaint No. 00-187R for $6,000 was issued 1/12/01 for effluent violations, replacing Complaint No. 00-187.
Program:	NPDESWW
Latest Milestone Completion Date:	12/12/2002
# Of Programs1:	1
Total Assessment Amount:	6000
Initial Assessed Amount:	0
Liability $ Amount:	3000
Project $ Amount:	0
Liability $ Paid:	3000
Project $ Completed:	0
Total $ Paid/Completed Amount:	6000
Region:	4
Facility Id:	253949
Agency Name:	Redman Equipment & Manufacturing Company

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

Place Type:	Manufacturing
Place Subtype:	Manufacturing NEC
Facility Type:	Industrial
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	33.851866
Place Longitude:	-118.299227
SIC Code 1:	3443
SIC Desc 1:	Fabricated Plate Work (Boiler Shops)
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	0.052
Threat To Water Quality:	3
Complexity:	C
Pretreatment:	X - Facility is not a POTW
Facility Waste Type:	Stormwater runoff
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	NPDESWW
Program Category1:	NPDESWW
Program Category2:	NPDESWW
# Of Programs:	1
WDID:	4B192090001
Reg Measure Id:	147717
Reg Measure Type:	NPDES Permits
Region:	4
Order #:	00-065
Npdes# CA#:	CA0058726
Major-Minor:	Minor
Npdes Type:	OTH
Reclamation:	N - No
Dredge Fill Fee:	Not reported
301H:	N
Application Fee Amt Received:	Not reported
Status:	Historical
Status Date:	10/05/2005
Effective Date:	05/25/2000
Expiration/Review Date:	04/10/2005
Termination Date:	10/04/2005
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	228359
Region:	4
Order / Resolution Number:	R4-2000-0187
Enforcement Action Type:	Admin Civil Liability
Effective Date:	12/15/2000
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	01/11/2001
ACL Issuance Date:	12/15/2000
EPL Issuance Date:	Not reported
Status:	Withdrawn
Title:	CI 6465 MMP R4-2000-0187 (12/15/00)
Description:	Complaint No. 00-187 for $9,000 issued 12/15/00 for effluent violations.
Program:	NPDESWW
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0

Region:	4
Facility Id:	253949
Agency Name:	Redman Equipment & Manufacturing Company
Place Type:	Manufacturing
Place Subtype:	Manufacturing NEC
Facility Type:	Industrial
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	33.851866
Place Longitude:	-118.299227
SIC Code 1:	3443
SIC Desc 1:	Fabricated Plate Work (Boiler Shops)
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	0.052
Threat To Water Quality:	3
Complexity:	C
Pretreatment:	X - Facility is not a POTW
Facility Waste Type:	Stormwater runoff

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	NPDESWW
Program Category1:	NPDESWW
Program Category2:	NPDESWW
# Of Programs:	1
WDID:	4B192090001
Reg Measure Id:	147717
Reg Measure Type:	NPDES Permits
Region:	4
Order #:	00-065
Npdes# CA#:	CA0058726
Major-Minor:	Minor
Npdes Type:	OTH
Reclamation:	N - No
Dredge Fill Fee:	Not reported
301H:	N
Application Fee Amt Received:	Not reported
Status:	Historical
Status Date:	10/05/2005
Effective Date:	05/25/2000
Expiration/Review Date:	04/10/2005
Termination Date:	10/04/2005
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	227692
Region:	4
Order / Resolution Number:	NNC
Enforcement Action Type:	Staff Enforcement Letter
Effective Date:	07/13/1999
Adoption/Issuance Date:	07/13/1999
Achieve Date:	Not reported
Termination Date:	08/13/1999
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	CI 6465 NNC Redman Equipment (07/13/99)
Description:	Notice of Noncompliance letter sent 7/13/99.
Program:	NPDESWW
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

Region:	4
Facility Id:	253949
Agency Name:	Redman Equipment & Manufacturing Company
Place Type:	Manufacturing
Place Subtype:	Manufacturing NEC
Facility Type:	Industrial
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	33.851866
Place Longitude:	-118.299227
SIC Code 1:	3443
SIC Desc 1:	Fabricated Plate Work (Boiler Shops)
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	0.052
Threat To Water Quality:	3
Complexity:	C
Pretreatment:	X - Facility is not a POTW
Facility Waste Type:	Stormwater runoff
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	NPDNONMUNIPRCS
Program Category1:	NPDESWW
Program Category2:	NPDESWW
# Of Programs:	1
WDID:	4B192090001
Reg Measure Id:	297455
Reg Measure Type:	NPDES Permits
Region:	4
Order #:	R4-2005-0066
Npdes# CA#:	CA0058726
Major-Minor:	Minor
Npdes Type:	OTH
Reclamation:	N - No
Dredge Fill Fee:	Not reported
301H:	N
Application Fee Amt Received:	Not reported
Status:	Historical
Status Date:	01/28/2014
Effective Date:	11/05/2005
Expiration/Review Date:	09/10/2010
Termination Date:	08/31/2011
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	15 - WDRs pending rescission
Direction/Voice:	Passive
Enforcement Id(EID):	373360
Region:	4
Order / Resolution Number:	R4-2010-0017-M
Enforcement Action Type:	Admin Civil Liability
Effective Date:	02/18/2010
Adoption/Issuance Date:	01/19/2011
Achieve Date:	Not reported
Termination Date:	01/28/2011
ACL Issuance Date:	Not reported
EPL Issuance Date:	02/18/2010
Status:	Historical
Title:	EPL R4-2010-0017-M issued 2/18/10 for 6 effluent violations CI 6465
Description:	EPL R4-2010-0017-M for $18,000 issued 2/18/10 for 8 effluent violations (6 MMP). On 11/01/10 the penalty was revised to $30,000 for 13 effluent violations (10 MMPs). On 12/07/10 the penalty was revised to $15,000 for 13 effluent violations (5 MMPs)
Program:	NPDNONMUNIPRCS
Latest Milestone Completion Date:	1/28/2011
# Of Programs1:	1
Total Assessment Amount:	15000
Initial Assessed Amount:	18000
Liability $ Amount:	15000
Project $ Amount:	0
Liability $ Paid:	15000
Project $ Completed:	0
Total $ Paid/Completed Amount:	15000

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	I-06699

NPDES:

Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	4
Regulatory Measure Id:	419881
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	4 19I023318
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	09/07/2011
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Redman Equipment Manufacturing Co

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

Discharge Address:	19800 Normandie Ave
Discharge City:	Torrance
Discharge State:	California
Discharge Zip:	90502
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	4
Regulatory Measure Id:	419881
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	4 19I023318
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	9/7/2011
PROCESSED DATE:	9/7/2011
STATUS CODE NAME:	Active
STATUS DATE:	9/7/2011
PLACE SIZE:	3.1
PLACE SIZE UNIT:	52
FACILITY CONTACT NAME:	Ken Regopoulos
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	310-329-1134
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Redman Equipment & Manufacturing Co
OPERATOR ADDRESS:	19800 Normandie Ave
OPERATOR CITY:	Torrance
OPERATOR STATE:	California
OPERATOR ZIP:	90502
OPERATOR CONTACT NAME:	Ken Regopoulos
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	310-329-1134
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported

REDMAN EQUIPMENT AND MANUFACTURING CO (Continued) **1000295487**

CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Dominguez Channel Estuary
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	3443-Fabricated Plate Work (Boiler Shops)
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

ECHO:

Envid:	1000295487
Registry ID:	110000902630
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110000902630

BE492 **AMOCO CHEMICAL CO.** **RESPONSE** **S106485924**
North **1225 WEST 196TH ST.** **ENVIROSTOR** **N/A**
1/2-1 **TORRANCE, CA 90502** **SLIC**
0.899 mi. **Cortese**
4746 ft. **Site 1 of 2 in cluster BE**

Relative:
Higher

Actual:
49 ft.

RESPONSE:

Facility ID:	19290155
Site Type:	State Response
Site Type Detail:	State Response or NPL
Acres:	2.1
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP, US EPA
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Joseph Cully
Supervisor:	Douglas Bautista
Division Branch:	Cleanup Cypress
Site Code:	401382
Site Mgmt. Req.:	NONE SPECIFIED
Assembly:	64
Senate:	35
Special Program Status:	Not reported
Status:	Active
Status Date:	02/01/2016
Restricted Use:	NO
Funding:	Not reported
Latitude:	33.85349
Longitude:	-118.2979
APN:	NONE SPECIFIED

AMOCO CHEMICAL CO. (Continued) **S106485924**

Past Use:	MANUFACTURING - OTHER
Potential COC :	* ORGANIC MONOMER WASTE, INCLUDING UNREACTED RESINS * EMPTY PESTICIDE CONTAINERS, 30 GALLONS OR MORE * UNSPECIFIED SOLVENT MIXTURES * WASTE OIL & MIXED OIL
Confirmed COC:	NONE SPECIFIED
Potential Description:	OTH, SOIL
Alias Name:	BRAND PLASTICS (1962-1964)
Alias Type:	Alternate Name
Alias Name:	110000475101
Alias Type:	EPA (FRS #)
Alias Name:	110009541503
Alias Type:	EPA (FRS #)
Alias Name:	SLT4L2141782
Alias Type:	GeoTracker Global ID
Alias Name:	401382
Alias Type:	Project Code (Site Code)
Alias Name:	19290155
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Discovery
Completed Date:	03/17/1980
Comments:	FACILITY IDENTIFIED IW SURVEY QUESTIONNAIRE 12580 QUESTIONNAIRE RECEIVED
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	08/27/1992
Comments:	This document was submitted to the Water Board by Amoco Corporation on August 27, 1992.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	11/10/1988
Comments:	Report sent to the Water Board on November 10, 1988 by consultants for Amoco Corporation.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	05/29/1990
Comments:	Amoco Chemical Company’s consultant sent this report to Amoco on May 29, 1990.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Correspondence
Completed Date:	09/28/2007
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Correspondence
Completed Date:	07/16/2007

AMOCO CHEMICAL CO. (Continued) **S106485924**

Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/04/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 01/16/2008
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/25/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 04/30/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 03/29/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 01/10/2008
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 12/12/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 07/13/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 09/21/2007
Comments: Not reported

Future Area Name: Not reported

AMOCO CHEMICAL CO. (Continued) **S106485924**

Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 19290155
Status: Active
Status Date: 02/01/2016
Site Code: 401382
Site Type: State Response
Site Type Detailed: State Response or NPL
Acres: 2.1
NPL: NO
Regulatory Agencies: SMBRP, US EPA
Lead Agency: SMBRP
Program Manager: Joseph Cully
Supervisor: Douglas Bautista
Division Branch: Cleanup Cypress
Assembly: 64
Senate: 35
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 33.85349
Longitude: -118.2979
APN: NONE SPECIFIED
Past Use: MANUFACTURING - OTHER
Potential COC: * ORGANIC MONOMER WASTE, INCLUDING UNREACTED RESINS * EMPTY PESTICIDE CONTAINERS, 30 GALLONS OR MORE * UNSPECIFIED SOLVENT MIXTURES * WASTE OIL & MIXED OIL
Confirmed COC: NONE SPECIFIED
Potential Description: OTH, SOIL
Alias Name: BRAND PLASTICS (1962-1964)
Alias Type: Alternate Name
Alias Name: 110000475101
Alias Type: EPA (FRS #)
Alias Name: 110009541503
Alias Type: EPA (FRS #)
Alias Name: SLT4L2141782
Alias Type: GeoTracker Global ID
Alias Name: 401382
Alias Type: Project Code (Site Code)
Alias Name: 19290155
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 03/17/1980
Comments: FACILITY IDENTIFIED IW SURVEY QUESTIONNAIRE 12580 QUESTIONNAIRE

AMOCO CHEMICAL CO. (Continued) **S106485924**

RECEIVED

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 08/27/1992
Comments: This document was submitted to the Water Board by Amoco Corporation on August 27, 1992.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 11/10/1988
Comments: Report sent to the Water Board on November 10, 1988 by consultants for Amoco Corporation.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 05/29/1990
Comments: Amoco Chemical Company's consultant sent this report to Amoco on May 29, 1990.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 09/28/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 07/16/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/04/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 01/16/2008
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/25/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 04/30/2007

AMOCO CHEMICAL CO. (Continued) **S106485924**

Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 03/29/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 01/10/2008
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 12/12/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 07/13/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 09/21/2007
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SLIC:
Region: STATE
Facility Status: **Open - Site Assessment**
Status Date: 10/15/1999
Global Id: SLT4L2141782
Lead Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Lead Agency Case Number: 19290155
Latitude: 33.8365829171484
Longitude: -118.339320544477
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: Not reported
File Location: DTSC
Potential Media Affected: Not reported

AMOCO CHEMICAL CO. (Continued) **S106485924**

Potential Contaminants of Concern: Not reported
Site History: Case transferred to DTSC on 6/4/07.

Click here to access the California GeoTracker records for this facility:

CORTESE:

Region:	CORTESE
Envirostor Id:	19290155
Site/Facility Type:	STATE RESPONSE
Cleanup Status:	ACTIVE
Status Date:	02/01/2016
Site Code:	401382
Latitude:	33.853497
Longitude:	-118.29799
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	envirostor
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported

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493 **TRICO PACCAR** **ENVIROSTOR** **S101480853**
NNW **1206 WEST 196TH STREET** **SLIC** **N/A**
1/2-1 **TORRANCE, CA 90502** **VCP**
0.918 mi. **ENF**
4845 ft.

Relative:
Higher

Actual:
52 ft.

ENVIROSTOR:

Facility ID:	19350260
Status:	Refer: EPA
Status Date:	11/09/2010
Site Code:	401381
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	2.3
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	* Greg Holmes
Division Branch:	Cleanup Cypress
Assembly:	64
Senate:	35
Special Program:	Voluntary Cleanup Program
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	33.85225
Longitude:	-118.2983
APN:	NONE SPECIFIED
Past Use:	MANUFACTURING - OTHER
Potential COC:	Tetrachloroethylene (PCE Trichloroethylene (TCE 1,1-Dichloroethane

TRICO PACCAR (Continued) **S101480853**

1,1-Dichloroethylene 1,2-Dichloroethylene (cis
Confirmed COC: Tetrachloroethylene (PCE 1,1-Dichloroethane 1,2-Dichloroethylene
(cis Trichloroethylene (TCE 1,1-Dichloroethylene
Potential Description: SOIL
Alias Name: TRICO INDUSTRIAL INC
Alias Type: Alternate Name
Alias Name: CAD981450828
Alias Type: EPA Identification Number
Alias Name: 110002711469
Alias Type: EPA (FRS #)
Alias Name: 110033609682
Alias Type: EPA (FRS #)
Alias Name: SL2043X1574
Alias Type: GeoTracker Global ID
Alias Name: SL2043Y1575
Alias Type: GeoTracker Global ID
Alias Name: 401381
Alias Type: Project Code (Site Code)
Alias Name: 19350260
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 11/26/1982
Comments: FACILITY IDENTIFIED LA CHAM OF COMM BUS DIR 1966 OIL WELL TOOLS & SERVICE

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 11/06/2007
Comments: VCA signed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/24/2008
Comments: U.S. EPA's response to PACCAR's response to U.S. EPA's comments about groundwater.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/27/2008
Comments: U.S. EPA letter names PACCAR as a potentially responsible party for the Del Amo-Montrose joint groundwater contamination plume.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 10/15/2008
Comments: A memo was sent to the Cost Recovery Unit closing out the VCA and requesting a final statement. The Project Proponent has paid the final invoice.

Completed Area Name: PROJECT WIDE

TRICO PACCAR (Continued) **S101480853**

Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 05/01/1995
Comments: DATABASE VALIDATION PROGRAM CONFIRMS NFA FOR DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 08/14/2008
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 11/25/2008
Comments: DTSC will attend meeting.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 12/06/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 12/06/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 12/06/2010
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SLIC:
Region: STATE
Facility Status: **Open - Site Assessment**
Status Date: 04/30/2007
Global Id: SL2043Y1575
Lead Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Lead Agency Case Number: 19350260
Latitude: 33.8365829171484
Longitude: -118.339320544477
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported

TRICO PACCAR (Continued) **S101480853**

RB Case Number: Not reported
File Location: DTSC
Potential Media Affected: Not reported
Potential Contaminants of Concern: Not reported
Site History: Case transferred to DTSC on April 30, 2007 DTSC REFER: EPA AS OF 11/9/2010

Click here to access the California GeoTracker records for this facility:

VCP:
Facility ID: 19350260
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 2.3
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: * Greg Holmes
Division Branch: Cleanup Cypress
Site Code: 401381
Assembly: 64
Senate: 35
Special Programs Code: Voluntary Cleanup Program
Status: Refer: EPA
Status Date: 11/09/2010
Restricted Use: NO
Funding: Responsible Party
Lat/Long: 33.85225 / -118.2983
APN: NONE SPECIFIED
Past Use: MANUFACTURING - OTHER
Potential COC: 30022, 30027, 30192, 30194, 30195
Confirmed COC: 30022,30192,30195,30027,30194
Potential Description: SOIL
Alias Name: TRICO INDUSTRIAL INC
Alias Type: Alternate Name
Alias Name: CAD981450828
Alias Type: EPA Identification Number
Alias Name: 110002711469
Alias Type: EPA (FRS #)
Alias Name: 110033609682
Alias Type: EPA (FRS #)
Alias Name: SL2043X1574
Alias Type: GeoTracker Global ID
Alias Name: SL2043Y1575
Alias Type: GeoTracker Global ID
Alias Name: 401381
Alias Type: Project Code (Site Code)
Alias Name: 19350260
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery

TRICO PACCAR (Continued) **S101480853**

Completed Date: 11/26/1982
Comments: FACILITY IDENTIFIED LA CHAM OF COMM BUS DIR 1966 OIL WELL TOOLS & SERVICE

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 11/06/2007
Comments: VCA signed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/24/2008
Comments: U.S. EPA's response to PACCAR's response to U.S. EPA's comments about groundwater.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/27/2008
Comments: U.S. EPA letter names PACCAR as a potentially responsible party for the Del Amo-Montrose joint groundwater contamination plume.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 10/15/2008
Comments: A memo was sent to the Cost Recovery Unit closing out the VCA and requesting a final statement. The Project Proponent has paid the final invoice.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 05/01/1995
Comments: DATABASE VALIDATION PROGRAM CONFIRMS NFA FOR DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 08/14/2008
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 11/25/2008
Comments: DTSC will attend meeting.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 12/06/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE

TRICO PACCAR (Continued) **S101480853**

Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	12/06/2010
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	12/06/2010
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

ENF:

Region:	4
Facility Id:	609608
Agency Name:	Not reported
Place Type:	Manufacturing
Place Subtype:	Manufacturing NEC
Facility Type:	Not reported
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	Not reported
Place Longitude:	Not reported
SIC Code 1:	Not reported
SIC Desc 1:	Not reported
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	SLIC
Program Category1:	TANKS
Program Category2:	TANKS

TRICO PACCAR (Continued) **S101480853**

# Of Programs:	1
WDID:	4SLIC0428
Reg Measure Id:	315619
Reg Measure Type:	Unregulated
Region:	4
Order #:	SLIC case 0428 - Site inv
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	05/14/2013
Effective Date:	04/12/2002
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	315644
Region:	4
Order / Resolution Number:	SEL
Enforcement Action Type:	Staff Enforcement Letter
Effective Date:	05/18/2006
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	06/13/2002
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Notice of Noncompliance sent 5/18/06 for 13 overdue GW monitoring rpts.
Description:	Notice of Noncompliance sent 5/18/06 for 13 overdue groundwater monitoring reports between 2002-06.
Program:	SLIC
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0

BE494 **ECOLOGY CONTROL INDUSTRIES (ECI)** **ENVIROSTOR** **S105027085**
North **19500 NORMANDIE AVE** **SLIC** **N/A**
1/2-1 **TORRANCE, CA 90502** **VCP**
0.947 mi. **ENF**
4999 ft. **Site 2 of 2 in cluster BE** **HIST CORTESE**
MWMP

Relative:
Higher

Actual:
50 ft.

ENVIROSTOR:

Facility ID:	19280680
Status:	Refer: EPA
Status Date:	11/09/2010
Site Code:	401411
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	1.8
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Safouh Sayed
Supervisor:	Robert Senga
Division Branch:	Cleanup Cypress
Assembly:	64
Senate:	35
Special Program:	Voluntary Cleanup Program
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	33.8542
Longitude:	-118.2993
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	* HALOGENATED SOLVENTS * OXYGENATED SOLVENTS * Sludge - Paint * UNSPECIFIED SOLVENT MIXTURES * POLYMERIC RESIN WASTE
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	LAWSON CHEMICAL PRODUCTS CO
Alias Type:	Alternate Name
Alias Name:	Lawson Enterprises, Inc.
Alias Type:	Alternate Name
Alias Name:	MAJOR PAINT,SUBSIDIARY OF STANDARD BRAND
Alias Type:	Alternate Name
Alias Name:	SITE 1: ANDREWS PRE-FAB & CAL GYPSUM
Alias Type:	Alternate Name
Alias Name:	SITE 2: HEIDELBERG IMPORTER & SERVALL CO
Alias Type:	Alternate Name
Alias Name:	110002637246
Alias Type:	EPA (FRS #)
Alias Name:	SL0603771874
Alias Type:	GeoTracker Global ID
Alias Name:	CAD000300269
Alias Type:	HWTS Identification Code
Alias Name:	401411
Alias Type:	Project Code (Site Code)
Alias Name:	19280680
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Discovery

ECOLOGY CONTROL INDUSTRIES (ECI) (Continued) **S105027085**

Completed Date: 05/10/1982
Comments: FACILITY IDENTIFIED TELEPHONE BOOK SEARCH: ACTIVE COMPANY

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 04/25/1995
Comments: E&E FIT INSPECTIONN: SITE 1 (9500 NORMANDIE) COMPLETELY PAVED. SITE 2 (1277 KNOX) PAVED EXCEPT FOR 15x15' DIRT PATCH WHERE DRUMS WERE STORED. EXCAVATED SOIL WAS SIGNIFICANTLY CONTM'D. TANKS HAD STORED RECYCLED SOLVENT FIT RECOMMENDED SAMPLING. SITE GIVEN LOW PRIORITY UNDER CERCLA DUE TO LOW PRELIMINARY HRS SCORE. NFA FOR DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 12/14/1987
Comments: SITE SCREENING DONE VERIFICATION SAMPLING NEEDED/ SI MED

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 01/02/2009
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 02/07/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 12/10/2009
Comments: Second Cost Recovery Demand Letter Sent

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 03/29/2011
Comments: Reminder letter sent for unpaid invoice balances and unpaid invoice 10SM1589.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 05/04/2011
Comments: Second collection letter sent certified mail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 11/09/2009
Comments: Cost Recovery letter sent certified mail.

Completed Area Name: PROJECT WIDE

ECOLOGY CONTROL INDUSTRIES (ECI) (Continued) **S105027085**

Completed Sub Area Name: Not reported
Completed Document Type: Reimbursement Agreement
Completed Date: 12/23/2008
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 01/19/2010
Comments: Third Cost Recovery Demand Letter sent by certified mail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 07/20/2011
Comments: Close out memo sent to Cost Recovery.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 06/17/2011
Comments: Final Demand Letter sent by certified mail.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SLIC:
Region: STATE
Facility Status: **Open - Inactive**
Status Date: 01/30/2015
Global Id: SL0603771874
Lead Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Lead Agency Case Number: 19280680
Latitude: 33.853973
Longitude: -118.299247
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: Not reported
File Location: DTSC
Potential Media Affected: Aquifer used for drinking water supply
Potential Contaminants of Concern: Trichloroethylene (TCE)
Site History: Case transferred to DTSC on April 30, 2007

Click here to access the California GeoTracker records for this facility:

VCP:
Facility ID: 19280680
Site Type: Voluntary Cleanup

ECOLOGY CONTROL INDUSTRIES (ECI) (Continued) **S105027085**

Site Type Detail:	Voluntary Cleanup
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	1.8
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Safouh Sayed
Supervisor:	Robert Senga
Division Branch:	Cleanup Cypress
Site Code:	401411
Assembly:	64
Senate:	35
Special Programs Code:	Voluntary Cleanup Program
Status:	Refer: EPA
Status Date:	11/09/2010
Restricted Use:	NO
Funding:	Responsible Party
Lat/Long:	33.8542 / -118.2993
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	10003, 10067, 10179, 10198, 20015
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	LAWSON CHEMICAL PRODUCTS CO
Alias Type:	Alternate Name
Alias Name:	Lawson Enterprises, Inc.
Alias Type:	Alternate Name
Alias Name:	MAJOR PAINT,SUBSIDIARY OF STANDARD BRAND
Alias Type:	Alternate Name
Alias Name:	SITE 1: ANDREWS PRE-FAB & CAL GYPSUM
Alias Type:	Alternate Name
Alias Name:	SITE 2: HEIDELBERG IMPORTER & SERVALL CO
Alias Type:	Alternate Name
Alias Name:	110002637246
Alias Type:	EPA (FRS #)
Alias Name:	SL0603771874
Alias Type:	GeoTracker Global ID
Alias Name:	CAD000300269
Alias Type:	HWTS Identification Code
Alias Name:	401411
Alias Type:	Project Code (Site Code)
Alias Name:	19280680
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Discovery
Completed Date:	05/10/1982
Comments:	FACILITY IDENTIFIED TELEPHONE BOOK SEARCH: ACTIVE COMPANY
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening
Completed Date:	04/25/1995
Comments:	E&E FIT INSPECTIONN: SITE 1 (9500 NORMANDIE) COMPLETELY PAVED. SITE 2 (1277 KNOX) PAVED EXCEPT FOR 15x15' DIRT PATCH WHERE DRUMS WERE

ECOLOGY CONTROL INDUSTRIES (ECI) (Continued) **S105027085**

STORED. EXCAVATED SOIL WAS SIGNIFICANTLY CONTM'D. TANKS HAD STORED RECYCLED SOLVENT FIT RECOMMENDED SAMPLING. SITE GIVEN LOW PRIORITY UNDER CERCLA DUE TO LOW PRELIMINARY HRS SCORE. NFA FOR DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 12/14/1987
Comments: SITE SCREENING DONE VERIFICATION SAMPLING NEEDED/ SI MED

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 01/02/2009
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 02/07/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 12/10/2009
Comments: Second Cost Recovery Demand Letter Sent

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 03/29/2011
Comments: Reminder letter sent for unpaid invoice balances and unpaid invoice 10SM1589.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 05/04/2011
Comments: Second collection letter sent certified mail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 11/09/2009
Comments: Cost Recovery letter sent certified mail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Reimbursement Agreement
Completed Date: 12/23/2008
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 01/19/2010

ECOLOGY CONTROL INDUSTRIES (ECI) (Continued) **S105027085**

Comments:	Third Cost Recovery Demand Letter sent by certified mail.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	07/20/2011
Comments:	Close out memo sent to Cost Recovery.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Letter - Demand
Completed Date:	06/17/2011
Comments:	Final Demand Letter sent by certified mail.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

ENF:

Region:	4
Facility Id:	223375
Agency Name:	Ecology Control Industries
Place Type:	Service/Commercial
Place Subtype:	Service/Commercial Site, NEC
Facility Type:	All other facilities
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	33.853728
Place Longitude:	-118.299245
SIC Code 1:	4212
SIC Desc 1:	Local Trucking Without Storage
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported

ECOLOGY CONTROL INDUSTRIES (ECI) (Continued) **S105027085**

Program:	SLIC
Program Category1:	TANKS
Program Category2:	TANKS
# Of Programs:	1
WDID:	4SLIC1169
Reg Measure Id:	315696
Reg Measure Type:	Unregulated
Region:	4
Order #:	SLIC case 1169 - Site inv
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	05/14/2013
Effective Date:	01/18/2005
Expiration/Review Date:	Not reported
Termination Date:	05/26/2006
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	315699
Region:	4
Order / Resolution Number:	SEL
Enforcement Action Type:	Staff Enforcement Letter
Effective Date:	05/26/2006
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	06/13/2002
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Notice of Noncompliance sent 5/26/06 for 5 overdue monitoring reports.
Description:	Notice of Noncompliance sent 5/26/06 for 5 overdue monitoring reports & investigation report.
Program:	SLIC
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0

ECOLOGY CONTROL INDUSTRIES (ECI) (Continued) **S105027085**

HIST CORTESE:
- Region: CORTESE
- Facility County Code: 19
- Reg By: CALSI
- Reg Id: 19280680

MWMP:
- Facility Type: CURRENT MEDICAL WASTE TRANSPORTERS - August 23, 2016
- Contact Name: Not reported
- Contact Phone: 310-354-9999
- Registration Number: 1533

---

495 North 1/2-1 0.981 mi. 5180 ft.

SUNTHETIC RUBBER PLANT **ENVIROSTOR** **S107737422**
TORRANCE, CA **N/A**

Relative: Higher

Actual: 43 ft.

ENVIROSTOR:
- Facility ID: 80000849
- Status: Inactive - Needs Evaluation
- Status Date: 07/01/2005
- Site Code: Not reported
- Site Type: Military Evaluation
- Site Type Detailed: FUDS
- Acres: Not reported
- NPL: NO
- Regulatory Agencies: SMBRP
- Lead Agency: SMBRP
- Program Manager: Not reported
- Supervisor: Douglas Bautista
- Division Branch: Cleanup Cypress
- Assembly: 64
- Senate: 35
- Special Program: Not reported
- Restricted Use: NO
- Site Mgmt Req: NONE SPECIFIED
- Funding: DERA
- Latitude: 33.85555
- Longitude: -118.2958
- APN: NONE SPECIFIED
- Past Use: NONE SPECIFIED
- Potential COC: NONE SPECIFIED
- Confirmed COC: NONE SPECIFIED
- Potential Description: NONE SPECIFIED
- Alias Name: CA99799F997000
- Alias Type: Federal Facility ID
- Alias Name: J09CA7147
- Alias Type: INPR
- Alias Name: 80000849
- Alias Type: Envirostor ID Number

Completed Info:
- Completed Area Name: Not reported
- Completed Sub Area Name: Not reported
- Completed Document Type: Not reported
- Completed Date: Not reported

SUNTHETIC RUBBER PLANT (Continued) **S107737422**

Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

Count: 23 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CARSON	S111076076	S. C. EVANS	433 WEST 164TH STREET		SWF/LF
CARSON	S106387025	CITY OF CARSON - STADEL PROPERTY	643 223RD	90745	SLIC
CARSON	S111075911	GARDENA VALLEY #1 & #2	415 - 425 WEST TORRANCE BOULEV	90745	SWF/LF
CARSON	S105960467	GARDENA VALLEY LANDFILL NOS. 1 AND	BLOCK BOUNDED BY DEL AMO BLVD,	90745	CA BOND EXP. PLAN
CARSON	S111075962	KATZ DUMP	18401 SOUTH BROADWAY		SWF/LF
CARSON	S101272751	GARDENA VALLEY LANDFILL 1 & 2	BTW DEL AMO,TORRANCE,MAIN,FIGU	90745	ENVIROSTOR, VCP, HIST Cal-Sites, DEED
CARSON	S105033723	COMET GAS STATION	101 CARSON ST W	90745	LUST
CARSON	S105047493	DOMINGUEZ ENERGY REYES LEASE - ARE	CENTRAL	90746	SLIC
CARSON	S111075800	BROWN DUMP	18601 SOUTH FIGUEROA STREET		SWF/LF
CARSON	S111075996	MARTIN HALLEMAN	18930 SOUTH FIGUEROA STREET		SWF/LF
CARSON	S100833322	GOLDEN EAGLE REFINERY	2100 SOUTH FIGUEROA STREET	90745	CA BOND EXP. PLAN
CARSON	S111076107	SOUTHWEST STEEL ROLLING MILLS #1	19100 SOUTH GIGUEROA STREET		SWF/LF
CARSON	S101480710	TED HAMMETT (CARSON)	EAST OF ALAMEDA & NORTH OF SEP	90745	ENVIROSTOR
CARSON	S103878691	CITY OF CARSON	SHEARER	90745	SLIC
CARSON	S111075957	K & S RUBBISH	26300 SOUTH VERMONT AVENUE		SWF/LF
CARSON	S118757287	NORTH CARSON AREA SITE DISCOVERY P	VICINITY OF I-405 FREEWAY AND	90745	ENVIROSTOR
COMPTON	S111076069	ROSE WILLIAMS LANDFILL	13914-13918 SOUTH MAIN STREET	90248	SWF/LF
HARBOR CITY	S107537346		979 WEST 254TH ST	90710	CDL
LOS ANGELES	S111076155	VERMONT AVENUE & KNOX STREET DUMP	19240 VERMONT AVENUE	90502	SWF/LF
TORRANCE	S111075930	GREEN HOG RANCH	2200 EAST BERYL STREET		SWF/LF
TORRANCE	S105960461	DEL AMO BOULEVARD	DEL AMO BOULEVARD, BETWEEN VER	90502	CA BOND EXP. PLAN
TORRANCE	S118757504	NORTHROP GRUMMAN CORPORATION (K3)	2203 DOMINGUEZ AVE	90501	ENVIROSTOR
TORRANCE	S111076071	ROYAL BOULEVARD LAND RECLAMATION S	20925 SOUTH ROYAL BOULEVARD		SWF/LF

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 10/05/2016
Next Scheduled EDR Contact: 01/16/2017
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 10/05/2016
Next Scheduled EDR Contact: 01/16/2017
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 10/05/2016
Next Scheduled EDR Contact: 01/16/2017
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 09/14/2016
Date Data Arrived at EDR: 10/04/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 17

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 10/04/2016
Next Scheduled EDR Contact: 01/16/2017
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 10

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 10/20/2016
Next Scheduled EDR Contact: 01/30/2017
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 10

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 10/20/2016
Next Scheduled EDR Contact: 01/30/2017
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/27/2016
Date Data Arrived at EDR: 06/30/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 64

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/28/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/21/2016
Date Data Arrived at EDR: 06/30/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/28/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/21/2016
Date Data Arrived at EDR: 06/30/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/28/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/21/2016
Date Data Arrived at EDR: 06/30/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/28/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/21/2016
Date Data Arrived at EDR: 06/30/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/28/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 13

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 10/14/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 05/09/2016
Date Data Arrived at EDR: 06/01/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 93

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/31/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 05/09/2016
Date Data Arrived at EDR: 06/01/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 93

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/31/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/28/2016
Date Data Arrived at EDR: 03/30/2016
Date Made Active in Reports: 05/20/2016
Number of Days to Update: 51

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 09/29/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 08/01/2016
Date Data Arrived at EDR: 08/02/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 64

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/01/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 08/01/2016
Date Data Arrived at EDR: 08/02/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 64

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/01/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 08/15/2016
Date Data Arrived at EDR: 08/16/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 50

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 08/16/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/13/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 31

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 11/01/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 12/11/2015
Date Data Arrived at EDR: 02/19/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 105

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/09/2015
Date Data Arrived at EDR: 02/12/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 112
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/13/2015
Date Data Arrived at EDR: 10/23/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 118
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 02/25/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/27/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 02/17/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 02/05/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 35
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Semi-Annually

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/13/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 31

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 11/01/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22
Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35
Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 10/11/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 09/14/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69
Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Quarterly

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/05/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 52
Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 02/05/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 35
Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67
Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/25/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 12/03/2015
Date Data Arrived at EDR: 02/04/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 120

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Semi-Annually

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 01/26/2016
Date Data Arrived at EDR: 02/05/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 119

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 65

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 08/01/2016
Date Data Arrived at EDR: 08/02/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 64

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/01/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 02/29/2016
Date Data Arrived at EDR: 03/07/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 58

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/21/2016
Date Data Arrived at EDR: 06/22/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/21/2016
Next Scheduled EDR Contact: 01/02/2017
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/14/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 08/25/2016
Date Data Arrived at EDR: 08/26/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 49
Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 08/10/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52
Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137
Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39
Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176
Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 11/04/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 08/31/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 17
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/31/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21
Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 08/01/2016
Date Data Arrived at EDR: 08/02/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 64
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/01/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 05/10/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 38
Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27
Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 17
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/31/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/22/2016
Date Data Arrived at EDR: 09/27/2016
Date Made Active in Reports: 10/20/2016
Number of Days to Update: 23

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 09/12/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 08/25/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 09/02/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 09/06/2016
Date Data Arrived at EDR: 09/07/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 37

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 09/07/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/27/2016
Date Data Arrived at EDR: 06/28/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 87

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 09/27/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 06/03/2016
Date Data Arrived at EDR: 07/26/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 59

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 10/26/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/13/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 31

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 11/01/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/13/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 31

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 11/01/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/21/2016
Date Data Arrived at EDR: 06/30/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/28/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Varies

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 09/09/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/14/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/14/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 10/20/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 07/12/2016
Date Data Arrived at EDR: 08/17/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 65

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 11/08/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 09/06/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/23/2016
Next Scheduled EDR Contact: 01/02/2017
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 133
Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 08/26/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77
Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74
Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 09/09/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 05/01/2016
Date Data Arrived at EDR: 05/26/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 99
Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 07/25/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35
Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 01/20/2016
Date Data Arrived at EDR: 04/28/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 127
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 10/14/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/27/2016
Date Data Arrived at EDR: 08/05/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 77
Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 10/11/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 09/09/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 09/06/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/03/2016
Date Data Arrived at EDR: 10/05/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 16
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 10/05/2016
Next Scheduled EDR Contact: 01/16/2017
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 11/02/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 03/31/2016
Date Data Arrived at EDR: 08/01/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 53

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 08/26/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/14/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 07/21/2016
Date Data Arrived at EDR: 07/26/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 59

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 11/08/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 09/09/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 04/07/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 148

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 10/20/2016
Next Scheduled EDR Contact: 01/16/2017
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 06/30/2016
Date Data Arrived at EDR: 07/25/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 88

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 06/30/2016
Date Data Arrived at EDR: 07/25/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 88

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/05/2016
Date Data Arrived at EDR: 09/01/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 22

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 09/01/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 09/02/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 09/02/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: Varies

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/20/2015
Date Data Arrived at EDR: 09/09/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 55

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 09/07/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/03/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 91

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 08/24/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2015
Date Data Arrived at EDR: 01/29/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 67

Source: Department of Defense
Telephone: 571-373-0407
Last EDR Contact: 10/17/2016
Next Scheduled EDR Contact: 01/30/2017
Data Release Frequency: Varies

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 06/27/2016
Date Data Arrived at EDR: 06/28/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 51

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 09/27/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 37

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 09/02/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 09/23/2016
Date Made Active in Reports: 10/24/2016
Number of Days to Update: 31

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 09/23/2016
Next Scheduled EDR Contact: 01/02/2017
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 08/22/2016
Date Data Arrived at EDR: 08/24/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 42

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 04/25/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 53

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 11/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 08/10/2016
Date Data Arrived at EDR: 08/15/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 51

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 08/10/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 10/14/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 58

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 10/12/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Annually

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 08/22/2016
Date Data Arrived at EDR: 08/23/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 43

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/23/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 07/11/2016
Date Data Arrived at EDR: 07/13/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 36

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 10/12/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 09/14/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Varies

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 09/06/2016
Date Data Arrived at EDR: 09/07/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 37

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 09/07/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 05/16/2016
Date Data Arrived at EDR: 05/18/2016
Date Made Active in Reports: 06/23/2016
Number of Days to Update: 36

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 08/16/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 09/06/2016
Date Data Arrived at EDR: 09/07/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 37

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 09/07/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/14/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 09/10/2015
Date Data Arrived at EDR: 01/05/2016
Date Made Active in Reports: 02/12/2016
Number of Days to Update: 38

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 09/19/2016
Next Scheduled EDR Contact: 01/02/2017
Data Release Frequency: No Update Planned

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 09/14/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water board?s review found that more than one-third of the region?s active disposal pits are operating without permission.

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 10/14/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Quarterly

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 09/23/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/22/2016
Date Data Arrived at EDR: 08/23/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 59

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 08/23/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Quarterly

ICE: ICE
Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 08/22/2016
Date Data Arrived at EDR: 08/23/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 43

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 08/23/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Quarterly

ABANDONED MINES: Abandoned Mines
An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 06/09/2016
Date Data Arrived at EDR: 06/13/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 81

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/12/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information
ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/18/2016
Date Data Arrived at EDR: 09/20/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 09/20/2016
Next Scheduled EDR Contact: 01/02/2017
Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 07/07/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 37

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 10/07/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 07/07/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 08/08/2016
Number of Days to Update: 27

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 10/07/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 08/22/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 09/02/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/03/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 18

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 07/20/2016
Date Data Arrived at EDR: 07/25/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 60

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 09/02/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 08/22/2016
Date Data Arrived at EDR: 08/24/2016
Date Made Active in Reports: 10/10/2016
Number of Days to Update: 47

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 04/08/2016
Date Data Arrived at EDR: 05/03/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 50

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 05/24/2016
Date Data Arrived at EDR: 05/26/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 75

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 07/13/2016
Date Data Arrived at EDR: 07/19/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 21

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 09/29/2016
Next Scheduled EDR Contact: 01/16/2017
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/08/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 41

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 10/13/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 07/25/2016
Date Data Arrived at EDR: 07/26/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 59

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing

Kern County Sites and Tanks Listing.

Date of Government Version: 08/04/2016
Date Data Arrived at EDR: 08/08/2016
Date Made Active in Reports: 10/18/2016
Number of Days to Update: 71

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 05/25/2016
Date Data Arrived at EDR: 05/27/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 26

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 09/29/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 09/08/2016
Date Data Arrived at EDR: 09/09/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 35

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 10/17/2016
Next Scheduled EDR Contact: 01/30/2017
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 09/19/2016
Next Scheduled EDR Contact: 01/02/2017
Data Release Frequency: No Update Planned

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 07/05/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 37

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 07/15/2016
Date Data Arrived at EDR: 07/19/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 78

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 10/18/2016
Next Scheduled EDR Contact: 01/30/2017
Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2016
Date Data Arrived at EDR: 01/26/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 56

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 10/17/2016
Next Scheduled EDR Contact: 01/30/2017
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 03/29/2016
Date Data Arrived at EDR: 04/06/2016
Date Made Active in Reports: 06/13/2016
Number of Days to Update: 68
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 10/17/2016
Next Scheduled EDR Contact: 01/30/2017
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/13/2015
Number of Days to Update: 11
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 10/17/2016
Next Scheduled EDR Contact: 01/30/2017
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 11/04/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 34
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 06/23/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 28
Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 10/07/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/18/2016
Date Data Arrived at EDR: 08/22/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 32
Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 04/07/2016
Date Data Arrived at EDR: 04/26/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 36
Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 09/29/2016
Next Scheduled EDR Contact: 01/16/2017
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 08/17/2016
Date Data Arrived at EDR: 08/22/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 32

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List
CUPA Facility List

Date of Government Version: 08/29/2016
Date Data Arrived at EDR: 08/31/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 44

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 08/24/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/24/2016
Date Data Arrived at EDR: 06/27/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 43

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 08/22/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/24/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/24/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 07/25/2016
Date Data Arrived at EDR: 08/01/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 53

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 08/01/2016
Date Data Arrived at EDR: 08/15/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 51

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 08/03/2016
Date Data Arrived at EDR: 08/15/2016
Date Made Active in Reports: 10/07/2016
Number of Days to Update: 53

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 08/01/2016
Date Data Arrived at EDR: 08/09/2016
Date Made Active in Reports: 10/11/2016
Number of Days to Update: 63

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/08/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 09/02/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 09/02/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 06/13/2016
Date Data Arrived at EDR: 07/18/2016
Date Made Active in Reports: 10/07/2016
Number of Days to Update: 81

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/19/2016
Next Scheduled EDR Contact: 01/02/2017
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 07/13/2016
Date Data Arrived at EDR: 07/18/2016
Date Made Active in Reports: 08/08/2016
Number of Days to Update: 21

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/19/2016
Next Scheduled EDR Contact: 01/02/2017
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 05/02/2016
Date Data Arrived at EDR: 07/06/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 43

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/04/2016
Next Scheduled EDR Contact: 01/16/2017
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 05/02/2016
Date Data Arrived at EDR: 07/06/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 43

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/04/2016
Next Scheduled EDR Contact: 01/16/2017
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 09/06/2016
Date Data Arrived at EDR: 09/07/2016
Date Made Active in Reports: 10/19/2016
Number of Days to Update: 42

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database
The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/23/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 10/17/2013
Number of Days to Update: 23

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Quarterly

Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58
Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24
Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 09/02/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10
Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5
Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 11/04/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 09/21/2016
Date Data Arrived at EDR: 09/22/2016
Date Made Active in Reports: 10/18/2016
Number of Days to Update: 26
Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 09/19/2016
Next Scheduled EDR Contact: 01/02/2017
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 08/18/2016
Date Data Arrived at EDR: 08/22/2016
Date Made Active in Reports: 10/04/2016
Number of Days to Update: 43
Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/07/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 15
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/12/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 06/09/2016
Date Data Arrived at EDR: 06/13/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 57
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/12/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28
Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 08/17/2016
Date Data Arrived at EDR: 08/22/2016
Date Made Active in Reports: 10/04/2016
Number of Days to Update: 43
Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22
Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13
Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 08/24/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 08/03/2016
Date Data Arrived at EDR: 08/08/2016
Date Made Active in Reports: 10/07/2016
Number of Days to Update: 60

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 08/17/2016
Date Data Arrived at EDR: 08/22/2016
Date Made Active in Reports: 10/04/2016
Number of Days to Update: 43

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/15/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 29

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 08/22/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/09/2016
Date Data Arrived at EDR: 06/13/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 57

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 09/29/2016
Date Made Active in Reports: 10/18/2016
Number of Days to Update: 19

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 07/10/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 28

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 07/01/2016
Date Data Arrived at EDR: 07/05/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 44

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/07/2016
Date Made Active in Reports: 06/23/2016
Number of Days to Update: 16

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 09/02/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 08/12/2016
Date Data Arrived at EDR: 08/16/2016
Date Made Active in Reports: 10/04/2016
Number of Days to Update: 49

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 06/28/2016
Date Data Arrived at EDR: 08/01/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 53

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/29/2016
Next Scheduled EDR Contact: 01/16/2017
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 08/10/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: Quarterly

Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 06/28/2016
Date Data Arrived at EDR: 08/01/2016
Date Made Active in Reports: 10/07/2016
Number of Days to Update: 67
Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 08/29/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/11/2016
Number of Days to Update: 27
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/14/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 06/30/2016
Date Data Arrived at EDR: 08/24/2016
Date Made Active in Reports: 10/11/2016
Number of Days to Update: 48
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 01/16/2017
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 08/03/2016
Date Data Arrived at EDR: 08/05/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 61
Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 08/10/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/17/2015
Date Made Active in Reports: 08/12/2015
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 10/12/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 08/01/2016
Date Data Arrived at EDR: 08/03/2016
Date Made Active in Reports: 09/09/2016
Number of Days to Update: 37

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 11/02/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/24/2015
Date Made Active in Reports: 08/18/2015
Number of Days to Update: 25

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 10/14/2016
Next Scheduled EDR Contact: 01/30/2017
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 09/20/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 04/14/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 50

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/12/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

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Appendix G Storm Water Study

Appendices

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Report

West Carson Storm Water Area Study

West Carson TOD Specific Plan

Prepared
by IBI Group

August 13, 2017

1 Storm Water

1.1 Introduction

This technical memorandum analyzes potential environmental impacts on utilities and storm systems for the West Carson Transit Oriented Development (TOD) Specific Plan area. It documents the results of the analysis, as well as recommended infrastructure upgrades and proposed mitigation measures in order to support the proposed land use changes identified in the West Carson TOD Specific Plan. The results of the analysis are based on data obtained from the West Carson TOD Specific Plan, as well as from the Los Angeles County Department of Public Works (DPW), Los Angeles County Sanitation District (LACSD), and private utility purveyors.

1.2 Site Description

The Specific Plan area encompasses the Harbor-UCLA Medical Center and is bounded by Torrance Boulevard and the 208th Street flood control channel to the north, the Interstate 110 (I-110) freeway to the east, Normandie Avenue to the west, and 223rd Street to the south. The Specific Plan area covers approximately 418 acres in West Carson, including land within a half-mile radius to the west of the Carson Metro Bus Station, a bus rapid transit stop. Two elementary schools are in the area, as well as approximately 140 acres of residential uses.

1.3 Description of Existing Storm Sewer System

Los Angeles County owns and operates the storm drain system within the Specific Plan area. Runoff is managed by a combination of open and closed channels that are split into two drainage streams. The first is drainage that runs north and east as part of the 208th Street drain, which eventually joins the Dominguez Channel. The second runs south and east into Line A, eventually draining into the Wilmington Drain. Both have surface runoff and catch basin runoff that feed into the channel and both are heavily dependent on upstream flows for capacities.

West Carson is not located in the flood zone of Los Angeles County, and is not included in FEMA's 100-year flood plain. A very small portion of the northeast boundary of the Specific Plan area is included in FEMA's "Areas of 0.2% annual chance flood."

1.4 Methodology

The analysis conducted in this section evaluates the impact on storm water systems caused by the additional impervious surfaces proposed by the Specific Plan. The Specific Plan proposes significant increases in land use density, however, a large area of pervious surface in the buildout will remain relatively unchanged. Land use in the Specific Plan area is already heavily developed, consisting of primarily fully impervious surfaces except for the land use associated with the Residential 1 zone. Full build out of the Specific Plan makes the Residential 1 zone less dense than existing conditions, which would increase storm water retainage capacity and decrease water entering the channels.

The existing land use zones are very similar to the proposed zones. Using the USDA's Natural Resources Conservation Service TR-55 runoff estimation method, these zones were delineated into coverage types and a curve number was determined to estimate a Plan area representative curve number. Roadways are included in the list, however since no changes are proposed to the roadways, they were not included in the total tabulation.

1.4.1 Existing

As soil groups are unknown, the hydrologic soil group for all curve numbers was selected from the 'A' soil type. The following zones and their respective curve numbers were identified for existing land use conditions:

- Residential 1 – Single Family Residence – A map-based examination with lot sizes was used to identify that the residences in this area are lot sizes of roughly 1/8 acre or less. The curve number used was 77.
- Residential 3 – Limited Multiple Residence – These are multiple residence living centers such as apartments which are more spread out than traditional high density apartment complexes. Some green spaces exist. Based on their open space, these were placed in the ½ acre lot residential district. The curve number used was 54.
- Residential 4 – Medium Density Multiple Residence – these are higher density living centers. Minimal greenspaces exist. Based on their open space, these are placed in the artificial landscape area. The curve number used was 96.
- RPD – Residential Planned Development – Planned development areas. Map based examination shows these are currently housed by 1/8 acre lot sizes. Curve number used is 77.
- A 1 – Light Agricultural – The area listed as light agricultural is shown to be housed by 1/8 acre town homes. Curve number used is 77.
- C 2 – Neighborhood Business – Businesses with minimal to no pervious area near them. Urban Commercial and Business TR-55 was used with a curve number of 89.
- C 3 – General Commercial – Harbor UCLA Medical center with sparse pervious area. Majority of area is parking and building. Urban district of industrial is used with a curve number of 81 is used.
- M 1 – Light Manufacturing – light manufacturing and production with minimal to no pervious areas. Urban Industrial TR-55 was used with a curve number of 81.
- MXD – Mixed Use Development – Multiple usage areas. Currently have minimal to no pervious areas. Locations include trailer park, commercial businesses, town homes, higher density living, parking lots, etc. Urban district for commercial and business with a curve number of 89 is used.
- CM – Commercial Manufacturing – Commercial areas with minimal to no pervious area. Urban Commercial and Business TR-55 was used with a curve number of 89.
- Roadways – Paved parking, roads, with curbs and storm sewers are used. Curve number of 98.

1.4.1 Proposed

As soil groups are unknown, the hydrologic soil group for all curve numbers was selected from the ‘A’ soil type. The following zones and their respective curve numbers were identified for proposed land use conditions:

- Residential 1 – Single Family Residence – A map-based examination with lot sizes was used to identify that the residences in this area are lot sizes of roughly 1/8 acre or less. The curve number used was 77.
- Residential 3 – Limited Multiple Residence – Some green spaces exist. Based on their open space, these were placed in the ½ acre lot residential district. The curve number used was 54.
- Residential 4 – Medium Density Multiple Residence. The curve number used was 96.
- RPD – Residential Planned Development – Planned development areas. Curve number used is 77.
- Neighborhood Commercial – Businesses with minimal to no pervious area near them. Urban Commercial and Business TR-55 was used with a curve number of 89.
- Unlimited Commercial – Businesses with minimal to no pervious area near them. Urban Commercial and Business TR-55 was used with a curve number of 89.
- Industrial Flex – light manufacturing and production with minimal to no pervious areas. Urban Industrial TR-55 was used with a curve number of 81.

- Mixed Use Development 1 and 2 – Multiple usage areas. Urban district for commercial and business with a curve number of 89 is used.
- Harbor UCLA Medical Center - Urban district of industrial is used with a curve number of 81 is used.
- Public – Assumed similar pervious number of nearby zones. Two public areas are surrounded by Residential 1. One public area is surrounded by Mixed Use.
- Roadways – Paved parking, roads, with curbs and storm sewers are used. Curve number of 98.

The curve numbers were multiplied by their acreage and then divided by the total acreage of the Specific Plan area to find a total curve number. The results are shown in the tables below.

TABLE 1: EXISTING ZONING CURVE NUMBERS AND WEIGHTED VALUE

Existing Zoning	Acreage	TR-55 Curve Number	Weighted Value
Residential 1 + A1	142.9	77	11,003.3
Residential 3	12.1	54	653.4
Residential 4	7.1	96	681.6
Residential Planned Development	5.5	77	423.5
C2	1.2	89	106.8
C3	76.6	81	6,204.6
M1	26.4	81	2,138.4
MXD	45.3	89	4,031.7
CM	2.2	89	195.8
Total Value			**25,439.1**
Representative Curve number			**79.7**

TABLE 2: PROPOSED ZONING CURVE NUMBERS AND WEIGHTED VALUE

Proposed Zoning	Acreage	TR-55 Curve Number	Weighted Value
Residential 1	118.1	77	9,093.7
Residential 3	7.1	54	383.4
Residential 4	12.1	96	1,161.6
Residential Planned Development	5.5	77	423.5
Neighborhood Commercial	1.2	89	106.8
Unlimited Commercial	4.2	89	373.8
Industrial Flex	21.7	81	1,757.7
Harbor UCLA Medical Zone	71.4	81	5,783.4
Mixed Use 1	19.8	89	1,762.2
Mixed Use 2	31.2	89	2,776.8
Public (1)	24.8	77	1,909.6
Public (2)	2.2	89	195.8
Total Value			**25,728.3**
Representative Curve number			**80.6**

1.5 Conclusion

The representative curve number identified is based on zoning alone. The proposed land use changes from the Specific Plan will result in a minimal increase in stormwater runoff per the TR-55 Curve Number method. It is important to note the TR-55 method is an effective estimation tool, but can vary greatly based on full build out development and implementation. The TR-55 method, for example, does not include estimation of stormwater mitigation or retention methods such as rain gardens, or landscaping that encourages stormwater retention. The full buildout of the Specific Plan will include these measures and would greatly reduce the stormwater runoff. Without these measures in place, the estimated increase in representative curve number would have a less than significant effect on total stormwater runoff in the Specific Plan area.

According the Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

IX-d Would substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

IX-e Would create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.

XVII-c Would require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

(California Environmental Quality Act, 1970, updated 2016)

1.5.1.1 Drainage Pattern Impacts

According the Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

IX-d Would substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

The Specific Plan area is not intended to undergo grading changes which would substantially alter the drainage pattern. Existing infrastructure such as roads and channels will not be altered to change drainage patterns.

1.5.1.2 Runoff Water Quantity Impact

According the Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

IX-e Would create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.

The proposed build out of the Specific Plan area increases the total number of residences in the area, but most changes occur in already heavily developed areas. These heavily developed areas include a large percentage of pavement and other impervious surfaces. Houses with landscaping are capable of absorbing rainfall and mitigating runoff are primarily located in the Residential 1 zone, which has limited alterations. With planned development altering impervious surfaces, changes to storm water runoff will be negligible.

1.5.1.3 Drainage Pattern Impacts

According the Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

XVII-c Would require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

No additional stormwater collection or transportation infrastructure is needed. Existing housing units with lots will retain pervious surface properties, which will require no additional collection basins. Current locations with impervious surfaces at the end of the full buildout will continue to drain with the same infrastructure in place.

1.5.1.4 Level of Significance

Full buildout under the proposed plan would be less than significant.

Appendix H Noise Details and Modeling

Appendices

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Appendix G Noise Details and Modeling

County of Los Angeles General Plan Noise Element

County of Los Angeles General Plan

Noise Element

Chapter 11: Noise Element

I. Introduction

Noise levels can have a significant impact on quality of life. Excessive levels of noise result in increased neighborhood annoyance, dissatisfaction, and in some cases, health and safety hazards. Due to Los Angeles County's geographic, environmental, and cultural diversity, the levels and types of noise issues vary significantly. The purpose of the Noise Element is to reduce and limit the exposure of the general public to excessive noise levels. The Noise Element sets the goals and policy direction for the management of noise in the unincorporated areas.

II. Background

Sound is the result of a sound source inducing vibration in the air. The vibration produces alternating bands of relatively dense and sparse particles in the air, spreading outward from the source. The result of the movement of the particles is a fluctuation in the normal atmosphere pressure, or sound waves. These waves radiate in all directions from the source and may be reflected and scattered or, like other wave actions, may turn corners. When the source stops vibrating, the sound waves disappear, almost instantaneously, and the sound ceases. The ear is extremely sensitive to sound pressure fluctuations, which are converted into auditory sensations.

Sound may be described by three variables: amplitude, frequency, and time pattern. For more information on sound descriptors, please refer to Appendix G.

Noise Measurement

Noise is often described in qualitative terms, and individuals differ greatly on what noises are considered pleasant or annoying. The community noise metrics used in the Noise Element are either Community Noise Equivalent Level (CNEL) or Day-Night Average Level (Ldn). CNEL and Ldn are the metrics used to describe annoyance due to noise and to establish land use planning criteria regarding noise.

Community Noise Equivalent Level (CNEL)

CNEL is the average equivalent A-weighted sound level during a 24-hour day that is obtained after the addition of five decibels to sound levels in the evening, from 7 p.m. to 10 p.m., and after the addition of 10 decibels to sound levels in the evening, from 10 p.m. to 7 a.m. The CNEL metric is currently used by the California Aeronautics Code for the evaluation of noise impacts at airports. Local compliance with the state airport standard requires that community noise levels be expressed in CNEL.

Day-Night Average Level (Ldn)

Ldn is the average equivalent A-weighted sound level during a 24-hour day that is obtained after the addition of 10 decibels to sound levels in the evening, after 10 p.m. and before 7 a.m. The Ldn represents a simplification of CNEL.

For more information on basic levels of noise measurement, please refer to Appendix G.

Noise Environment

The typical community noise environment is made up of background or “ambient noise,” and higher, “intrusive” levels of noise. In the unincorporated areas, the major sources of noise come from transportation systems, such as commercial and private airports, rail and bus networks, and the regional freeway and highway system. Other major sources of noise have historically been identified with industrial uses, such as manufacturing plants.

Effects of Noise

Noise by definition is unwanted sound. It is an intrusion on one’s sense of privacy. Noise can be an emotional strain and a source of great frustration when the noise is beyond a person’s control. Noise may interfere with a broad range of human activities, the overall effect of which is to cause annoyance.

The potential effects of noise on humans include the following:

- Hearing loss;
- Non-auditory physiological response;
- Communication interference;
- Performance interference;
- Sleep disturbance;
- Subjective response; and
- Community response.

Hearing Loss

Exposure to sufficient levels of noise for long periods of time can produce temporary or permanent loss of hearing. Noise levels have been identified as protective of the hearing of the general population from significant damage due to environmental noise. Environmental noise differs from workplace noise in that it is generally intermittent, covers 365 days per year rather than 250 work days, and covers 24 hours per day rather than 8 hours. Taking these factors into account, the U.S. Environmental Protection Agency (EPA) has identified an environmental noise level of Leq (24) = 70 dB to protect 96 percent of the general population from a hearing loss of greater than 5 dB at 4000 Hz.

Non-Auditory Physiological Response

Excessive exposure to noise may contribute to the development and aggravation of stress-related conditions, such as high blood pressure, coronary diseases, ulcers, colitis, and migraine headaches. U.S.EPA studies suggest the possibility of adverse health outcomes associated with environmental noise and underscore the need for additional research. Although it is reasonable to view annoyance as a symptom or sign of noise-induced stress, no direct test of this relationship has been made.

Communication Interference

The indirect effects of speech interference are:

- Disturbance of normal domestic or educational activities;

- Creation of an undesirable living environment;
- Safety hazards; and
- A source of extreme annoyance.

The appropriate noise levels to prevent outdoor speech interference (oral communication) for the outdoors, depends on the voice level and communication distance. For example, at a distance of two meters from the speaker with a normal voice (70 dB) the sound level that would allow communication with 95 percent intelligibility is 60 dB. Indoors, an Ldn of 50 dB permits virtually100 percent intelligibility. For older populations and people with hearing problems, the background noise would be lower.

High levels of noise reduce the number of conversations and their content, quality, and fidelity. Children have a relative lack of knowledge of language that makes them less able to "hear" speech when some of the cues are lost. Repeated exposure to high levels of noise in "critical periods of development" might affect conceptual development and the acquisition of speech, language, and language-related skills, such as reading and listening.

Performance Interference

In general, noise is more likely to reduce the accuracy than the total quantity of work, and it affects complex tasks more than simpler ones. As noise levels increase, both reaction times and numbers of errors increase. For some simple tasks, noise may enhance performance (when distracting cues are dropped out). Factors to consider on how noise affects work performance include: the characteristics of noise; characteristics of the task; aspects of performance considered important; and individual differences.

Noise levels most likely to be detrimental to performance are:

- Continuous noise levels above 90 dB; and
- Levels less than 90 dB, if they have predominantly high frequency components, are intermittent, unexpected, or uncontrollable.

According to the U.S. EPA, field studies demonstrate that high noise levels have been corroborated with poor performance on reading tests and auditory discrimination problems.

Sleep Disturbance

Sleep disturbance is one of the major causes of annoyance due to noise. Long-term or chronic sleep disturbance may lead to health disorders. In general, the higher the noise level, the greater the probability of a response. For example, a study found that there was a 5 percent probability of subjects being awakened by peak levels of 40 dB and a 30 percent probability at 70 dB. If the number of sound peaks increases, an individual will take longer to fall asleep, even if the average sound level decreases. However, continuous or very frequent noise throughout the night, even as high as 95 dB, appears to cause little change in the average duration of the sleep stages, since such stages are disturbed more by peaks than by high continuous levels alone.

Subjective Response

Excessive noise exposure can result in a variety of psychological responses or symptoms in an individual. The physical attributes of noise that can affect an individual's subjective response include apparent loudness or intensity, spectral shape, presence of discrete frequency components,

abruptness or impulsiveness, intermittency, duration, and temporal variations. Other factors include the time of day, the activity interfered with, the ability to control the source and the information content, and personal factors.

Sounds of two KHz or higher are generally the most annoying and disruptive, although noises that are abrupt, intermittent, or fluctuate with time can be very annoying as well. In general, the louder the noise, the more annoying it is likely to be.

Community Response

Community response to noise is usually studied through social surveys. These studies attempt to predict, on an aggregate basis, the degree of annoyance or other effects that can be expected by the community at varying noise levels. Community response to noise is based on statistical averages, since it is known that response to noise varies greatly among individuals.

The most stable indicator of annoyance is the percentage of exposed persons who rate themselves as being highly annoyed. According to the U.S. EPA, there is a relationship between annoyance, complaints, and community reaction as a function of day-night sound levels. Approximately 17 percent of the population will be highly annoyed at an Ldn of 55 dB, and over 40 percent of the population will be highly annoyed if the Ldn exceeds 70 dB, which is the maximum safe level that the U.S. EPA has identified to protect against the risk of hearing loss. The relationship between noise and annoyance is based largely on the results of surveys around airports. These estimates have been criticized because aircraft noise is not present in many urban areas. In addition, complaints occur at a much lower rate than annoyance, and generally do not become evident until the noise levels are very high. For example, at an Ldn of 70 dB, approximately 10 percent of the population can be expected to complain, while 25 to 40 percent of the population will be annoyed.

Table 11.1 lists disturbances from excessive noise that range from minor sleep annoyance to potential hearing loss. Schools and hospitals, and other land uses that house sensitive receptors, or those at high risk of being affected by high noise levels, are considered noise-sensitive uses. In addition to the effects on human physiology and behavior, excessive noise impacts other species. For example, birds living in noisier environments tend to sing louder at night.

Table 11.1: Sources and Effects of Common Noise

dB	Effects	Observation	Source
130	Hearing loss	Pain threshold	Hard rock band Thunder
120		Deafening	
110			Jet take-off
100			Loud auto horn at 10 ft.
90		Very loud	Noisy city street
85			
80			School cafeteria
75			

70	Physiological effects	Loud	Vacuum cleaner at 10 ft.
65			
60	Interference with speech		Normal speech at 3 ft.
55			
50	Sleep interruption	Moderately loud	Average office Dishwasher in next room
45			
40	Sleep disturbance		Soft radio music Quiet residential area
35			
30		Faint	Interior of average residence
20			Average whisper at 6 ft.
10			Rustle of leaves in wind
5		Very faint	Human breathing
0	Audibility threshold		

Source: Compilation of scientific and academic literature, generated by FHWA and U.S. EPA.

Community Attitudes Toward Noise Impacts

Countywide outreach efforts for the General Plan reveal that both urban and rural communities experience neighborhood disturbances, such as barking dogs, leaf blowers, garbage trucks, buses, back-up alarms, permanent amplified noise (i.e., PA systems),and motorcycles. Urban residential areas seemed to be affected by commercial and industrial spillover noise, such as trucks making late night deliveries at neighborhood shopping centers. Virtually all communities objected to noise generated by freeways and major arterials. All communities reacted to aircraft noise to some extent, with the strongest reaction from those whose homes and businesses lie beneath the flight path of major airports.

In compliance with the County Noise Ordinance, the Los Angeles County Department of Public Health (DPH) has performed noise complaint assessments and surveys from 1996 through 1999. During this period, DPH responded to a total of 111 noise complaints under its statutory authority. It should be noted, however, that the quantification of complaints should not be used solely as a definitive expression of community response.

Regulatory Framework

The following section outlines federal, state and county noise-level standards.

Federal Regulations

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

- Promulgating noise emission standards for interstate commerce;
- Assisting state and local abatement efforts; and
- Promoting noise education and research.

The Office of Noise Abatement and Control (ONAC) was initially tasked with implementing the Noise Control Act. However, the ONAC has since been eliminated, leaving the development of federal noise policies and programs to other federal agencies and inter-agency committees. For example, the Occupational Safety and Health Administration (OSHA) agency prohibits exposure of workers to excessive sound levels. The U.S. Department of Transportation (DOT) assumed a significant role in noise control through its various operating agencies, such as with the Federal Aviation Administration (FAA), which regulates noise generated by aircraft and airports. Surface transportation system noise is regulated by a host of agencies, including the Federal Transit Administration (FTA), which requires that all rail systems receiving federal funding be constructed and operated in accordance with its regulations and specifications. The Federal Railroad Administration (FRA) sets forth and enforces safety standards, including noise emissions within railroad locomotive cabs. Transit noise is regulated by the FTA, while freeways that are part of the interstate highway system are regulated by the Federal Highway Administration (FHWA). The FHWA has adopted and promulgated noise abatement criteria for highway construction projects. The federal government encourages local jurisdictions to use their land use regulatory authority to site new development to minimize potential noise impacts. For information on federal guidelines for acceptable environmental noise levels, please refer to Appendix G.

State Regulations

A major source of excessive noise is airports. Title 21 of the California Code of Regulations establishes the maximum acceptable level of aircraft noise in proximity to residences, schools, hospitals, and places of assembly at 65 dB CNEL. The County's Airport Land Use Plan was adopted by the Airport Land Use Commission (ALUC) in 1991 and contains noise contours based on the state standards for all public use airports within Los Angeles County. Figure 11.1 shows these noise contours, and includes updated noise contour data where available. The County's Airport Land Use Plan can be found on the Los Angeles County Department of Regional Planning's web site, located at http://planning.lacounty.gov/ALUC.

Figure 11.1: Airport Noise Contours Map

Additional state regulatory codes that relate to noise abatement include:

- Uniform Building Code: Title 24 of the California Code of Regulations requires certain noise insulation measures to be used in the design of all new residential construction other than detached, single family dwellings;
- Vehicle Code: Establishes maximum noise levels for motor vehicles; and
- California Code of Regulations: Establishes maximum acceptable levels of aircraft noise.

The California Department of Health Service's Office of Noise Control (ONC), established in 1973, was instrumental in developing regulatory tools to control and abate noise for use by local agencies. One significant model is the Land Use Compatibility for Community Noise Environments Matrix, which allows a local jurisdiction to clearly delineate the compatibility of sensitive uses with various incremental levels of noise. The County has adapted this matrix to develop the County's exterior noise standards, as seen in Table 11.2.

County Regulations

The County maintains the health and welfare of its residents with respect to noise through nuisance abatement ordinances and land use planning. The County Noise Control Ordinance, Title 12 of the County Code, was adopted by the Los Angeles County Board of Supervisors in 1977 "…to control unnecessary, excessive, and annoying noise and vibration.…" It declares that the purpose of the County policy is to "…maintain quiet in those areas which exhibit low noise levels and to implement programs aimed at reducing noise in those areas within the county where noise levels are above acceptable values." (Section 12.08.010 of the County Code).

On August 14, 2001, the Board of Supervisors approved an ordinance amending Title 12 of the County Code to prohibit loud, unnecessary, and unusual noise that disturbs the peace and/or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitivity residing in the area. Regulations can include requirements for sound barriers, mitigation measures to reduce excessive noise, or the placement and orientation of buildings, and can specify the compatibility of different uses with varying noise levels, as shown in Table 11.2. For more information on noise barrier strategies, please see Appendix G.

Table 11.2: Los Angeles County Community Noise Criteria

			Level (dBA)				
Noise Zone	**Land Use of Receptor Property**	**Time**	**Std 1L5030 min/hr**	**Std 2L2515 min/hr**	**Std 3L8.35 min/hr**	**Std 4L1.71 min/hr**	**Std5L0 at no time**
I	Noise Sensitive	Anytime	45	50	55	60	65
II	Residential	10PM to 7AM	45	50	55	60	65
		7AM to 10PM	50	55	60	65	70
III	Commercial	10PM to 7AM	55	60	65	70	75
		7AM to 10PM	60	65	70	75	80
IV	Industrial	Anytime	70	75	80	85	90

Source: Section 12.08.390 of the Los Angeles County Code (a portion of the Noise Control Ordinance)

Noise Levels

Figure 11.2 shows the noise contours for major sources of noise. A discussion of current and projected levels for major sources of noise in the unincorporated areas can be found in Section 5.12 Noise and Vibration, and Appendix K of the General Plan Environmental Impact Report.

Figure 11.2: Noise Contours Map

III. Issues

Reducing Noise Impacts Through Planning

Since excessive noise affects quality of life, existing and future noise levels must be considered when making land use planning decisions to minimize exposure to excessive noise. Noise-sensitive uses, such as residences, hospitals, schools, childcare facilities, and places of assembly are especially vulnerable to excessive noises generated by airports, rail, freeways and primary arterials, heavy industry and warehousing facilities. As stated in the noise policies, planning for these noise-sensitive uses must include sufficient spatial separation or site design and construction to ensure compatibility with noise-generating uses.

Coordinated transportation and land use planning plays a critical role in the prevention and mitigation of excessive noise impacts. Federal and state laws, in many instances, preempt local laws from controlling certain sources by setting noise levels and operational procedures for aircraft, motor vehicles, and interstate carriers. Local governments can, whenever they have jurisdictional authority, address these noise problems through a combination of land use planning, building code and zoning regulations, and other policies where a noise abatement program is required.

As specified in Policy N 1.12, decisions on land adjacent to transportation facilities, such as the airports, freeways and other major highways, must consider both existing and future noise levels of these transportation facilities to assure the compatibility of proposed uses.

In addition, the condition of road surfaces and traffic congestion can contribute to vehicle noise. Local roadway design features, traffic management, and traffic calming techniques can minimize noise from traffic speed and frequent vehicle acceleration and deceleration, while innovative roadway paving material can further reduce traffic noise.

IV. Goals and Policies

Goal N 1: The reduction of excessive noise impacts.	
Topic	**Policy**
Reducing Noise Impacts	Policy N 1.1: Utilize land uses to buffer noise-sensitive uses from sources of adverse noise impacts.
	Policy N 1.2: Reduce exposure to noise impacts by promoting land use compatibility.
	Policy N 1.3: Minimize impacts to noise-sensitive land uses by ensuring adequate site design, acoustical construction, and use of barriers, berms, or additional engineering controls through Best Available Technologies (BAT).

	Policy N 1.4: Enhance and promote noise abatement programs in an effort to maintain acceptable levels of noise as defined by the Los Angeles County Exterior Noise Standards and other applicable noise standards.
	Policy N 1.5: Ensure compliance with the jurisdictions of State Noise Insulation Standards (Title 24, California Code of Regulations and Chapter 35 of the Uniform Building Code), such as noise insulation of new multifamily dwellings constructed within the 60 dB (CNEL or Ldn) noise exposure contours.
	Policy N 1.6: Ensure cumulative impacts related to noise do not exceed health-based safety margins.
	Policy N 1.7: Utilize traffic management and noise suppression techniques to minimize noise from traffic and transportation systems.
	Policy N 1.8: Minimize noise impacts to pedestrians and transit-riders in the design of transportation facilities and mobility networks.
	Policy N 1.9: Require construction of suitable noise attenuation barriers on noise sensitive uses that would be exposed to exterior noise levels of 65 dBA CNEL and above, when unavoidable impacts are identified.
	Policy N 1.10: Orient residential units away from major noise sources (in conjunction with applicable building codes).
	Policy N 1.11: Maximize buffer distances and design and orient sensitive receptor structures (hospitals, residential, etc.) to prevent noise and vibration transfer from commercial/light industrial uses.
	Policy N 1.12: Decisions on land adjacent to transportation facilities, such as the airports, freeways and other major highways, must consider both existing and future noise levels of these transportation facilities to assure the compatibility of proposed uses.

V. Noise Element Implementation Program

- Countywide Noise Assessment Survey/County Noise Ordinance Update
- Countywide Noise Mapping
- Noise Abatement Program

For descriptions of these programs, please refer to Chapter 16: General Plan Implementation Programs.

Appendix G Noise Details and Modeling

County of Los Angeles Code of Ordinances (re Noise)

LOS ANGELES COUNTY CODE OF ORDINANCES

Part 3 COMMUNITY NOISE CRITERIA

Sections:

12.08.370 Decibel measurement—Basis.

12.08.380 Noise zones designated.

12.08.390 Exterior noise standards—Citations for violations authorized when.

12.08.400 Interior noise standards.

12.08.410 Correction for certain types of sounds.

12.08.420 Measurement methods.

12.08.370 Decibel measurement—Basis.

Any decibel measurement made pursuant to the provisions of this chapter shall be based on a reference sound-pressure of 20 micropascals, as measured with a sound level meter using the A-weighted network (scale) at slow response, or at the fast response when measuring impulsive sound levels and vibrations.

(Ord. 11778 § 2 (Art. 4 § 401), 1978: Ord. 11773 § 2 (Art. 4 § 401), 1978.)

12.08.380 Noise zones designated.

Receptor properties described hereinafter in this chapter are hereby assigned to the following noise zones:

Noise Zone I—Noise-sensitive area; Noise Zone II—Residential properties; Noise Zone III—Commercial properties; Noise Zone IV—Industrial properties.

(Ord. 11778 § 2 (Art. 4 § 402), 1978: Ord. 11773 § 2 (Art. 4 § 402), 1978.)

12.08.390 Exterior noise standards—Citations for violations authorized when.

A. Unless otherwise herein provided, the following exterior noise levels shall apply to all receptor properties within a designated noise zone:

Noise Zone	Designated Noise Zone Land Use (Receptor property)	Time Interval	Exterior Noise Level (dB)

I	Noise-sensitive area	Anytime	45
II	Residential properties	10:00 pm to 7:00 am (nighttime)	45
		7:00 am to 10:00 pm (daytime)	50
III	Commercial properties	10:00 pm to 7:00 am (nighttime)	55
		7:00 am to 10:00 pm (daytime)	60
IV	Industrial properties	Anytime	70

B. Unless otherwise herein provided, no person shall operate or cause to be operated, any source of sound at any location within the unincorporated county, or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person which causes the noise level, when measured on any other property either incorporated or unincorporated, to exceed any of the following exterior noise standards:

Standard No. 1 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 30 minutes in any hour. Standard No. 1 shall be the applicable noise level from subsection A of this section; or, if the ambient L50 exceeds the foregoing level, then the ambient L50 becomes the exterior noise level for Standard No. 1.

Standard No. 2 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 15 minutes in any hour. Standard No. 2 shall be the applicable noise level from subsection A of this section plus 5dB; or, if the ambient L25 exceeds the foregoing level, then the ambient L25 becomes the exterior noise level for Standard No. 2.

Standard No. 3 shall be the exterior noise level which may not be exceeded for a cumulative period of more than five minutes in any hour. Standard No. 3 shall be the applicable noise level from subsection A of this section plus 20dB; or, if the ambient L8.3 exceeds the foregoing level, then the ambient L8.3 becomes exterior noise level for Standard No. 3.

Standard No. 4 shall be the exterior noise level which may not be exceeded for a cumulative period of more than one minute in any hour. Standard No. 4 shall be the applicable noise level from subsection A of this section plus 15dB; or, if the ambient L1.7 exceeds the foregoing level, then the ambient L1.7 becomes the exterior noise level for Standard No. 4.

Standard No. 5 shall be the exterior noise level which may not be exceeded for any period of time. Standard No. 5 shall be the applicable noise level from subsection A of this section plus 20dB; or, if the

ambient L0 exceeds the foregoing level then the ambient L0 becomes the exterior noise level for Standard No. 5.

C. If the measurement location is on a boundary property between two different zones, the exterior noise level utilized in subsection B of this section to determine the exterior standard shall be the arithmetic mean of the exterior noise levels in subsection A of the subject zones. Except as provided for above in this subsection C, when an intruding noise source originates on an industrial property and is impacting another noise zone, the applicable exterior noise level as designated in subsection A shall be the daytime exterior noise level for the subject receptor property.

D. The ambient noise histogram shall be measured at the same location along the property line utilized in subsection B of this section, with the alleged intruding noise source inoperative. If for any reason the alleged intruding noise source cannot be turned off, the ambient noise histogram will be estimated by performing a measurement in the same general area of the alleged intruding noise source but at a sufficient distance such that the noise from the alleged intruding noise source is at least 10dB below the ambient noise histogram in order that only the actual ambient noise histogram be measured. If the difference between the ambient noise histogram and the alleged intruding noise source is 5 to 10dB, then the level of the ambient noise histogram itself can be reasonably determined by subtracting a one-decibel correction to account for the contribution of the alleged intruding noise source.

E. In the event the intrusive exceeds the exterior noise standards as set forth in subsections B and C of this section at a specific receptor property and the health officer has reason to believe that this violation at said specific receptor property was unanticipated and due to abnormal atmospheric conditions, the health officer shall issue an abatement notice in lieu of a citation. If the specific violation is abated, no citation shall be issued therefor. If, however, the specific violation is not abated, the health officer may issue a citation.

(Ord. 11778 § 2 (Art. 4 § 403), 1978: Ord. 11773 § 2 (Art. 4 § 403), 1978.)

12.08.400 Interior noise standards.

A. No person shall operate or cause to be operated within a dwelling unit, any source of sound, or allow the creation of any noise, which causes the noise level when measured inside a neighboring receiving dwelling unit to exceed the following standards:

Standard No. 1 The applicable interior noise level for cumulative period of more than five minutes in any hour; or

Standard No. 2 The applicable interior noise level plus 5dB for a cumulative period of more than one minute in any hour; or

Standard No. 3 The applicable interior noise level plus 10dB or the maximum measured ambient noise level for any period of time.

B. The following interior noise levels for multifamily residential dwellings shall apply, unless otherwise specifically indicated, within all such dwellings with windows in their normal seasonal configuration.

Noise Zone	Designated Land Use	Time Interval	Allowable Interior Noise Level (dB)
All	Multifamily	10 pm—7 am	40
	Residential	7 am—10 pm	45

C. If the measured ambient noise level reflected by the L50 exceeds that permissible within any of the interior noise standards in subsection A of Section 12.08.390, the allowable interior noise level shall be increased in 5dB increments in each standard as appropriate to reflect said ambient noise level (L50).

(Ord. 11778 § 2(Art. 4 § 404), 1978: Ord. 11773 § 2 (Art. 4 § 404), 1978.)

12.08.410 Correction for certain types of sounds.

For any source of sound which emits a pure tone or impulsive noise, the noise levels as set forth in Sections 12.08.390 and 12.08.400 shall be reduced by five decibels.

(Ord. 11778 § 2 (Art. 4 § 405), 1978: Ord. 11773 § 2 (Art. 4 § 405), 1978.)

12.08.420 Measurement methods.

A. Utilizing the A-weighting scale of the sound-level meter and the "slow" meter response (use "fast" response for impulsive type sounds), the noise level shall be measured at a position or positions at any point on the receiver's property.

B. In general, the microphone shall be located four to five feet above the ground; 10 feet or more from the nearest reflective surface, where possible. However, in those cases where another elevation is deemed appropriate, the latter shall be utilized.

C. Interior noise measurements shall be made within the affected residential unit. The measurements shall be made at a point at least four feet from the wall, ceiling or floor nearest the noise source, with windows in the normal seasonal configuration. Calibration of the measurement equipment, utilizing an acoustic calibrator, shall be performed immediately prior to recording any noise data.

(Ord. 11778 § 2 (Art. 4 § 406), 1978: Ord. 11773 § 2 (Art. 4 § 406), 1978.)

Appendix G Noise Details and Modeling

City of Los Angeles Municipal Code (re Noise)

City of Los Angeles Municipal Code

CHAPTER XI
NOISE REGULATION

(Added by Ord. No. 144,331, Eff. 3/2/73.)

Article

1 General Provisions

2 Special **Noise** Sources

3 Sanitary Operations

4 Vehicles

5 Amplified Sounds

6 General **Noise**

ARTICLE 1
GENERAL PROVISIONS

Section

111.00 Declaration of Policy.

111.01 Definitions.

111.02 Sound Level Measurement Procedure and Criteria.

111.03 Minimum Ambient **Noise** Level.

111.04 Violations: Additional Remedies, Injunctions.

111.05 Enforcement, Citations.

SEC. 111.00. DECLARATION OF POLICY.

It is hereby declared to be the policy of the City to prohibit unnecessary, excessive and annoying **noises** from all sources subject to its police power. At certain levels **noises** are detrimental to the health and welfare of the citizenry and in the public interests shall be systematically proscribed.

SEC. 111.01. DEFINITIONS.

Unless the context otherwise clearly indicates, the words and phrases used in this chapter are defined as follows:

(a) "**Ambient Noise** " is the composite of **noise** from all sources near and far in a given environment, exclusive of occasional and transient intrusive **noise** sources and of the particular **noise** source or sources to be measured. Ambient **noise** shall be averaged over a period of at least 15 minutes at a location and time of day comparable to that during which the measurement is taken of the particular **noise** source being measured. **(Amended by Ord. No. 156,363, Eff. 3/29/82.)**

(b) "**Commercial Purpose**" is the use, operation, or maintenance of any sound amplifying equipment for the purpose of advertising any business, goods, or services, or for the purpose of attracting the attention of the public to, advertising for, or soliciting patronage or customers to or for any performance, show, entertainment, exhibition, or event, or for the purpose of demonstrating such sound equipment. **(Amended by Ord. No. 156,363, Eff. 3/29/82.)**

(c) "**Decibel**" (dB) is a unit of level which denotes the ratio between two (2) quantities which are proportional to power; the number of decibels corresponding to the ratio of two (2) amounts of power is ten (10) times the logarithm to the base (10) of this ratio. **(Amended by Ord. No. 156,363, Eff. 3/29/82.)**

(d) "**Emergency Work**" is work made necessary to restore property to a safe condition following a public calamity or work required to protect persons or property from an imminent exposure to danger, or work by private or public utilities when restoring utility service. **(Amended by Ord. No. 156,363, Eff. 3/29/82.)**

(e) "**Impulsive Sound**" is sound of short duration, usually less than one second, with an abrupt onset and rapid decay. By way of example "**impulsive sound**" shall include, but shall not be limited to, explosions, musical base drum beats, or the discharge of firearms. **(Amended by Ord. No. 156,363, Eff. 3/29/82.)**

(f) "**Motor Vehicle**" includes, but shall not be limited to, automobiles, trucks, motorcycles, minibikes and go-carts. **(Amended by Ord. No. 156,363, Eff. 3/29/82.)**

(g) "**Noncommercial Purpose**" is the use, operation, or maintenance of any sound equipment for other than a "commercial purpose". "Noncommercial purpose" shall mean and include, but shall not be limited to, philanthropic, political, patriotic, and charitable purposes. **(Amended by Ord. No. 156,363, Eff. 3/29/82.)**

(h) "**Octave Band Noise Analyzer**" is an instrument for measurement of sound levels in octave frequency bands which satisfies the pertinent requirements for Class II octave band analyzers of the American National Standard Specifications for Octave, Half-Octave, and Third-Octave Band Filters, S1.11-1966 or the most recent revision thereof. **(Amended by Ord. No. 156,363, Eff. 3/29/82.)**

(i) "**Person**" is a person, firm, association, co-partnership, joint venture, corporation, or any entity, private or public in nature. **(Amended by Ord. No. 156,363, Eff. 3/29/82.)**

(j) "**Sound Amplifying Equipment**" **(Amended by Ord. No. 156,363, Eff. 3/29/82.)** is any machine or device for the amplification of the human voice, music or any other sound, but shall not include:

1. Automobile radios, stereo players or television receivers when used and heard only by the occupants of the vehicle in which the same is installed.

2. Radio, stereo players, phonographs or television receivers used in any house or apartment within any residential zone or within 500 feet thereof.

3. Warning devices on emergency vehicles.

4. Horns or other warning devices authorized by law on any vehicle when used for traffic purposes.

(k) "**Sound Level**" (**Noise** level) in decibels (dB) is the sound measured with the "A" weighting and slow responses by a sound level meter; except for impulsive or rapidly varying sounds, the fast response shall be used. **(Amended by Ord. No. 156,363, Eff. 3/29/82.)**

(l) "**Sound Level Meter**" is an instrument including a microphone, an amplifier, an output meter, and "A" frequency weighting network for the measurement of sound levels which satisfies the pertinent requirements for Type S2A meters in American Standard Specifications for sound level meters in S1.4-1971 or the most recent revision thereof. **(Amended by Ord. No. 156,363, Eff. 3/29/82.)**

(m) "**Sound Truck**" is any motor vehicle, or any other vehicle regardless of motive power, whether in motion or stationary, which carries, is equipped with, or which has mounted thereon, or attached thereto, any sound amplifying equipment. **(Amended by Ord. No. 156,363, Eff. 3/29/82.)**

(n) **Supplementary Definitions of Technical Terms**. Definitions of technical terms not defined herein shall be obtained from American Standard Acoustical Terminology S1-1-1971 or the most recent revision thereof. **(Amended by Ord. No. 156,363, Eff. 3/29/82.)**

SEC. 111.02. SOUND LEVEL MEASUREMENT PROCEDURE AND CRITERIA.

(Title amended by Ord. No. 156,363, Eff. 3/29/82.)

(a) **(Amended by Ord. No. 156,363, Eff. 3/29/82.)** Any sound level measurement made pursuant to the provisions of this chapter shall be measured with a sound level meter using the "A" weighting and response as indicated in Section 111.01(k) of this article.

Except when impractical, the microphone shall be located four to five feet above the ground and ten feet or more from the nearest reflective surface. However, in those cases where another elevation is deemed appropriated, the latter shall be utilized.

Interior sound level measurements shall be made at a point at least four feet from the wall, ceiling, or floor nearest the **noise** source.

Calibration of the sound level meter, utilizing an acoustic calibrator shall be performed immediately prior to recording any sound level data. The ambient **noise** level and the level of a particular **noise** being

measured shall be the numerical average of **noise** measurements taken at a given location during a given time period.

(b) **(Amended by Ord. No. 156,363, Eff. 3/29/82.)** Where the sound alleged to be offending is of a type or character set forth below, the following values shall be added to the sound level measurement of the offending **noise** :

1. Except for **noise** emanating from any electrical transformer or gas metering and pressure control equipment existing and installed prior to the effective date of the ordinance enacting this chapter, any steady tone with audible fundamental frequency or overtones have 200 Hz +5

2. Repeated impulsive **noise** +5

3. **Noise** occurring more than 5 but less than 15 minutes in any period of 60 consecutive minutes between the hours of 7:00 a.m. and 10:00 p.m. of any day -5

4. **Noise** occurring five minutes or less in any period of 60 consecutive minutes, between the hours of 7:00 a.m. and 10:00 p.m. of any day -5

(Amended by Ord. No. 161,574, Eff. 9/8/86.)

(c) For those cases where an objectionable **noise** is clearly audible, but where the level of ambient **noise** does not permit direct quantative sound level "A" measurements of the objectionable **noise** , sound measurements may be performed utilizing an octave band sound analyzer to determine sound level "A" limits as indicated in the Table I below. This table is used to convert the sound pressure level meter readings in dB for each band to SPL in dB(A) for each band.

TABLE I

OCTAVE BAND NOISE VALUES CORRESPONDING TO SOUND LEVEL "A" VALUES

Sound Level	Octave Band Sound Pressure Level, dB re .0002 dyne/cm^2 Octave Band Center Frequency in Hz								
"A"	31.5	63	125	250	500	1000	2000	4000	8000
35	58	50	42	35	32	29	26	23	20
40	61	54	46	40	37	34	31	28	25
45	64	58	51	45	42	39	36	33	30
50	67	61	55	50	47	44	41	38	35
55	70	64	60	55	52	49	46	43	40
60	73	68	64	60	57	54	51	48	45
65	76	72	68	65	62	59	56	53	50
70	79	76	73	70	67	64	61	58	55
75	84	81	78	75	72	69	66	63	60

(d) For those cases where a sound level measurement has been made pursuant to the provisions of this chapter and two or more provisions of this chapter apply, the provision establishing the lower or lowest **noise** level, respectively, shall be used. **(Added by Ord. No. 156,363, Eff. 3/29/82.)**

SEC. 111.03. MINIMUM AMBIENT NOISE LEVEL.

(Amended by Ord. No. 156,363, Eff. 3/29/82.)

Where the ambient **noise** level is less than the presumed ambient **noise** level designated in this section, the presumed ambient **noise** level in this section shall be deemed to be the minimum ambient **noise** level for purposes of this chapter.

TABLE II

SOUND LEVEL "A" DECIBELS

(In this chart, daytime levels are to be used from 7:00 a.m. to 10:00 p.m. and nighttime levels from 10:00 p.m. to 7:00 a.m.)

	PRESUMED AMBIENT NOISE LEVEL (dB(A))	
ZONE	**DAY**	**NIGHT**
A1, A2, RA, RE, RS, RD, RW1, RW2, R1, R2, R3, R4, and R5	50	40
P, PB, CR, C1, C1.5, C2, C4, C5, and CM	60	55
M1, MR1, and MR2	60	55
M2 and M3	65	65

At the boundary line between two zones, the presumed ambient **noise** level of the quieter zone shall be used.

SEC. 111.04. VIOLATIONS: ADDITIONAL REMEDIES, INJUNCTIONS.

As an additional remedy, the operation or maintenance of any device, instrument, vehicle, or machinery in violation of any provision of this chapter, which operation or maintenance causes discomfort or annoyance to reasonable persons or which endangers the comfort, repose, health, or peace of residents in the area, shall be deemed and is declared to be.a public nuisance and may be subject to abatement summarily by a restraining order or injunction issued by a court order of competent jurisdiction. **(Amended by Ord. No. 156,363, Eff. 3/29/82.)**

SEC. 111.05. ENFORCEMENT, CITATIONS.

(Added by Ord. No. 156,363, Eff. 3/29/82.)

(a) The Department of Building and Safety shall have the power and duty to enforce the following **noise** control provisions of this Code: Section 12.14A-6(h), Section 12.19A-4(b)(1), Section 112.02 and Section 112.04(c). **(Amended by Ord. No. 172,086, Eff. 7/30/98.)**

(b) The Police Department shall have the power and duty to enforce the following **noise** control provisions of this Code: Section 41.32, Section 41.40, Section 41.42, Section 41.44, Section 41.57, Section 63.51(m), Section 112.01, Section 112.04, Section 112.05, Section 112.06, Section 113.01, Section 114.01 through Section 114.05, inclusive, Section 115.02, and Section 116.01. **(Amended by Ord. No. 161,574, Eff. 9/8/86.)**

(c) Any Building Mechanical Inspector assigned to **noise** enforcement inspection shall have the power, authority and immunity of a public officer and employee, as set forth in the Penal Code of the State of California, Section 836.5, to make arrests without a warrant whenever such employee has reasonable cause to believe that the person to be arrested has committed a misdemeanor in his presence which is a violation of any provision set forth in Section 111.05(a) of this chapter. The provisions of said Penal Code section regarding issuance of a written promise to appear shall be applicable to arrests authorized herein.

ARTICLE 2
SPECIAL NOISE SOURCES

Section

112.01 Radios, Television Sets, and Similar Devices.

112.02 Air Conditioning, Refrigeration, Heating, Pumping, Filtering Equipment.

112.03 Construction **Noise** .

112.04 Powered Equipment Intended for Repetitive Use in Residential Areas and Other Machinery, Equipment, and Devices.

112.05 Maximum **Noise** Level of Powered Equipment or Powered Hand Tools.

112.06 Places of Public Entertainment.

SEC. 112.01. RADIOS, TELEVISION SETS, AND SIMILAR DEVICES.

(Amended by Ord. No. 156,363, Eff. 3/29/82.)

(a) It shall be unlawful for any person within any zone of the City to use or operate any radio, musical instrument, phonograph, television receiver, or other machine or device for the producing, reproducing or amplification of the human voice, music, or any other sound, in such a manner, as to disturb the peace, quiet, and comfort of neighbor occupants or any reasonable person residing or working in the area.

(b) Any **noise** level caused by such use or operation which is audible to the human ear at a distance in excess of 150 feet from the property line of the **noise** source, within any residential zone of the City or within 500 feet thereof, shall be a violation of the provisions of this section.

(c) Any **noise** level caused by such use or operation which exceeds the ambient **noise** level on the premises of any other occupied property, or if a condominium, apartment house, duplex, or attached business, within any adjoining unit, by more than five (5) decibels shall be a violation of the provisions of this section.

SEC. 112.02. AIR CONDITIONING, REFRIGERATION, HEATING, PUMPING, FILTERING EQUIPMENT.

(Amended by Ord. No. 156,363, Eff. 3/29/82.)

(a) It shall be unlawful for any person, within any zone of the city to operate any air conditioning, refrigeration or heating equipment for any residence or other structure or to operate any pumping, filtering or heating equipment for any pool or reservoir in such manner as to create any **noise** which would cause the **noise** level on the premises of any other occupied property or if a condominium, apartment house, duplex, or attached business, within any adjoining unit.to exceed the ambient **noise** level by more than five (5) decibels

(b) This section shall not be applicable to emergency work as defined in Section 111.01(c) of this chapter, or to periodic maintenance or testing of such equipment reasonably necessary to maintain such equipment in good working order.

SEC. 112.03. CONSTRUCTION NOISE .

Noise due to construction or repair work shall be regulated as provided by Section 41.40 of this Code. **(Amended by Ord. No. 161,574, Eff. 9/8/86.)**

SEC. 112.04. POWERED EQUIPMENT INTENDED FOR REPETITIVE USE IN RESIDENTIAL AREAS AND OTHER MACHINERY, EQUIPMENT, AND DEVICES.

(Title and Section Amended by Ord. No. 161,574, Eff 9/8/86.)

(a) Between the hours of 10:00 p.m and. 7:00 a.m. of the following day, no person shall operate any lawn mower, backpack blower, lawn edger, riding tractor, or any other machinery, equipment, or other mechanical or electrical device, or any hand tool which creates a loud, raucous or impulsive sound, within any residential zone or within 500 feet of a residence.

(b) Except as to the equipment and operations specifically mentioned and related elsewhere in this Chapter or for emergency work as that term is defined in Section 111.01(d), and except as to aircraft, tow tractors, aircraft auxiliary power units, trains and motor vehicles in their respective operations governed by State or federal regulations, no person shall operate or cause to be operated any machinery, equipment, tools, or other mechanical or electrical device, or engage in any other activity in such manner as to create any **noise** which would cause the **noise** level on the premises of any other occupied property, or, if a condominium, apartment house, duplex, or attached business, within any adjoining unit, to exceed the ambient **noise** level by more than five (5) decibels.

(c) Notwithstanding the provisions of Subsection (a) above, no gas powered blower shall be used within 500 feet of a residence at anytime. Both the user of such a blower as well as the individual who contracted for the services of the user, if any, shall be subject to the requirements of and penalty provisions for this ordinance. Violation of the provisions of this subsection shall be punishable as an infraction in an amount not to exceed One Hundred Dollars ($100.00), notwithstanding the graduated fines set forth in L.A.M.C. § 11.00(m). **(Amended by Ord. No. 171,890, Eff. 2/13/98.)**

SEC. 112.05. MAXIMUM NOISE LEVEL OF POWERED EQUIPMENT OR POWERED HAND TOOLS.

(Amended by Ord. No. 161,574, Eff. 9/8/86.)

Between the hours of 7:00 a.m. and 10:00 p.m., in any residential zone of the City or within 500 feet thereof, no person shall operate or cause to be operated any powered equipment or powered hand tool

that produces a maximum **noise** level exceeding the following **noise** limits at a distance of 50 feet therefrom:

(a) 75dB(A) for construction, industrial, and agricultural machinery including crawler-tractors, dozers, rotary drills and augers, loaders, power shovels, cranes, derricks, motor graders, paving machines, off-highway trucks, ditchers, trenchers, compactors, scrapers, wagons, pavement breakers, compressors and pneumatic or other powered equipment;

(b) 75dB(A) for powered equipment of 20 HP or less intended for infrequent use in residential areas, including chain saws, log chippers and powered hand tools;

(c) 65dB(A) for powered equipment intended for repetitive use in residential areas, including lawn mowers, backpack blowers, small lawn and garden tools and riding tractors;

The **noise** limits for particular equipment listed above in (a), (b) and (c) shall be deemed to be superseded and replaced by **noise** limits for such equipment from and after their establishment by final regulations adopted by the Federal Environmental Protection Agency and published in the Federal Register.

Said **noise** limitations shall not apply where compliance therewith is technically infeasible The burden of proving that compliance is technically infeasible shall be upon the person or persons charged with a violation of this section. Technical infeasibility shall mean that said **noise** limitations cannot be complied with despite the use of mufflers, shields, sound barriers and/or other **noise** reduction device or techniques during the operation of the equipment.

SEC. 112.06. PLACES OF PUBLIC ENTERTAINMENT.

It shall be unlawful for any person to operate, play, or to permit the operation or playing of any radio, television receiver, phonograph, musical instrument, sound amplifying equipment, or similar device which produces, reproduces, or amplifies sound in any place of public entertainment at a sound level greater than 95dB(A) at any point that is normally occupied by a customer, unless a conspicuous and legible sign is located outside such place, near each public entrance, stating:

"WARNING: SOUND LEVELS WITHIN MAY CAUSE HEARING IMPAIRMENT."

(Added by Ord. No. 156,363, Eff. 3/29/82.)

ARTICLE 3
SANITARY OPERATION

Section

113.01 Rubbish and Garbage Collection and Disposal.

SEC. 113.01. RUBBISH AND GARBAGE COLLECTION AND DISPOSAL.

(Amended by Ord. No. 161,574, Eff. 9/8/86.)

It shall be unlawful for any person engaged in the business of collecting or disposing of rubbish or garbage to operate any refuse disposal truck, parking lot sweeper, or vacuum truck, or to collect, load, pick up, transfer, unload, dump, discard, sweep, vacuum, or dispose of any rubbish or garbage, as such terms are defined in Section 66.00 of this Code, within 200 feet of any residential building between the hours of 9:00 p.m. and 6:00 a.m. of the following day, unless a permit therefore has been duly obtained beforehand from the Board of Police Commissioners.

The standards which shall be considered in determining whether a permit shall be granted are the following:

(a) Whether the work to be done is in the public interest, or

(b) Whether the applicant would suffer hardship, injustice or delay if the permit were not granted, or

(c) Whether fuel conservation would result if the permit were issued.

No permit shall be required to perform emergency work as defined in Sec. 111.01(c) of this chapter.

ARTICLE 4
VEHICLES

Section

114.01 Vehicle Repairs.

114.02 Motor Driven Vehicles.

114.03 Vehicles – Loading and Unloading.

114.04 Audible Signaling Devices.

114.05 Audible Advertising Devices – Commercial Food Vendors.

114.06 Vehicle Theft Alarm Systems.

114.07 Audible Status Indicator

SEC. 114.01. VEHICLE REPAIRS.

(Amended by Ord. No. 156,363, Eff. 3/29/82.)

It shall be unlawful for any person, within any residential property located within any residential zone of the City or within 500 feet thereof, to repair, rebuild, reconstruct or dismantle any motor vehicle between the hours of 8:00 p.m. of one day and 8:00 a.m. of the next day in such manner:

(a) That a reasonable person residing in the area is caused discomfort or annoyance;

(d) That such activity is audible to the human ear at a distance in excess of 150 feet from the property line of the **noise** source;

(c) As to create any **noise** which would cause the **noise** level on the premises of any occupied residential property, or if a condominium, apartment house or duplex, within any adjoining unit, to exceed the ambient **noise** level by more than five (5) decibels.

SEC. 114.02. MOTOR DRIVEN VEHICLES.

(Amended by Ord. No. 156,363, Eff. 3/29/82.)

(a) It shall be unlawful for any person to unreasonably operate any motor driven vehicle upon any property within the City or to unreasonably accelerate the engine of any vehicle, or unreasonably sound, blow or operate the horn or other warning device of such vehicle in such manner:

1. As to disturb the peace, quiet and comfort of any neighborhood or of any reasonable person residing in such area

2. That such activity is audible to the human ear at a distance in excess of 150 feet from the property line of the **noise** source;

3. As to create any **noise** which would cause the **noise** level on the premises of any occupied residential property, or if a condominium, apartment house or duplex, within any adjoining unit, to exceed the ambient **noise** level by more than five (5) decibels.

(b) This section shall not be applicable to any vehicle which is operated upon any public highway, street or right-of-way or to the operation of any off-highway vehicle to the extent it is regulated in the Vehicle Code.

SEC. 114.03. VEHICLES – LOADING AND UNLOADING.

(Amended by Ord. No. 166,514, Eff. 1/24/91.)

(a) It shall be unlawful for any person, between the hours of 10:00 p.m. and 7:00 a.m. of the following day, to load or unload any vehicle, or operate any dollies, carts, forklifts, or other wheeled equipment, which causes any impulsive sound, raucous or unnecessary **noise** within 200 feet of any residential building.

(b) Irrespective of the provisions of Subsection (a), loading or unloading of vehicles of the type of activity referred to in Subsection (a) may occur between the hours of 6:00 a.m. to 11:00 p.m. of the same day pursuant to a permit issued by the Department of Transportation in accordance with a business program as defined by said department. This permit program would be limited to the area bounded by Western Avenue, Santa Monica Freeway, Central Avenue, and the San Diego Freeway, within the limits of the City of Los Angeles. Such permits will not be issued to high-**noise** businesses such as trash pickup.

SEC. 114.04. AUDIBLE SIGNALING DEVICES.

(Added by Ord. No. 161,574, Eff. 9/8/86.)

It shall be unlawful for any person, within any residential zone of the City or within 500 feet thereof, to sound, blow, or operate any audible signaling device, including sequential airhorns or electronically operated vehicular loud speaker music devices, which can be heard for a distance greater than 200 feet for any purpose. Violation of this section shall constitute an infraction This section does not address horn or warning devices regulated in Article 1 of Chapter 5 of Division 12 of the Vehicle Code of the State of California, commencing at Section 27000. **(Last sentence amended by Ord. No. 165.191, Eff. 10/23/89.)**

SEC. 114.05. AUDIBLE ADVERTISING DEVICES – COMMERCIAL FOOD VENDORS.

(Added by Ord. No. 164,532, Eff. 4/20/89.)

Notwithstanding the provisions of Section 114.04, it shall be unlawful for any person, to sound, blow or operate any music, chimes or bells, or any similar sound device, amplified or otherwise, within 200 feet of any residential building between the hours of 9:00 p.m. and 7:00 a.m. the next day while operating a catering truck, as that term is defined in Section 80.73 of the Municipal Code.

SEC. 114.06. VEHICLE THEFT ALARM SYSTEMS.

(Former Sec. 114.05, Renumbered by Ord. No. 164,532, Eff. 4/20/89.)

It shall be unlawful for any person to install, operate or use any vehicle theft alarm system that emits or causes the emission of an audible sound, which is not, or does not become, automatically and completely silenced within five minutes. The time period shall be calculated based upon the emission of the first audible sound and shall end five minutes thereafter notwithstanding any variation or stoppage in the emissions of audible sound. Violation of this section shall constitute an infraction.

SEC. 114.07. AUDIBLE STATUS INDICATOR.

(Added by Ord. No. 169,785, Eff. 6/9/94.)

It shall be unlawful for any person to install, operate, use or maintain any vehicle theft alarm system which utilizes an audible status indicator emitting or causing the emission of an audible sound for a duration of more than one minute. The time period shall be calculated from the point in time of the emission of the first audible sound used in calculation and shall end one minute thereafter, notwithstanding any variation or temporary stoppage in the emission of audible sound.

As used in this section, an audible status indicator is a component of a vehicle theft alarm system which emits sound audible outside the vehicle for the purpose of warning that a vehicle theft alarm system is installed and armed or operational. The term "**audible status indicator**" shall include any device which emits a chirp, voice message or other sound when an approaching person is within a certain distance of the vehicle in which the device is installed.

In the event enforcement of a violation occurs under this section, no enforcement shall be taken under Section 80.75.I of the Municipal Code for the same violation.

Violation of any provision of this section shall constitute an infraction.

ARTICLE 5
AMPLIFIED SOUND

Section

115.01 Purpose.

115.02 Prohibition and Regulations.

SEC. 115.01. PURPOSE.

The Council enacts this legislation for the sole purpose of securing and promoting the public health, comfort, safety, and welfare of its citizenry. While recognizing that certain uses of sound amplifying equipment are protected by the constitutional rights of freedom of speech and assembly, the Council nevertheless feels obligated to reasonably regulate the use of sound amplifying equipment in order to protect the correlative constitutional rights of the citizens of this community to privacy and freedom from public nuisance of loud and unnecessary **noise** .

SEC. 115.02. PROHIBITION AND REGULATIONS.

It shall be unlawful for any person, other than personnel of law enforcement or governmental agencies, or permittees duly authorized to use the same pursuant to Sec. 103.111 of this Code, to install, use, or operate within the City a loudspeaker or sound amplifying equipment in a fixed or movable position or mounted upon any sound truck for the purposes of giving instructions, directions, talks, addresses, lectures, or transmitting music to any persons or assemblages of persons in or upon any public street, alley, sidewalk, park or place, or other public property except when installed, used or operated in compliance with the following provisions:

(a) In all residential zones and within 500 feet thereof, no sound amplifying equipment shall be installed, operated or used for commercial purposes at any time.

(b) The operation or use of sound amplifying equipment for noncommercial purposes in all residential zones and within 500 feet thereof, except when used for regularly scheduled operative functions by any school or for the usual and customary purposes of any church, is prohibited between the hours of 4:30 p.m. and 9:00 a.m. of the following day.

(c) In all other zones, except such portions thereof as may be included within 500 feet of any residential zone, the operation or use of sound amplifying equipment for commercial purposes is prohibited between the hours of 9:00 p.m. and 8:00 a.m. of the following day.

(d) In all other zones, except such portions thereof as may be included within 500 feet of any residential zone, the operation or use of sound amplifying equipment for noncommercial purposes is prohibited between the hours of 10:00 p.m. and 7:00 a.m. of the following day.

(e) The only sounds permitted shall be either music, human speech, or both.

(f) Sound emanating from sound amplifying equipment shall be limited in volume, tone and intensity as follows:

1. The sound shall not be audible at a distance in excess of 200 feet from the sound equipment.

2. In no event shall the sound be loud and raucous or unreasonably jarring, disturbing, annoying or a nuisance to reasonable persons of normal sensitiveness within the area of audibility.

(g) Except as provided in (b) above, no sound amplifying equipment shall be operated upon any property adjacent to and within 200 feet of any hospital grounds or any school or church building while in use.

(h) **(Amended by Ord. No. 145,691, Eff. 5/2/74.)** The operation or use of any sound amplifying equipment installed, mounted, attached or carried in or by any sound truck is further prohibited:

1. Within the Central Traffic district at any time;
2. Upon Hollywood Boulevard between Vermont Avenue and La Brea at any time;
3. Upon Wilshire Boulevard at any time;
4. Upon Sunset Boulevard at any time;
5. Upon Vine Street at any time;
6. Upon any street between the hours of 4:30 p.m. and 9:00 a.m. of the following day;
7. Upon any street on any Sunday.

ARTICLE 6
GENERAL NOISE

Section

116.01 Loud, Unnecessary and Unusual **Noise** .

SEC. 116.01. LOUD, UNNECESSARY AND UNUSUAL NOISE .

Notwithstanding any other provisions of this chapter and in addition thereto, it shall be unlawful for any person to willfully make or continue, or cause to be made or continued, any loud, unnecessary, and unusual **noise** which disturbs the peace or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area. The standard which may be considered in determining whether a violation of the provisions of this section exists may include, but not be limited to, the following:

(a) The level of **noise** ;

(b) Whether the nature of the **noise** is usual or unusual;

(c) Whether the origin of the **noise** is natural or unnatural;

(d) The level and intensity of the background **noise** , if any;

(e) The proximity of the **noise** to residential sleeping facilities;

(f) The nature and zoning of the area within which the **noise** emanates;

(g) The density of the inhabitation of the area within which the **noise** emanates;

(h) The time of the day and night the **noise** occurs;

(i) The duration of the **noise** ;

(j) Whether the **noise** is recurrent, intermittent, or constant; and

(k) Whether the **noise** is produced by a commercial or noncommercial activity.

SEC. 41.40. NOISE DUE TO CONSTRUCTION, EXCAVATION WORK – WHEN PROHIBITED.

(a) No person shall, between the hours of 9:00 P.M. and 7:00 A.M. of the following day, perform any construction or repair work of any kind upon, or any excavating for, any building or structure, where any of the foregoing entails the use of any power driven drill, riveting machine excavator or any other machine, tool, device or equipment which makes loud noises to the disturbance of persons occupying sleeping quarters in any dwelling hotel or apartment or other place of residence. In addition, the operation, repair or servicing of construction equipment and the job-site delivering of construction materials in such areas shall be prohibited during the hours herein specified. Any person who knowingly and wilfully violates the foregoing provision shall be deemed guilty of a misdemeanor punishable as elsewhere provided in this Code. **(Amended by Ord. No. 158,587, Eff. 1/29/84.)**

(b) The provisions of Subsection (a) shall not apply to any person who performs the construction, repair or excavation work involved pursuant to the express written permission of the Board of Police Commissioners through its Executive Director. The Executive Director, on behalf of the Board, may grant this permission, upon application in writing, where the work proposed to be done is in the public interest, or where hardship or injustice, or unreasonable delay would result from its interruption during the hours mentioned above, or where the building or structure involved is devoted or intended to be devoted to a use immediately related to public defense. The provisions of this section shall not in any event apply to construction, repair or excavation work done within any district zoned for manufacturing or industrial uses under the provisions of Chapter I of this Code, nor to emergency work necessitated by any flood, fire or other catastrophe. **(Amended by Ord. No. 178,160, Eff. 2/12/07.)**

(c) **(Amended by Ord. No. 166,170, Eff. 9/29/90.)** No person, other than an individual homeowner engaged in the repair or construction of his single-family dwelling shall perform any construction or repair work of any kind upon, or any earth grading for, any building or structure located on land developed with residential buildings under the provisions of Chapter I of this Code, or perform such work within 500 feet of land so occupied, before 8:00 a.m. or after 6:00 p.m. on any Saturday or national holiday nor at any time on any Sunday. In addition, the operation, repair or servicing of construction equipment and the job-site delivering of construction materials in such areas shall be prohibited on Saturdays and on Sundays during the hours herein specified. The provisions of this subsection shall not apply to persons engaged in the emergency repair of:

1. Any building or structure.
2. Earth supporting or endangering any building or structure.
3. Any public utility.

4. Any public way or adjacent earth.

(d) The provisions of Subsection (c) shall not apply to construction work done on the Metro Rail Project and the tunnel-station portions of the Los Angeles-Long Beach Rail Project between Sixth to Twelfth Streets, provided however that this construction work shall not include the utilization of soldier pile drilling, vibrating hammer driving, blasting, or any construction activities that will exceed the ambient noise levels as provided in the action of the Police Commission, pursuant to Subsection (b) above, granting a variance for this work. In addition, this construction work will be subject to all the conditions of the conditional variance granted by the Board through its Executive Director. This section shall have no force or effect upon completion of the construction work described here. **(Amended by Ord. No. 178,160, Eff. 2/12/07.)**

(e) The provisions of this section shall not apply to construction work done by CALTRANS to repair the collapsed sections of the Santa Monica Freeway within a one mile radius of the intersection of Interstate 10 and Fairfax Avenue. This section shall have no force and effect upon completion of the construction work herein described. **(Added by Ord. No. 169,669, Eff. 5/13/94.)**

(f) The provisions of this section shall not apply to construction work done by the County of Los Angeles in connection with Phases 2 and 3 of Unit 5 of the Hollyhills Storm Drain Project, including the installation of temporary bridges and any other structures necessary to regulate or direct traffic because of the storm drain construction. Unit 5 construction is within the area bounded by Beverly Boulevard, 3rd Street, La Cienega Boulevard and San Vicente Boulevard. Phases 2 and 3 involve several underground concrete structures to be built in and around the intersection of La Cienega and San Vicente Boulevards. This section shall have no force and effect upon completion of the construction work herein specified. **(Added by Ord. No. 172, 091, Eff. 7/3/98.)**

(g) The provisions of Subsection (c) shall not apply to construction work undertaken from March 31, 2000 to August 20, 2000 that must be done prior to the Democratic National Convention, provided however that such construction work will be subject to all conditions established by the Los Angeles Police Department Noise Enforcement Team, in 1) the downtown area bounded by Union Street on the west, Washington on the south, San Pedro on the east, and 101 Freeway on the North, including but not limited to work undertaken in compliance with construction permits issued by the Bureau of Engineering, water line improvements/installation, sewer construction, fiber optic installation, and street paving or is associated with the Convention such as installation and removal of security barriers and fencing and 2) the Windward Plaza area of Venice Beach, between 18th Place and Horizon Avenue from the western border of Ocean Front Walk to the beach, for the Venice Beach Ocean Front Walk

Refurbishment Project under the direction of the City of Los Angeles Department of Recreation and Parks Department. This section shall have no force and effect after August 20, 2000. **(Added by Ord. No. 173,154, Eff. 4/30/00.)**

(h) The provisions of Subsection (c) shall not apply to the construction work done by the City of Los Angeles in connection with the portion of the Stone-Hollywood Trunk Line from Stone Canyon Reservoir service area to the Hollywood Reservoir service area as part of the Hollywood Water Quality Improvement Project undertaken on Pico Boulevard, including all structures and operations necessary for construction and/or to regulate or direct traffic due to construction activities. This section shall have no force and effect upon completion of the construction work herein specified. **(Added by Ord. No. 173,746, Eff. 1/23/01.)**

[(i) None.]

(j) As determined by the Executive Director of the Board, the provisions of Subsection (c) shall not apply to major public works construction by the City of Los Angeles and its proprietary Departments, including all structures and operations necessary to regulate or direct traffic due to construction activities. The Board, through its Executive Director, pursuant to Subsection (b) will grant a variance for this work and construction activities will be subject to all conditions of the variance as granted. Concurrent with the request for a variance, the City Department that will conduct the construction work will notify each affected Council district office and established Neighborhood Council of projects where proposed Sunday and/or Holiday work will occur. **(Amended by Ord. No. 178,160, Eff. 2/12/07.)**

(k) **Noise Variance Application Fee.** Any application to the Board for a noise variance under Subsection (b) shall be accompanied by payment of an application fee of $248.00. **(Amended by Ord. No. 182,852, Eff. 2/15/14.)**

SEC. 57.4705.4. EMERGENCY HELICOPTER LANDING FACILITY.

Each building shall have a rooftop emergency helicopter landing facility in a location approved by the Chief. A heliport as classified in FAA Advisory Circular 150/5390 2B may be accepted in lieu of the

emergency helicopter landing facility. Facilities shall be installed under Permit of Chapter 9 of the Los Angeles Municipal Code (Building and Plumbing Code) and should also be in accordance with the guidelines of FAA Advisory Circular 150/5390 2B.

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Appendix G Noise Details and Modeling

City of Carson Municipal Code (re Noise)

City of Carson Municipal Code

CHAPTER 5
NOISE CONTROL ORDINANCE

Sections:

§ 5500 Adoption of Los Angeles County Noise Control Ordinance.

§ 5501 Definitions.

§ 5502 Amendments to Noise Control Ordinance.

§ 5503 Violation – Penalty.

5500 Adoption of Los Angeles County Noise Control Ordinance.

Except as hereinafter provided, Chapter 12.08 of Title 12 of the Los Angeles County Code, entitled "Noise Control Ordinance of the County of Los Angeles," as amended and in effect on August 1, 1995, is hereby adopted by reference and shall be known as the Noise Control Ordinance of the City of Carson.

A copy of said Chapter 12.08 of Title 12 of the Los Angeles County Code, as amended, is attached and has been deposited with the office of the City Clerk of the City of Carson and shall be at all times maintained by said Clerk for use and examination by the public. (Ord. 95-1068, § 1)

5501 Definitions.

Whenever any of the following names or terms are used in said Noise Control Ordinance, each such name or term shall be deemed and construed to have the meaning ascribed to it in this Section as follows:

"Board of Supervisors of the County" shall mean the City Council of the City of Carson.

"County of Los Angeles," "the County," "unincorporated areas of the County," and "unincorporated County" shall, except as provided in Section 12.08.108 as amended, mean the City of Carson.

"County Ordinance 1494, as amended" shall mean Article IX of the Carson Municipal Code. (Ord. 95-1068, § 1)

5502 Amendments to Noise Control Ordinance.

Notwithstanding the provisions of CMC 5500, the Noise Control Ordinance is hereby amended as follows:

(a) By amending Section 12.08.180 to read:

12.08.180. “Health officer” means the Director of Public Safety of the City of Carson and shall be deemed to include the Director of the Department Health Services of the County of Los Angeles, or his duly authorized representatives, while performing public health services, including noise level measurements, under contract with the City.

(b) By amending subsection B of Section 12.08.390 to read:

12.08.390B. Unless otherwise herein provided, no person shall operate or cause to be operated, any source of sound at any location within the unincorporated county, or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person which causes the noise level, when measured on any other property either incorporated or unincorporated, to exceed any of the following exterior noise standards:

Standard No. 1 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 15 minutes in any 30 minute period. Standard No. 1 shall be the applicable noise level from subsection A of this Section; or, if the ambient L_{50} exceeds the foregoing level, then the ambient L_{50} becomes the exterior noise level for Standard No. 1.

Standard No. 2 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 7.5 minutes in any 30 minute period. Standard No. 2 shall be the applicable noise level from subsection A of this Section plus 5dB; or, if the ambient L_{25} exceeds the foregoing level, then the ambient L_{25} becomes the exterior noise level for Standard No. 2.

Standard No. 3 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 2.5 minutes in any 30 minute period. Standard No. 3 shall be the applicable noise level from subsection A of this Section plus 20dB; or, if the ambient $L_{8.3}$ exceeds the foregoing level, then the ambient $L_{8.3}$ becomes the exterior noise level for Standard No. 3.

Standard No. 4 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 30 seconds in any 30 minute period. Standard No. 4 shall be the applicable noise level from subsection A of this Section plus 15dB; or, if

the ambient $L_{1.7}$ exceeds the foregoing level, then the ambient $L_{1.7}$ becomes the exterior noise level for Standard No. 4.

Standard No. 5 shall be the exterior noise level which may not be exceeded for any period of time. Standard No. 5 shall be the applicable noise level from subsection A of this Section plus 20dB; or, if the ambient L_0 exceeds the foregoing level then the ambient L_0 becomes the exterior noise level for Standard No. 5.

(c) By amending subsection B1 of Section 12.08.440 to read:

12.08.440B1. Noise Restrictions at Affected Structures. The contractor shall conduct construction activities in such a manner that the maximum noise levels at the affected buildings will not exceed those listed in the following schedule:

1. At Residential Structures.

a. Mobile Equipment. Maximum noise levels for Non-scheduled, intermittent, short-term operation of twenty (20) days or less for construction equipment:

a) Maximum noise levels for non-scheduled, intermittent, short-term operations of twenty (20) days or less for construction equipment:

	Single-family Residential	Multi-family Residential
Daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m.	75dBA	80dBA
Daily, 8:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays	60dBA	64dBA

b) Maximum noise level for repetitively scheduled and relatively long-term operation of twenty-one (21) days or more for construction equipment:

	Single-family Residential	Multi-family Residential
Daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m.	65dBA	70dBA
Daily, 8:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays	55dBA	60dBA

(d) By amending Section 12.08.460 to read:

12.08.460. Loading and Unloading Operations. Loading, unloading, opening, closing or other handling of boxes, crates, containers, building materials, garbage cans or similar objects between the hours of 9:00 p.m. and 7:00 a.m. in such a manner as to cause noise disturbance is prohibited.

(e) By amending subsection C of Section 12.08.570 to read:

12.08.570C. Outdoor Activities. Nonproprietary activities conducted on public grounds under the direct authority of the public governing body, including, but not limited to (i) athletic events and (ii) entertainment or cultural events with a concurrent attendance not in excess of two thousand five hundred (2,500) persons; and the equivalent of the foregoing nonproprietary activities when conducted on private school grounds under the direct authority of the private school governing body.

(f) By amending subsection M.2 of Section 12.08.570 to read:

12.08.570M.2. Drilling or redrilling or redrilling work which is done in full compliance with Article IX of the Carson Municipal Code, including CMC 9148.2.

(g) By adding subsection N to Section 12.08.570 to read:

12.08.570.N. City Construction Activities. All construction activities and operations undertaken by the City.

(h) By amending Section 12.08.580 to read:

12.08.580. Variance procedures.

A. Variance from the requirements of this Chapter may be granted by the Planning Commission (“Commission”) for a period not to exceed two (2) years, subject to such terms, conditions and requirements as may be reasonable under the circumstances.

B. Every applicant for a variance shall file with the Director of Community Development (“Director”) a written application on a form prescribed by the Director. The application shall state the name and address of the applicant, the nature of the noise source involved, all actions taken to comply with the provisions of this Chapter, the reasons why immediate compliance cannot be achieved, a proposed method for achieving compliance, a proposed time schedule for its accomplishment, and such other information as the Director may require. The application shall be accompanied by a fee in the amount established by resolution of the City Council. Upon receipt of said application and fee, the Director shall refer it with the recommendations thereon within sixty (60) days to the Commission for action thereon in accordance with the provisions of this Chapter.

C. The Commission shall hold a public hearing within forty-five (45) days, if possible, following acceptance of the application. Notice of the hearing shall be given in the manner prescribed by CMC 9172.22C.

D. After the hearing, the Commission shall, by resolution, render its decision to approve or disapprove a variance. A variance from the terms of this Chapter may be granted only if the Commission makes the findings that:

1. Additional time is necessary for the applicant to alter or modify its activity, operation or noise source to comply with this Chapter; or

2. The activity, operation or noise source cannot feasibly be done in a manner that would comply with the provisions of this Chapter, and no reasonable alternative is available to the applicant.

E. In granting a variance, the Commission may prescribe any conditions or requirements as may be deemed reasonably necessary to minimize adverse effects upon the community or the surrounding neighborhood. In this regard, the Commission shall consider the magnitude of nuisance caused by the offensive noise, the uses of property within the area of impingement by the noise, operations carried on under existing nonconforming rights or conditional use permit or zone variances, the time factors related to study, design, financing and construction of remedial work, the economic factors related to age and useful life of the equipment, the general public interest, health and welfare, the feasibility of plans submitted for correction, and the effect on the community if the variance were refused.

F. Notice of the Commission decision shall be given as provided in CMC 9173.32.

G. The decision of the Commission shall become effective and final fifteen (15) days after the date of its action unless an appeal is filed in accordance with CMC 9173.4.

H. An appeal shall be considered by the Council as provided in CMC 9173.4, and the fees therefor shall be as specified in CMC 9173.9 thereof.

I. After a variance has been granted, the procedure for modification of the conditions of the variance shall be as set forth in CMC 9172.22G.

J. A variance shall become automatically null and void, unless otherwise provided in this Chapter, or unless extended as provided in subsection K hereof, if any of the following occurs:

1. The variance has not been used within the time specified in the variance or, if the time is not specified, within one hundred eighty (180) days of its effective date;

2. Circumstances which terminate the variance pursuant to any termination provision included as a condition of the variance;

3. The use has been suspended or has ceased to exist for a period of one (1) year, or has been changed to another use in connection with which the variance is not required, or the deviation from the regulation which was authorized by the variance has ceased to exist for a period of one (1) year;

4. Upon a change of ordinance provisions so as to automatically permit in all respects that which was permitted by variance.

K. The procedure for extension of any variance granted hereunder shall be as set forth in CMC 9172.22H.2.

L. The applicable statute of limitations for court actions or proceedings relating to decisions, proceedings, acts or determinations pursuant to this Chapter shall be as set forth in CMC 9173.5.

(i) By deleting therefrom Sections 12.08.590, 12.08.600, 12.08.610, 12.08.620, 12.08.630, 12.08.640, and 12.08.670. (Ord. 95-1068, § 1)

5503 Violation – Penalty.

Any person violating any of the provisions of this Chapter shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be punished by a fine of not more than $1,000 or be imprisoned in the County Jail for a period not exceeding six (6) months or by both such fine and imprisonment. Each day such a violation is committed or permitted to continue shall constitute a separate offense and shall be punishable as such. (Ord. 95-1068, § 1)

Appendix G Noise Details and Modeling

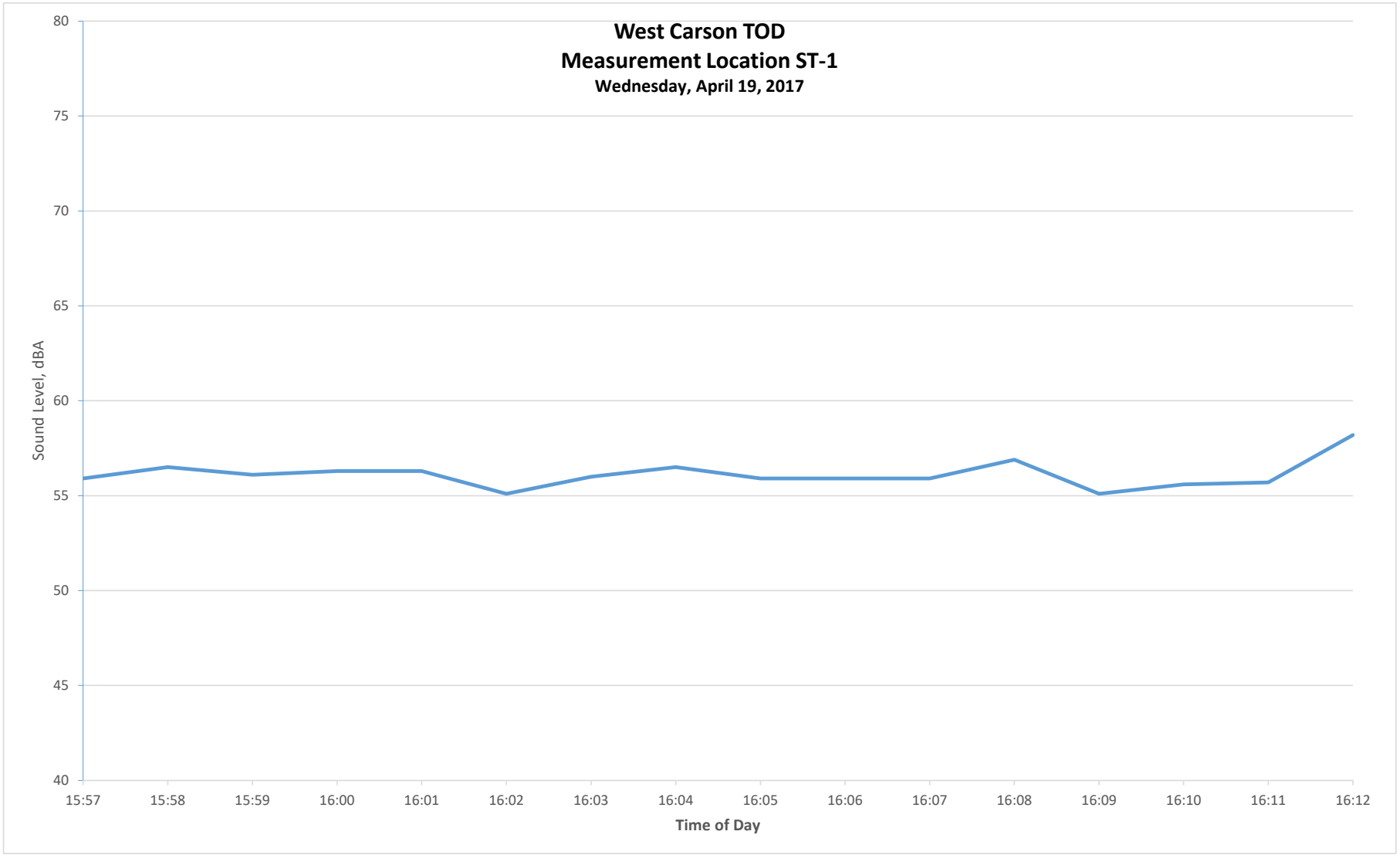
Ambient Noise Field Data – Short-term Sampling Results

ST-1 Time History

Date	Time	Level
19-Apr-17	15:57:03	55.9
19-Apr-17	15:58:03	56.5
19-Apr-17	15:59:03	56.1
19-Apr-17	16:00:03	56.3
19-Apr-17	16:01:03	56.3
19-Apr-17	16:02:03	55.1
19-Apr-17	16:03:03	56.0
19-Apr-17	16:04:03	56.5
19-Apr-17	16:05:03	55.9
19-Apr-17	16:06:03	55.9
19-Apr-17	16:07:03	55.9
19-Apr-17	16:08:03	56.9
19-Apr-17	16:09:03	55.1
19-Apr-17	16:10:03	55.6
19-Apr-17	16:11:03	55.7
19-Apr-17	16:12:03	58.2
	15-min Leq	**56.0**

ST-1 Intervals

Date	Time	Duration	Leq	SEL	Lmax	Lmin	L(2)	L(8)	L(10)	L(25)	L(50)	L(90)
19-Apr-17	15:57:03	900	56.0	85.6	59.2	53.8	57.9	57.1	57.0	56.5	55.8	54.6

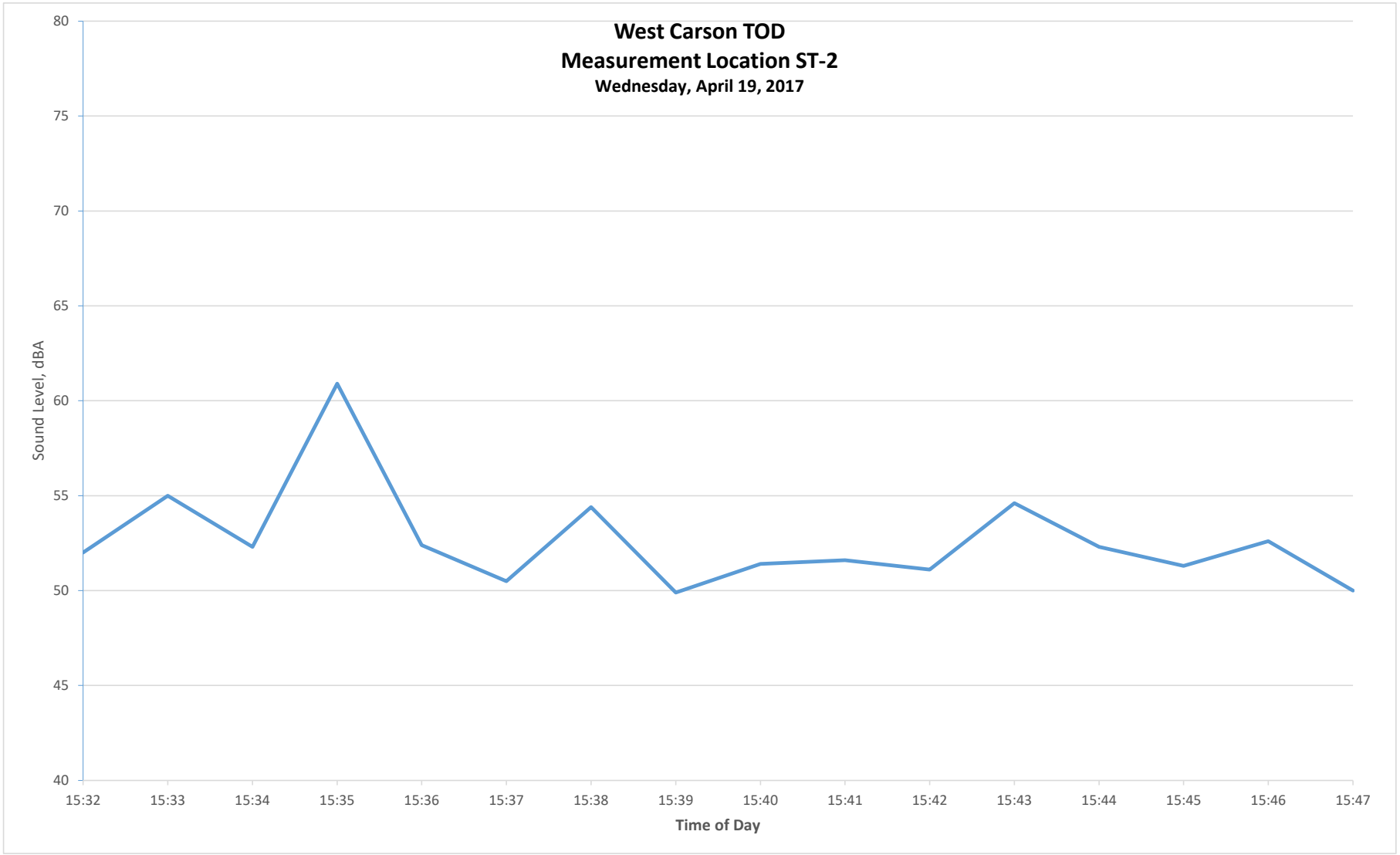

West Carson TOD
Measurement Location ST-1
Wednesday, April 19, 2017
Sound Level, dBA
80
75
70
65
60
55
50
45
40
15:57
15:58
15:59
16:00
16:01
16:02
16:03
16:04
16:05
16:06
16:07
16:08
16:09
16:10
16:11
16:12
Time of Day

ST-2 Time History

Date	Time	Level
19-Apr-17	15:32:17	52.0
19-Apr-17	15:33:17	55.0
19-Apr-17	15:34:17	52.3
19-Apr-17	15:35:17	60.9
19-Apr-17	15:36:17	52.4
19-Apr-17	15:37:17	50.5
19-Apr-17	15:38:17	54.4
19-Apr-17	15:39:17	49.9
19-Apr-17	15:40:17	51.4
19-Apr-17	15:41:17	51.6
19-Apr-17	15:42:17	51.1
19-Apr-17	15:43:17	54.6
19-Apr-17	15:44:17	52.3
19-Apr-17	15:45:17	51.3
19-Apr-17	15:46:17	52.6
19-Apr-17	15:47:17	50.0
	15-min Leq	**53.9**

ST-2 Intervals

Date	Time	Duration	Leq	SEL	Lmax	Lmin	L(2)	L(8)	L(10)	L(25)	L(50)	L(90)
19-Apr-17	15:32:17	900	53.9	83.5	68.3	47.8	63.2	56.0	55.0	52.8	51.4	49.2


West Carson TOD
Measurement Location ST-2
Wednesday, April 19, 2017
Sound Level, dBA
80
75
70
65
60
55
50
45
40
15:32
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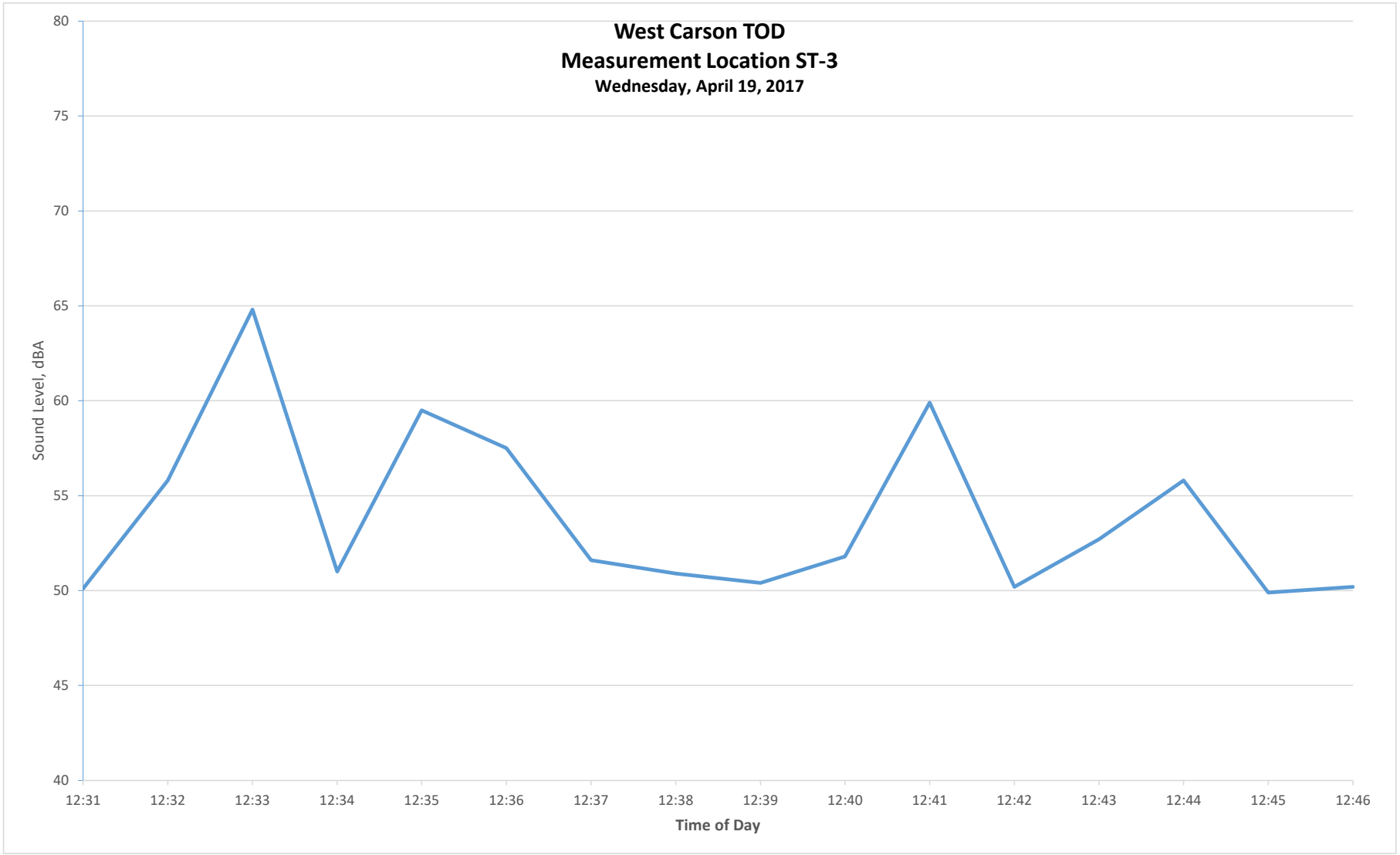
15:35
15:36
15:37
15:38
15:39
15:40
15:41
15:42
15:43
15:44
15:45
15:46
15:47
Time of Day

ST-3 Time History

Date	Time	Level
19-Apr-17	12:31:33	50.1
19-Apr-17	12:32:33	55.8
19-Apr-17	12:33:33	64.8
19-Apr-17	12:34:33	51.0
19-Apr-17	12:35:33	59.5
19-Apr-17	12:36:33	57.5
19-Apr-17	12:37:33	51.6
19-Apr-17	12:38:33	50.9
19-Apr-17	12:39:33	50.4
19-Apr-17	12:40:33	51.8
19-Apr-17	12:41:33	59.9
19-Apr-17	12:42:33	50.2
19-Apr-17	12:43:33	52.7
19-Apr-17	12:44:33	55.8
19-Apr-17	12:45:33	49.9
19-Apr-17	12:46:33	50.2
	15-min Leq	**56.9**

ST-3 Intervals

Date	Time	Duration	Leq	SEL	Lmax	Lmin	L(2)	L(8)	L(10)	L(25)	L(50)	L(90)
19-Apr-17	12:31:33	900	56.9	86.4	77.3	46.7	66.6	56.0	54.5	52.0	50.8	48.7

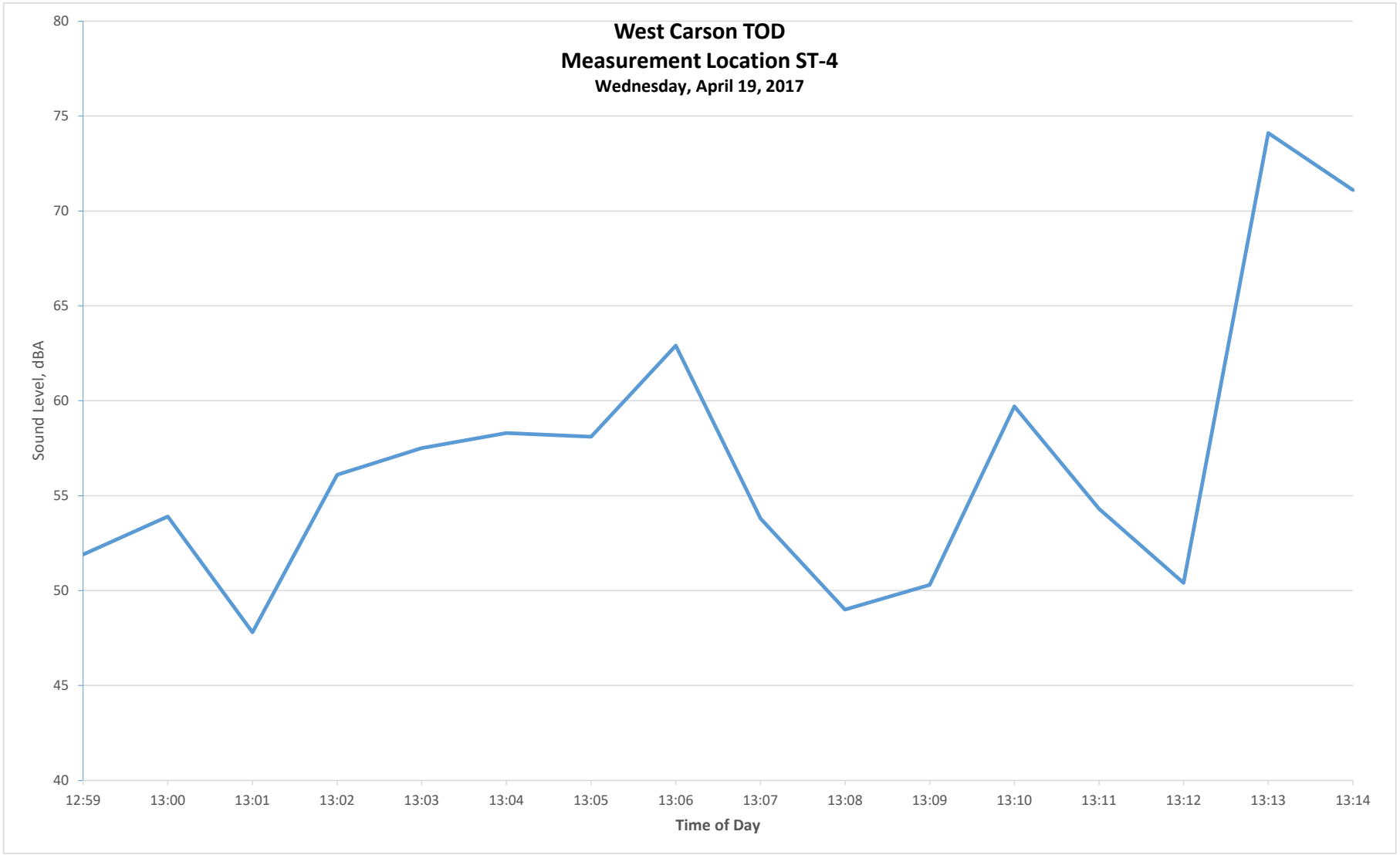

West Carson TOD
Measurement Location ST-3
Wednesday, April 19, 2017
Sound Level, dBA
80
75
70
65
60
55
50
45
40
12:31
12:32
12:33
12:34
12:35
12:36
12:37
12:38
12:39
12:40
12:41
12:42
12:43
12:44
12:45
12:46
Time of Day

ST-4 Time History

Date	Time	Level
19-Apr-17	12:59:45	51.9
19-Apr-17	13:00:45	53.9
19-Apr-17	13:01:45	47.8
19-Apr-17	13:02:45	56.1
19-Apr-17	13:03:45	57.5
19-Apr-17	13:04:45	58.3
19-Apr-17	13:05:45	58.1
19-Apr-17	13:06:45	62.9
19-Apr-17	13:07:45	53.8
19-Apr-17	13:08:45	49.0
19-Apr-17	13:09:45	50.3
19-Apr-17	13:10:45	59.7
19-Apr-17	13:11:45	54.3
19-Apr-17	13:12:45	50.4
19-Apr-17	13:13:45	74.1
19-Apr-17	13:14:45	71.1
	15-min Leq	**63.3**

ST-4 Intervals

Date	Time	Duration	Leq	SEL	Lmax	Lmin	L(2)	L(8)	L(10)	L(25)	L(50)	L(90)
19-Apr-17	12:59:45	900	63.3	92.8	91.6	44.9	67.9	60.5	58.7	52.4	49.3	47.0

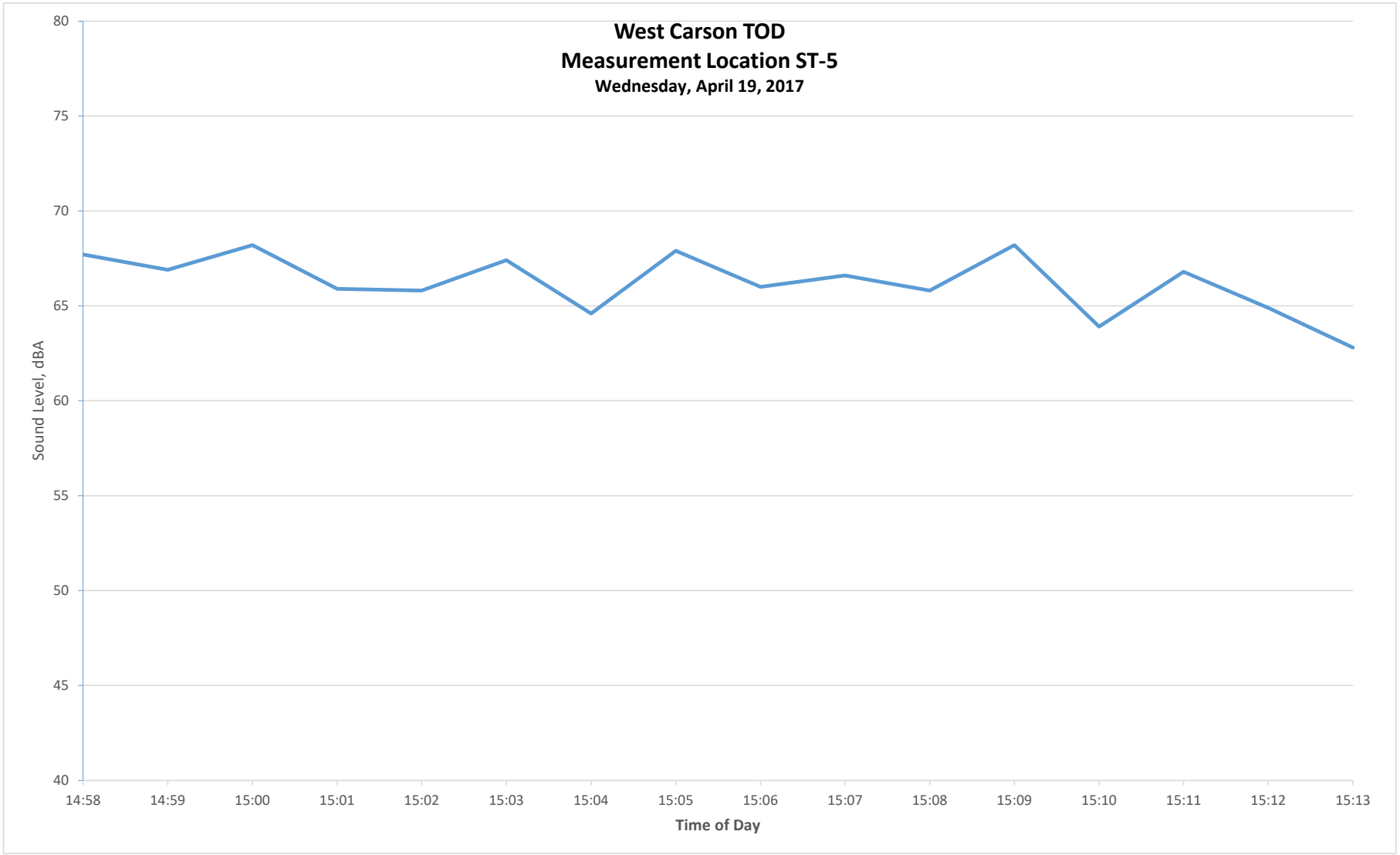

West Carson TOD
Measurement Location ST-4
Wednesday, April 19, 2017
Sound Level, dBA
80
75
70
65
60
55
50
45
40
12:59
13:00
13:01
13:02
13:03
13:04
13:05
13:06
13:07
13:08
13:09
13:10
13:11
13:12
13:13
13:14
Time of Day

ST-5 Time History

Date	Time	Level
19-Apr-17	14:58:54	67.7
19-Apr-17	14:59:54	66.9
19-Apr-17	15:00:54	68.2
19-Apr-17	15:01:54	65.9
19-Apr-17	15:02:54	65.8
19-Apr-17	15:03:54	67.4
19-Apr-17	15:04:54	64.6
19-Apr-17	15:05:54	67.9
19-Apr-17	15:06:54	66.0
19-Apr-17	15:07:54	66.6
19-Apr-17	15:08:54	65.8
19-Apr-17	15:09:54	68.2
19-Apr-17	15:10:54	63.9
19-Apr-17	15:11:54	66.8
19-Apr-17	15:12:54	64.9
19-Apr-17	15:13:54	62.8
	15-min Leq	**66.6**

ST-5 Intervals

Date	Time	Duration	Leq	SEL	Lmax	Lmin	L(2)	L(8)	L(10)	L(25)	L(50)	L(90)
19-Apr-17	14:58:54	900	66.6	96.2	76.0	59.8	72.1	69.5	69.0	67.3	65.6	62.4

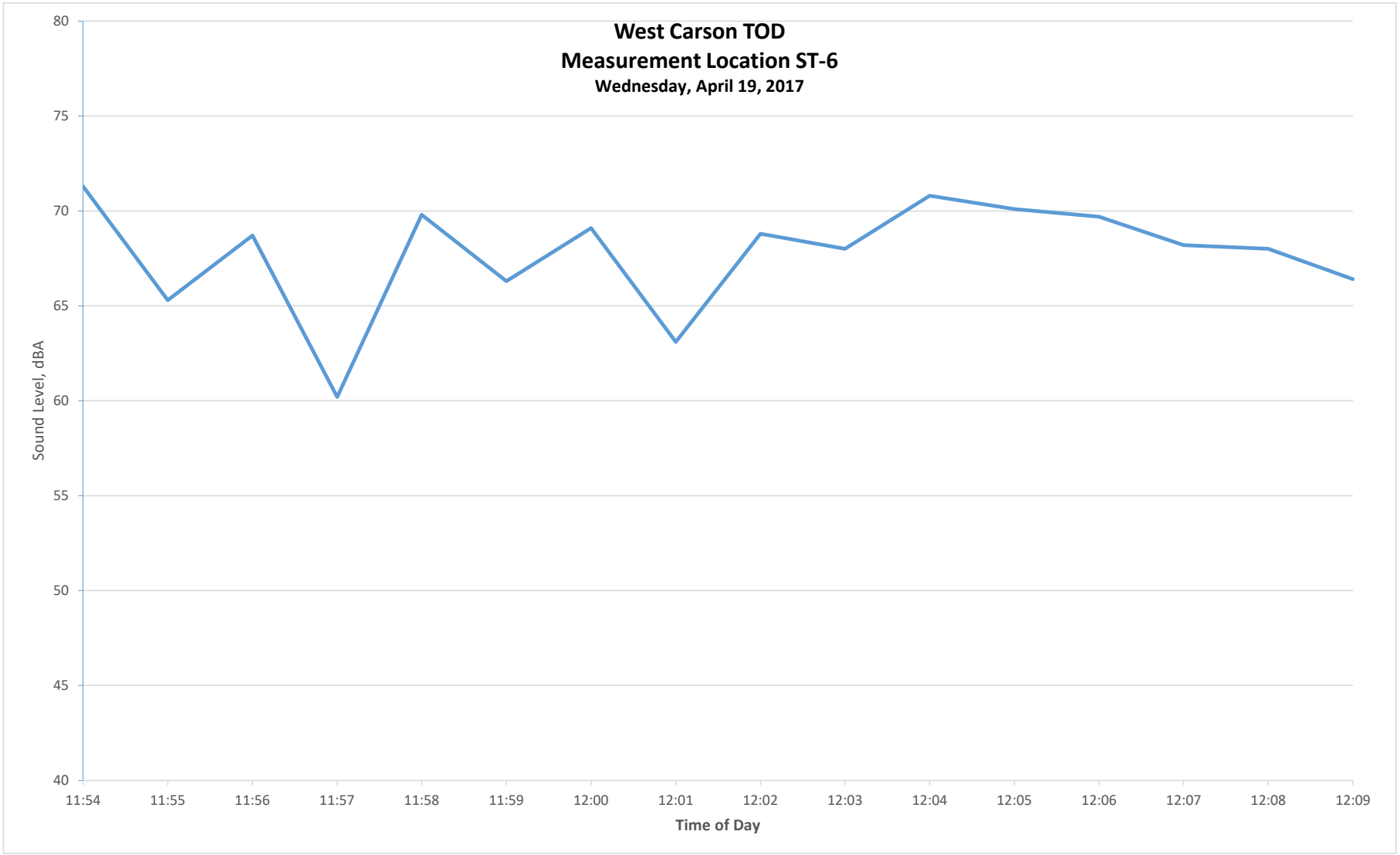

West Carson TOD
Measurement Location ST-5
Wednesday, April 19, 2017
Sound Level, dBA
80
75
70
65
60
55
50
45
40
14:58
14:59
15:00
15:01
15:02
15:03
15:04
15:05
15:06
15:07
15:08
15:09
15:10
15:11
15:12
15:13
Time of Day

ST-6 Time History

Date	Time	Level
19-Apr-17	11:54:51	71.3
19-Apr-17	11:55:51	65.3
19-Apr-17	11:56:51	68.7
19-Apr-17	11:57:51	60.2
19-Apr-17	11:58:51	69.8
19-Apr-17	11:59:51	66.3
19-Apr-17	12:00:51	69.1
19-Apr-17	12:01:51	63.1
19-Apr-17	12:02:51	68.8
19-Apr-17	12:03:51	68.0
19-Apr-17	12:04:51	70.8
19-Apr-17	12:05:51	70.1
19-Apr-17	12:06:51	69.7
19-Apr-17	12:07:51	68.2
19-Apr-17	12:08:51	68.0
19-Apr-17	12:09:51	66.4
	15-min Leq	**68.6**

ST-6 Intervals

Date	Time	Duration	Leq	SEL	Lmax	Lmin	L(2)	L(8)	L(10)	L(25)	L(50)	L(90)
19-Apr-17	11:54:51	900	68.6	98.1	79.3	53.2	75.6	72.5	71.9	70.0	66.3	56.8


West Carson TOD
Measurement Location ST-6
Wednesday, April 19, 2017
Sound Level, dBA
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75
70
65
60
55
50
45
40
11:54
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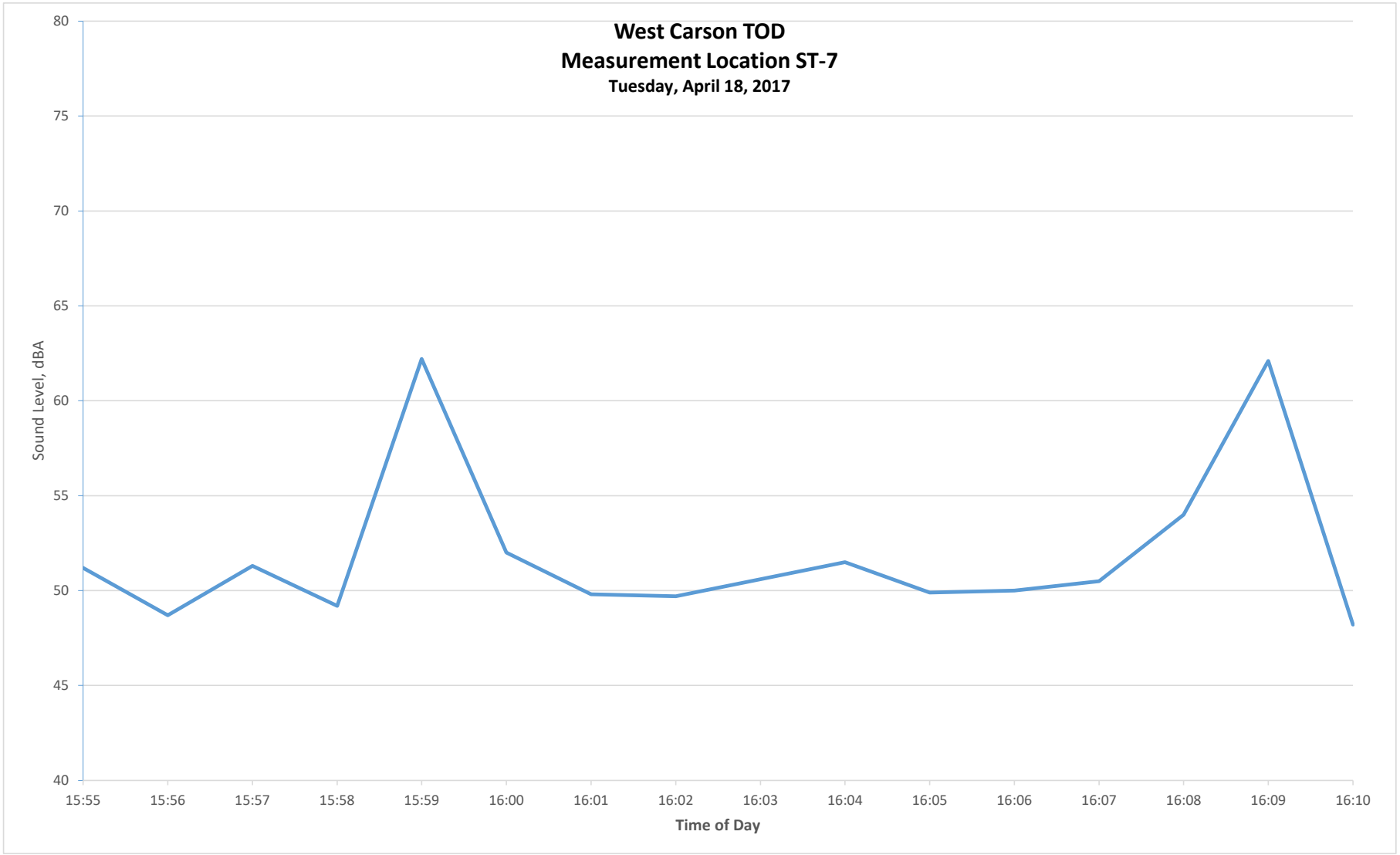
11:56
11:57
11:58
11:59
12:00
12:01
12:02
12:03
12:04
12:05
12:06
12:07
12:08
12:09
Time of Day

ST-7 Time History

Date	Time	Level
18-Apr-17	15:55:37	51.2
18-Apr-17	15:56:37	48.7
18-Apr-17	15:57:37	51.3
18-Apr-17	15:58:37	49.2
18-Apr-17	15:59:37	62.2
18-Apr-17	16:00:37	52.0
18-Apr-17	16:01:37	49.8
18-Apr-17	16:02:37	49.7
18-Apr-17	16:03:37	50.6
18-Apr-17	16:04:37	51.5
18-Apr-17	16:05:37	49.9
18-Apr-17	16:06:37	50.0
18-Apr-17	16:07:37	50.5
18-Apr-17	16:08:37	54.0
18-Apr-17	16:09:37	62.1
18-Apr-17	16:10:37	48.2
	15-min Leq	**55.1**

ST-7 Intervals

Date	Time	Duration	Leq	SEL	Lmax	Lmin	L(2)	L(8)	L(10)	L(25)	L(50)	L(90)
18-Apr-17	15:55:37	900	55.1	84.7	72.8	46.0	65.8	55.5	54.7	51.9	50.0	47.6

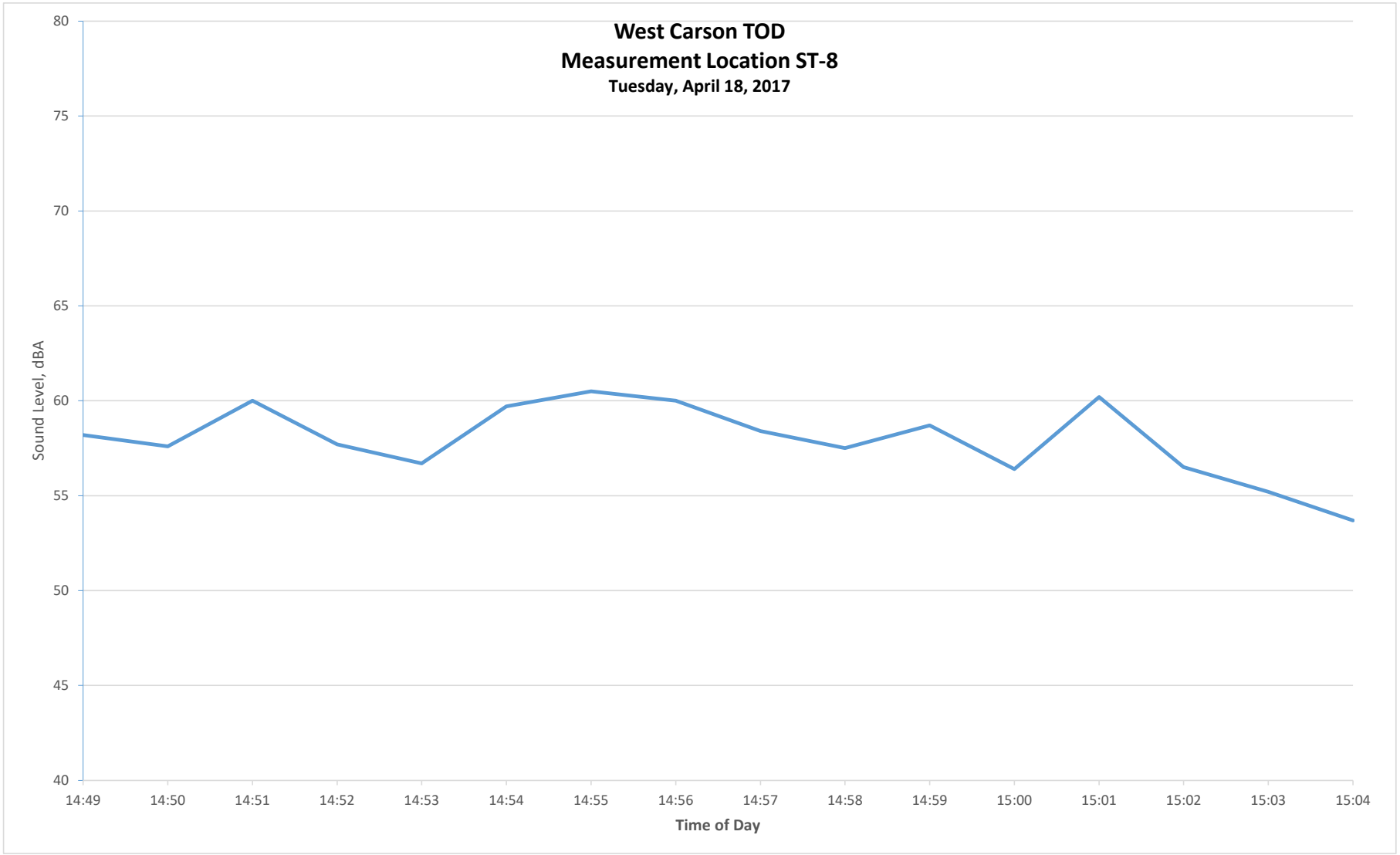

West Carson TOD
Measurement Location ST-7
Tuesday, April 18, 2017
Sound Level, dBA
80
75
70
65
60
55
50
45
40
15:55
15:56
15:57
15:58
15:59
16:00
16:01
16:02
16:03
16:04
16:05
16:06
16:07
16:08
16:09
16:10
Time of Day

ST-8 Time History

Date	Time	Level
18-Apr-17	14:49:35	58.2
18-Apr-17	14:50:35	57.6
18-Apr-17	14:51:35	60.0
18-Apr-17	14:52:35	57.7
18-Apr-17	14:53:35	56.7
18-Apr-17	14:54:35	59.7
18-Apr-17	14:55:35	60.5
18-Apr-17	14:56:35	60.0
18-Apr-17	14:57:35	58.4
18-Apr-17	14:58:35	57.5
18-Apr-17	14:59:35	58.7
18-Apr-17	15:00:35	56.4
18-Apr-17	15:01:35	60.2
18-Apr-17	15:02:35	56.5
18-Apr-17	15:03:35	55.2
18-Apr-17	15:04:35	53.7
	15-min Leq	**58.5**

ST-8 Intervals

Date	Time	Duration	Leq	SEL	Lmax	Lmin	L(2)	L(8)	L(10)	L(25)	L(50)	L(90)
18-Apr-17	14:49:35	900	58.5	88.0	69.6	48.4	65.8	62.6	62.0	58.6	56.3	51.7

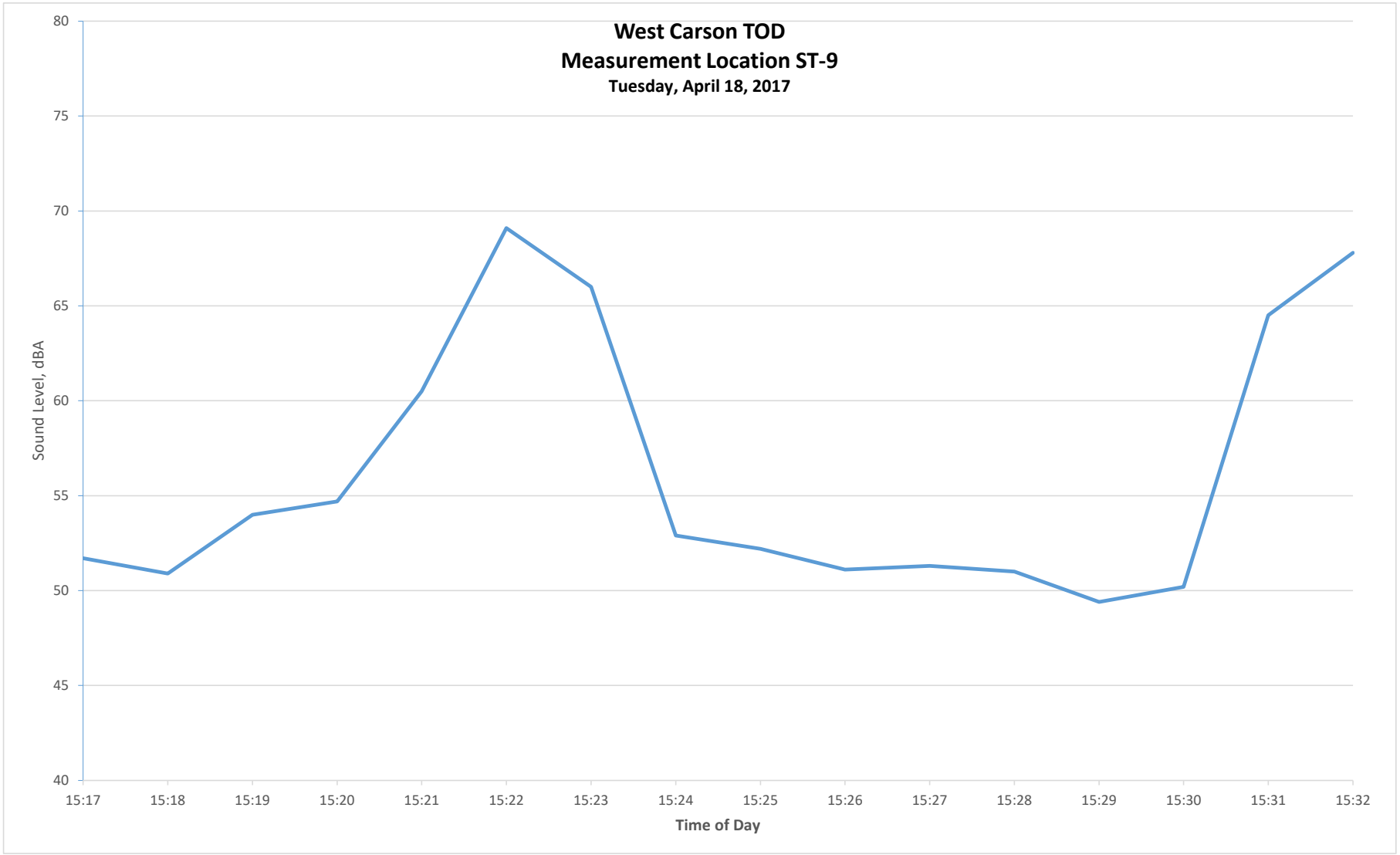

West Carson TOD
Measurement Location ST-8
Tuesday, April 18, 2017
Sound Level, dBA
80
75
70
65
60
55
50
45
40
14:49
14:50
14:51
14:52
14:53
14:54
14:55
14:56
14:57
14:58
14:59
15:00
15:01
15:02
15:03
15:04
Time of Day

ST-9 Time History

Date	Time	Level
18-Apr-17	15:17:29	51.7
18-Apr-17	15:18:29	50.9
18-Apr-17	15:19:29	54.0
18-Apr-17	15:20:29	54.7
18-Apr-17	15:21:29	60.5
18-Apr-17	15:22:29	69.1
18-Apr-17	15:23:29	66.0
18-Apr-17	15:24:29	52.9
18-Apr-17	15:25:29	52.2
18-Apr-17	15:26:29	51.1
18-Apr-17	15:27:29	51.3
18-Apr-17	15:28:29	51.0
18-Apr-17	15:29:29	49.4
18-Apr-17	15:30:29	50.2
18-Apr-17	15:31:29	64.5
18-Apr-17	15:32:29	67.8
	15-min Leq	**60.7**

ST-9 Intervals

Date	Time	Duration	Leq	SEL	Lmax	Lmin	L(2)	L(8)	L(10)	L(25)	L(50)	L(90)
18-Apr-17	15:17:29	900	60.7	90.3	74.2	47.7	70.4	66.6	65.6	55.5	51.7	49.5


West Carson TOD
Measurement Location ST-9
Tuesday, April 18, 2017
Sound Level, dBA
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75
70
65
60
55
50
45
40
15:17
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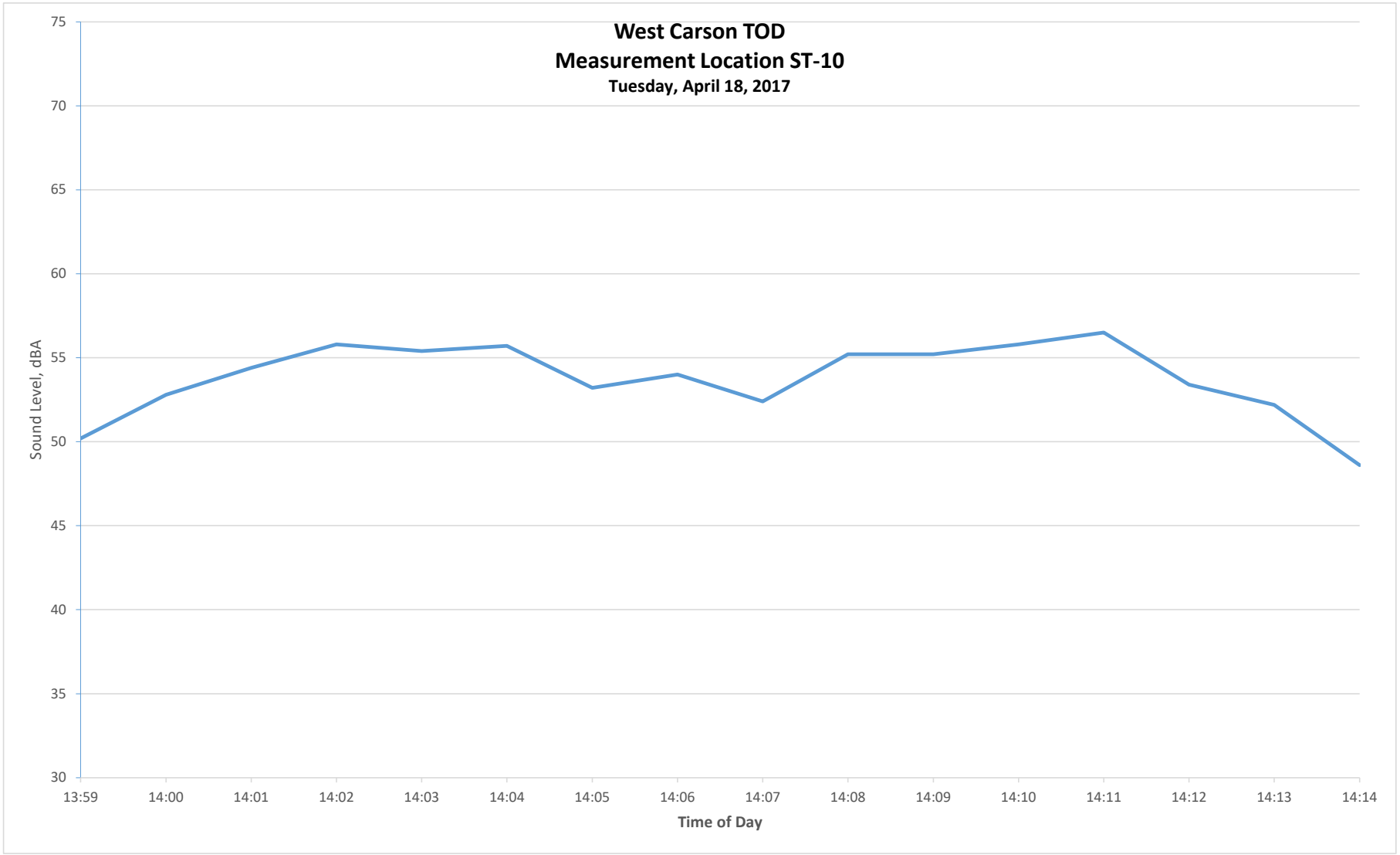
15:19
15:20
15:21
15:22
15:23
15:24
15:25
15:26
15:27
15:28
15:29
15:30
15:31
15:32
Time of Day

ST-10 Time History

Date	Time	Level
18-Apr-17	13:59:54	50.2
18-Apr-17	14:00:54	52.8
18-Apr-17	14:01:54	54.4
18-Apr-17	14:02:54	55.8
18-Apr-17	14:03:54	55.4
18-Apr-17	14:04:54	55.7
18-Apr-17	14:05:54	53.2
18-Apr-17	14:06:54	54.0
18-Apr-17	14:07:54	52.4
18-Apr-17	14:08:54	55.2
18-Apr-17	14:09:54	55.2
18-Apr-17	14:10:54	55.8
18-Apr-17	14:11:54	56.5
18-Apr-17	14:12:54	53.4
18-Apr-17	14:13:54	52.2
18-Apr-17	14:14:54	48.6
	15-min Leq	**54.4**

ST-10 Intervals

Date	Time	Duration	Leq	SEL	Lmax	Lmin	L(2)	L(8)	L(10)	L(25)	L(50)	L(90)
18-Apr-17	13:59:54	900	54.4	84.0	66.8	46.6	61.0	57.5	57.0	55.1	52.7	49.0


West Carson TOD
Measurement Location ST-10
Tuesday, April 18, 2017
Sound Level, dBA
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65
60
55
50
45
40
35
30
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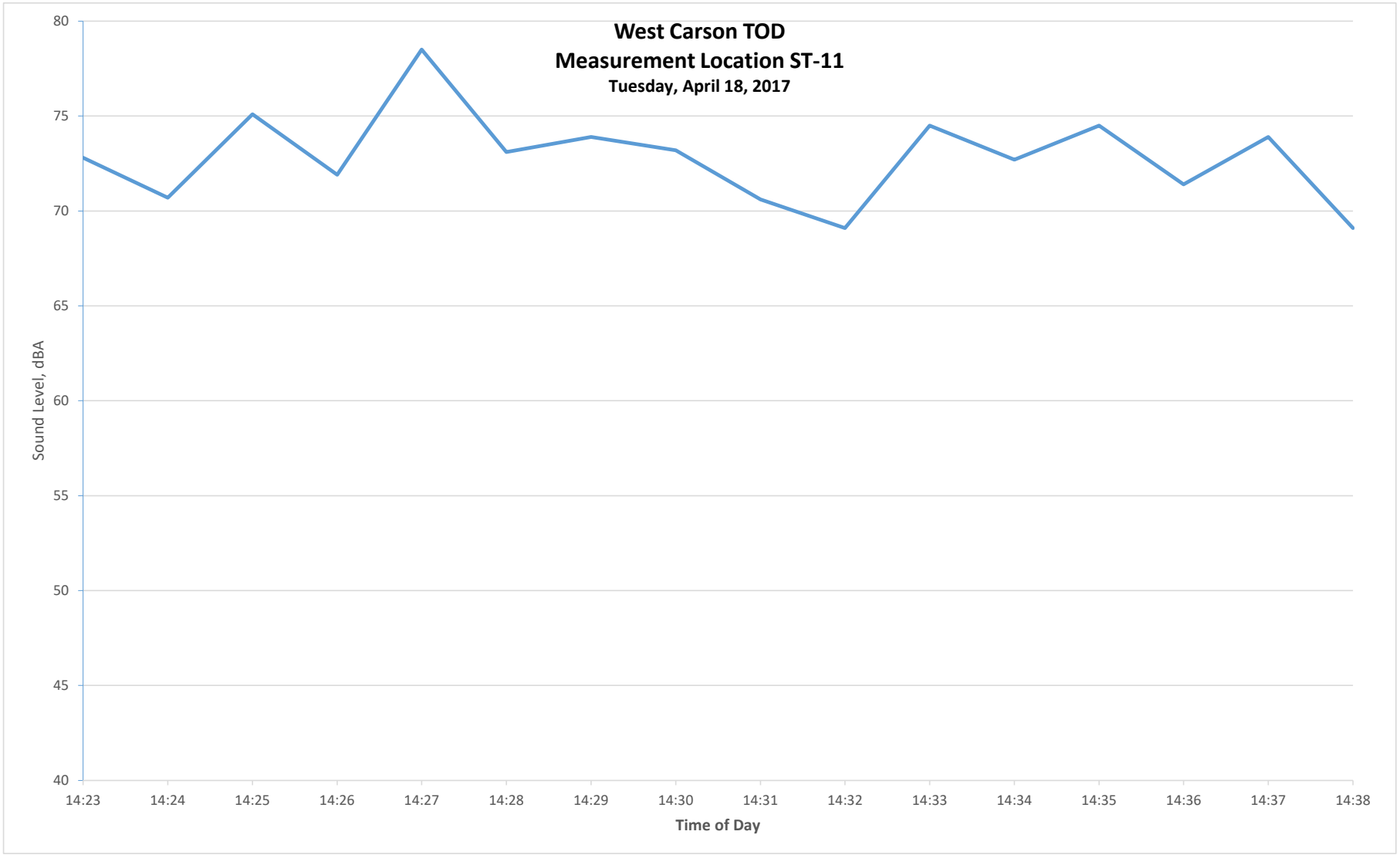
14:02
14:03
14:04
14:05
14:06
14:07
14:08
14:09
14:10
14:11
14:12
14:13
14:14
Time of Day

ST-11 Time History

Date	Time	Level
18-Apr-17	14:23:51	72.8
18-Apr-17	14:24:51	70.7
18-Apr-17	14:25:51	75.1
18-Apr-17	14:26:51	71.9
18-Apr-17	14:27:51	78.5
18-Apr-17	14:28:51	73.1
18-Apr-17	14:29:51	73.9
18-Apr-17	14:30:51	73.2
18-Apr-17	14:31:51	70.6
18-Apr-17	14:32:51	69.1
18-Apr-17	14:33:51	74.5
18-Apr-17	14:34:51	72.7
18-Apr-17	14:35:51	74.5
18-Apr-17	14:36:51	71.4
18-Apr-17	14:37:51	73.9
18-Apr-17	14:38:51	69.1
	15-min Leq	**73.6**

ST-11 Intervals

Date	Time	Duration	Leq	SEL	Lmax	Lmin	L(2)	L(8)	L(10)	L(25)	L(50)	L(90)
18-Apr-17	14:23:51	900	73.6	103.2	87.6	56.3	79.8	77.3	76.8	74.5	71.4	65.1

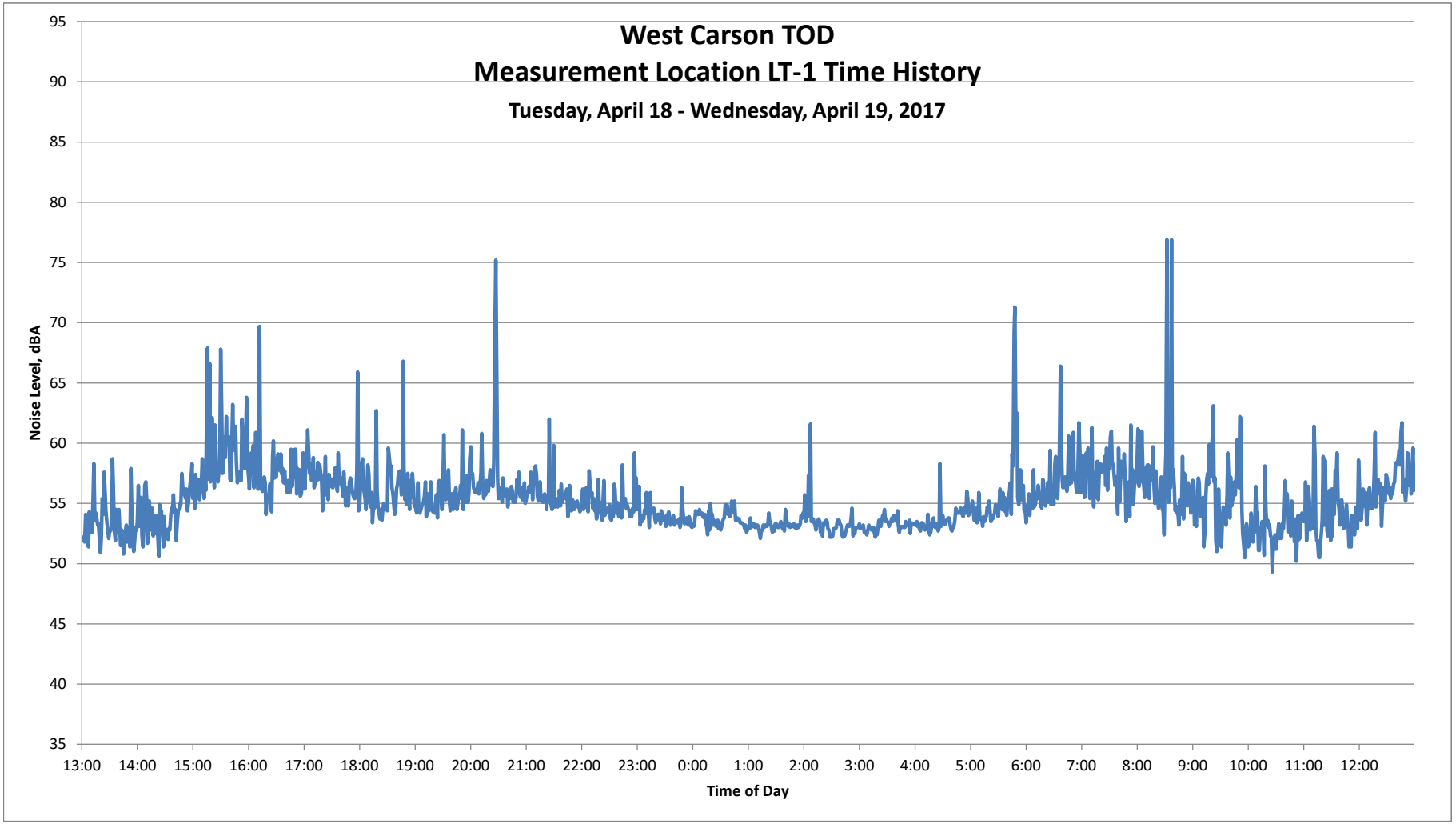

West Carson TOD
Measurement Location ST-11
Tuesday, April 18, 2017
Sound Level, dBA
80
75
70
65
60
55
50
45
40
14:23
14:24
14:25
14:26
14:27
14:28
14:29
14:30
14:31
14:32
14:33
14:34
14:35
14:36
14:37
14:38
Time of Day

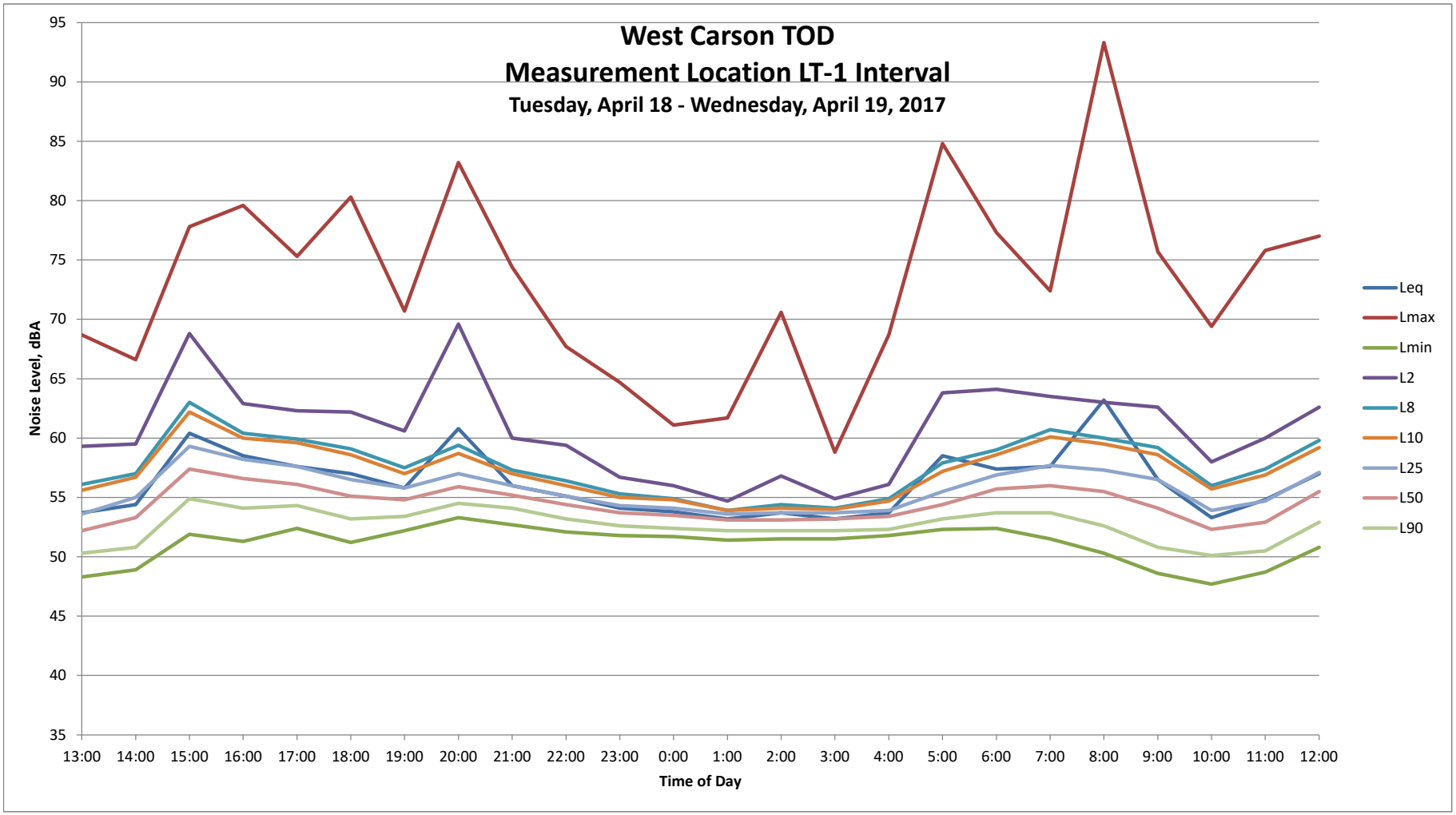
Appendix G Noise Details and Modeling

Ambient Noise Field Data – Long-term Sampling Results

LT-1 Intervals

Date	Time	Duration	Leq	SEL	Lmax	Lmin	L(2)	L(8)	L(10)	L(25)	L(50)	L(90)
18-Apr-17	12:42:53	1026.7	55.8	86.0	71.3	50.2	63.3	57.9	57.3	55.3	53.7	51.6
18-Apr-17	13:00:00	3600	53.7	89.2	68.7	48.3	59.3	56.1	55.6	53.6	52.2	50.3
18-Apr-17	14:00:00	3600	54.4	89.9	66.6	48.9	59.5	57.0	56.7	55.0	53.3	50.8
18-Apr-17	15:00:00	3600	60.4	95.9	77.8	51.9	68.8	63.0	62.2	59.3	57.4	54.9
18-Apr-17	16:00:00	3600	58.5	94.1	79.6	51.3	62.9	60.4	60.0	58.2	56.6	54.1
18-Apr-17	17:00:00	3600	57.6	93.2	75.3	52.4	62.3	59.9	59.6	57.6	56.1	54.3
18-Apr-17	18:00:00	3600	57.0	92.6	80.3	51.2	62.2	59.1	58.6	56.5	55.1	53.2
18-Apr-17	19:00:00	3600	55.8	91.3	70.7	52.2	60.6	57.5	57.0	55.8	54.8	53.4
18-Apr-17	20:00:00	3600	60.8	96.4	83.2	53.3	69.6	59.4	58.7	57.0	55.9	54.5
18-Apr-17	21:00:00	3600	56.0	91.6	74.4	52.7	60.0	57.3	57.0	56.0	55.2	54.1
18-Apr-17	22:00:00	3600	55.1	90.7	67.7	52.1	59.4	56.4	56.0	55.1	54.4	53.2
18-Apr-17	23:00:00	3600	54.1	89.6	64.7	51.8	56.7	55.3	55.0	54.3	53.7	52.6
19-Apr-17	0:00:00	3600	53.8	89.3	61.1	51.7	56.0	54.9	54.8	54.1	53.5	52.4
19-Apr-17	1:00:00	3600	53.2	88.7	61.7	51.4	54.7	53.9	53.9	53.6	53.1	52.2
19-Apr-17	2:00:00	3600	53.7	89.3	70.6	51.5	56.8	54.4	54.1	53.7	53.1	52.2
19-Apr-17	3:00:00	3600	53.2	88.8	58.8	51.5	54.9	54.1	54.0	53.7	53.2	52.2
19-Apr-17	4:00:00	3600	53.7	89.3	68.7	51.8	56.1	54.9	54.7	53.9	53.4	52.3
19-Apr-17	5:00:00	3600	58.5	94.1	84.8	52.3	63.8	57.9	57.2	55.5	54.4	53.2
19-Apr-17	6:00:00	3600	57.4	93.0	77.3	52.4	64.1	59.0	58.6	56.9	55.7	53.7
19-Apr-17	7:00:00	3600	57.6	93.2	72.4	51.5	63.5	60.7	60.1	57.7	56.0	53.7
19-Apr-17	8:00:00	3600	63.2	98.7	93.3	50.3	63.0	60.0	59.5	57.3	55.5	52.6
19-Apr-17	9:00:00	3600	56.5	92.1	75.7	48.6	62.6	59.2	58.6	56.5	54.1	50.8
19-Apr-17	10:00:00	3600	53.3	88.8	69.4	47.7	58.0	56.0	55.7	53.9	52.3	50.1
19-Apr-17	11:00:00	3600	54.8	90.4	75.8	48.7	60.0	57.4	56.9	54.7	52.9	50.5
19-Apr-17	12:00:00	3600	57.0	92.6	77.0	50.8	62.6	59.8	59.2	57.1	55.5	52.9
19-Apr-17	13:00:00	3600	56.3	91.9	75.8	50.2	61.2	59.0	58.6	56.9	55.1	53.0
19-Apr-17	14:00:00	3600	57.1	92.7	73.3	51.2	63.4	59.4	58.9	56.8	55.1	53.1
19-Apr-17	15:00:00	3600	59.2	94.8	82.7	51.0	62.3	58.6	58.0	56.1	54.7	52.8
19-Apr-17	16:00:00	2824.8	68.2	102.7	98.3	51.1	66.9	61.6	60.6	57.7	56.0	53.5


West Carson TOD
Measurement Location LT-1 Time History
Tuesday, April 18 - Wednesday, April 19, 2017
Noise Level, dBA
95
90
85
80
75
70
65
60
55
50
45
40
35
13:00
14:00
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00
0:00
1:00
2:00
3:00
4:00
5:00
6:00
7:00
8:00
9:00
10:00
11:00
12:00
Time of Day


West Carson TOD
Measurement Location LT-1 Interval
Tuesday, April 18 - Wednesday, April 19, 2017
Noise Level, dBA
95
90
85
80
75
70
65
60
55
50
45
40
35
13:00
14:00
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00
0:00
1:00
2:00
3:00
4:00
5:00
6:00
7:00
8:00
9:00
10:00
11:00
12:00
Time of Day
Leq
Lmax
Lmin
L2
L8
L10
L25
L50
L90

Noise Metrics Calculations

INPUT		24-hr INPUT	Ldn CALCS		CNEL CALCS	
Time	D/E/N	Day 1, 1-h Leq	Penalty	Adj'd SPL	Penalty	Adj'd SPL
13:00:00	D	53.7	0	53.7	0	53.7
14:00:00	D	54.4	0	54.4	0	54.4
15:00:00	D	60.4	0	60.4	0	60.4
16:00:00	D	58.5	0	58.5	0	58.5
17:00:00	D	57.6	0	57.6	0	57.6
18:00:00	D	57.0	0	57.0	0	57.0
19:00:00	E	55.8	0	55.8	5	60.8
20:00:00	E	60.8	0	60.8	5	65.8
21:00:00	E	56.0	0	56.0	5	61.0
22:00:00	N	55.1	10	65.1	10	65.1
23:00:00	N	54.1	10	64.1	10	64.1
0:00:00	N	53.8	10	63.8	10	63.8
1:00:00	N	53.2	10	63.2	10	63.2
2:00:00	N	53.7	10	63.7	10	63.7
3:00:00	N	53.2	10	63.2	10	63.2
4:00:00	N	53.7	10	63.7	10	63.7
5:00:00	N	58.5	10	68.5	10	68.5
6:00:00	N	57.4	10	67.4	10	67.4
7:00:00	D	57.6	0	57.6	0	57.6
8:00:00	D	63.2	0	63.2	0	63.2
9:00:00	D	56.5	0	56.5	0	56.5
10:00:00	D	53.3	0	53.3	0	53.3
11:00:00	D	54.8	0	54.8	0	54.8
12:00:00	D	57.0	0	57.0	0	57.0

24h Leq	Ldn	CNEL
57.2	62.1	62.6

Appendix G Noise Details and Modeling

Traffic Noise Modeling Results

West Carson TOD
EXISTING NO PROJECT

#	ROADWAY	SEGMENT	ADT	POSTED SPEED LIMIT	LANE DISTANCE	DISTANCE to Reciever	SITE CONDITION	LANES	GRADE (%)
1	Carson Street	Normandie Ave to Berendo Ave	31,279	35	48	50	Soft	4D	**0%**
2	Carson Street	Vermont Ave to Figueroa St	36,819	35	48	50	Soft	4D	**0%**
3	Carson Street	Figueroa St to Main St	19,337	35	48	50	Soft	4D	**0%**
4	Carson Street	Western Ave to Normandie Ave	34,261	45	48	50	Soft	4D	**0%**
5	Normandie Avenue	Torrance Blvd to Carson St	18,173	45	48	50	Soft	4D	**0%**
6	Normandie Avenue	Carson St to 223rd St	19,616	45	48	50	Soft	4D	**0%**
7	Vermont Avenue	Javelin St to Carson St	17,330	45	48	50	Soft	4D	**0%**
8	Vermont Avenue	Carson St to 223rd St	21,151	45	48	50	Soft	4D	**0%**
9	Vermont Avenue	223rd St to 228th St	21,803	45	48	50	Soft	4D	**0%**
10	Figueroa Street	Carson St to 220th St	21,275	45	48	50	Soft	4D	**0%**
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									

ROAD CLASSIFICATION	SPEED	LANE DISTANCE
2U	40	12
4U	40	36
4D	45	48
6D	45	84
2D	40	24

ANALYST
NJF

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.42%	DAY	75.5%
% MT	1.84%	EVENING	14.0%
% HT	0.74%	NIGHT	10.5%

Source: Riverside, County of, Department of Public Health, Office of Industrial Hygiene. 2009, November. For Determining and M

Riverside County Fleet Mix: Secondary, Collectors, or Smaller

Vehicle	Overall %	Day (7 AM to	Evening (7	Night (10 PM to 7 AM)
Auto	97%	73.60	13.60	10.22
Medium Truck	2%	0.90	0.04	0.90
Heavy Truck	1%	0.35	0.04	0.35
		74.85	13.68	11.47

			73.6	75.55%
1			13.6	13.96%
2			10.22	10.49%

West Carson TOD EXISTING NO PROJECT
CONDITIONS NOISE CONTOURS RESULT SUMMARY TABLE

#	ROADWAY	SEGMENT	DAILY TRAFFIC VOLUMES	Distance to Reciever	Noise Level (dBA)			DISTANCE TO NOISE CONTOUR (FT.		
					Leq	Ldn	CNEL	dBA CNEL	dBA CNEL	60 dBA CNEL
1	Carson Street	Normandie Ave to Berendo Ave	31,279	50	67.0	69.9	**70.5**	54	116	251
2	Carson Street	Vermont Ave to Figueroa St	36,819	50	67.7	70.6	**71.2**	60	130	280
3	Carson Street	Figueroa St to Main St	19,337	50	64.9	67.8	**68.4**	39	84	182
4	Carson Street	Western Ave to Normandie Ave	34,261	50	70.1	73.0	**73.6**	87	187	402
5	Normandie Avenue	Torrance Blvd to Carson St	18,173	50	67.3	70.2	**70.8**	57	122	264
6	Normandie Avenue	Carson St to 223rd St	19,616	50	67.6	70.5	**71.2**	60	129	277
7	Vermont Avenue	Javelin St to Carson St	17,330	50	67.1	70.0	**70.6**	55	119	255
8	Vermont Avenue	Carson St to 223rd St	21,151	50	68.0	70.9	**71.5**	63	135	292
9	Vermont Avenue	223rd St to 228th St	21,803	50	68.1	71.0	**71.6**	64	138	298
10	Figueroa Street	Carson St to 220th St	21,275	50	68.0	70.9	**71.5**	63	136	293
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

Scenario: EXISTING NO PROJECT
Roadway: Carson Street
Segment: Normandie Ave to Berendo Ave

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	31,279
SPEED (mph)	35
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA

	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1918	36	15	1418	27	11	355	7	3
Speed in MPH	35	35	35	35	35	35	35	35	35
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	65.1	74.8	80.0	65.1	74.8	80.0	65.1	74.8	80.0
ADJUSTMENTS									
Flow	2.1	-15.2	-19.1	0.8	-16.5	-20.4	-5.2	-22.5	-26.4
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	67.3	59.8	61.0	66.0	58.4	59.7	60.0	52.4	53.7
VEHICULAR NOISE	DAY=	68.8	Leq	EVENING=	67.5	Leq	NIGHT=	61.5	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**67.0**
			Ldn=	**69.9**
			CNEL=	**70.5**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**49**	**106**	**228**
	CNEL:	**54**	**116**	**251**

Scenario: EXISTING NO PROJECT
Roadway: Carson Street
Segment: Vermont Ave to Figueroa St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	36,819
SPEED (mph)	35
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2258	43	17	1669	32	13	418	8	3
Speed in MPH	35	35	35	35	35	35	35	35	35
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	65.1	74.8	80.0	65.1	74.8	80.0	65.1	74.8	80.0
ADJUSTMENTS									
Flow	2.8	-14.4	-18.4	1.5	-15.8	-19.7	-4.5	-21.8	-25.7
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	68.0	60.5	61.7	66.7	59.2	60.4	60.7	53.1	54.4
VEHICULAR NOISE	DAY=	69.5	Leq	EVENING=	68.2	Leq	NIGHT=	62.2	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**67.7**
			Ldn=	**70.6**
			CNEL=	**71.2**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**55**	**118**	**254**
	CNEL:	**60**	**130**	**280**

Scenario: EXISTING NO PROJECT
Roadway: Carson Street
Segment: Figueroa St to Main St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	19,337
SPEED (mph)	35
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1186	22	9	877	17	7	220	4	2
Speed in MPH	35	35	35	35	35	35	35	35	35
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	65.1	74.8	80.0	65.1	74.8	80.0	65.1	74.8	80.0
ADJUSTMENTS									
Flow	0.0	-17.2	-21.2	-1.3	-18.6	-22.5	-7.3	-24.6	-28.5
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	65.2	57.7	58.9	63.9	56.4	57.6	57.9	50.3	51.6
VEHICULAR NOISE	DAY=	66.7	Leq	EVENING=	65.4	Leq	NIGHT=	59.4	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**64.9**
			Ldn=	**67.8**
			CNEL=	**68.4**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**36**	**77**	**165**
	CNEL:	**39**	**84**	**182**

Scenario: EXISTING NO PROJECT
Roadway: Carson Street
Segment: Western Ave to Normandie Ave

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	34,261
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2101	40	16	1553	29	12	389	7	3
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	1.4	-15.9	-19.8	0.1	-17.2	-21.1	-5.9	-23.2	-27.1
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	70.8	61.9	62.4	69.5	60.5	61.1	63.5	54.5	55.1
VEHICULAR NOISE	DAY=	71.9	Leq	EVENING=	70.6	Leq	NIGHT=	64.5	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**70.1**
			Ldn=	**73.0**
			CNEL=	**73.6**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**79**	**170**	**365**
	CNEL:	**87**	**187**	**402**

Scenario: EXISTING NO PROJECT
Roadway: Normandie Avenue
Segment: Torrance Blvd to Carson St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	18,173
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1115	21	8	824	16	6	206	4	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-1.4	-18.6	-22.6	-2.7	-19.9	-23.9	-8.7	-25.9	-29.9
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	68.1	59.1	59.7	66.8	57.8	58.4	60.7	51.8	52.3
VEHICULAR NOISE	DAY=	69.1	Leq	EVENING=	67.8	Leq	NIGHT=	61.8	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**67.3**
			Ldn=	**70.2**
			CNEL=	**70.8**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**52**	**111**	**239**
	CNEL:	**57**	**122**	**264**

Scenario: EXISTING NO PROJECT
Roadway: Normandie Avenue
Segment: Carson St to 223rd St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	19,616
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1203	23	9	889	17	7	223	4	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-1.0	-18.3	-22.2	-2.3	-19.6	-23.5	-8.4	-25.6	-29.6
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	68.4	59.4	60.0	67.1	58.1	58.7	61.1	52.1	52.7
VEHICULAR NOISE	DAY=	69.4	Leq	EVENING=	68.1	Leq	NIGHT=	62.1	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**67.6**
			Ldn=	**70.5**
			CNEL=	**71.2**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**54**	**117**	**252**
	CNEL:	**60**	**129**	**277**

Scenario: EXISTING NO PROJECT
Roadway: Vermont Avenue
Segment: Javelin St to Carson St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	17,330
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1063	20	8	786	15	6	197	4	1
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-1.6	-18.8	-22.8	-2.9	-20.1	-24.1	-8.9	-26.1	-30.1
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	67.9	58.9	59.5	66.5	57.6	58.1	60.5	51.6	52.1
VEHICULAR NOISE	DAY=	68.9	Leq	EVENING=	67.6	Leq	NIGHT=	61.6	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**67.1**
			Ldn=	**70.0**
			CNEL=	**70.6**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**50**	**108**	**232**
	CNEL:	**55**	**119**	**255**

Scenario: EXISTING NO PROJECT
Roadway: Vermont Avenue
Segment: Carson St to 223rd St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	21,151
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1297	25	10	959	18	7	240	5	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-0.7	-17.9	-21.9	-2.0	-19.3	-23.2	-8.0	-25.3	-29.2
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	68.7	59.8	60.3	67.4	58.5	59.0	61.4	52.4	53.0
VEHICULAR NOISE	DAY=	69.8	Leq	EVENING=	68.5	Leq	NIGHT=	62.4	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**68.0**
			Ldn=	**70.9**
			CNEL=	**71.5**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**57**	**123**	**265**
	CNEL:	**63**	**135**	**292**

Scenario: EXISTING NO PROJECT
Roadway: Vermont Avenue
Segment: 223rd St to 228th St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	21,803
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1337	25	10	988	19	8	248	5	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-0.6	-17.8	-21.8	-1.9	-19.1	-23.1	-7.9	-25.1	-29.1
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	68.9	59.9	60.5	67.5	58.6	59.1	61.5	52.6	53.1
VEHICULAR NOISE	DAY=	69.9	Leq	EVENING=	68.6	Leq	NIGHT=	62.6	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**68.1**
			Ldn=	**71.0**
			CNEL=	**71.6**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**58**	**126**	**270**
	CNEL:	**64**	**138**	**298**

Scenario: EXISTING NO PROJECT
Roadway: Figueroa Street
Segment: Carson St to 220th St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	21,275
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1305	25	10	964	18	7	242	5	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-0.7	-17.9	-21.9	-2.0	-19.2	-23.2	-8.0	-25.2	-29.2
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	68.8	59.8	60.4	67.4	58.5	59.0	61.4	52.5	53.0
VEHICULAR NOISE	DAY=	69.8	Leq	EVENING=	68.5	Leq	NIGHT=	62.5	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**68.0**
			Ldn=	**70.9**
			CNEL=	**71.5**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**57**	**123**	**266**
	CNEL:	**63**	**136**	**293**

West Carson TOD
EXISTING WITH PROJECT

#	ROADWAY	SEGMENT	ADT	POSTED SPEED LIMIT	LANE DISTANCE	DISTANCE to Reciever	SITE CONDITION	LANES	GRADE (%)
1	Carson Street	Normandie Ave to Berendo Ave	37,173	35	48	50	Soft	4D	**0%**
2	Carson Street	Vermont Ave to Figueroa St	54,499	35	48	50	Soft	4D	**0%**
3	Carson Street	Figueroa St to Main St	25,231	35	48	50	Soft	4D	**0%**
4	Carson Street	Western Ave to Normandie Ave	38,681	45	48	50	Soft	4D	**0%**
5	Normandie Avenue	Torrance Blvd to Carson St	18,419	45	48	50	Soft	4D	**0%**
6	Normandie Avenue	Carson St to 223rd St	19,616	45	48	50	Soft	4D	**0%**
7	Vermont Avenue	Javelin St to Carson St	28,134	45	48	50	Soft	4D	**0%**
8	Vermont Avenue	Carson St to 223rd St	27,044	45	48	50	Soft	4D	**0%**
9	Vermont Avenue	223rd St to 228th St	27,697	45	48	50	Soft	4D	**0%**
10	Figueroa Street	Carson St to 220th St	27,659	45	48	50	Soft	4D	**0%**
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									

ROAD CLASSIFICATION	SPEED	LANE DISTANCE
2U	40	12
4U	40	36
4D	45	48
6D	45	84
2D	40	24

ANALYST
NJF

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.42%	DAY	75.5%
% MT	1.84%	EVENING	14.0%
% HT	0.74%	NIGHT	10.5%

Source: Riverside, County of, Department of Public Health, Office of Industrial Hygiene. 2009, November. For Determining and M

Riverside County Fleet Mix: Secondary, Collectors, or Smaller

Vehicle	Overall %	Day (7 AM tc	Evening (7	Night (10 PM to 7 AM)
Auto	97%	73.60	13.60	10.22
Medium Truck	2%	0.90	0.04	0.90
Heavy Truck	1%	0.35	0.04	0.35
		74.85	13.68	11.47

	73.6	75.55%	
1	13.6	13.96%	1
2	10.22	10.49%	0
3			1
4			0
5			1
6			0
7			1
8			0
9			1
10			0
11			1
12			0
13			1
14			0
15			1
16			0
17			1
18			0
19			1
20			0
21			1
22			0
23			1
24			0
25			1
26			0
27			1
28			0
29			1

West Carson TOD EXISTING WITH PROJECT
CONDITIONS NOISE CONTOURS RESULT SUMMARY TABLE

#	ROADWAY	SEGMENT	DAILY TRAFFIC VOLUMES	Distance to Reciever	Noise Level (dBA)			DISTANCE TO NOISE CONTOUR (FT.		
					Leq	Ldn	CNEL	dBA CNEL	dBA CNEL	60 dBA CNEL
1	Carson Street	Normandie Ave to Berendo Ave	37,173	50	67.7	70.6	**71.3**	61	131	281
2	Carson Street	Vermont Ave to Figueroa St	54,499	50	69.4	72.3	**72.9**	78	169	363
3	Carson Street	Figueroa St to Main St	25,231	50	66.1	68.9	**69.6**	47	101	217
4	Carson Street	Western Ave to Normandie Ave	38,681	50	70.6	73.5	**74.1**	94	203	436
5	Normandie Avenue	Torrance Blvd to Carson St	18,419	50	67.4	70.3	**70.9**	57	123	266
6	Normandie Avenue	Carson St to 223rd St	19,616	50	67.6	70.5	**71.2**	60	129	277
7	Vermont Avenue	Javelin St to Carson St	28,134	50	69.2	72.1	**72.7**	76	164	353
8	Vermont Avenue	Carson St to 223rd St	27,044	50	69.0	71.9	**72.6**	74	160	344
9	Vermont Avenue	223rd St to 228th St	27,697	50	69.1	72.0	**72.7**	75	162	349
10	Figueroa Street	Carson St to 220th St	27,659	50	69.1	72.0	**72.7**	75	162	349
11										
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29										
30										

Scenario: EXISTING WITH PROJECT
Roadway: Carson Street
Segment: Normandie Ave to Berendo Ave

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	37,173
SPEED (mph)	35
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2280	43	17	1685	32	13	422	8	3
Speed in MPH	35	35	35	35	35	35	35	35	35
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	65.1	74.8	80.0	65.1	74.8	80.0	65.1	74.8	80.0
ADJUSTMENTS									
Flow	2.8	-14.4	-18.4	1.5	-15.7	-19.7	-4.5	-21.7	-25.7
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	68.0	60.5	61.8	66.7	59.2	60.5	60.7	53.2	54.4
VEHICULAR NOISE	DAY=	69.5	Leq	EVENING=	68.2	Leq	NIGHT=	62.2	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**67.7**
			Ldn=	**70.6**
			CNEL=	**71.3**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**55**	**119**	**256**
	CNEL:	**61**	**131**	**281**

Scenario: EXISTING WITH PROJECT
Roadway: Carson Street
Segment: Vermont Ave to Figueroa St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	54,499
SPEED (mph)	35
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	3343	63	25	2471	47	19	619	12	5
Speed in MPH	35	35	35	35	35	35	35	35	35
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	65.1	74.8	80.0	65.1	74.8	80.0	65.1	74.8	80.0
ADJUSTMENTS									
Flow	4.5	-12.7	-16.7	3.2	-14.1	-18.0	-2.8	-20.1	-24.0
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	69.7	62.2	63.4	68.4	60.9	62.1	62.4	54.8	56.1
VEHICULAR NOISE	DAY=	71.2	Leq	EVENING=	69.9	Leq	NIGHT=	63.9	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**69.4**
			Ldn=	**72.3**
			CNEL=	**72.9**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**71**	**153**	**330**
	CNEL:	**78**	**169**	**363**

Scenario: EXISTING WITH PROJECT
Roadway: Carson Street
Segment: Figueroa St to Main St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	25,231
SPEED (mph)	35
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1548	29	12	1144	22	9	287	5	2
Speed in MPH	35	35	35	35	35	35	35	35	35
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	65.1	74.8	80.0	65.1	74.8	80.0	65.1	74.8	80.0
ADJUSTMENTS									
Flow	1.1	-16.1	-20.0	-0.2	-17.4	-21.4	-6.2	-23.4	-27.4
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	66.3	58.8	60.1	65.0	57.5	58.8	59.0	51.5	52.8
VEHICULAR NOISE	DAY=	67.9	Leq	EVENING=	66.5	Leq	NIGHT=	60.5	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**66.1**
			Ldn=	**68.9**
			CNEL=	**69.6**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**43**	**92**	**197**
	CNEL:	**47**	**101**	**217**

Scenario: EXISTING WITH PROJECT
Roadway: Carson Street
Segment: Western Ave to Normandie Ave

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	38,681
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2372	45	18	1754	33	13	439	8	3
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	1.9	-15.3	-19.3	0.6	-16.6	-20.6	-5.4	-22.6	-26.6
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	71.3	62.4	62.9	70.0	61.1	61.6	64.0	55.1	55.6
VEHICULAR NOISE	DAY=	72.4	Leq	EVENING=	71.1	Leq	NIGHT=	65.1	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**70.6**
			Ldn=	**73.5**
			CNEL=	**74.1**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**85**	**184**	**396**
	CNEL:	**94**	**203**	**436**

Scenario: EXISTING WITH PROJECT
Roadway: Normandie Avenue
Segment: Torrance Blvd to Carson St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	18,419
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1130	21	9	835	16	6	209	4	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-1.3	-18.5	-22.5	-2.6	-19.9	-23.8	-8.6	-25.9	-29.8
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	68.1	59.2	59.7	66.8	57.9	58.4	60.8	51.8	52.4
VEHICULAR NOISE	DAY=	69.2	Leq	EVENING=	67.9	Leq	NIGHT=	61.8	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**67.4**
			Ldn=	**70.3**
			CNEL=	**70.9**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**52**	**112**	**242**
	CNEL:	**57**	**123**	**266**

Scenario: EXISTING WITH PROJECT
Roadway: Normandie Avenue
Segment: Carson St to 223rd St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	19,616
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1203	23	9	889	17	7	223	4	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-1.0	-18.3	-22.2	-2.3	-19.6	-23.5	-8.4	-25.6	-29.6
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	68.4	59.4	60.0	67.1	58.1	58.7	61.1	52.1	52.7
VEHICULAR NOISE	DAY=	69.4	Leq	EVENING=	68.1	Leq	NIGHT=	62.1	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**67.6**
			Ldn=	**70.5**
			CNEL=	**71.2**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**54**	**117**	**252**
	CNEL:	**60**	**129**	**277**

Scenario: EXISTING WITH PROJECT
Roadway: Vermont Avenue
Segment: Javelin St to Carson St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	28,134
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1726	33	13	1275	24	10	319	6	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	0.5	-16.7	-20.7	-0.8	-18.0	-22.0	-6.8	-24.0	-28.0
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	70.0	61.0	61.6	68.7	59.7	60.3	62.6	53.7	54.2
VEHICULAR NOISE	DAY=	71.0	Leq	EVENING=	69.7	Leq	NIGHT=	63.7	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**69.2**
			Ldn=	**72.1**
			CNEL=	**72.7**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**69**	**149**	**320**
	CNEL:	**76**	**164**	**353**

Scenario: EXISTING WITH PROJECT
Roadway: Vermont Avenue
Segment: Carson St to 223rd St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	27,044
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1659	31	13	1226	23	9	307	6	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	0.4	-16.9	-20.8	-1.0	-18.2	-22.1	-7.0	-24.2	-28.2
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	69.8	60.8	61.4	68.5	59.5	60.1	62.5	53.5	54.1
VEHICULAR NOISE	DAY=	70.8	Leq	EVENING=	69.5	Leq	NIGHT=	63.5	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**69.0**
			Ldn=	**71.9**
			CNEL=	**72.6**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**67**	**145**	**312**
	CNEL:	**74**	**160**	**344**

Scenario: EXISTING WITH PROJECT
Roadway: Vermont Avenue
Segment: 223rd St to 228th St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	27,697
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1699	32	13	1256	24	10	315	6	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	0.5	-16.8	-20.7	-0.8	-18.1	-22.0	-6.9	-24.1	-28.1
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	69.9	60.9	61.5	68.6	59.6	60.2	62.6	53.6	54.2
VEHICULAR NOISE	DAY=	70.9	Leq	EVENING=	69.6	Leq	NIGHT=	63.6	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**69.1**
			Ldn=	**72.0**
			CNEL=	**72.7**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**68**	**147**	**317**
	CNEL:	**75**	**162**	**349**

Scenario: EXISTING WITH PROJECT
Roadway: Figueroa Street
Segment: Carson St to 220th St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	27,659
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1696	32	13	1254	24	10	314	6	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	0.5	-16.8	-20.7	-0.9	-18.1	-22.0	-6.9	-24.1	-28.1
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	69.9	60.9	61.5	68.6	59.6	60.2	62.6	53.6	54.2
VEHICULAR NOISE	DAY=	70.9	Leq	EVENING=	69.6	Leq	NIGHT=	63.6	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**69.1**
			Ldn=	**72.0**
			CNEL=	**72.7**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**68**	**147**	**317**
	CNEL:	**75**	**162**	**349**

West Carson TOD
2035 NO PROJECT

#	ROADWAY	SEGMENT	ADT	POSTED SPEED LIMIT	LANE DISTANCE	DISTANCE to Reciever	SITE CONDITION	LANES	GRADE (%)
1	Carson Street	Normandie Ave to Berendo Ave	35,233	35	48	50	Soft	4D	**0%**
2	Carson Street	Vermont Ave to Figueroa St	41,473	35	48	50	Soft	4D	**0%**
3	Carson Street	Figueroa St to Main St	21,781	35	48	50	Soft	4D	**0%**
4	Carson Street	Western Ave to Normandie Ave	38,591	45	48	50	Soft	4D	**0%**
5	Normandie Avenue	Torrance Blvd to Carson St	20,470	45	48	50	Soft	4D	**0%**
6	Normandie Avenue	Carson St to 223rd St	22,095	45	48	50	Soft	4D	**0%**
7	Vermont Avenue	Javelin St to Carson St	19,520	45	48	50	Soft	4D	**0%**
8	Vermont Avenue	Carson St to 223rd St	23,824	45	48	50	Soft	4D	**0%**
9	Vermont Avenue	223rd St to 228th St	24,559	45	48	50	Soft	4D	**0%**
10	Figueroa Street	Carson St to 220th St	23,964	45	48	50	Soft	4D	**0%**
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									

ROAD CLASSIFICATION	SPEED	LANE DISTANCE
2U	40	12
4U	40	36
4D	45	48
6D	45	84
2D	40	24

ANALYST
NJF

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.42%	DAY	75.5%
% MT	1.84%	EVENING	14.0%
% HT	0.74%	NIGHT	10.5%

Source: Riverside, County of, Department of Public Health, Office of Industrial Hygiene. 2009, November. For Determining and M

Riverside County Fleet Mix: Secondary, Collectors, or Smaller

Vehicle	Overall %	Day (7 AM to	Evening (7	Night (10 PM to 7 AM)
Auto	97%	73.60	13.60	10.22
Medium Truck	2%	0.90	0.04	0.90
Heavy Truck	1%	0.35	0.04	0.35
		74.85	13.68	11.47

	73.6	75.55%	
1	13.6	13.96%	1
2	10.22	10.49%	0
3			1
4			0
5			1
6			0
7			1
8			0
9			1
10			0
11			1
12			0
13			1
14			0
15			1
16			0
17			1
18			0
19			1
20			0
21			1
22			0
23			1
24			0
25			1
26			0
27			1
28			0
29			1

West Carson TOD

2035 NO PROJECT
CONDITIONS NOISE CONTOURS RESULT SUMMARY TABLE

#	ROADWAY	SEGMENT	DAILY TRAFFIC VOLUMES	Distance to Reciever	Noise Level (dBA)			DISTANCE TO NOISE CONTOUR (FT.		
					Leq	Ldn	CNEL	dBA CNEL	dBA CNEL	60 dBA CNEL
1	Carson Street	Normandie Ave to Berendo Ave	35,233	50	67.5	70.4	**71.0**	59	126	272
2	Carson Street	Vermont Ave to Figueroa St	41,473	50	68.2	71.1	**71.7**	65	141	303
3	Carson Street	Figueroa St to Main St	21,781	50	65.4	68.3	**68.9**	42	91	197
4	Carson Street	Western Ave to Normandie Ave	38,591	50	70.6	73.5	**74.1**	94	202	436
5	Normandie Avenue	Torrance Blvd to Carson St	20,470	50	67.8	70.7	**71.3**	61	132	285
6	Normandie Avenue	Carson St to 223rd St	22,095	50	68.2	71.1	**71.7**	65	139	300
7	Vermont Avenue	Javelin St to Carson St	19,520	50	67.6	70.5	**71.1**	60	128	277
8	Vermont Avenue	Carson St to 223rd St	23,824	50	68.5	71.4	**72.0**	68	147	316
9	Vermont Avenue	223rd St to 228th St	24,559	50	68.6	71.5	**72.1**	69	150	322
10	Figueroa Street	Carson St to 220th St	23,964	50	68.5	71.4	**72.0**	68	147	317
11										
12										
13										
14										
15										
16										
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18										
19										
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26										
27										
28										
29										
30										

Scenario: 2035 NO PROJECT
Roadway: Carson Street
Segment: Normandie Ave to Berendo Ave

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	35,233
SPEED (mph)	35
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2161	41	16	1597	30	12	400	8	3
Speed in MPH	35	35	35	35	35	35	35	35	35
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	65.1	74.8	80.0	65.1	74.8	80.0	65.1	74.8	80.0
ADJUSTMENTS									
Flow	2.6	-14.6	-18.6	1.3	-16.0	-19.9	-4.7	-22.0	-25.9
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	67.8	60.3	61.5	66.5	59.0	60.2	60.5	53.0	54.2
VEHICULAR NOISE	DAY=	69.3	Leq	EVENING=	68.0	Leq	NIGHT=	62.0	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**67.5**
			Ldn=	**70.4**
			CNEL=	**71.0**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**53**	**114**	**247**
	CNEL:	**59**	**126**	**272**

Scenario: 2035 NO PROJECT
Roadway: Carson Street
Segment: Vermont Ave to Figueroa St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	41,473
SPEED (mph)	35
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2544	48	19	1880	36	14	471	9	4
Speed in MPH	35	35	35	35	35	35	35	35	35
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	65.1	74.8	80.0	65.1	74.8	80.0	65.1	74.8	80.0
ADJUSTMENTS									
Flow	3.3	-13.9	-17.9	2.0	-15.2	-19.2	-4.0	-21.3	-25.2
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	68.5	61.0	62.2	67.2	59.7	60.9	61.2	53.7	54.9
VEHICULAR NOISE	DAY=	70.0	Leq	EVENING=	68.7	Leq	NIGHT=	62.7	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**68.2**
			Ldn=	**71.1**
			CNEL=	**71.7**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**59**	**128**	**275**
	CNEL:	**65**	**141**	**303**

Scenario: 2035 NO PROJECT
Roadway: Carson Street
Segment: Figueroa St to Main St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	21,781
SPEED (mph)	35
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1336	25	10	987	19	8	247	5	2
Speed in MPH	35	35	35	35	35	35	35	35	35
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	65.1	74.8	80.0	65.1	74.8	80.0	65.1	74.8	80.0
ADJUSTMENTS									
Flow	0.5	-16.7	-20.7	-0.8	-18.0	-22.0	-6.8	-24.1	-28.0
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	65.7	58.2	59.5	64.4	56.9	58.1	58.4	50.9	52.1
VEHICULAR NOISE	DAY=	67.2	Leq	EVENING=	65.9	Leq	NIGHT=	59.9	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**65.4**
			Ldn=	**68.3**
			CNEL=	**68.9**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**39**	**83**	**179**
	CNEL:	**42**	**91**	**197**

Scenario: 2035 NO PROJECT
Roadway: Carson Street
Segment: Western Ave to Normandie Ave

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	38,591
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2367	45	18	1749	33	13	438	8	3
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	1.9	-15.3	-19.3	0.6	-16.6	-20.6	-5.4	-22.7	-26.6
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	71.3	62.4	62.9	70.0	61.1	61.6	64.0	55.1	55.6
VEHICULAR NOISE	DAY=	72.4	Leq	EVENING=	71.1	Leq	NIGHT=	65.1	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**70.6**
			Ldn=	**73.5**
			CNEL=	**74.1**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**85**	**184**	**396**
	CNEL:	**94**	**202**	**436**

Scenario: 2035 NO PROJECT
Roadway: Normandie Avenue
Segment: Torrance Blvd to Carson St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	20,470
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1255	24	10	928	18	7	232	4	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-0.8	-18.1	-22.0	-2.2	-19.4	-23.4	-8.2	-25.4	-29.4
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	68.6	59.6	60.2	67.3	58.3	58.9	61.3	52.3	52.9
VEHICULAR NOISE	DAY=	69.6	Leq	EVENING=	68.3	Leq	NIGHT=	62.3	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**67.8**
			Ldn=	**70.7**
			CNEL=	**71.3**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**56**	**120**	**259**
	CNEL:	**61**	**132**	**285**

Scenario: 2035 NO PROJECT
Roadway: Normandie Avenue
Segment: Carson St to 223rd St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	22,095
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1355	26	10	1002	19	8	251	5	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-0.5	-17.8	-21.7	-1.8	-19.1	-23.0	-7.8	-25.1	-29.0
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	68.9	60.0	60.5	67.6	58.6	59.2	61.6	52.6	53.2
VEHICULAR NOISE	DAY=	70.0	Leq	EVENING=	68.6	Leq	NIGHT=	62.6	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**68.2**
			Ldn=	**71.1**
			CNEL=	**71.7**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**59**	**127**	**273**
	CNEL:	**65**	**139**	**300**

Scenario: 2035 NO PROJECT
Roadway: Vermont Avenue
Segment: Javelin St to Carson St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	19,520
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1197	23	9	885	17	7	222	4	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-1.1	-18.3	-22.3	-2.4	-19.6	-23.6	-8.4	-25.6	-29.6
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	68.4	59.4	60.0	67.1	58.1	58.7	61.1	52.1	52.7
VEHICULAR NOISE	DAY=	69.4	Leq	EVENING=	68.1	Leq	NIGHT=	62.1	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**67.6**
			Ldn=	**70.5**
			CNEL=	**71.1**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**54**	**117**	**251**
	CNEL:	**60**	**128**	**277**

Scenario: 2035 NO PROJECT
Roadway: Vermont Avenue
Segment: Carson St to 223rd St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	23,824
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1461	28	11	1080	20	8	271	5	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-0.2	-17.4	-21.4	-1.5	-18.7	-22.7	-7.5	-24.8	-28.7
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	69.2	60.3	60.8	67.9	59.0	59.5	61.9	53.0	53.5
VEHICULAR NOISE	DAY=	70.3	Leq	EVENING=	69.0	Leq	NIGHT=	63.0	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**68.5**
			Ldn=	**71.4**
			CNEL=	**72.0**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**62**	**133**	**287**
	CNEL:	**68**	**147**	**316**

Scenario: 2035 NO PROJECT
Roadway: Vermont Avenue
Segment: 223rd St to 228th St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	24,559
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1506	28	11	1113	21	8	279	5	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-0.1	-17.3	-21.3	-1.4	-18.6	-22.6	-7.4	-24.6	-28.6
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	69.4	60.4	61.0	68.1	59.1	59.7	62.0	53.1	53.7
VEHICULAR NOISE	DAY=	70.4	Leq	EVENING=	69.1	Leq	NIGHT=	63.1	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**68.6**
			Ldn=	**71.5**
			CNEL=	**72.1**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**63**	**136**	**293**
	CNEL:	**69**	**150**	**322**

Scenario: 2035 NO PROJECT
Roadway: Figueroa Street
Segment: Carson St to 220th St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	23,964
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1470	28	11	1086	21	8	272	5	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-0.2	-17.4	-21.4	-1.5	-18.7	-22.7	-7.5	-24.7	-28.7
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	69.3	60.3	60.9	68.0	59.0	59.6	61.9	53.0	53.5
VEHICULAR NOISE	DAY=	70.3	Leq	EVENING=	69.0	Leq	NIGHT=	63.0	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**68.5**
			Ldn=	**71.4**
			CNEL=	**72.0**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**62**	**134**	**288**
	CNEL:	**68**	**147**	**317**

West Carson TOD
2035 WITH PROJECT

#	ROADWAY	SEGMENT	ADT	POSTED SPEED LIMIT	LANE DISTANCE	DISTANCE to Reciever	SITE CONDITION	LANES	GRADE (%)
1	Carson Street	Normandie Ave to Berendo Ave	41,127	35	48	50	Soft	4D	**0%**
2	Carson Street	Vermont Ave to Figueroa St	59,153	35	48	50	Soft	4D	**0%**
3	Carson Street	Figueroa St to Main St	27,675	35	48	50	Soft	4D	**0%**
4	Carson Street	Western Ave to Normandie Ave	43,011	45	48	50	Soft	4D	**0%**
5	Normandie Avenue	Torrance Blvd to Carson St	20,716	45	48	50	Soft	4D	**0%**
6	Normandie Avenue	Carson St to 223rd St	22,095	45	48	50	Soft	4D	**0%**
7	Vermont Avenue	Javelin St to Carson St	30,324	45	48	50	Soft	4D	**0%**
8	Vermont Avenue	Carson St to 223rd St	29,717	45	48	50	Soft	4D	**0%**
9	Vermont Avenue	223rd St to 228th St	30,453	45	48	50	Soft	4D	**0%**
10	Figueroa Street	Carson St to 220th St	30,348	45	48	50	Soft	4D	**0%**
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									

ROAD CLASSIFICATION	SPEED	LANE DISTANCE
2U	40	12
4U	40	36
4D	45	48
6D	45	84
2D	40	24

ANALYST
NJF

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.42%	DAY	75.5%
% MT	1.84%	EVENING	14.0%
% HT	0.74%	NIGHT	10.5%

Source: Riverside, County of, Department of Public Health, Office of Industrial Hygiene. 2009, November. For Determining and M

Riverside County Fleet Mix: Secondary, Collectors, or Smaller

Vehicle	Overall %	Day (7 AM to	Evening (7	Night (10 PM to 7 AM)
Auto	97%	73.60	13.60	10.22
Medium Truck	2%	0.90	0.04	0.90
Heavy Truck	1%	0.35	0.04	0.35
		74.85	13.68	11.47

	73.6	75.55%	
1	13.6	13.96%	1
2	10.22	10.49%	0
3			1
4			0
5			1
6			0
7			1
8			0
9			1
10			0
11			1
12			0
13			1
14			0
15			1
16			0
17			1
18			0
19			1
20			0
21			1
22			0
23			1
24			0
25			1
26			0
27			1
28			0
29			1

West Carson TOD

2035 WITH PROJECT
CONDITIONS NOISE CONTOURS RESULT SUMMARY TABLE

#	ROADWAY	SEGMENT	DAILY TRAFFIC VOLUMES	Distance to Reciever	Noise Level (dBA)			DISTANCE TO NOISE CONTOUR (FT.		
					Leq	Ldn	CNEL	dBA CNEL	dBA CNEL	60 dBA CNEL
1	Carson Street	Normandie Ave to Berendo Ave	41,127	50	68.2	71.1	**71.7**	65	140	301
2	Carson Street	Vermont Ave to Figueroa St	59,153	50	69.8	72.6	**73.3**	83	178	384
3	Carson Street	Figueroa St to Main St	27,675	50	66.5	69.3	**70.0**	50	107	231
4	Carson Street	Western Ave to Normandie Ave	43,011	50	71.1	73.9	**74.6**	101	217	468
5	Normandie Avenue	Torrance Blvd to Carson St	20,716	50	67.9	70.8	**71.4**	62	134	288
6	Normandie Avenue	Carson St to 223rd St	22,095	50	68.2	71.1	**71.7**	65	139	300
7	Vermont Avenue	Javelin St to Carson St	30,324	50	69.5	72.4	**73.1**	80	172	371
8	Vermont Avenue	Carson St to 223rd St	29,717	50	69.5	72.3	**73.0**	79	170	366
9	Vermont Avenue	223rd St to 228th St	30,453	50	69.6	72.4	**73.1**	80	173	372
10	Figueroa Street	Carson St to 220th St	30,348	50	69.5	72.4	**73.1**	80	172	371
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

Scenario: 2035 WITH PROJECT
Roadway: Carson Street
Segment: Normandie Ave to Berendo Ave

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	41,127
SPEED (mph)	35
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA

	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2522	48	19	1864	35	14	467	9	4
Speed in MPH	35	35	35	35	35	35	35	35	35
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	65.1	74.8	80.0	65.1	74.8	80.0	65.1	74.8	80.0
ADJUSTMENTS									
Flow	3.3	-14.0	-17.9	2.0	-15.3	-19.2	-4.1	-21.3	-25.2
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	68.5	60.9	62.2	67.2	59.6	60.9	61.1	53.6	54.9
VEHICULAR NOISE	DAY=	70.0	Leq	EVENING=	68.7	Leq	NIGHT=	62.6	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**68.2**
			Ldn=	**71.1**
			CNEL=	**71.7**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**59**	**127**	**273**
	CNEL:	**65**	**140**	**301**

Scenario: 2035 WITH PROJECT
Roadway: Carson Street
Segment: Vermont Ave to Figueroa St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	59,153
SPEED (mph)	35
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	3628	69	28	2682	51	20	672	13	5
Speed in MPH	35	35	35	35	35	35	35	35	35
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	65.1	74.8	80.0	65.1	74.8	80.0	65.1	74.8	80.0
ADJUSTMENTS									
Flow	4.9	-12.4	-16.3	3.5	-13.7	-17.7	-2.5	-19.7	-23.7
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	70.0	62.5	63.8	68.7	61.2	62.5	62.7	55.2	56.5
VEHICULAR NOISE	DAY=	71.6	Leq	EVENING=	70.2	Leq	NIGHT=	64.2	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**69.8**
			Ldn=	**72.6**
			CNEL=	**73.3**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**75**	**162**	**348**
	CNEL:	**83**	**178**	**384**

Scenario: 2035 WITH PROJECT
Roadway: Carson Street
Segment: Figueroa St to Main St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	27,675
SPEED (mph)	35
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1697	32	13	1255	24	10	314	6	2
Speed in MPH	35	35	35	35	35	35	35	35	35
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	65.1	74.8	80.0	65.1	74.8	80.0	65.1	74.8	80.0
ADJUSTMENTS									
Flow	1.6	-15.7	-19.6	0.2	-17.0	-21.0	-5.8	-23.0	-27.0
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	66.7	59.2	60.5	65.4	57.9	59.2	59.4	51.9	53.2
VEHICULAR NOISE	DAY=	68.3	Leq	EVENING=	66.9	Leq	NIGHT=	60.9	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**66.5**
			Ldn=	**69.3**
			CNEL=	**70.0**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**45**	**97**	**210**
	CNEL:	**50**	**107**	**231**

Scenario: 2035 WITH PROJECT
Roadway: Carson Street
Segment: Western Ave to Normandie Ave

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	43,011
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2638	50	20	1950	37	15	488	9	4
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	2.4	-14.9	-18.8	1.1	-16.2	-20.1	-5.0	-22.2	-26.1
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	71.8	62.8	63.4	70.5	61.5	62.1	64.5	55.5	56.1
VEHICULAR NOISE	DAY=	72.9	Leq	EVENING=	71.5	Leq	NIGHT=	65.5	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**71.1**
			Ldn=	**73.9**
			CNEL=	**74.6**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**92**	**197**	**425**
	CNEL:	**101**	**217**	**468**

Scenario: 2035 WITH PROJECT
Roadway: Normandie Avenue
Segment: Torrance Blvd to Carson St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	20,716
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1271	24	10	939	18	7	235	4	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-0.8	-18.0	-22.0	-2.1	-19.3	-23.3	-8.1	-25.4	-29.3
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	68.6	59.7	60.2	67.3	58.4	58.9	61.3	52.3	52.9
VEHICULAR NOISE	DAY=	69.7	Leq	EVENING=	68.4	Leq	NIGHT=	62.4	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**67.9**
			Ldn=	**70.8**
			CNEL=	**71.4**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**56**	**121**	**261**
	CNEL:	**62**	**134**	**288**

Scenario: 2035 WITH PROJECT
Roadway: Normandie Avenue
Segment: Carson St to 223rd St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	22,095
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1355	26	10	1002	19	8	251	5	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-0.5	-17.8	-21.7	-1.8	-19.1	-23.0	-7.8	-25.1	-29.0
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	68.9	60.0	60.5	67.6	58.6	59.2	61.6	52.6	53.2
VEHICULAR NOISE	DAY=	70.0	Leq	EVENING=	68.6	Leq	NIGHT=	62.6	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**68.2**
			Ldn=	**71.1**
			CNEL=	**71.7**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**59**	**127**	**273**
	CNEL:	**65**	**139**	**300**

Scenario: 2035 WITH PROJECT
Roadway: Vermont Avenue
Segment: Javelin St to Carson St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	30,324
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1860	35	14	1375	26	10	344	7	3
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	0.9	-16.4	-20.3	-0.5	-17.7	-21.7	-6.5	-23.7	-27.7
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	70.3	61.3	61.9	69.0	60.0	60.6	63.0	54.0	54.6
VEHICULAR NOISE	DAY=	71.3	Leq	EVENING=	70.0	Leq	NIGHT=	64.0	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**69.5**
			Ldn=	**72.4**
			CNEL=	**73.1**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**73**	**156**	**337**
	CNEL:	**80**	**172**	**371**

Scenario: 2035 WITH PROJECT
Roadway: Vermont Avenue
Segment: Carson St to 223rd St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	29,717
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1823	34	14	1347	25	10	337	6	3
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	0.8	-16.5	-20.4	-0.5	-17.8	-21.7	-6.6	-23.8	-27.7
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	70.2	61.2	61.8	68.9	59.9	60.5	62.9	53.9	54.5
VEHICULAR NOISE	DAY=	71.2	Leq	EVENING=	69.9	Leq	NIGHT=	63.9	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**69.5**
			Ldn=	**72.3**
			CNEL=	**73.0**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**72**	**154**	**332**
	CNEL:	**79**	**170**	**366**

Scenario: 2035 WITH PROJECT
Roadway: Vermont Avenue
Segment: 223rd St to 228th St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	30,453
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1868	35	14	1381	26	10	346	7	3
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	0.9	-16.4	-20.3	-0.4	-17.7	-21.6	-6.4	-23.7	-27.6
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	70.3	61.3	61.9	69.0	60.0	60.6	63.0	54.0	54.6
VEHICULAR NOISE	DAY=	71.4	Leq	EVENING=	70.0	Leq	NIGHT=	64.0	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**69.6**
			Ldn=	**72.4**
			CNEL=	**73.1**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**73**	**157**	**338**
	CNEL:	**80**	**173**	**372**

Scenario: 2035 WITH PROJECT
Roadway: Figueroa Street
Segment: Carson St to 220th St

Project: West Carson TOD
Analyst: NJF
Date: 23-Jun-17

ROADWAY INPUTS	
ADT	30,348
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1861	35	14	1376	26	10	345	7	3
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	0.9	-16.4	-20.3	-0.5	-17.7	-21.6	-6.5	-23.7	-27.7
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	70.3	61.3	61.9	69.0	60.0	60.6	63.0	54.0	54.6
VEHICULAR NOISE	DAY=	71.3	Leq	EVENING=	70.0	Leq	NIGHT=	64.0	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT			**Leq=**	**69.5**
			Ldn=	**72.4**
			CNEL=	**73.1**
		70	*65*	*60*
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**73**	**156**	**337**
	CNEL:	**80**	**172**	**371**

Appendix I Service Provider Responses

Appendices

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COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294

DARYL L. OSBY
FIRE CHIEF
FORESTER & FIRE WARDEN

February 15, 2017

Michael Milroy, Planner
City of Carson
Placeworks
3 Macarthur Place
Santa Ana, CA 92707

Dear Mr. Milroy:

REQUEST FOR SERVICE PROVIDER INFORMATION FOR THE ENVIRONMENTAL IMPACT REPORT, "WEST CARSON TRANSIT ORIENTED DISTRICT SPECIFIC PLAN," WOULD PERMIT DEVELOPMENT POTENTIAL OF UP TO 3,575 RESIDENTIAL UNITS AND THE RELOCATION OF THE CARSON STATION OF THE METRO SILVER LINE EXPRESS BUS LINE TO A NEW LOCATION, CITYWIDE-CARSON, FFER 201700013

The Request for Service Provider Information for the Environmental Impact Report has been reviewed by the Planning Division, Land Development Unit, Forestry Division, and Health Hazardous Materials Division of the County of Los Angeles Fire Department.

The following are their comments:

PLANNING DIVISION:

1. Please confirm or correct the following information we obtained from the Los Angeles County Fire Department's website:

    1. The nearest LACoFD station to the project site is Station 36 at 127 West 223rd Street in the City of Carson.

        Yes, the entire project site is within the first-in jurisdiction of Fire Station 36.

2. The second-in station to the project site is Station 127 at 2049 E. 223rd Street in the City of Carson.

   The second-in station to the project site will depend on the location of an incident; for the northern part of the project site the second-in station would be Fire Station 116, located at 755 E. Victoria Street in the City of Carson. For the southern part of the project site the second-in station would be Fire Station 127 as stated above.

3. The north end of the Community of West Carson is in the first-in service area of LACoFD Station 116 at 755 East Victoria Street in Carson.

   Yes, the above statement is correct.

   Please enter the equipment and daily staffing at each of the above-mentioned stations.

Fire Stations Serving the Project Site

Station	*Equipment*	*Staffing*
Station 36	*4-Person Engine Company* *4-Person Engine Company* *2-Person Paramedic Squad*	*2-Captains, 2-Fire Fighter Specialists, 2-Fire Fighter Paramedics, 4- Fire Fighters*
Station 127	*4-Person Quint** *2-Person Engine Company (Responds together as a Light Force)*	*1-Captain, 2-Fire Fighter Specialists, 3-Fire Fighters*
Station 116	*4-Person Truck Company* *3-Person Engine Company* *2-Person Paramedic Squad*	*2-Captains, 2-Fire Fighter Specialists, 3-Fire Fighter Paramedics, 2-Fire Fighters*

**A quint is a combination engine/ladder truck apparatus.*

4. LACoFD participates in the California Fire Service and Rescue Emergency Mutual Aid System.

   Yes.

5. LACoFD's response time goals in urban areas are:

   i. Five minutes or less for the first responding unit for fire and emergency medical responses, and

   ii. Eight minutes or less for the advanced life support (paramedic) unit.

   Yes, the above statements are correct.

6. What were LACoFD's actual average response times in the latest year for which data are available for either the stations serving the project site (36 and 127) or Battalion 7?

   During 2016, Fire Station 36 had an average emergency response time of 4:41 minutes, Fire Station 116 had an average emergency response time of 4:54 minutes, and Fire Station 127 had an average emergency response time of 5:14 minutes.

2. Are there any existing deficiencies in the library fire service currently provided to the project site?

   The City of Carson and the neighboring unincorporated area have experienced substantial growth in recent years. Several significant development projects and planned projects in the city coupled with the growth have created a need for an additional fire protection facility on the west side of the city. This project alone creates a significant impact; it would increase service demands on existing Fire Department resources already burdened by incremental growth. An additional fire station is needed in the west side of the city in order to mitigate the impact new development will have on fire protection and emergency medical services.

3. Please summarize any plans for new or expanded fire stations, if any, which would serve the project area.

   See response to Question #2.

   a. What are the funding sources for the planned improvements?

The Fire Department has been working with the City of Carson to address the funding needed to purchase land and construction of the needed fire station however, at this time funding remains uncertain due to ongoing negotiations with the city.

4. Will LACoFD be able to serve any known cumulative developments in addition to the proposed project?

   See response to Question #2.

   a. Please summarize any additional resources (facilities, equipment, personnel) needed.

   See response to Question #2.

   b. What factors or standards are used to project these needs?

      Indicators of need for additional resources and staffing include response times, incident loads, resident and transient population, and square footage of improvements.

5. How would the proposed project affect LACoFD's ability to provide services? Please comment on any area of specific concern.

   See response to Question #2.

6. Please provide any additional comments and/or information regarding fire service provision in the project site related to the proposed project.

   We have no further comments.

LAND DEVELOPMENT UNIT:

The development of this project must comply with all applicable code and ordinance requirements for construction, access, water mains, fire flows, and fire hydrants.

Specific fire and life safety requirements for the construction phase will be addressed at the building fire plan check. There may be additional fire and life safety requirements during this time.

For any questions regarding the report please contact FPEA Wally Collins at (323) 890-4243 or at Wally.Collins@fire.lacounty.gov.

FORESTRY DIVISION – OTHER ENVIRONMENTAL CONCERNS:

The statutory responsibilities of the County of Los Angeles Fire Department's Forestry Division include erosion control, watershed management, rare and endangered species, vegetation, fuel modification for Very High Fire Hazard Severity Zones or Fire Zone 4, archeological and cultural resources, and the County Oak Tree Ordinance. Potential impacts in these areas should be addressed.

HEALTH HAZARDOUS MATERIALS DIVISION:

The Health Hazardous Materials Division of the Los Angeles County Fire Department has no comments regarding the project questionnaire.

If you have any additional questions, please contact this office at (323) 890-4330.

Very truly yours,

FRANK VIDALES, CHIEF, FORESTRY DIVISION
PREVENTION SERVICES BUREAU

FV:ac

From: Collins, Wally
To: Michael Milroy
Subject: RE: developer fees for fire stations
Date: Wednesday, March 01, 2017 10:49:45 AM
Attachments: image001.jpg
image003.jpg

Hi Michael,

There are no developer fees in this area. However, in the near future, there will be plan review fees for building plan check, fire sprinkler systems review and fire alarm for review by the Fire Department's Fire Prevention Engineering Section.

Wally
Wally Collins
Fire Prevention Engineering Assistant II
Land Development Unit - Fire Prevention Division
County of Los Angeles Fire Department
Commerce - (323) 890-4243
wally.collins@fire.lacounty.gov

From: Michael Milroy [mailto:mmilroy@placeworks.com]
Sent: Tuesday, February 28, 2017 12:08 PM
To: Collins, Wally
Subject: developer fees for fire stations

Hello Wally,

I'm working on the environmental impact report for the West Carson Transit-Oriented District Specific Plan project in the Community of West Carson.

Chief Vidales of your Department sent us a questionnaire response; I have a couple more questions.

Does the Consolidated Fire Protection District of Los Angeles County charge developer fees for projects in West Carson?

If so, what are the amounts of the fees:

- per square foot of commercial development
- per square foot of industrial development
- per residential unit?

The information I've found on the Web shows the fees are charged in parts of the Santa Monica

Mountains, Santa Clarita Valley, and Antelope Valley.

I thank you much for your help

MICHAEL MILROY
Associate

3 MacArthur Place, Suite 1100 | Santa Ana, California 92707
714.966.9220 | mmilroy@placeworks.com | placeworks.com

OFFICE OF THE SHERIFF

COUNTY OF LOS ANGELES

HALL OF JUSTICE

JIM MCDONNELL, SHERIFF

April 12, 2017

RECEIVED APR 20 2017

Mr. Michael Milroy, Associate
Placeworks
3 MacArthur Place, Suite 1100
Santa Ana, California 92707

Dear Mr. Milroy:

RESPONSES TO REQUEST FOR SERVICE PROVIDER INFORMATION
ENVIRONMENTAL IMPACT REPORT
WEST CARSON TRANSIT ORIENTED DISTRICT SPECIFIC PLAN

Thank you for inviting the Los Angeles County Sheriff's Department (Department) to respond to your Request for Service Provider Information (Request), dated January 23, 2017, for the West Carson Transit Oriented District Specific Plan (Specific Plan). The Specific Plan is a policy document intended to guide long-term development within a 319-acre area in the unincorporated community of West Carson. The development potential of the Specific Plan is 3,698 residential units and 4.6 million square feet of non-residential land uses, which could contain a resident population of 9,990, and support an employment workforce of 5,491 (158% and 107% increases over existing conditions, respectively). The Specific Plan also proposes to relocate an existing bus station and construct various pedestrian and bicycle amenities, in an effort to promote public transportation ridership.

Law enforcement services to the Specific Plan area are provided by multiple units within the Department, including the Carson Sheriff's Station (Station), Transit Bureau South (TBS), and County Services Bureau (CSB). Accordingly, the Station, TBS, and CSB reviewed the Request and authored the attached responses (see correspondence from Carson Station Captain Jason Skeen, TBS Captain Karl R. Schow, and CSB Captain Britta S. Steinbrenner).

Should you have any questions regarding this matter, please contact me at (323) 526-5657, or your staff may contact Lester Miyoshi of my staff at (323) 526-5664.

Sincerely,

JIM McDONNELL, SHERIFF

Tracey Jue, Director
Facilities Planning Bureau

761551N25A - SH-AD-32A (2/72)

COUNTY OF LOS ANGELES
SHERIFF'S DEPARTMENT
A Tradition of Service Since 1850

DATE: March 14, 2017

OFFICE CORRESPONDENCE FILE NO:

FROM: BRITTA S. STEINBRENNER, CAPTAIN
COUNTY SERVICES BUREAU

TO: TRACEY JUE, DIRECTOR
FACILITIES PLANNING BUREAU

SUBJECT: **WEST CARSON TRANSIT ORIENTED DISTRICT SPECIFIC PLAN-REVISED**

The following information is provided by County Services Bureau (CSB) in response to a Request for Service Provider Information dated January 23, 2017, from Placeworks (Requestor). The Requestor is a consultant to the County of Los Angeles, and is preparing an environmental impact report for the West Carson Transit Oriented District Specific Plan (Specific Plan). The Specific Plan serves as a policy documented to guide long-term development in a 319 acre area in the unincorporated community of West Carson (Specific Plan Area). The Specific Plan Area encompasses the Harbor-UCLA Medical Center (Medical Center).

In March 2016, CSB responded to a similar request for service provider information for the Harbor-UCLA Medical Center Master Plan (Master Plan). CSB updated the previously submitted information for the Master Plan, and submits it for the Specific plan.

The information below is formatted to correspond with the format of the Request:

1. The Medical Center is located within the service area of the Carson Sheriff's Station. However, law enforcement services to this location are provided by CSB. CSB also manages contract security guards at the Medical Center and other County facilities. During the reporting period beginning January 1, 2015 and ending December 31, 2015, there were a total of 67 Part I Crimes committed at the Medical Center, including:

   - Homicide (Murder/Non Negligent) 0
   - Forcible Rape 0
   - Robbery 1
   - Aggravated Assault 1
   - Burglary 5
   - Larceny Theft (Grand & Petty) 27
   - Larceny Theft (Vehicle Burglary) 11
   - Grand Theft Auto 17
   - Arson 0

2. The Sheriff's stations located in close proximity tod the Medical Center include Carson Sheriff's Station (two miles), Lomita Sheriff's Station (five miles), Compton Sheriff's Station (eight miles), and Lakewood Sheriff's Station (fourteen miles).
3. As of January 1, 2017, the CSB office at the Medical Center is staffed with 24 sworn personnel and 25 civilian employees. The available assets assigned to CSB at the Medical Center include four radio cars, one Sheriff's Security Officer Vehicle, two unmarked vehicles, two T3 Chariots and four bicycles. CSB operates on a 24-hour basis utilizing multiple shifts (day, night, and early morning). CSB also manages approximately 77 non-LASD security personnel. Based on estimates of increased square footage, indicating a 37% increase in staffing, and a 34% increase in patient load, current staffing levels will need to be increased to meet this growth.
4. CSB occupies offices on the first floor of the Medical Center. This enables CSB personnel to be on-site when law enforcement services are needed, and enables LASD personnel to effectively manage contract security guards at this location. Information pertaining to the service boundaries and service populations do not apply to CSB at this location.
5. The Arson Explosives Detail provides fire and explosive, investigative, technical, and emergency response services. All team members are certified bomb technicians and arson investigators. The Canine Services Detail assists patrol and search operations utilizing specially trained canine deputies and handlers. The Emergency Services Detail coordinates and conducts mountain search and rescue operations, underwater search and rescue operations, swift water and flood rescue operations. All deputies are certified paramedics and rescue divers.
6. The Haz-Mat Detail responds to incidents involving chemical, biological, radiological, and nuclear weapons. The Special Enforcement Detail provides high-risk tactical operations in response to incidents involving barricaded persons, hostage situations, high-risk warrants, and security for visiting dignitaries.
7. The Department's Emergency Operations Bureau, specifically the Tactical Planning Unit and Sheriff's Response Team, responds to any natural or manmade disaster or emergency that requires the provision of law, order, emergency care, and shelter for disaster victims. The Department also adheres to the policies and procedures of the Los Angeles County Operational Area Emergency Response Plan (OAERP). The OAERP is maintained by the County Office of Emergency Management (OEM), and outlines the organizational structure for the County's coordinated response to catastrophic events. The Department also works in partnership with the OEM to maintain the County's Emergency Operations Center (EOC) in a state of operational readiness. The EOC is the County's central command and management facility occupied by liaisons from County, State, and Federal agencies for the purpose of implementing the principles of emergency preparedness and emergency management at a strategic level, and ensuring the continuity of government operations.

8. Since CSB occupies offices within the Medical Center, CSB personnel response times to calls for service are extremely rapid. Response times for emergent, priority, and routine calls for service are maintained within department standards, often times within five minutes.
9. The County Office of Emergency Management maintains the framework for mutual aid agreements between the Department and neighboring law enforcement agencies, including the police departments belonging to the Cities of Los Angeles, Long Beach, Torrance, and Gardena.
10. CSB has occupied office space at the Medical Center since 2010. CSB occupies a main office inside the hospital which consists of approximately 927 square feet, and includes administrative offices, report writing area and dispatch center. CSB also occupies a locker room located at 21840 Normandie Avenue, Torrance, CA. It is located at the west end of the campus. The area is approximately 1,672 square feet. The locker room contains male and female locker rooms, restroom/shower, male and female bunk rooms, a kitchenette, as well as a secured parking area for 11 vehicles. The CSB Harbor-UCLA dispatch area was recently remodeled however it is undersized and would not be adequate for use if there was an expansion of hospital facilities and corresponding staffing models. CSB Harbor-UCLA administrative offices are also inadequate in size. The building housing the locker room is currently slated to be torn down as part of the master plan. CSB is aware the Master Plan for the Medical Center includes offices and facilities dedicated to CSB needs and personnel.
11. The Department generally prescribes to the principles of Crime Prevention through Environmental Design (CPTED). The goal of CPTED is to reduce opportunities for criminal activities by employing physical design features that discourage anti-social behavior, while encouraging the legitimate use of the site. The overall tenets of CPTED include defensible space, territoriality, surveillance, lighting, landscaping, and physical security. With advanced notice, CSB personnel are available to assist in developing an effective CPTED with the project developer.

Thank you for including CSB in the environmental review process for the proposed Project. Should you have any questions regarding this matter, please contact Captain Britta Steinbrenner at (213) 974-1120 or Lieutenant Chad Sauter at (310) 222-3311.

BSST:GLE:cs

OFFICE OF THE SHERIFF

COUNTY OF LOS ANGELES

HALL OF JUSTICE

JIM MCDONNELL, SHERIFF

April 12, 2017

RECEIVED APR 20 2017

Mr. Michael Milroy, Associate
Placeworks
3 MacArthur Place, Suite 1100
Santa Ana, California 92707

Dear Mr. Milroy:

RESPONSES TO REQUEST FOR SERVICE PROVIDER INFORMATION
ENVIRONMENTAL IMPACT REPORT
WEST CARSON TRANSIT ORIENTED DISTRICT SPECIFIC PLAN

Thank you for inviting the Los Angeles County Sheriff's Department (Department) to respond to your Request for Service Provider Information (Request), dated January 23, 2017, for the West Carson Transit Oriented District Specific Plan (Specific Plan). The Specific Plan is a policy document intended to guide long-term development within a 319-acre area in the unincorporated community of West Carson. The development potential of the Specific Plan is 3,698 residential units and 4.6 million square feet of non-residential land uses, which could contain a resident population of 9,990, and support an employment workforce of 5,491 (158% and 107% increases over existing conditions, respectively). The Specific Plan also proposes to relocate an existing bus station and construct various pedestrian and bicycle amenities, in an effort to promote public transportation ridership.

Law enforcement services to the Specific Plan area are provided by multiple units within the Department, including the Carson Sheriff's Station (Station), Transit Bureau South (TBS), and County Services Bureau (CSB). Accordingly, the Station, TBS, and CSB reviewed the Request and authored the attached responses (see correspondence from Carson Station Captain Jason Skeen, TBS Captain Karl R. Schow, and CSB Captain Britta S. Steinbrenner).

Should you have any questions regarding this matter, please contact me at (323) 526-5657, or your staff may contact Lester Miyoshi of my staff at (323) 526-5664.

Sincerely,

JIM McDONNELL, SHERIFF

Tracey Jue, Director
Facilities Planning Bureau

761551N25A - SH - AD - 32A (2/72)

COUNTY OF LOS ANGELES

SHERIFF'S DEPARTMENT

"A Tradition of Service Since 1850"

OFFICE CORRESPONDENCE

DATE: February 8, 2017

FILE NO:

FROM: JASON SKEEN, CAPTAIN
CARSON STATION

TO: TRACEY JUE, DIRECTOR
FACILITIES PLANNING BUREAU

SUBJECT: **SERVICE INFORMATION REQUEST – WEST CARSON TRANSIT PROJECT**

This memo is in response to the eight questions sent from Placeworks regarding law enforcement services related to the West Carson Transit District Project. The initial information from the March 2016, response has been updated to reflect current statistics as recently requested.

If you have any questions regarding the information contained in this memo please contact me or Sergeant Manny Scruggs of my Operations Staff at (310) 847-8343.

JS:MS:ms

WEST CARSON TRANSIT ORIENTED DISTRICT SPECIFIC PLAN
Police Services – Los Angeles County Sheriff's Department

1. Please confirm or correct the following information we obtained from the Sheriff's Department website:
   a. The project area is in the service area of LASD's Carson Station. YES

   b. What is the staffing assigned to the Carson Station:

      The following is the current staffing for Carson Station personnel as well as the current deployment, by shift, for the affected area:

      i. Sworn Deputies: 157
      ii. Civilian Positions: 35
      iii. Approximately how many sworn officers patrol the Community of West Carson?

      EM Shift: 2
      AM Shift: 4
      PM Shift: 4
      The above reflects 10 hour shifts.

   c. The Los Angeles County Sheriff is the Los Angeles County Operational Area Law Enforcement Mutual Aid Coordinator under the Law Enforcement Mutual Aid Plan issued by the California Office of Emergency Services.

      YES, Per the California Disaster and Civil Defense Master Mutual Aid Agreement of 1950 and the California Emergency Services Act of 1970, the Sheriff is appointed Coordinator of Mutual Aid for the Los Angeles County "Operational Area".

2. What are the response times goals and the current average times for the Carson Station service area for the three listed categories of service calls?

   The chart below depicts Carson Station's ideal response time goals. The chart also shows the average response times achieved for 2016.

Response Times, Carson Station Service Area		
	Response Time Goal (minutes)	Actual response time (latest year for which data is available) 2016
Emergency:	3	4.1
Priority:	7	7.5
Routine:	30	28.1

3. Are there any existing deficiencies (staff, equipment) in the police protection currently provided to the project site?

   Yes

4. Please summarize any plans for police service improvement plans or expanded capacity (personnel, equipment), if any, that would serve the project area.

   Captain Jason Skeen, of the Carson Station has expressed an interest to add an additional 56-hour patrol unit (1.6 deputies) to the existing unincorporated patrol areas due to increasing calls for service, a rise in crime, and population growth.

   a. What are the funding sources for the planned improvements?

   The funding source has not been identified at this time.

5. Will the LASD be able to serve any known cumulative developments in addition to the proposed project?

   a. Please summarize any addition resources (stations, equipment, personnel needed:

   If we receive the additional 56-hour patrol unit this would be an increase we would need an additional patrol vehicle.

   b. What factors or standards are used to project these needs?

   Despite increasing calls for service, a rise in crime, and population growth as well an expected increase in all of these areas for the next several years, our patrol staffing has remained the same for the last decade. Due to a lack of funding we have actually experienced a decrease in personnel who were traditionally assigned to special problem teams in the unincorporated patrol area.

6. Would buildout of the West Carson Transit Oriented District Specific Plan require construction of new or expanded police facilities?

   a. If so, do you have any estimate of the additional square footage needed?

   No

7. How would the proposed project affect LASD's ability to provide services? (Please comment on any area of specific concern)

   We are anticipating increased number of calls for service, a rise in crime, additional vehicle collisions and added response times.

8. Please provide any additional comments and/or information regarding fire service provision in the project site related to the proposed project.

   Please contact the Los Angeles County Fire Department, for their input.

9. The following information is an update include statistics for the year 2016:

Unincorporated Areas
Call for Service, Average Response Times, 918 Calls & Part I Crimes
2011 -2016

Calls For Service						
	2011	2012	2013	2014	2015	2016
Emergent	298	384	308	336	420	518
Priority	887	1084	1123	1170	1241	1197
Routine	3582	3826	3822	4231	4783	4815
Total:	**4767**	**5294**	**5253**	**5737**	**6444**	**6530**

Source: RAPS_13_Pat

Average Response Times						
	2011	2012	2013	2014	2015	2016
Emergent	5.1	5.5	4.6	5.2	4.2	4.1
Priority	8.2	9	8.4	7.9	7.7	7.5
Routine	42.1	49.3	38.5	36.1	32.2	28.1

Source: RAPS_417

918 Calls						
	2011	2012	2013	2014	2015	2016
P918 and P918V	45	68	68	72	123	148
918 and 918V	31	62	68	83	74	63
Total:	**76**	**130**	**136**	**155**	**197**	**211**

Source: RAPS Incident Inquiry

Part 1 Crimes						
	2011	2012	2013	2014	2015	2016
Homicide	0	4	2	4	1	2
Rape	1	1	1	3	1	2
Robbery, Weapon	8	17	14	11	13	17
Robbery, Strong-arm	12	15	9	7	10	16
Aggravated Assault	58	57	48	45	47	59
Burglary, Residence	82	82	98	81	103	61
Burglary, Other structure	39	43	47	56	57	81
Grand Theft	61	47	52	58	59	52
Grand Theft Auto	89	106	97	121	108	151
Arson	3	2	6	2	3	1
Vehicle Burglary	103	118	113	95	119	191
Petty Theft	118	144	107	121	127	160
Part I Total	**574**	**636**	**594**	**604**	**648**	**793**

Source: 515C

COUNTY OF LOS ANGELES

SHERIFF'S DEPARTMENT

"A Tradition of Service"

DATE: February 13, 2017

FILE NO.:

OFFICE CORRESPONDENCE

FROM: KARL R. SCHOW, CAPTAIN
TRANSIT BUREAU SOUTH

TO: TRACEY JUE, DIRECTOR
FACILITIES PLANNING BUREAU

SUBJECT: **WEST CARSON DISTRICT PROJECT**

The West Carson District Project is within Los Angeles County Sheriff's Department County Services and Carson Station policing jurisdictions. Los Angeles County Sheriff's Department, Transit Bureau South, has the policing responsibility for the Los Angeles County Metropolitan Transportation Authority (Metro) and shares jurisdiction in that area for transit related crimes only.

Transit Bureau South's reporting district for the proposed area is 6851. The reporting district for the Metro Silver Line, Carson Passenger Station is 6863. There were no reported transit related crimes at the project site in 2016. There was a minimal amount of transit related crime in the reporting districts surrounding the project site; however, none of those crimes are related to the proposed area.

After reviewing the master plan, I have determined this project will not have an impact on Transit Bureau South's law enforcement responsibilities. It appears the bus stops that are in the master plan are no different than the bus stops we currently service at that location, except for the proposed movement of the Silver Line Carson Passenger Station. The movement of this bus stop from underneath the 110 Freeway to an area west of the freeway will have no impact on our operation.

Any additional information needed regarding emergency responses and responsibility at the project site should be addressed by the Los Angeles County Sheriff's Department's County Services Bureau as well as Carson Station.

KRS:BS:bs

RECEIVED
#38
FEB 22 2017
FACILITIES PLANNING BUREAU
ADMINISTRATIVE SERVICES DIVISION

County Library
Of Los Angeles Public
Skye Patrick
County Librarian

County of Los Angeles Public Library
7400 East Imperial Hwy., Downey, CA 90242 • (562) 940-8400 • colapublib.org

June 7, 2017

Michael Milroy, Associate
Place Works
3 MacArthur Place, Suite 1100
Santa Ana, CA 92707

Dear Mr. Milroy:

REQUEST FOR LIBRARY SERVICE INFORMATION
WEST CARSON TRANSIT ORIENTED DISTRICT SPECIFIC PLAN

This is to respond to your request for library service information for the above referenced project. Attached is the Library's response to your questions.

If you have any questions or need additional information, please feel free to contact Elsa Muñoz, Head, Support Services Library at (562) 940-8450 or emunoz@library.lacounty.gov.

Sincerely,

Skye Patrick
County Librarian

SP:YDR:EM:SS
U:STAFFSERVICES\EIR\West Carson Transit-Oriented District Specific Plan\Response-West Carson Cover Letter.docx

Attachment (1)

c: Ting Fanti, Head, Budget and Fiscal Services, Public Library
Jesse Walker-Lanz, Library Administrator, Public Library
Vache Keledjian, Capital Projects Manager, Public Library

COUNTY OF LOS ANGELES SUPERVISORS
Hilda Solis, 1st District | Mark Ridley-Thomas, 2nd District | Sheila Kuehl, 3rd District | Janice Hahn, 4th District | Kathryn Barger, 5th District

1. Please confirm or correct the following information we obtained from the Carson Library's webpage:

    a. The Carson Library is 33,112 square feet in building area

    Response: This information is correct.

    b. What is the Carson Library's collection size?

    Response: 108, 887

    c. The Los Angeles County Public Library is a member of the Southern California Library Cooperative, a consortium of 38 independent city, county and special district public libraries in Los Angeles and Ventura counties which cooperate in providing library service to the residents of all participating jurisdictions.

    Response: This information is correct.

2. Are there any existing deficiencies in the library service currently provided to the project site?

    Response: Yes, based on our library service level guidelines, the Carson Library has a 23,538 square foot facility size deficit, 231,013 collection deficit, and an 87 computer deficit.

3. Please summarize any plans new or expanded library facilities, if any, that would serve the project area.

    Response: There are plans to renovate Carson Library without increasing the existing square footage.

    a. What are the funding sources for the planned improvements?

    Response: The projected renovations will be supported by several funding sources which include the Library's general operating budget, the Library Mitigation Fee, and a donation.

4. Will the Carson Library be able to serve any known cumulative developments in addition to the proposed project?

Response: The Public Library strives to meet library facilities and resources demands but a study has not been conducted regarding this matter.

a. Please summarize any additional resources (facilities, personnel, collections) needed.

Response: Our current needs are captured in response #2.

b. What factors or standards are used to project these needs?

Response: The Public Library uses the following library service level guidelines to determine needs:

- Building size: 0.5 gross square feet per capita
- Land size: 2 gross square feet per capita
- Collection: 2.75 items per capita or 3.0 items for regional libraries
- Computer: 1 computer per 1,000 capita

5. How would the proposed project affect the library's ability to provide services? Please comment on any area of specific concern.

Response: The proposed project would create a larger deficit in already existing services. The analysis below reflects the impact of the West Carson Transit Oriented District Specific Plan based on figures provided in the Environmental Impact Report.

West Carson Transit Oriented District Specific Plan	Impact Per Capita (population increase of 6,111)	Cost	Total Cost
a. Building	3,056	$1,000 sq. ft.	$3,055,500
b. Land	12,222	$29 (Library Planning Area 5)	$354,438
c. Collections	18,333	$28	$513,324
d. Computer	6	$1,800	$10,800
Total			**$3,934,062**

6. Please provide any additional comments and/or information regarding library service provision in the project site related to the proposed project.

Response: The proposed project would create an additional deficit of $3,934,062. The Library Mitigation fee would only provide $2,012,106 toward this shortage. A contribution of $1,921,956 is needed to minimize the impact this development will have on our library collection and services to our patrons.

Response Prepared By:

Elsa Muñoz	Head, Support Services
Name	**Title**
County of Los Angeles Public Library	5/3/2017
Agency	**Date**

1. Please confirm or correct the following information we obtained from the Los Angeles County Department of Parks and Recreation *Parks Locator* website:

   a. There is one DPR park in the project site, Park Learning Grove County Park

      i. Park Learning Grove County Park is a joint-use facility with Meyler Street Elementary School
      Yes, Park Learning Grove County Park is a joint-use facility with Meyler Street Elementary School and is only open two hours a day during the week, from 2:30 to 4:30 pm (Monday through Friday). The parks is closed on Saturdays, Sundays, and holidays.

      ii. Park Learning Grove County Park is 0.5 acre of green space with no amenities
      True.

   b. Is there a joint-use facility (DPR and LAUSD) at Van Deene Elementary School?
      No.
      i. If so:

         - What is the acreage?

         - What amenities are present?

   c. There are currently no other parks in the Community of West Carson
      True.

   d. Del Amo Neighborhood Park, at 1000 West 204th Street in West Carson about 0.25 mile north of the Specific Plan area, is under development

      i. The park site is a voluntary cleanup site (8.45 acres) under the jurisdiction of the California Department of Toxic Substances Control (DTSC 2017).
      Yes, the park site is approximately 8.5 acres.

      ii. Development is tentatively scheduled for completion in 2019 (Guerrero 2017).
      True.

      iii. The Los Angeles County Regional Parks and Open Space District allocated $813,000 to the Los Angeles Neighborhood Land Trust in 2016 for the development of Del Amo Neighborhood Park

The County will also be contributing approximately $1.69 million in Quimby funds to assist in the development of Del Amo Neighborhood Park.

e. West Carson is in Park Planning Area 21
Yes.

f. The parkland obligation for residential subdivisions in West Carson is as shown in the following table: Information below is correct.

Table 5.12-1 Parkland Obligation for Residential Subdivisions, Park Planning Area 21 (West Carson)

Residential Unit Type	Average Household Size (per County Ordinance Section 21.24.340)	Acres per Resident	Acres per Residential Unit
Single-Family (detached or attached)	2.96	0.003	0.00888
Multi-Family (2-4 units)	2.66	0.003	0.00798
Multi-Family (5+ units)	2.20	0.003	0.00660
Mobile Home	2.04	0.003	0.00612

County Ordinance Section 21.24.340 accessed via Municode.com on February 1, 2017

g. The Parks and Recreation Element of the 2035 Los Angeles County General Plan, Policy 3.1, sets forth the following goals for acres of parkland per population: four acres of local parkland per 1,000 residents in the unincorporated areas and six acres of regional parkland per 1,000 residents of the total population of Los Angeles County.
True.

h. The current population to parkland ratio in West Carson is 0.5 acre of parkland per 21,699 population [2010 US Census], for a ratio of 0.02 acre of parkland per 1,000 residents
True.

i. Two County regional parks are within five miles of the project site:

i. Victoria Park at 419 E 192nd St in the City of Carson
True.

- Victoria Park amenities include ball fields, basketball courts, a swimming pool, a gymnasium, tennis courts, play area, a recreation building, and a picnic area.
- Victoria Park amenities include a community building, gym, swimming pool, wading pool, bath house, picnic shelter, softball fields, cricket field, tennis courts, basketball courts, volleyball court, and a children's play area.

ii. Victoria Park Golf Course at 419 E 192nd St in the City of Carson
Victoria Park Golf Course is located at 340 East 192nd Street.

j. Los Angeles County Measure A, passed by voters in November 2016, placed a 1.5-cent per square foot property tax levy on improved property in Los Angeles County. True

i. Tax proceeds shall be allocated to develop or implement projects consistent with the 2016 Countywide Park Needs Assessment ("Needs Assessment")[1] including, but not limited to:
True.

ii. projects protecting, developing, enhancing, and preserving parks, play areas, beaches, open space lands, natural areas, waterways, water resources, and equestrian facilities, promoting health and encouraging community use including for seniors and youth, investing in areas with high-needs for parks, developing and improving local and regional recreational facilities, maintaining and improving park safety, healthiness, and accessibility, and providing and facilitating safe places to play, afterschool programs, career development, job training, educational and cultural resources [impartial analysis by the Los Angeles County Counsel (Ballotpedia 2016)]
True.

iii. Measure A funds are allocated for expenditure in both incorporated cities and in unincorporated areas.
True.

iv. The tax will take effect July 1 2017
True.

2. Are there planned new or expanded parks that would serve the project site, other than
No, there are no planned new parks or expanded parks that would serve the unincorporated West Carson other than Del Amo Neighborhood Park.

[1] Note, PlaceWorks prepared the Needs Assessment

3. What effect would Specific Plan buildout have on parks serving West Carson?
   Increase in dwelling units and population based on the Specific Plan buildout will increase the demand for parks and recreational services, thereby exacerbating the parkland deficit in West Carson.

4. What requirement for new parkland would Specific Plan buildout generate?
   The County has Quimby requirement for subdivider of residential subdivisions. The subdivider of a residential subdivision shall provide local park space to serve the subdivision, pay a fee in lieu of the provision of such park land in accordance with the provisions of Section 21.28.140 of the County Code, provide local park space containing less than the required obligation but developed with amenities equal in value to the park fee, or do a combination of the above in accordance with the requirements of this title.

   In order to calculate the parkland obligation or in-lieu fee, we would need the type of housing and the number of housing units proposed to be developed.

5. Would measures other than fulfillment of parkland obligations be needed to reduce project impacts to parks?

   a. If so, what measures?
      Yes, contributing to Quimby (in-lieu) fees.

Response Prepared By:

Julie Yom, AICP	Park Planner
Name	**Title**
County of Los Angeles Department of Parks and Recreation	March 13, 2017
Agency	**Date**

Responses to Information Request for the EIR of the West Carson Transit Oriented District Specific Plan

1.a.i – The JWPCP capacity is 400 mgd and the average wastewater flows in 2015 were approximately 258 mgd.

1.b – Correct. An agreement was executed between LACSD and MWD in November 2015.

1.b.i – Correct. The demonstration facility will be sized to treat up to 0.5 mgd.

1.b.ii – Correct. The full-scale operating system, if developed, would be sized for up to 150 mgd.

1.c – Correct. WRD is planning to build an AWFT in the City of Pico Rivera that will provide 10,000 afy of highly-treated recycled water.

2 – Currently there are no plans for new or expanded wastewater treatment facilities that would serve the project area.

2.a – n/a

3 – Based on our previously conducted Clearwater Program analysis, LACSD has sufficient capacity to serve known cumulative developments in addition to the proposed project.

3.a – n/a

3.b – n/a

4 – It is estimated that the proposed project would increase wastewater flows by approximately 1.5 mgd to JWPCP. As stated above, JWPCP has a design capacity of 400 mgd and the average wastewater flows in 2015 were approximately 258 mgd. Therefore, JWPCP has sufficient capacity to treat this flow.

5 – No additional comments.

Response prepared by on 2/1/2017:

Johnmar Deguzman

Los Angeles County Sanitation Districts

Planning Department – Project Engineer

jdeguzman@lacsd.org

(562)908-4288 ext 2765

Doc # 4033746

Appendix J Traffic Study

Appendices

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TECHNICAL MEMORANDUM

WEST CARSON TOD SPECIFIC PLAN

TRAFFIC IMPACT STUDY

Prepared for County of Los Angeles
by IBI Group

June 9, 2017

Document Control Page

CLIENT:	County of Los Angeles
PROJECT NAME:	West Carson TOD Specific Plan
REPORT TITLE:	WEST CARSON TOD SPECIFIC PLAN
IBI REFERENCE:	39030
VERSION:	
DIGITAL MASTER:	J:\39030_WestCarson\10.0 Reports\Task 6.3 Traffic Study
ORIGINATOR:	Yonathan Esquivel
REVIEWER:	Bill Delo
AUTHORIZATION:	Bill Delo
CIRCULATION LIST:	
HISTORY:	

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1 INTRODUCTION

1.1 STUDY PURPOSE

This traffic analysis report has been prepared as part of the West Carson TOD Specific Plan Environmental Impact Report (EIR). The purpose of this traffic study is to document the forecast traffic conditions within the study area with development proposed in the Specific Plan, to identify potential impacts to study area intersections and roadway segments based on the County of Los Angeles standards, and to formulate measures to mitigate those impacts.

1.2 REPORT ORGANIZATION

This report is organized into the following twelve sections:

- Introduction
- Project Description
- Analysis Methodology
- Existing Year (2016) Conditions
- Future Year (2035) Forecast Modeling
- Future Year (2035) No Project
- Project Traffic
- Existing Year (2016) With Project
- Future Year (2035) With Project
- Mitigation Measures and Funding
- Conclusions
- Appendices

Section 1 provides a brief introduction to the study purpose and report organization. Section 2 provides a summary of the background history, existing land uses, and future land uses under the Specific Plan. Section 3 includes the methodology utilized in the analysis and the referenced standards. The study area roadways and Existing Year (2016) intersection geometry, turning movement volumes, and level of service are presented in Section 4. The Future Year (2035) forecast modeling methodology is provided in Section 5. Section 6 describes the Future Year (2035) No Project condition and provides the roadway segment and intersection level of service results. Section 7 describes the project trip generation, distribution, and assignment. Section 8 describes the Existing Year (2016) With Project scenario and provides the roadway segment and intersection level of service results. Section 9 describes the Future Year (2035) With Project scenario and provides the roadway segment and intersection level of service results. Section 10 presents the mitigation measures to address facilities operating at an unacceptable level of service; fair share calculations are also presented in this section. Findings and conclusions from this study are presented in Section 11. Lastly, the appendices are provided in Section 12.

2 PROJECT DESCRIPTION

2.1 PROJECT BACKGROUND

The West Carson TOD Specific Plan covers approximately 418 acres in the unincorporated area of West Carson. The project area is bounded by the 208th Street flood control channel and West Torrance Boulevard to the north, 223rd Street to the south, Interstate 110 to the east, and Normandie Avenue to the west. The project area includes the Carson Street Metro Silver Line Station, a bus rapid transit stop along a designated bus lane adjacent to the Interstate 110 freeway.

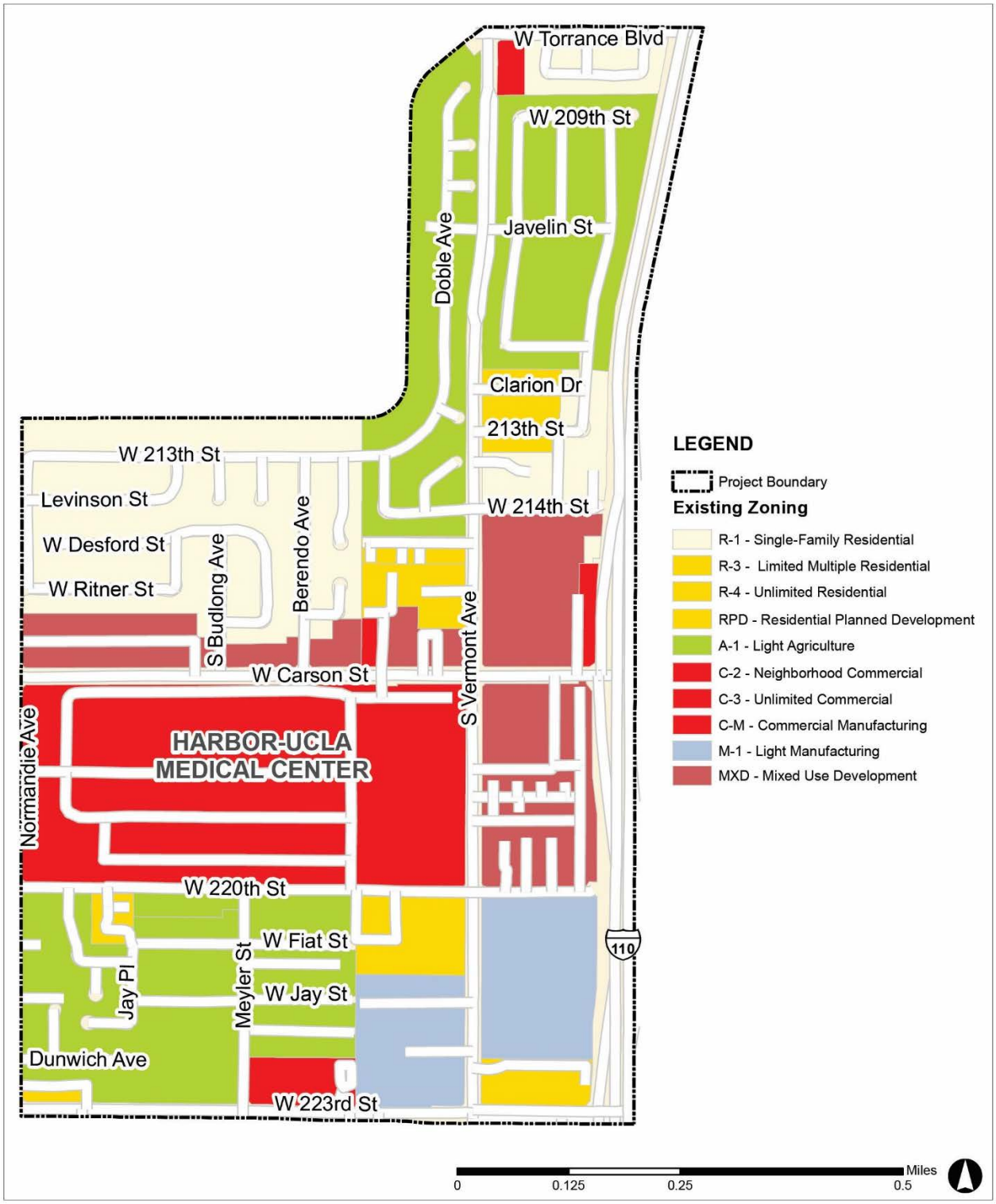
2.2 EXISTING LAND USE ZONING

The West Carson TOD Specific Plan is comprised of a number of land uses including commercial, manufacturing, residential, mixed-use, and agricultural. Figure 2.1 illustrates the existing zoning by traffic analysis zone (TAZ) for the Specific Plan area, while Table 2.1 summarizes the existing square footage for each land use.

TABLE 2.1: EXISTING LAND USES

LAND USE ZONE	LAND USE TYPE	EXISTING
Harbor UCLA Medical Zone	Non-Residential SF	-
	Residential Dwelling Units	-
Industrial Flex	Non-Residential SF	348,061
	Residential Dwelling Units	15
Mixed Use Development 1	Non-Residential SF	233,928
	Residential Dwelling Units	30
Mixed Use Development 2	Non-Residential SF	258,259
	Residential Dwelling Units	63
Neighborhood Commercial	Non-Residential SF	14,787
Residential Planned Development	Residential Dwelling Units	37
Unlimited Commercial	Non-Residential SF	58,827
	Residential Dwelling Units	-
West Carson Residential 1	Residential Dwelling Units	955
West Carson Residential 3	Residential Dwelling Units	87
West Carson Residential 4	Non-Residential SF	42,473
	Residential Dwelling Units	116

FIGURE 2.1: EXISTING LAND USE ZONING



Source: IBI Group

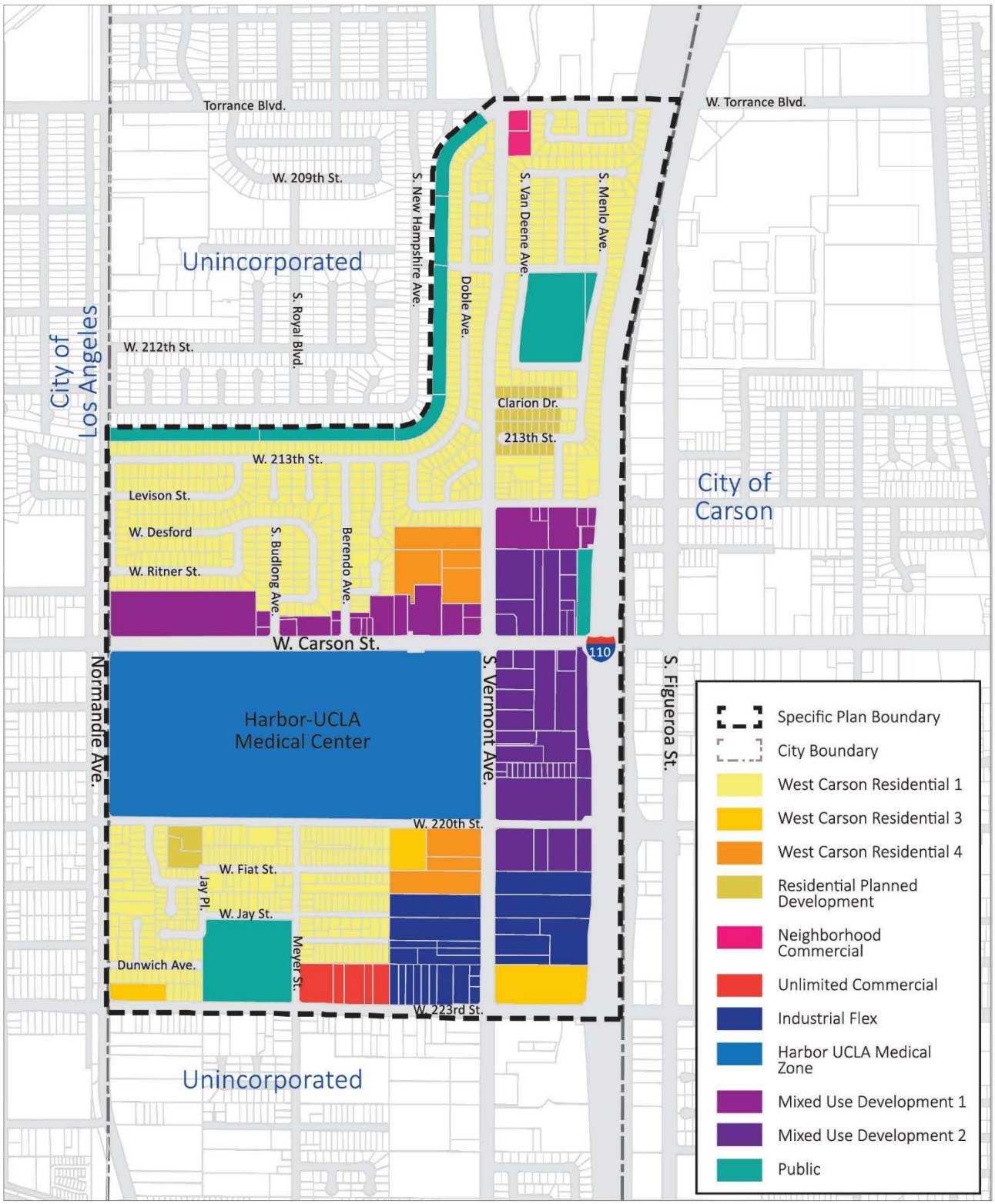
2.3 PROPOSED LAND USE ZONING

Figure 2.2 illustrates the proposed land use zoning for the Specific Plan area. Table 2.2 summarizes the changes in square footage and dwelling units for each land use from the existing to the proposed condition.

TABLE 2.2: PROPOSED SPECIFIC PLAN AREA LAND USES

LAND USE ZONE	LAND USE TYPE	EXISTING	PROPOSED
Harbor UCLA Medical Zone	Non-Residential SF	-	-
	Residential Dwelling Units	-	100
Industrial Flex	Non-Residential SF	348,061	1,133,779
	Residential Dwelling Units	15	486
Mixed Use Development 1	Non-Residential SF	233,928	483,460
	Residential Dwelling Units	30	143
Mixed Use Development 2	Non-Residential SF	258,259	978,675
	Residential Dwelling Units	63	1,223
Neighborhood Commercial	Non-Residential SF	14,787	14,787
Residential Planned Development	Residential Dwelling Units	37	88
Unlimited Commercial	Non-Residential SF	58,827	50,620
	Residential Dwelling Units	-	30
West Carson Residential 1	Residential Dwelling Units	955	851
West Carson Residential 3	Residential Dwelling Units	87	171
West Carson Residential 4	Non-Residential SF	42,473	-
	Residential Dwelling Units	116	484

FIGURE 2.2: PROPOSED LAND USE ZONING



Source: West Carson Transit Oriented Development Specific Plan

3 ANALYSIS METHODOLOGY

The traffic analysis to be prepared for the West Carson Transit Oriented Development (TOD) Specific Plan follows the requirements and guidelines set forth by the County of Los Angeles, City of Carson, City of Torrance, and Caltrans. The intersection analysis methodology and performance criteria used in this analysis conform to the County and City requirements for traffic impact studies prepared consistent with the California Environmental Quality Act (CEQA) guidelines.

The traffic analysis conducted for the West Carson TOD Specific Plan includes an assessment of traffic conditions for 37 existing intersections located within the unincorporated area of West Carson, the City of Torrance and the City of Carson (Figure 3.1). Analysis scenarios and horizon years are summarized in Table 3.1. It should be noted that County of Los Angeles specifies use of the Existing Year (2016) No Project as a baseline for comparison to the Existing Year (2016) With Project and Future Year (2035) With Project scenarios; thus, County intersection performance and impacts in the Future Year (2035) No Project scenario were not assessed.

TABLE 3.1: ANALYSIS SCENARIOS

ANALYSIS YEAR	ANALYSIS SCENARIO
2016	Existing Year (2016) No Project
2016	Existing Year (2016) With Project
2035	Future Year (2035) No Project
2035	Future Year (2035) With Project

3.1 TRAFFIC COUNT DATA

The existing intersection turning movement counts were taken on Tuesday, May 24, 2016 at 37 intersections during the morning peak period (7:00 AM to 9:00 AM) and the afternoon peak period (4:00 PM to 6:00 PM). The AM and PM peak analyses are based on the hour of highest total intersection volume during the morning and afternoon periods. Average daily traffic volumes were also conducted on Tuesday, May 24, 2016 at 10 roadway segments. The daily segment and peak hour intersection count data sheets are included in the Appendix of this report.

3.2 TRAVEL DEMAND FORECASTING

The horizon year 2035 volumes are derived based on the Southern California Association of Governments (SCAG) regional model. The SCAG regional model is the accepted regional model for forecasting travel demand in Los Angeles County. The SCAG regional model was used to develop Existing Year (2016) No Project and Future Year (2035) No Project scenario volumes. Growth rates between base year and future year were developed and applied to existing turning movement volumes to determine future year turning movement volumes. The compound annual growth rate (CAGR) developed from these comparisons was determined to be 0.6284%.

3.3 PEAK HOUR LINK LEVEL OF SERVICE ANALYSIS

The peak hour link level of service analysis was conducted by calculating the traffic volume in each direction for a specified link segment. Link volumes were derived from the peak hour turning movement volumes between the two adjacent study intersections. A volume-to-capacity (V/C) ratio was taken; the LOS letter grade was assigned using the range of V/C values shown in Table 3.2. LOS D is generally taken to be the minimum.

FIGURE 3.1: PROJECT SITE LOCATION AND STUDY INTERSECTIONS / LINKS

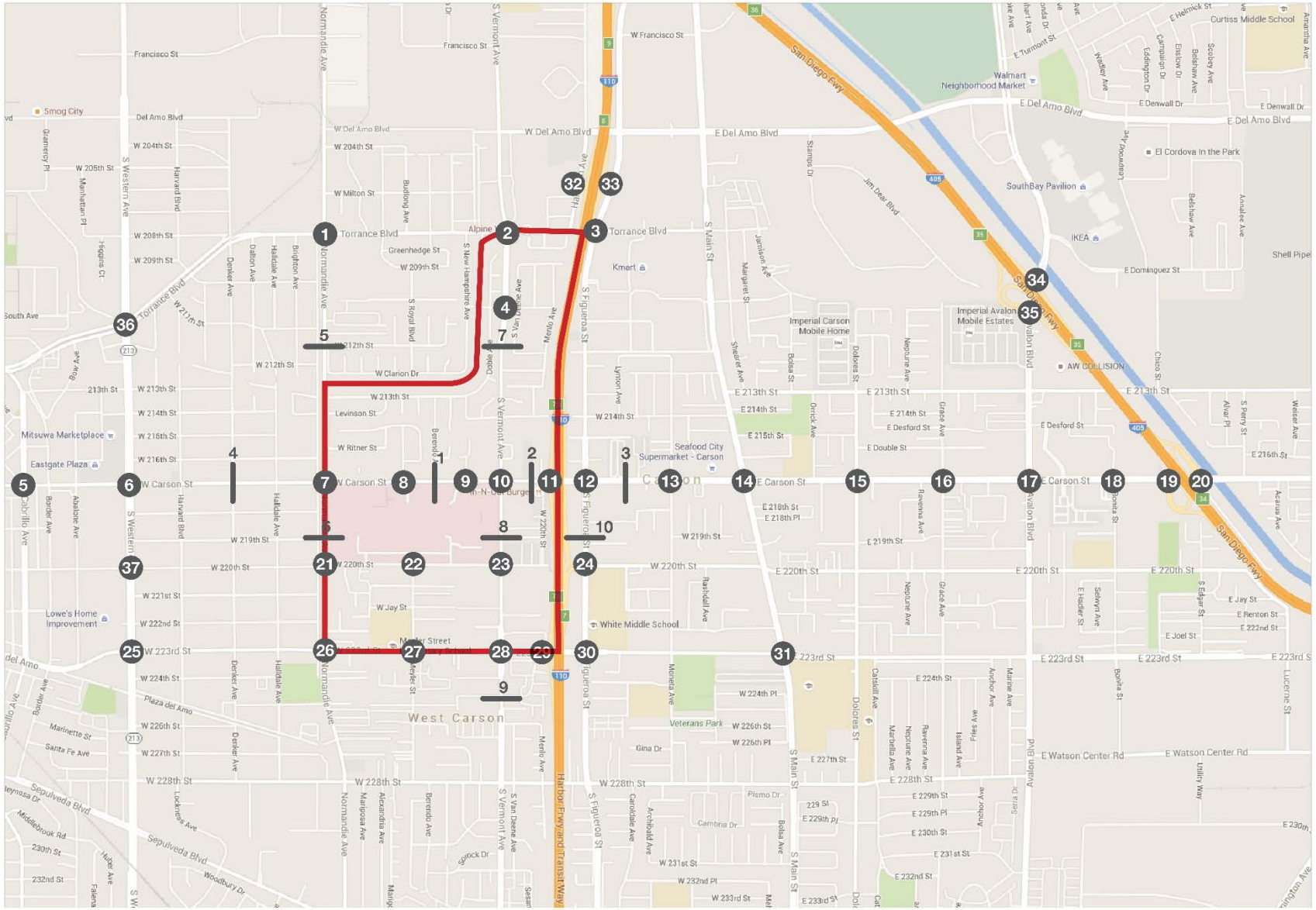

Torrance Blvd
Alpine
Greenhedge St
W 209th St
W Milton St
W Clarion Dr
Levinson St
W Ritner St
W Carson St
E Carson St
W 212th St
W 213th St
W 214th St
W 215th St
W 216th St
W 219th St
W 220th St
W Jay St
W 222nd St
W 223rd St
W 224th St
W 226th St
W 227th St
W 228th St
W Del Amo Blvd
E Del Amo Blvd
W 204th St
W 205th St
W 208th St
W 209th St
W Francisco St
Francisco St
Del Amo Blvd
Smog City
Mitsuwa Marketplace
Eastgate Plaza
Lowe's Home Improvement
West Carson
White Middle School
Veterans Park
Kmart
Walmart Neighborhood Market
SouthBay Pavilion
IKEA
El Cordova In the Park
Curtiss Middle School
Imperial Carson Mobile Home
Imperial Avalon Mobile Estates
AW COLLISION
Seafood City Supermarket - Carson
Carson
E Del Amo Blvd
E Denwall Dr
E Dominguez St
E 213th St
E 214th St
E 215th St
E 216th St
E Desford St
E Double St
E 218th St
E 218th Pl
E 219th St
E 220th St
E 223rd St
E 224th St
E 224th Pl
E 226th St
E 226th Pl
E 227th St
E 228th St
E 229th St
E 229th Pl
E 230th St
E 231st St
E 232nd St
E Watson Center Rd
E Renton St
E 222nd St
E Joel St
E Jay St
W 224th Pl
W 226th St
W 226th Pl
W 227th St
W 228th St
W 231st St
W 232nd Pl
W 233rd St
E 233rd St
San Diego Fwy
Harbor Fwy and Transitway
Normandie Ave
S Vermont Ave
S Figueroa St
S Main St
Avalon Blvd
Dolores St
Torrance Blvd
Sepulveda Blvd
Plaza del Amo
Del Amo
Gina Dr
Pismo Dr
Cambria Dr
Monterey Ave
Marine Ave
Anchor Ave
Island Ave
Fries Ave
Catskill Ave
Marbella Ave
Neptune Ave
Ravenna Ave
Grace Ave
Bonita St
Selwyn Ave
Lucerne St
Utility Way
Annalee Ave
Belshaw Ave
Scobey Ave
Wesley Ave
Eddington Dr
Enslow Dr
Campaign Dr
Amantha Ave
Shell Pipel
Weber Ave
S Perry St
Alvar Pl
Acacia Ave
Chico St
Orrick Ave
Dolores St
Bolsa St
Shearer Ave
Lynton Ave
Margaret St
Jamison Ave
Stamps Dr
Jim Dear Blvd
Lakewood Ave
Merle Ave
Berendo Ave
S New Hampshire Ave
S Van Deene Ave
Budlong Ave
Raphael Ave
Raphael Ave
Raphael

TABLE 3.2: ICU AND LINK LEVEL OF SERVICE DEFINITION

LEVEL OF SERVICE	RANGE OF V/C RATIOS	DEFINITION
A	0.00 – 0.60	**Free Flow:** Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at intersections is minimal. The travel speed exceeds 85% of the base free-flow speed.
B	0.61 – 0.70	**Stable Flow:** The ability to maneuver within the traffic stream is only slightly restricted and control delay at intersections is not significant. The travel speed is between 67% and 85% of base free-flow speed.
C	0.71 – 0.80	**Stable Flow:** The ability to maneuver and change lanes at mid-segment locations may be more restricted than at LOS B. Longer queues at intersections may contribute to lower travel speeds. The travel speed is between 50% and 67% of the base free-flow speed.
D	0.81 – 0.90	**Approaching Unstable Flow:** Small increases in flow may cause substantial increases in delay and decreases in travel speed. The travel speed is between 40% and 50% of the base free-flow speed.
E	0.91 – 1.00	**Unstable Flow:** Significant delay is commonly experienced. The travel speed is between 30% and 40% of the base free-flow speed.
F	> 1.00	**Forced Flow:** Congestion is likely occurring at intersections, as indicated by high delay and extensive queuing. The travel speed is 30% or less of the base free-flow speed.

Source: *Transportation Research Circular No. 212, Interim Materials on Highway Capacity,* Transportation Research Board, 1980.

3.4 INTERSECTION LEVEL OF SERVICE ANALYSIS AND IMPACT CRITERIA

This section summarizes the methods by which the study intersection performance and impacts were assessed. The jurisdictions in which the study intersections are located are the County of Los Angeles, City of Los Angeles, City of Torrance, City of Carson, and Caltrans. Intersections were assessed utilizing all applicable jurisdiction assessment criteria. Study intersections were selected for analysis based on the forecasted project trip generation and distribution, particularly in consideration of each agency's guidelines in determining need for analysis based on the forecasted amount of project trips traveling to each intersection. The Los Angeles County Department of Public Works (LACDPW) reviewed and approved the proposed study intersections locations. The analysis also considered a comment letter provided to the County by Caltrans District 7 during the Notice of Preparation (NOP) comment period. Caltrans-controlled intersections have been included as study locations based on a review of Caltrans guidelines of forecast trip generation. In cases where intersections suggested by Caltrans for analysis are not included, the project team conducted discussions with Caltrans regarding existing level of service and the relatively small number of project trips expected at these locations.

3.4.1 COUNTY OF LOS ANGELES

Traffic conditions at signalized intersections are evaluated using the Intersection Capacity Utilization (ICU) method. The ICU method is based on intersection volume-to-capacity (V/C) ratios. The V/C value for each movement is the observed or forecast volume divided by the saturation flow volume. The intersection ICU value is the sum of the V/C values for the critical movement on each leg, where critical movements are the pairs of conflicting movements with the highest combined V/C values. ICU is expressed as a decimal value (e.g. 0.740), where 1.00 represents the saturated condition in which the volume of traffic flow is equal to the capacity. This study uses maximum saturation volumes of 1,600 vehicles per hour per lane (VPHPL) for turning and through lanes; a lane saturation value of 2,880 VPHPL was used for dual left-turn lanes. A 10% increase in intersection saturation was established when accounting for signal timing mitigations such as the implementation of ATSAC/ATCS.

The County of Los Angeles traffic study guidelines do not specify a method for assessing unsignalized intersections. In these instances, the Highway Capacity Manual (HCM) 2010 All-Way Stop Control (AWSC) method was employed using the Synchro 9 software.

The efficiency of traffic operations is measured in terms of Level of Service (LOS). The LOS refers to the quality of traffic flow along roadways and at intersections. Evaluation of intersections involves the assignment of grades from "A" to "F," with LOS "A" representing the highest level operating conditions and LOS "F" representing extremely congested and restricted operations. Each letter grade corresponds to a range of V/C or delay values, as described in Table 3.2. LOS D is generally the minimum level of service for both signalized and unsignalized intersections.

In conformance with the County guidelines, intersection performance for the following scenarios were assessed in order to determine impacts:

- Existing Year (2016) No Project
- Existing Year (2016) With Project
- Future Year (2035) With Project

The Existing Year (2016) No Project was utilized as the baseline for comparison to the Existing Year (2016) With Project and Future Year (2035) With Project scenarios. The County of Los Angeles criteria for impact thresholds are shown below in Table 3.3.

TABLE 3.3: COUNTY OF LOS ANGELES SIGNIFICANT IMPACT TRESHOLD CRITERIA

LEVEL OF SERVICE	RANGE OF V/C RATIO	SIGNIFICANT IMPACT THRESHOLD PROJECT V/C INCREASE OR RESULTANT V/C
A	0 - .600	0.750
B	> 0.600 - 0.700	0.750
C	> 0.700 - 0.800	0.04 or more
D	> 0.800 - 0.900	0.02 or more
E	> 0.900 - 1.000	0.01 or more
F	> 1.000	0.01 or more

Source: Los Angeles County Department of Public Works Traffic Impact Analysis Report Guidelines, 2013.

3.4.2 CITY OF LOS ANGELES

Per the traffic impact study guidelines set forth by the City of Los Angeles, the Critical Movement Analysis (CMA) method was utilized to assess intersection performance and impacts. The method was implemented with the Department of Transportation's (LADOT) CalcaDB software (CMA worksheets). Lane capacities vary due to the intersection phasing serving as the base upon which capacities are determined. Per correspondence with LADOT, the number of phases input was determined to be the amount of phase movements and not individual phases; the opposed phasing input was taken to be split phasing. A 10% increase in flow rate is taken into account within the worksheet when accounting for signal timing mitigations such as the implementation of ATSAC/ATCS.

The efficiency of traffic operations is measured in terms of Level of Service (LOS). The LOS refers to the quality of traffic flow along roadways and at intersections. Evaluation of intersections involves the assignment of grades from "A" to "F," with LOS "A" representing the highest level operating conditions and LOS "F" representing extremely congested and restricted operations. Each letter grade corresponds to a range of V/C values, as described in Table 3.2. LOS D is generally the minimum level of service for both signalized and unsignalized intersections.

Intersection performance in the following scenarios were assessed in order to determine impacts:

- Existing Year (2016) No Project
- Existing Year (2016) With Project
- Future Year (2035) No Project
- Future Year (2035) With Project

LADOT outlines guidelines for threshold criteria to determine significant traffic impacts. The thresholds are outlined in Table 3.4.

TABLE 3.4: CITY OF LOS ANGELES SIGNIFICANT IMPACT THRESHOLD CRITERIA

LEVEL OF SERVICE	RANGE OF V/C RATIO	SIGNIFICANT IMPACT THRESHOLD PROJECT V/C INCREASE
C	0.71 - 0.80	0.04 or more
D	0.81 - 0.90	0.02 or more
E / F	> 0.90	0.01 or more

Source: City of Los Angeles Transportation Impact Analysis Study Guidelines – Los Angeles Department of Transportation (LADOT), 2016.

3.4.3 CITY OF TORRANCE

The City of Torrance assesses intersection performance and impacts utilizing the Highway Capacity Manual (HCM) 2000 method. The Synchro 9 software was used to implement this method. Standard settings were utilized. A 10% increase in flow rate was established when accounting for signal timing mitigations such as the implementation of ATSAC/ATCS. The efficiency of traffic operations is measured in terms of Level of Service (LOS). The LOS refers to the quality of traffic flow along roadways and at intersections. Evaluation of intersections involves the assignment of grades from “A” to “F,” with LOS “A” representing the highest level operating conditions and LOS “F” representing extremely congested and restricted operations. LOS D is generally the minimum level of service for signalized intersections.

Intersection performance in the following scenarios were assessed in order to determine impacts:

- Existing Year (2016) No Project
- Existing Year (2016) With Project
- Future Year (2035) No Project
- Future Year (2035) With Project

The City of Torrance maintains criterial for thresholds of significance as outlined in Table 3.5.

- The project causes a change from LOS D or better to LOS E or F; or
- The project causes a change from LOS E to LOS F; or
- If the intersection is operating at LOS F in the baseline condition, any increase in vehicle delay is taken to be an impact; LOS should be returned to, at least, the pre-project conditions.

TABLE 3.5: CITY OF TORRANCE SIGNIFICANT IMPACT THRESHOLD CRITERIA

LEVEL OF SERVICE	SIGNIFICANT IMPACT THRESHOLD DELAY INCREASE OR RESULTANT LOS
A / B / C / D	LOS E or LOS F
E	LOS F
E / F	0

Source: City of Torrance General Plan Update - Traffic Impact Analysis (RBF, 2009).

3.4.4 CITY OF CARSON

The City of Carson assesses intersection performance and impacts using the Intersection Capacity Utilization (ICU) method. The ICU method is based on intersection volume-to-capacity (V/C) ratios. The V/C value for each movement is the observed or forecast volume divided by the saturation flow volume. The intersection ICU value is the sum of the V/C values for the critical movement on each leg, where critical movements are the pairs of conflicting movements with the highest combined V/C values. ICU is expressed as a decimal value (e.g. 0.740), where 1.00 represents the saturated condition in which the volume of traffic flow is equal to the capacity. This study uses maximum saturation volumes of 1,600 vehicles per hour per lane (VPHPL) for turning and through lanes; a lane saturation value of 2,560 VPHPL was used for dual left-turn lanes. A 10% increase in intersection saturation was established when accounting for signal timing mitigations such as the implementation of ATSAC/ATCS.

The efficiency of traffic operations is measured in terms of Level of Service (LOS). The LOS refers to the quality of traffic flow along roadways and at intersections. Evaluation of intersections involves the assignment of grades from “A” to “F,” with LOS “A” representing the highest level operating conditions and LOS “F” representing extremely congested and restricted operations. Each letter grade corresponds to a range of V/C or delay values, as described in Table 3.2. LOS D is generally the minimum level of service for signalized intersections.

The following scenarios were assessed in order to determine impacts:

- Existing Year (2016) No Project
- Existing Year (2016) With Project
- Future Year (2035) No Project
- Future Year (2035) With Project

The City of Carson uses the following thresholds of significance to assess project impacts:

- The addition of project trips causes an intersection V/C ratio increase of 0.02 or more; and
- The intersection is projected to operate at LOS E or F under the Future with Project conditions.

3.4.5 CALTRANS

Caltrans assesses facility performance and impacts utilizing the Highway Capacity Manual (HCM) 2000 method. Facilities evaluated with this method include freeway terminals (intersections) and off-ramps (queues). The Synchro 9 software was used to implement this method. Standard settings were utilized. A 10% increase in flow rate was established when accounting for signal timing mitigations such as the implementation of ATSAC/ATCS. The efficiency of traffic operations is measured in terms of Level of Service (LOS). The LOS refers to the quality of traffic flow along roadways and at intersections. Evaluation of intersections involves the assignment of grades from "A" to "F," with LOS "A" representing the highest level operating conditions and LOS "F" representing extremely congested and restricted operations. LOS C is the minimum level of service for signalized intersections. Caltrans traffic impact analysis guidelines do not specify a minimum LOS for unsignalized intersections, therefore LOS C was taken to be the minimum as well. LOS designations for signalized intersections is presented in Table 3.6.

Intersection performance in the following scenarios were assessed in order to determine impacts:

- Existing Year (2016) No Project
- Existing Year (2016) With Project
- Future Year (2035) No Project
- Future Year (2035) With Project

Caltrans traffic impact analysis guidelines do not explicitly define a significant impact in terms of existing level of service and change in that level of service; therefore, a significant impact is considered to occur when:

- The addition of project trips causes a change from LOS C or better to LOS D or worse; or
- The addition of project trips causes a change from LOS D or worse to degrade to a lower LOS.
- If the intersection is operating at LOS F in the baseline condition, any increase in vehicle delay is taken to be an impact; LOS should be returned to, at least, the pre-project conditions.

TABLE 3.6: SIGNALIZED INTERSECTIONS LEVEL OF SERVICE

LOS	CONTROL DELAY PER VEHICLE
A	≤ 10
B	> 10 - 20
C	> 20 - 35
D	> 35 - 55
E	> 55 - 80
F	> 80

Source: Caltrans, Guide for the Preparation of Traffic Impact Studies, State of California Department of Transportation (2002)

3.5 STATE HIGHWAY ANALYSIS

Peak hour analyses for basic freeway segments and freeway off-ramps were conducted at locations designated by Caltrans as appropriate in order to assess the regional impacts on freeway facilities by project traffic. As a result, CMP monitoring station, freeway mainline, and freeway off-ramp queue analyses were performed. The CMP monitoring station analysis was performed in compliance with the traffic impact analysis procedures outlined in the *2010 Congestion Management Program for Los Angeles County* (Los Angeles County Metropolitan Transportation Authority, October 2010). The freeway mainline analysis was performed using the procedure outlined in the HCM 2010. Lastly, the freeway off-ramp queue analysis was performed in compliance with the procedure provided by Caltrans.

3.5.1 CMP MONITORING STATION ANALYSIS

Peak hour traffic conditions at six CMP monitoring stations were analyzed utilizing the procedures outlined in the CMP. The CMP method assesses a freeway segment based on the density to capacity ratio in the No Project and With Project scenarios for an analysis year. A summary of the CMP monitoring station locations analyzed is provided in Table 3.7. The designation of LOS based on the density to capacity ratio observed is summarized in Table 3.8. LOS F(1) through F(3) designations are assigned where severely congested conditions prevail for more than an hour.

TABLE 3.7: CMP MONITORING STATION LOCATIONS

ID	Freeway	Segment	Station	Direction
1	I-110	at Wilmington Boulevard s/o C Street	1045	NB
				SB
2	I-110	at Manchester Boulevard	1046	NB
				SB
3	I-405	at Santa Fe Avenue	1066	NB
				SB
4	I-405	south of I-110	1067	NB
				SB
5	I-405	north of Inglewood Avenue	1068	NB
				SB
6	SR-91	east of Alameda Street/Santa Fe Avenue	1033	EB
				WB

TABLE 3.8: CMP LEVEL OF SERVICE SUMMARY

LOS	V/C RATIO	LOS	V/C RATIO
A	0.00 - 0.35	F(0)	> 1.00 - 1.25
B	> 0.35 - 0.54	F(1)	> 1.25 - 1.35
C	> 0.54 - 0.77	F(2)	> 1.35 - 1.45
D	> 0.77 - 0.93	F(3)	> 1.45
E	> 0.93 - 1.00		

Source: 2010 Congestion Management Plan for Los Angeles County, Los Angeles Metropolitan Transportation Authority (October 2010)

Per the CMP, a significant impact is defined as:

- An increase in the V/C of 0.02 or more, causing LOS F (V/C > 1.00); or
- An increase in the V/C of 0.02 or more when the freeway segment operates at LOS F (V/C > 1.00) in the No Project scenario.

3.5.2 FREEWAY MAINLINE ANALYSIS

A freeway mainline analysis was conducted at the seven study locations listed in Table 3.9. The HCM 2010 methodology used to assess the freeway segments was implemented using the HCS 2010 software. The standard settings used are: a peak-hour factor of 0.94; level terrain; trucks and buses passenger-car equivalent of 2.0; and a free flow speed of 70 miles per hour. Additional inputs such as the segment volume (vehicles per hour) and percent of trucks and buses varied by location; these values were determined using traffic count data provided by the Caltrans Traffic Census Program for the year 2015. Freeway volumes were derived by applying the peak hour (K) and directional (D) factors to the annual average daily traffic (AADT) volumes for a location. In the instance that data was not available for a single location within reasonable range to a study location or the location data was believed to be inconsistent with the adjacent locations, the average of the upstream and downstream locations was taken (Segment 6). Volumes were then grown using the 0.6284% CAGR derived from the SCAG regional model to generate the year 2016 volumes. However, the percent of truck traffic calculated from the year 2015 data was not altered, as this value was observed to remain constant from the previous year (2014).

TABLE 3.9: FREEWAY MAINLINE STUDY LOCATIONS

ID	Freeway	Location	California Postmile	Absolute Postmile	Direction
1	SR-91	at Avalon Boulevard	7.55	11.5	EB
					WB
2	I-110	at SR-1 (Pacific Coast Highway)	4.17	4.1	NB
					SB
3	I-110	at Sepulveda Boulevard	5.6	5.5	NB
					SB
4	I-110	at El Segundo Boulevard	12.86	12.8	NB
					SB
5	I-405	at I-710	7.63	31.4	NB
					SB
6	I-405	south of I-110 (Carson Scales)	11.82	35.6	NB
					SB
7	I-405	at Western Avenue	14.34	38.1	NB
					SB

The HCM 2010 methodology utilizes lane density (pc/mi/ln) as the measure to determine a freeway segment's level of service. The designation of LOS based upon the density observed is outlined in Table 3.10. Caltrans maintains that the target LOS is the transition between LOS C and LOS D. It should be noted that because there is a linear relationship between freeway mainline density and queues, estimates for freeway mainline densities cannot be provided for conditions of extreme magnitude. Such is the case for instances in which large volumes are exceptionally experienced. When freeway demand conditions exceeds capacity, forced flow results and the corresponding formulas used to estimate density will not be appropriate. As a result, estimates for freeway mainline density are not provided for severe LOS F conditions. An overcapacity (OVR) designation is assigned in these cases.

TABLE 3.10: BASIC FREEWAY SEGMENTS LEVEL OF SERVICE DEFINITION

LOS	DENSITY (VEHICLES PER LANE-MILE)	DESCRIPTION
A	≤ 11	Free-flow speeds prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream.
B	11 - 18	Free-flow speeds are maintained. The ability to maneuver with the traffic stream is only slightly restricted.
C	18 - 26	Flow with speeds at or near free-flow speeds. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more care and vigilance on the part of the driver.
D	26 - 35	Speeds decline slightly with increasing flows. Freedom to maneuver with the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort.
E	35 - 45	Operation at capacity. There are virtually no usable gaps within the traffic stream, leaving little room to maneuver. Any disruption can be expected to produce a breakdown with queuing.
F	> 45	Represents a breakdown in flow.

Source: Highway Capacity Manual, Transportation Research Board (2010).

Significant impacts are determined as follows:

- The addition of project trips causes a change from LOS C or better to LOS D or worse; or
- The addition of 50 or more project trips to a freeway mainline segment operating at LOS F in the No Project scenario (based on discussion with Caltrans staff cited in the Traffic Impact Analysis for the Harbor UCLA Medical Center Master Plan Project).

3.5.3 FREEWAY OFF-RAMP QUEUE ANALYSIS

Per Caltrans traffic study guidelines, a queue analysis for freeway off-ramps at intersections within a reasonable distance to the project location is provided. The queue analysis was performed at off-ramps identified by Caltrans as having the potential to be significantly affected by the addition of project traffic; the analysis was performed in accordance with the methodology produced from correspondence with Caltrans in which 85% of the measured queue length is to be used as the threshold for determining a significant impact. The analysis was conducted by measuring the storage capacity of off-ramps from scaled online images (Google Maps). Utilizing the Synchro 9

traffic modeling software, a queue analysis report was generated for each scenario; 95th percentile queue lengths were taken from these reports. Queue analysis summaries are provided in the respective scenario section. Synchro queue reports are provided in the appendices of this report.

3.6 VEHICLE MILES TRAVELED (VMT) ANALYSIS

The VMT analysis is conducted using the California Emissions Estimator Model (CalEEMod), a statewide land use emissions model used to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both the construction and operation of a project. The model calculates these emissions based on the amount of direct and indirect vehicle miles traveled during the construction and operation of the project. Additionally, CalEEMod identifies emission-reducing mitigation measures and calculates the potential benefits of those measures selected.

The model was developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with California Air Districts. Default data such as emission factors and trip lengths are provided by various air districts in order to take into account local requirements and conditions.

For the purposes of this report, CalEEMod was used to demonstrate the benefits of the TOD-associated development benefits in the existing year and future year scenarios. In particular, the model will be used to assess the change in total VMT and VMT per capita for the No Project, With Project, and With Project + Pass-By and TDM Trip Reduction scenarios. The proposed scenarios developed for air quality analysis are listed below:

- Existing Year (2016)
- Existing Year (2016) w/ Project
- Existing Year (2016) w/ Project + Internal Capture and Pass-By Reductions
- Future Year (2035) No Project
- Future Year (2035) w/ Project
- Future Year (2035) w/ Project + Internal Capture, Pass-By, and TDM Trip Reductions

The With Project scenarios for each analysis year listed above were evaluated using the *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA* released by the Governor's Office of Planning and Research (OPR) in January 2016. The document outlines OPR's recommendations regarding methodology for conducting VMT analysis and establishing thresholds for significant transportation impacts as part of the CEQA analysis for new projects. These recommendations include:

- Vehicle miles traveled is the primary metric for determining transportation impacts across the state;
- Land use development near transit or in VMT-efficient areas should be presumed to cause a less than significant impact;
- Transit, active transportation, and rehabilitation projects that do not add motor vehicle capacity should also be presumes to cause a less than significant impact; and
- Implementation of a VMT metric should be phased in over time.

The City of West Carson has yet to adopt a metric for assessing significant impacts with regards to VMT due to the addition of various types of development projects. Thus, significant impacts and mitigation measures for these impacts, if applicable, are not identified as of the time which this report was produced.

4 EXISTING YEAR (2016) NO PROJECT

This section presents the Existing Year (2016) No Project scenario conditions of the project study area; this scenario will serve as the base for which all upcoming scenarios are assessed. The study area encompasses arterial roadways and signalized intersections within the project area as well as within a reasonable vicinity. Descriptions of geometric features and intersection level of service analysis results for the Existing Year (2016) are included in this section.

4.1 EXISTING ROADWAY NETWORK

Selected arterials that are located in the vicinity of the project corridor are described in this section. Items of note include existing geometry, pedestrian and bicycle facilities, and adjacent land uses.

TORRANCE BOULEVARD

Torrance Boulevard is classified as a Secondary Highway on the County's Highway Plan and runs east and west at the northern edge of the Specific Plan boundary. The corridor is surrounded mostly by residential land use with some light industrial and general commercial use. The posted speed limit is 35 miles per hour. Within the project area, the roadway consists of two travel lanes in each direction with a dedicated auxiliary lane in the center. On-street parking is not permitted along the corridor within the project area. Torrance Transit operates a local bus line along a short segment of the corridor.

VERMONT AVENUE

Vermont Avenue is classified as a Major Highway on the County Highway Plan and runs north and south within the Specific Plan boundary. The corridor is surrounded by a variety of land uses including residential, mixed use, light industrial, and public space. The posted speed limit is 40 miles per hour. Within the project area, the roadway consists of two travel lanes in each direction with a dedicated auxiliary lane in the center. Class II striped bike lanes also exist in each direction within the project area. On-street parking is permitted along much, but not all of the corridor within the project area. Torrance Transit and Metro operate bus lines along the corridor.

NORMANDIE AVENUE

Normandie Avenue is classified as a Secondary Highway on the County Highway Plan and runs north and south within the Specific Plan boundary. The corridor is surrounded by a variety of land uses including residential, mixed use, and public space. The posted speed limit is 35 miles per hour. Within the project area, the roadway consists of two travel lanes in each direction with a dedicated auxiliary lane in the center. On-street parking is permitted along much, but not all of the corridor within the project area. Gardena Municipal and Torrance Transit operate bus lines along the corridor.

CARSON STREET

Carson Street is a Major Highway that runs east and west within the Specific Plan boundary. The corridor is surrounded by mainly mixed use land use and public space within the project area. The posted speed limit is 35 miles per hour. Within the project area, the roadway consists of two travel lanes in each direction with a dedicated auxiliary lane in the center. On-street parking is permitted along much, but not all of the corridor within the project area. Torrance Transit and Metro operate bus lines along the corridor.

223RD STREET

223rd Street is a Secondary Highway that runs east and west within the Specific Plan boundary. The corridor is surrounded by a variety of land uses including residential, general commercial, light industrial, and public space. The posted speed limit is 25 miles per hour between Normandie Avenue and Vermont Avenue and 35 miles per hour east of Vermont Avenue. Within the project

area, the roadway consists of two travel lanes in each direction. On-street parking is permitted along much, but not all of the corridor within the project area.

220TH STREET

220th Street runs east and west within the Specific Plan Boundary and is surrounded by a variety of land uses including residential, commercial, and light manufacturing. The posted speed limit is 30 miles per hour. Within in the project area, the roadway consists of one travel lane in each direction. On-street parking is permitted along some, but not all of the corridor.

MEYLER STREET

Meyler Street runs north and south within the Specific Plan Boundary and is surrounded primarily by residential land uses. The posted speed limit is 25 miles per hour. Within in the project area, the roadway consists of one travel lane in each direction. On-street parking is permitted along some, but not all of the corridor.

FIGUEROA STREET

Figueroa Street is a Major Highway that runs north and south and is surrounded by commercial and residential land uses. The posted speed limit ranges from 25 to 40 miles per hour. Within the project area, the roadway consists of two travel lanes in each direction divided by a center median. On street parking is permitted along most, but not all of the corridor.

MAIN STREET

Main Street is a Major Highway that runs north and south and is surrounded by commercial and residential land uses. The posted speed limit ranges from 25 to 40 miles per hour. Within the project area, the roadway consists of two travel lanes in each direction divided by raised landscaped median. On street parking is permitted along most, but not all of the corridor.

AVALON BOULEVARD

Avalon Boulevard is a Major Highway that runs north and south and is surrounded by commercial and residential land uses. The posted speed limit ranges from 35 to 40 miles per hour. Within the project area, the roadway consists of three travel lanes in each direction divided by raised landscaped median. On street parking is permitted along some, but not all of the corridor.

4.2 STUDY INTERSECTION GEOMETRY AND PEAK HOUR VOLUMES

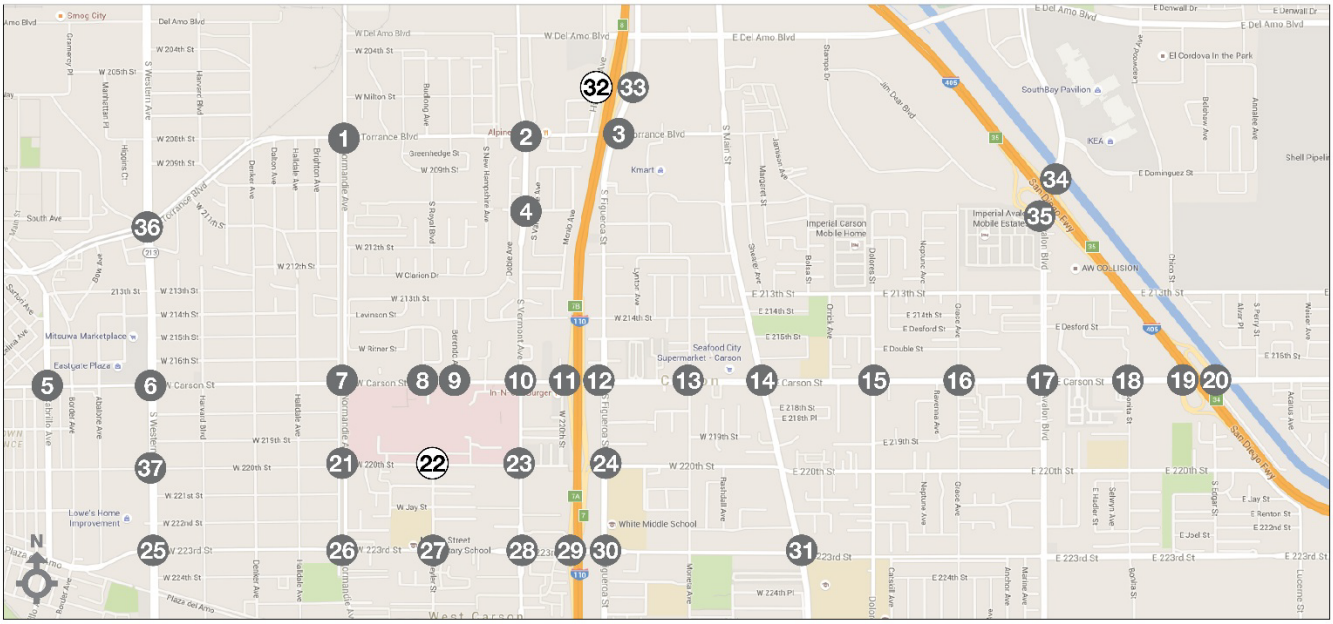
Thirty-seven existing intersections were selected in consultation with the County of Los Angeles for analysis based on traffic impact and vehicle volumes. The existing study intersections are:

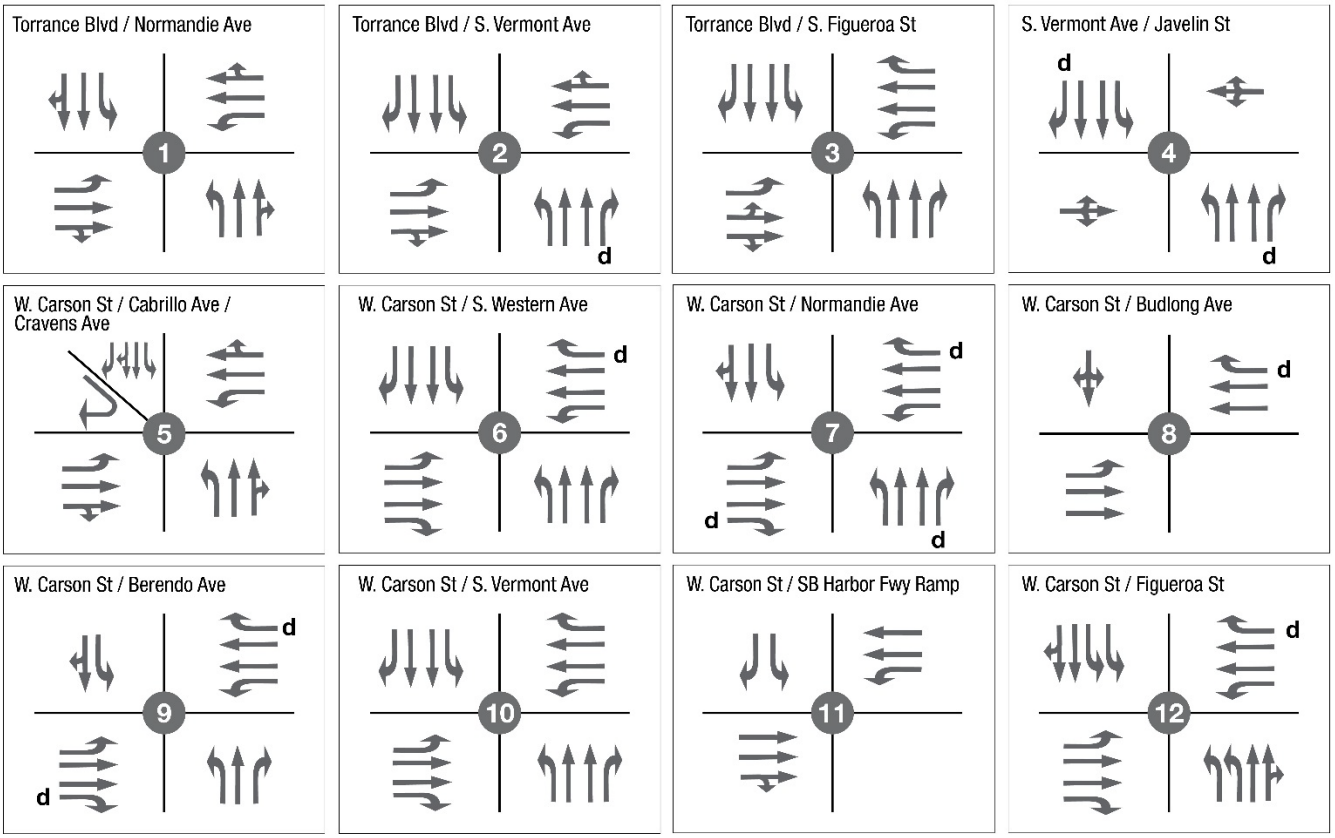
1. Normandie Avenue and Torrance Boulevard
2. Vermont Avenue and Torrance Boulevard
3. Figueroa Street and Torrance Boulevard
4. Vermont Avenue and Javelin Avenue
5. Cabrillo Avenue and Carson Street
6. Western Avenue and Carson Street
7. Normandie Avenue and Carson Street
8. Budlong Avenue and Carson Street
9. Berendo Avenue and Carson Street
10. Vermont Avenue and Carson Street
11. SB I-110 Ramps and Carson Street

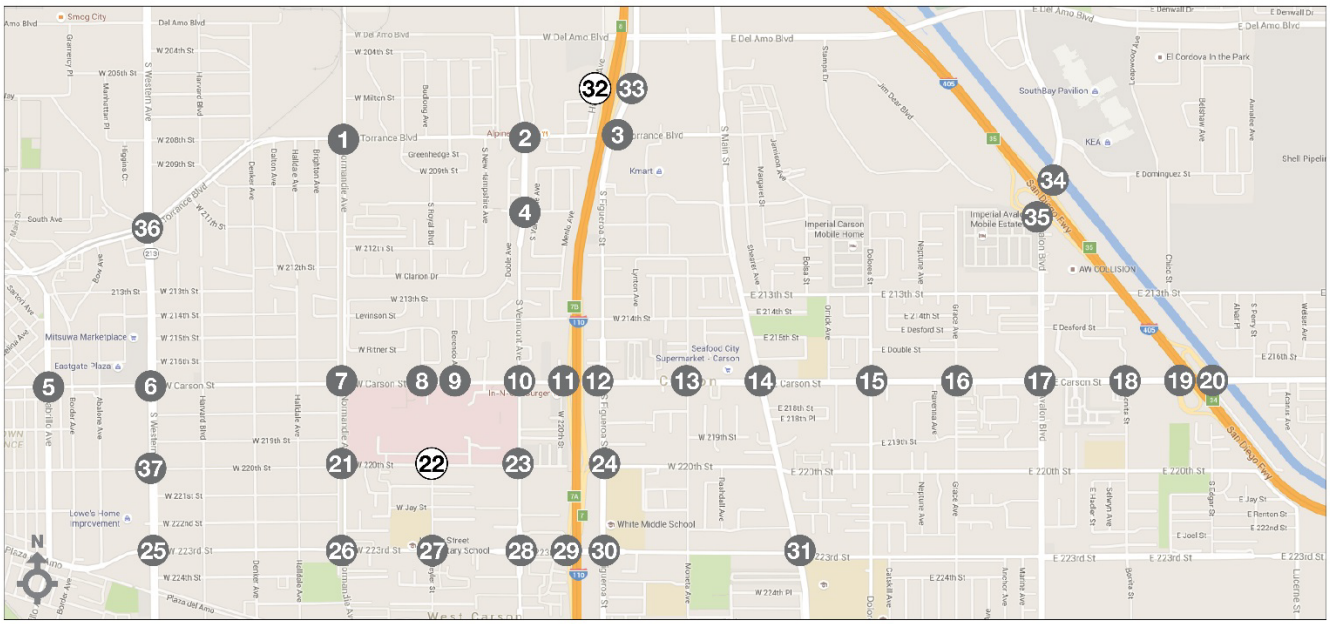
12. Figueroa Street and Carson Street
13. Moneta Avenue and Carson Street
14. Main Street and Carson Street
15. Dolores Street and Carson Street
16. Grace Avenue and Carson Street
17. Avalon Boulevard and Carson Street
18. Bonita Street and Carson Street
19. SB I-1405 Ramps and Carson Street
20. NB I-1405 Ramps and Carson Street
21. Normandie Avenue and 220th Street
22. Meyler Street and 220th Street
23. Vermont Avenue and 220th Street
24. Figueroa Street and 220th/I-110 NB Ramps
25. Western Avenue and 223rd Street
26. Normandie Avenue and 223rd Street
27. Meyler Street and 223rd Street
28. Vermont Avenue and 223rd Street
29. SB I-110 Ramps and 223rd Street
30. Figueroa Street and 223rd Street
31. Main Street and 223rd Street
32. Hamilton Avenue and SB I-110 Ramps
33. Figueroa Street and NB I-110 Ramps
34. Avalon Boulevard and NB I-405 Ramps
35. Avalon Boulevard and SB I-405 Ramps
36. Western Avenue and Torrance Boulevard
37. Western Avenue and 220th Street

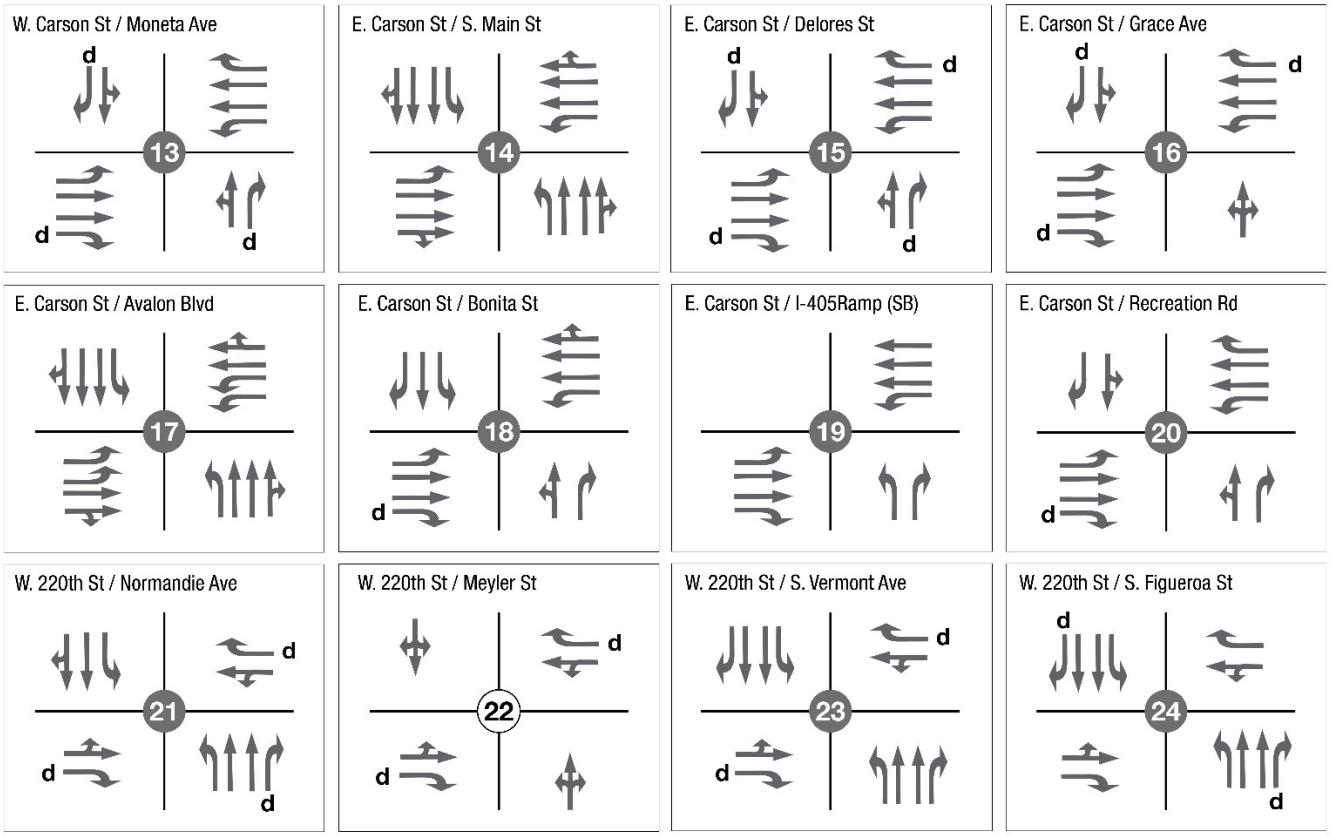
Existing study intersection geometries are shown in Figure 4.1. Additionally, Existing Year (2016) AM peak hour turning movement volumes are shown in Figure 4.2, and the PM peak hour volumes are shown in Figure 4.3.

FIGURE 4.1: EXISTING YEAR (2016) INTERSECTION GEOMETRY



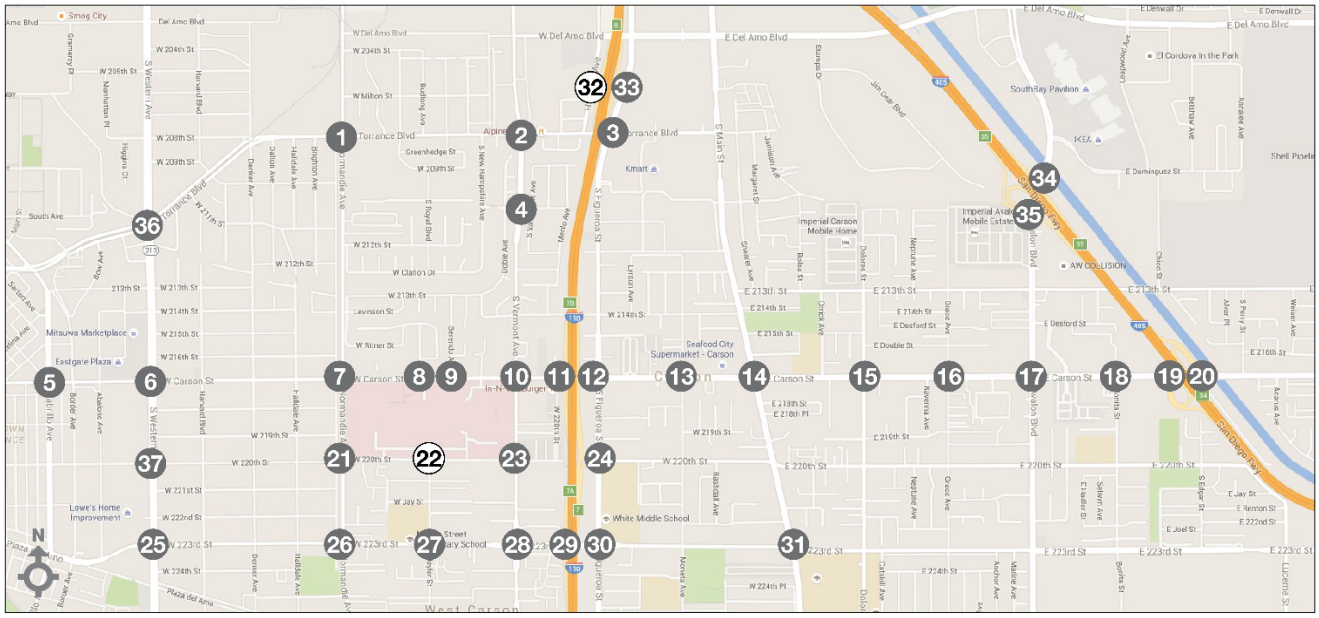


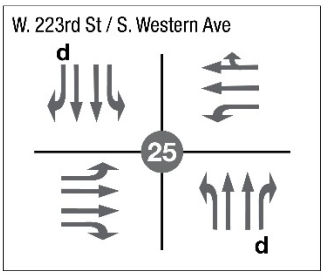


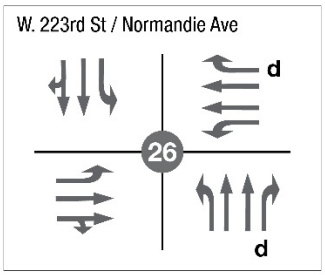


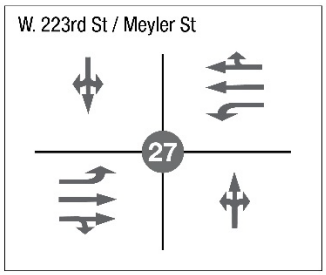
Legend

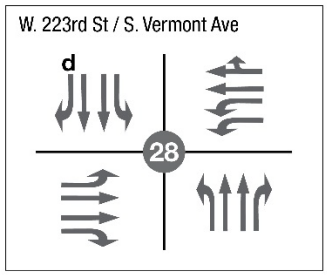
Signalized Intersection | Unsignalized Intersection | Lane Geometry | d de facto Right Turn

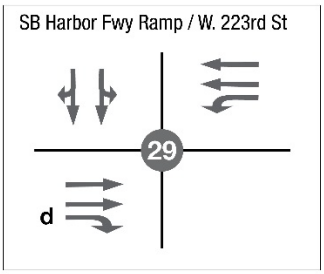


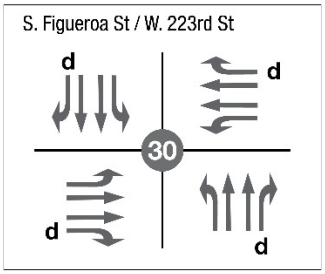


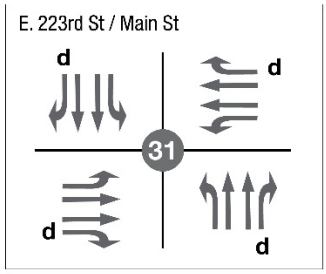


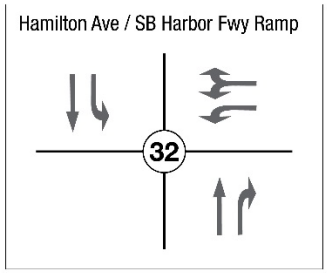


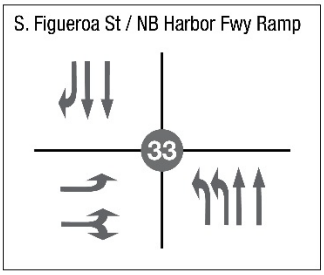


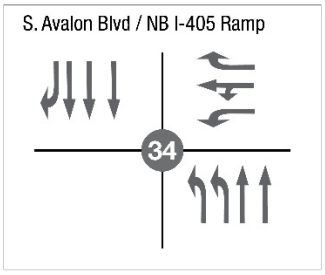


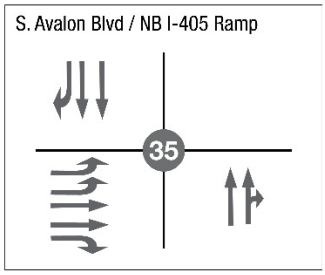


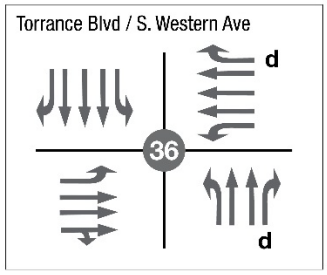






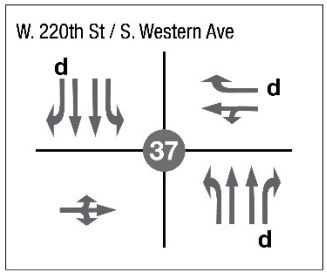






Legend

- Signalized Intersection
- Unsignalized Intersection
- Lane Geometry
- **d** de facto Right Turn



4.3 AVERAGE DAILY TRAFFIC

The average daily traffic volumes for the roadway segments of the 2016 existing year are summarized in Table 4.1. Road segment volumes have been included for noise and air quality purposes. Existing road segment volumes are extracted from 24-hour counts which can be found in Appendix A.

TABLE 4.1: EXISTING YEAR (2016) NO PROJECT ROADWAY SEGMENT DATA COLLECTION SUMMARY

ID	ROADWAY	LOCATION	SOURCE	ADT
1	Carson Street	West of Berendo Avenue	AimTD, May 2016	31,279
2	Carson Street	East of Vermont Avenue	AimTD, May 2016	36,819
3	Carson Street	East of Figueroa Street	AimTD, May 2016	19,337
4	Carson Street	West of Normandie Avenue	AimTD, May 2016	34,261
5	Normandie Avenue	North of Carson Street	AimTD, May 2016	18,173
6	Normandie Avenue	South of Carson Street	AimTD, May 2016	19,616
7	Vermont Avenue	South of Javelin Street	AimTD, May 2016	17,330
8	Vermont Avenue	South of Carson Street	AimTD, May 2016	21,151
9	Vermont Avenue	South of 223rd Street	AimTD, May 2016	21,803
10	Figueroa Street	South of Carson Street	AimTD, May 2016	21,275

4.4 PEAK HOUR LINK LEVEL OF SERVICE

AM and PM peak hour link analyses are presented in Table 4.2 and 4.3, respectively. The peak hour link volumes are derived from the peak hour turning movement volumes; more specifically, the arriving and departing volumes between two intersections that the link of interest joins. In the event that the departures of one intersection did not equal the arrivals of the second intersection, an average of the two volumes was taken to be the link volume experienced. A loss, or even gain, in volumes between two intersections is not uncommon, especially in situations where additional intersections or driveways are present between the intersections of interest. All selected links are expected to operate at LOS E or worse:

- Carson Street from Vermont Avenue to I-110 SB Ramp
- Carson Street from Western Avenue to Normandie Avenue

TABLE 4.2: EXISTING YEAR (2016) NO PROJECT AM PEAK HOUR LINK ANALYSIS

Link ID	Street	Segment		Class	Capacity per Lane	Number of Lanes		Volumes		V/C Ratio		Level of Service	
		From	To			NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
1	Carson Street	Budlong Ave	Berendo Ave	Major	750	2	2	787	1354	0.52	0.90	A	D
2	Carson Street	Vermont Ave	I-110 SB Ramp	Major	750	3	2	903	1648	0.40	**1.10**	A	**F**
3	Carson Street	Figueroa St	Moneta Ave	Major	750	2	2	566	733	0.38	0.49	A	A
4	Carson Street	Western Ave	Normandie Ave	Major	750	2	2	967	1,344	0.64	0.90	B	D
5	Normandie Avenue	Torrance Blvd	Carson St	Secondary	600	2	2	925	579	0.77	0.48	C	A
6	Normandie Avenue	Carson St	220th St	Secondary	600	2	2	935	635	0.78	0.53	C	A
7	Vermont Avenue	Javelin St	Carson St	Major	750	2	2	999	792	0.67	0.53	B	A
8	Vermont Avenue	Carson St	220th St	Major	750	2	2	1076	792	0.72	0.53	C	A
9	Vermont Avenue	220th St	223rd St	Major	750	2	2	1,156	636	0.77	0.42	C	A
10	Figueroa Street	Carson St	220th St	Major	750	2	2	957	875	0.64	0.58	B	A

Bold and shaded = Unacceptable LOS.

TABLE 4.3: EXISTING YEAR (2016) NO PROJECT PM PEAK HOUR LINK ANALYSIS

Link ID	Street	Segment		Class	Capacity per Lane	Number of Lanes		Volumes		V/C Ratio		Level of Service	
		From	To			NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
1	Carson Street	Budlong Ave	Berendo Ave	Major	750	2	2	1195	1136	0.80	0.76	C	C
2	Carson Street	Vermont Ave	I-110 SB Ramp	Major	750	3	2	1322	1217	0.59	0.81	A	D
3	Carson Street	Figueroa St	Moneta Ave	Major	750	2	2	714	644	0.48	0.43	A	A
4	Carson Street	Western Ave	Normandie Ave	Major	750	2	2	1396	1148	**0.93**	0.77	**E**	C
5	Normandie Avenue	Torrance Blvd	Carson St	Secondary	600	2	2	720	925	0.60	0.77	A	C
6	Normandie Avenue	Carson St	220th St	Secondary	600	2	2	654	983	0.55	0.82	A	D
7	Vermont Avenue	Javelin St	Carson St	Major	750	2	2	679	1053	0.45	0.70	A	B
8	Vermont Avenue	Carson St	220th St	Major	750	2	2	764	1062	0.51	0.71	A	C
9	Vermont Avenue	220th St	223rd St	Major	750	2	2	580	1199	0.39	0.80	A	C
10	Figueroa Street	Carson St	220th St	Major	750	2	2	542	1058	0.36	0.71	A	C

Bold and shaded = Unacceptable LOS.

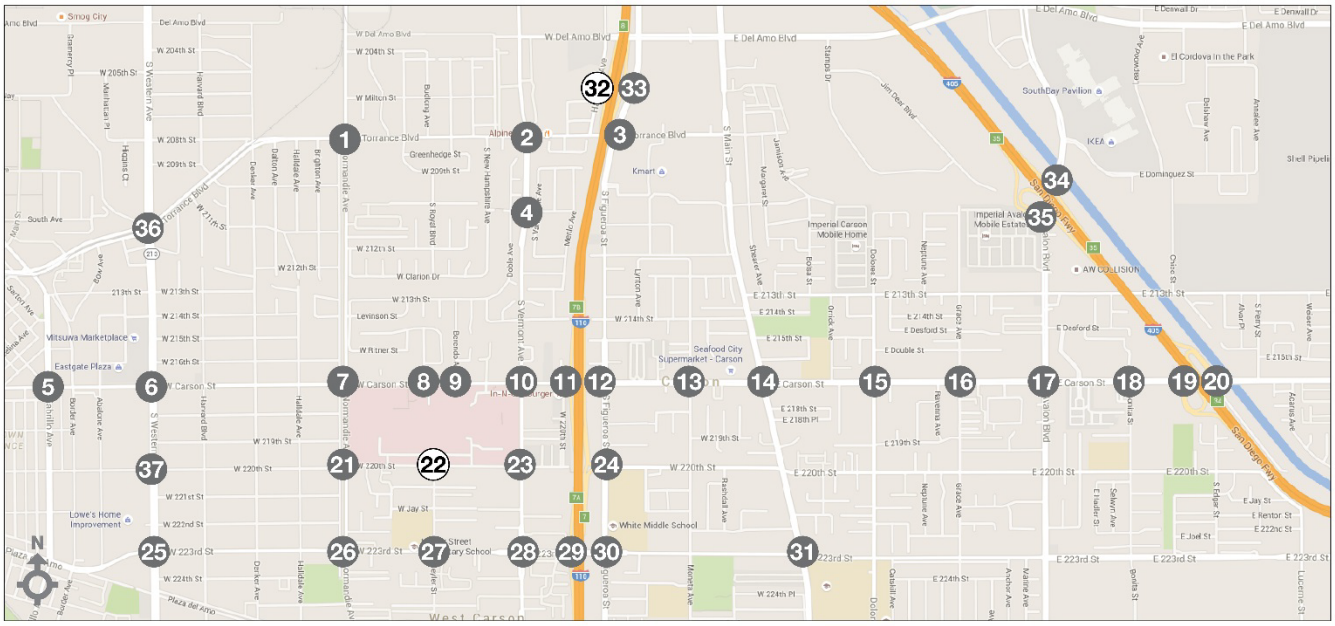
4.5 INTERSECTION LEVEL OF SERVICE

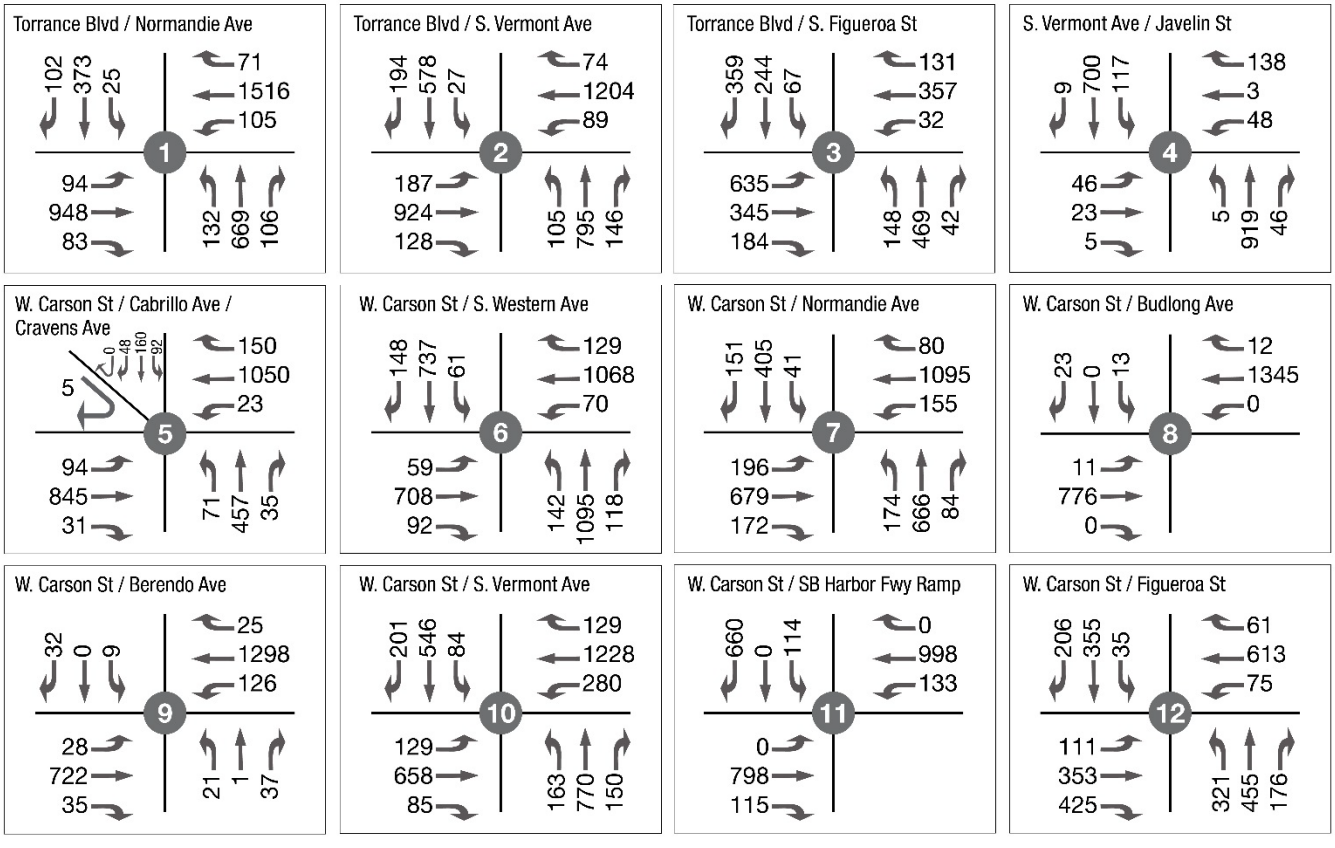
The peak hour turning movement volumes presented in Figure 4.1 and 4.2 were utilized in order to assess intersection performance. Intersection performance was determined using the methods outlined in Section 3. A summary of the AM and PM peak hour intersection level of service analysis results for the Existing Year (2016) No Project condition is presented in Table 4.4.

All thirty-seven study intersections currently operate at an acceptable level of service during both peak hour time periods under their respective standards with the exception of:

- Normandie Avenue and Torrance Boulevard
- Western Avenue and Carson Street
- Figueroa and 220th Street / NB I-110 Ramps
- Western Avenue and 223rd Street
- Hamilton Avenue and SB I-110 Ramps
- Western Avenue and Torrance Boulevard

FIGURE 4.2: EXISTING YEAR (2016) NO PROJECT VOLUMES – AM PEAK HOUR



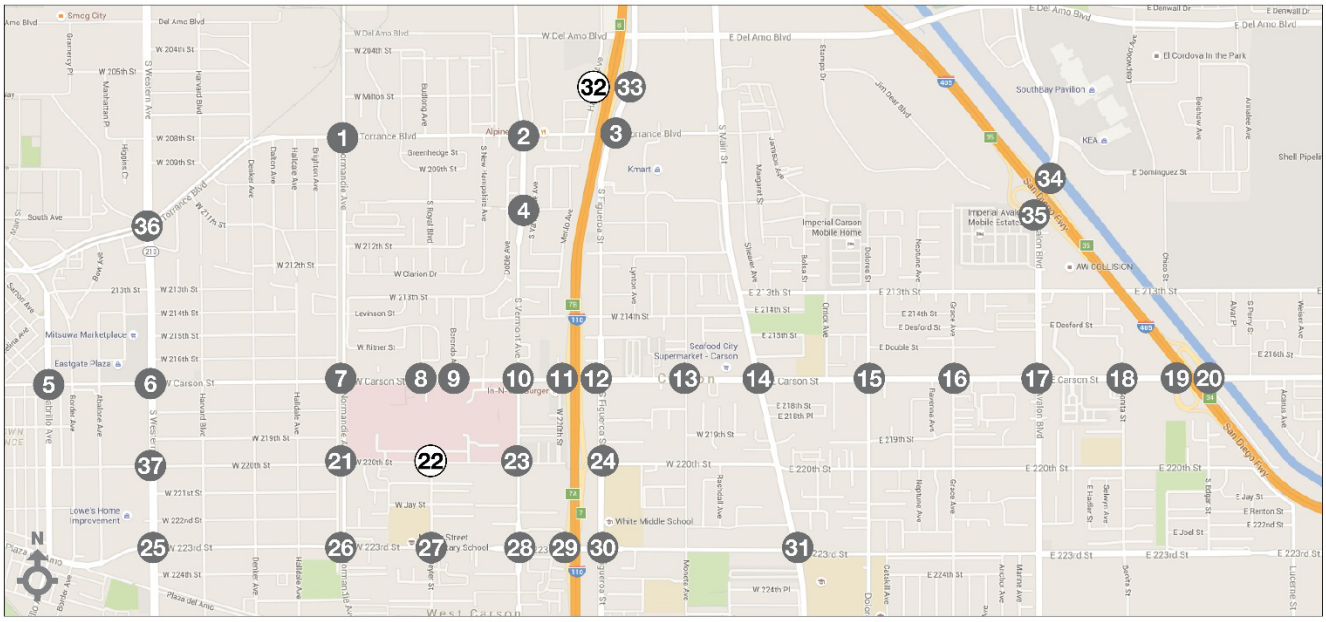


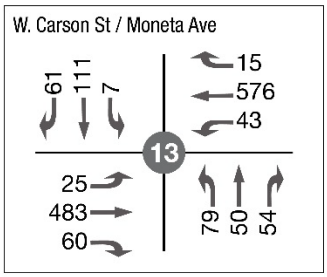
Legend

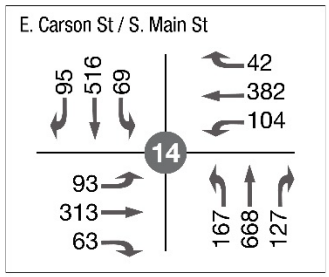
Signalized Intersection

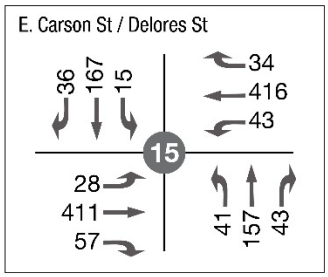
Unsignalized Intersection

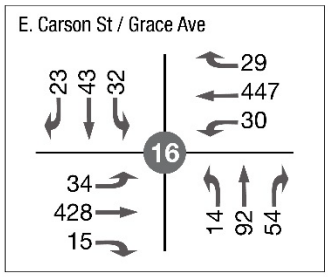
Lane Geometry

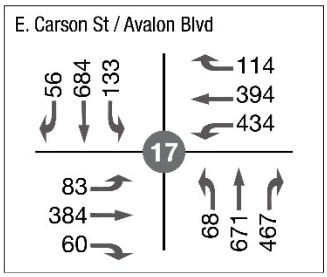


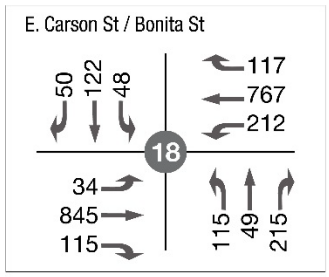


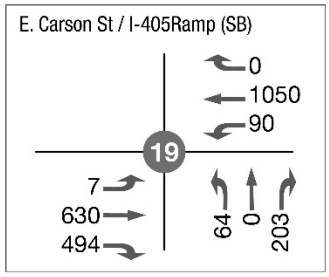


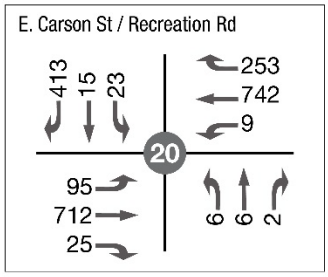


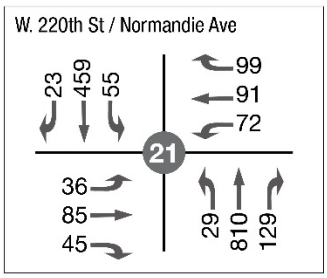


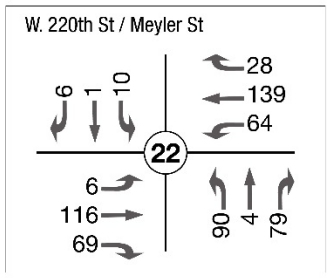


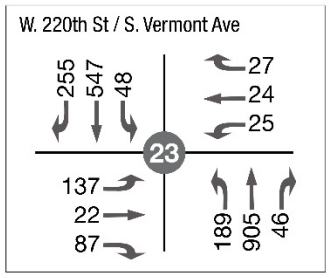


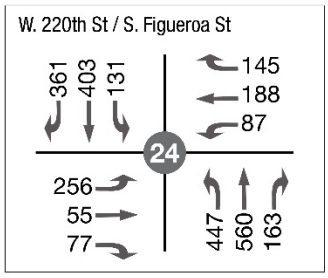






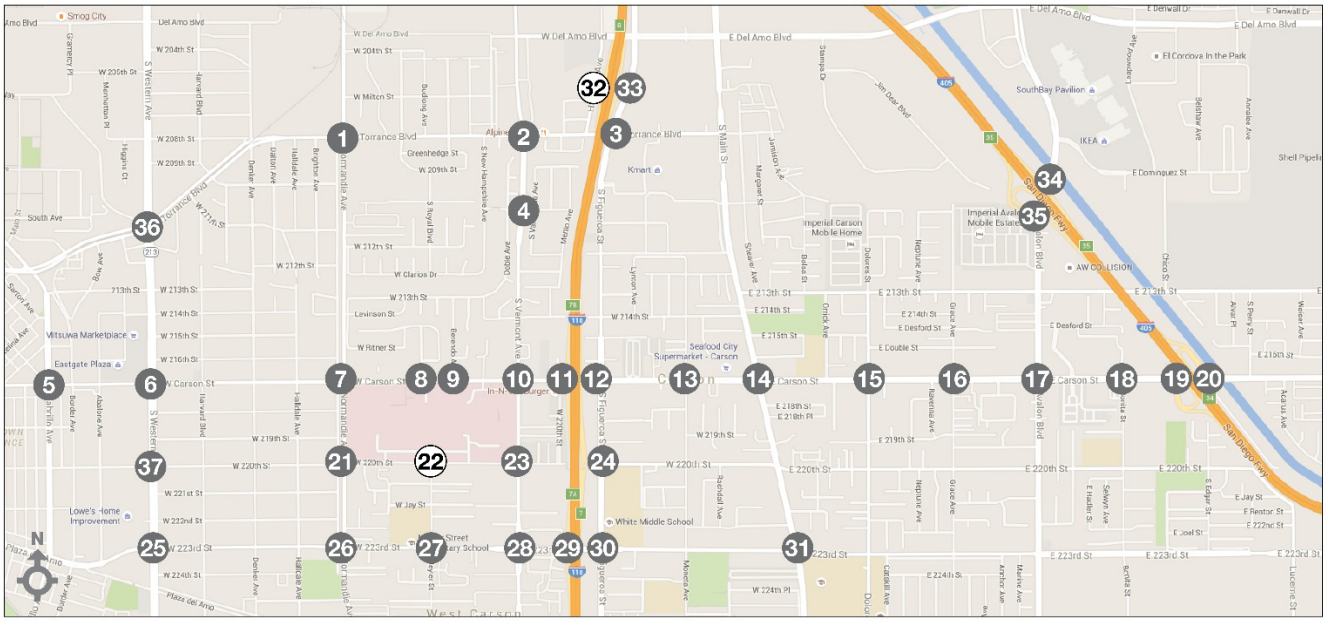


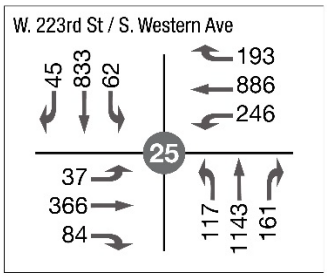


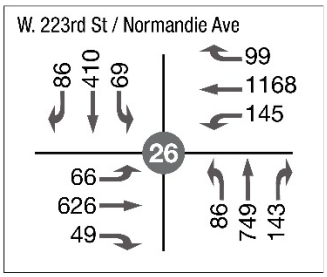


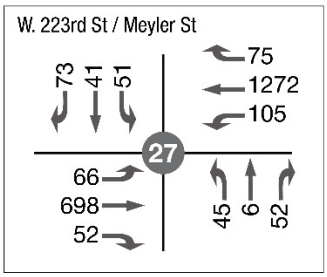
Legend

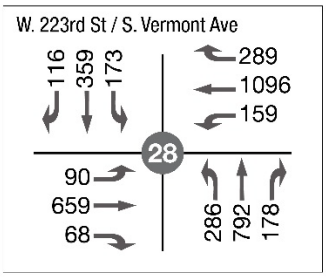
Signalized Intersection Unsignalized Intersection Lane Geometry

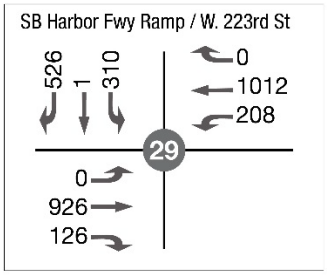


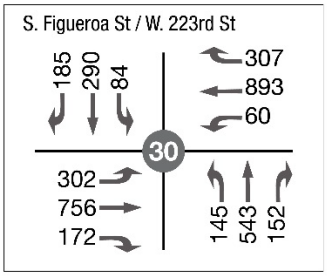


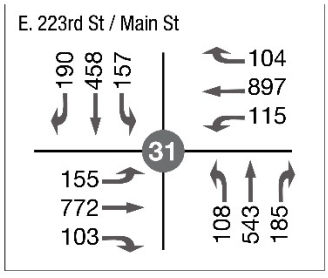


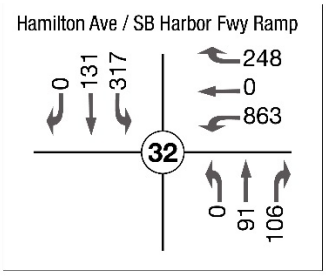


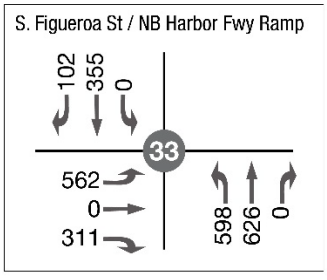


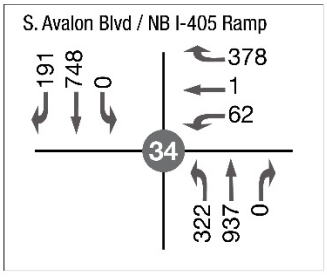


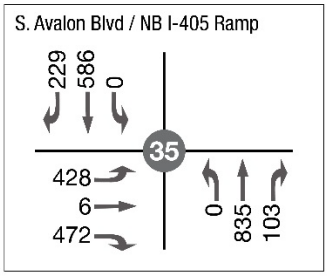


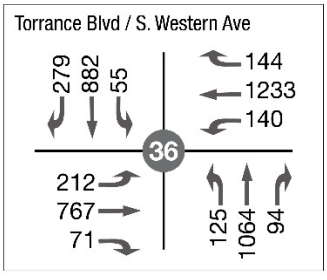












Legend

Signalized Intersection Unsignalized Intersection Lane Geometry

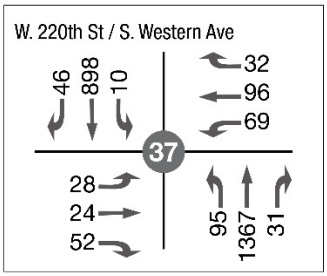
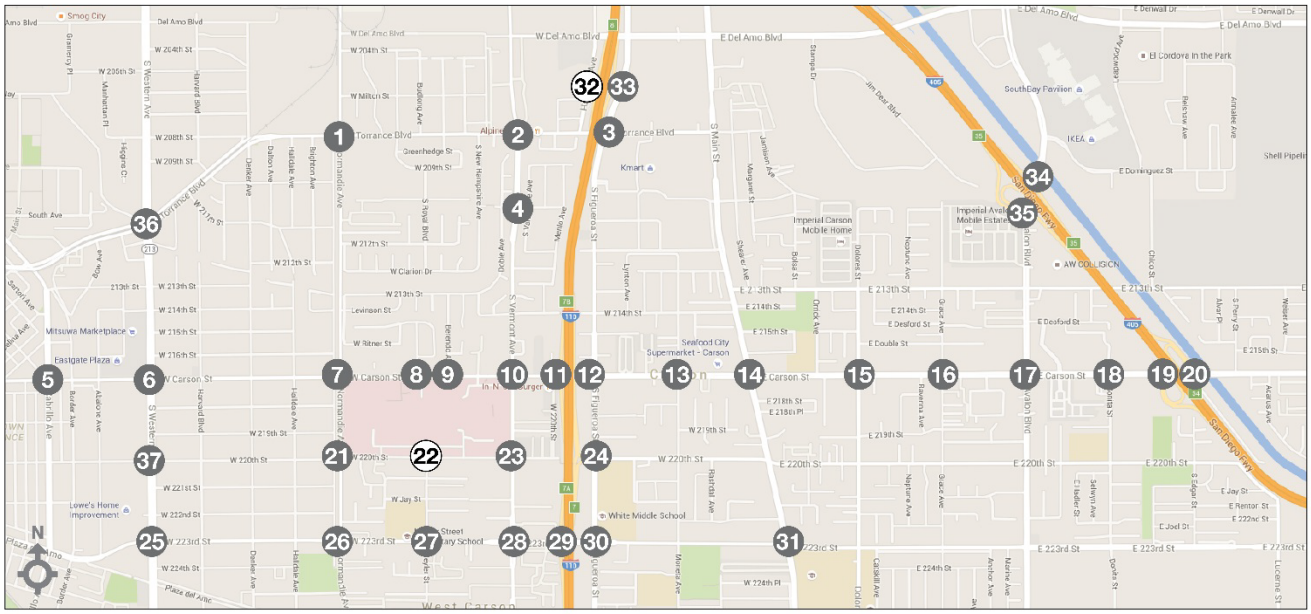
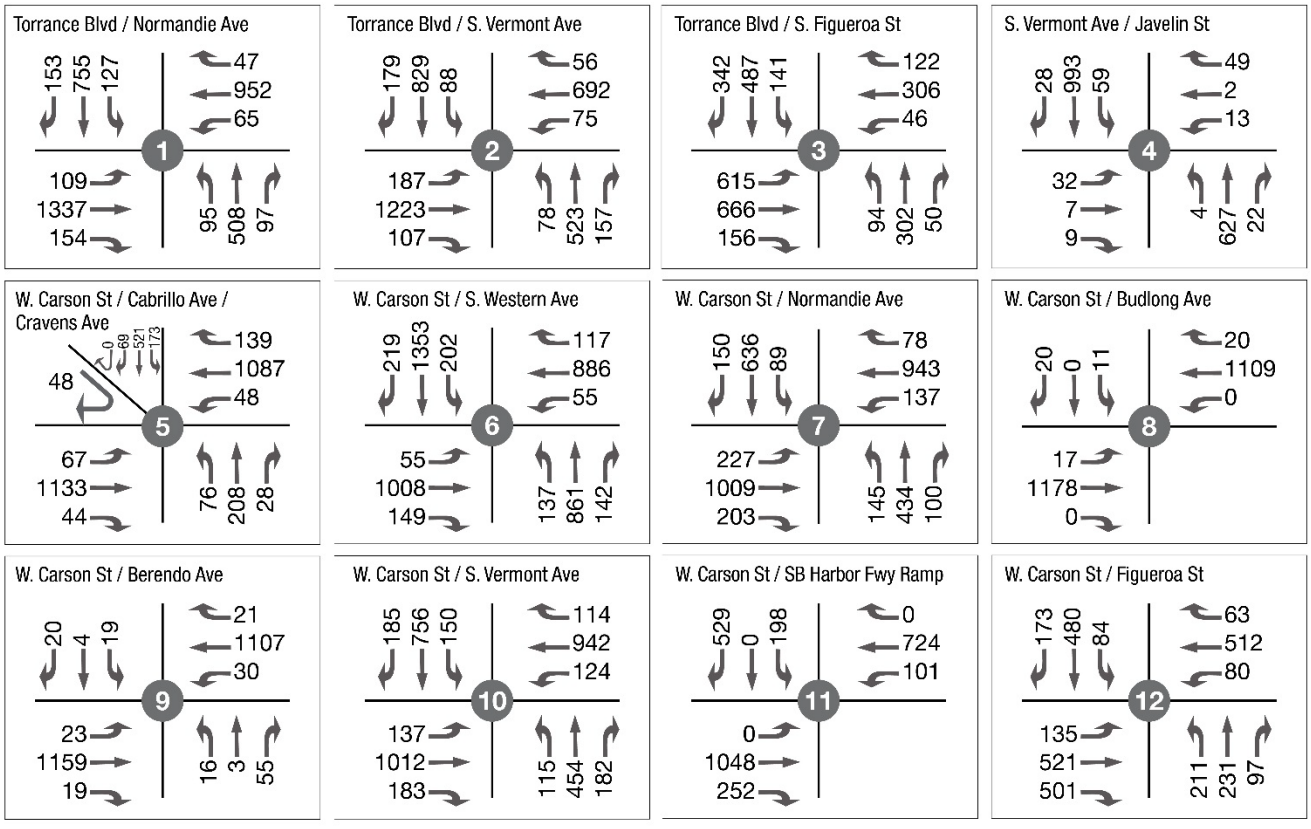


FIGURE 4.3: EXISTING YEAR (2016) NO PROJECT VOLUMES – PM PEAK HOUR



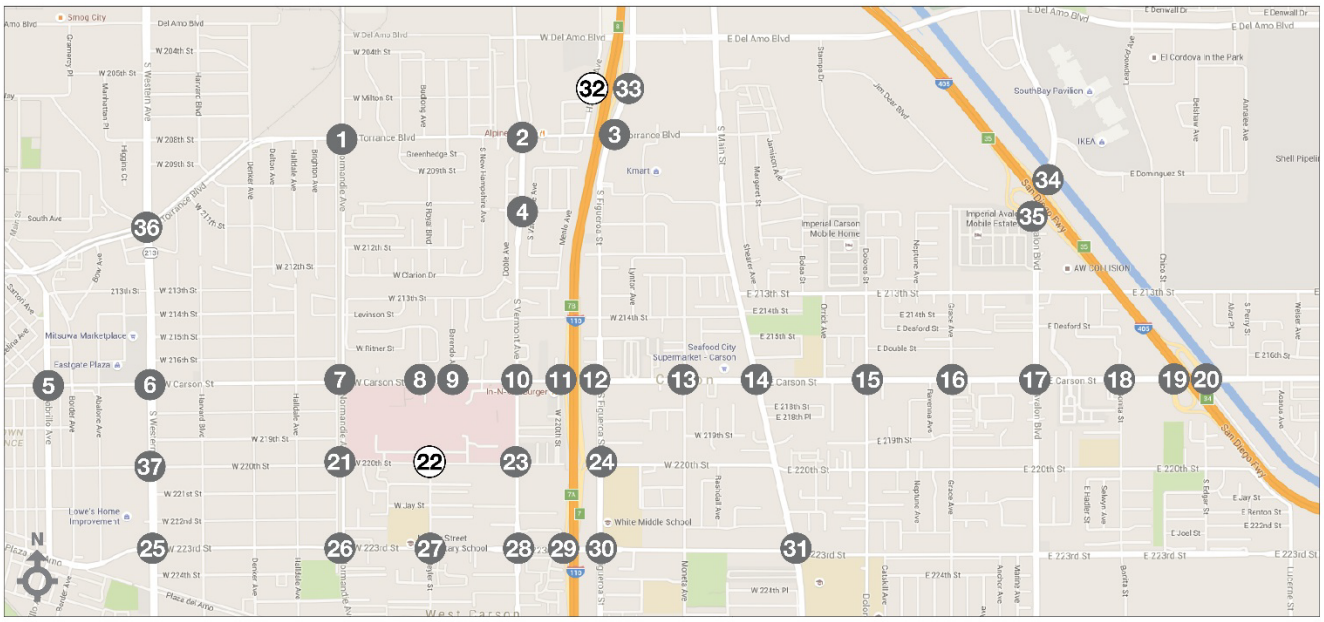


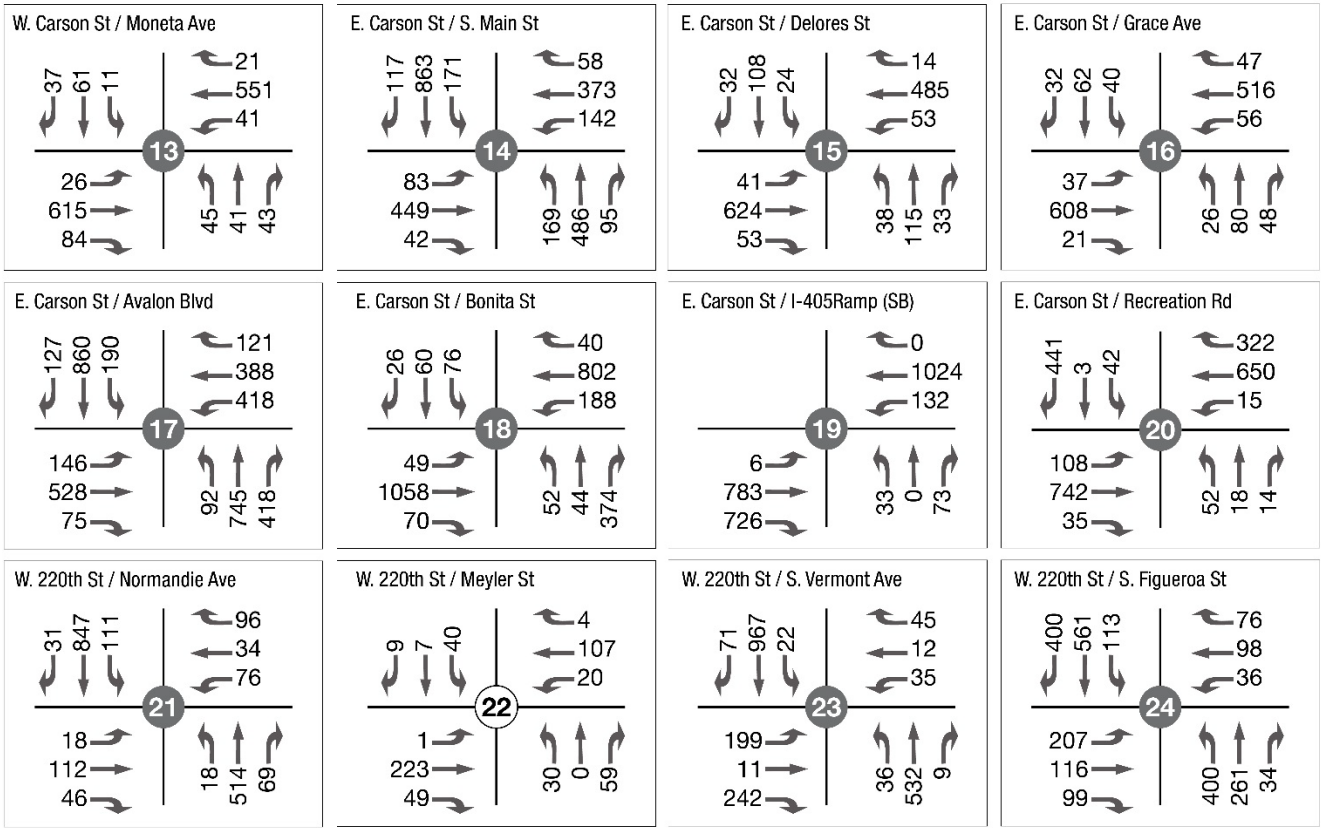
Legend

Signalized Intersection

Unsignalized Intersection

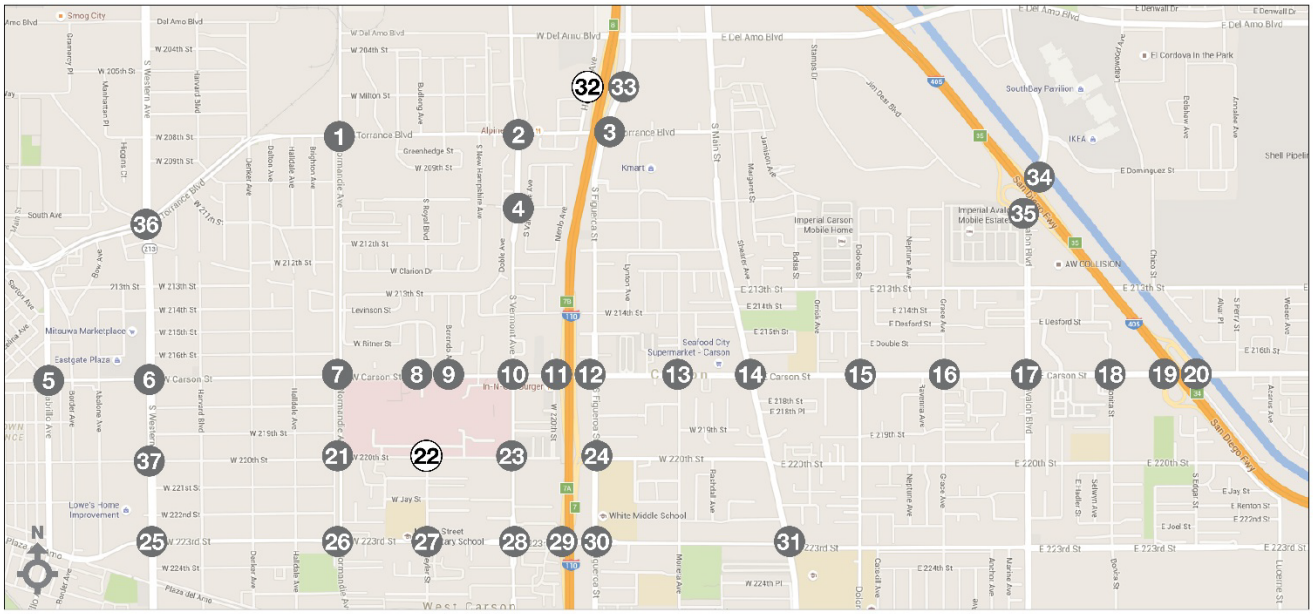
Lane Geometry





Legend

Signalized Intersection Unsignalized Intersection Lane Geometry


W Del Amo Blvd
E Del Amo Blvd
Torrance Blvd
W Carson St
E Carson St
W 220th St
E 220th St
W 223rd St
E 223rd St
Kmart
Imperial Carson Mobile Home
Seafood City Supermarket - Carson
White Middle School
Mitsuwa Marketplace
Eastgate Plaza
Lowe's Home Improvement
AW COLLISION
IKEA
SouthBay Pavilion
El Cordova In the Park
West Carson
N

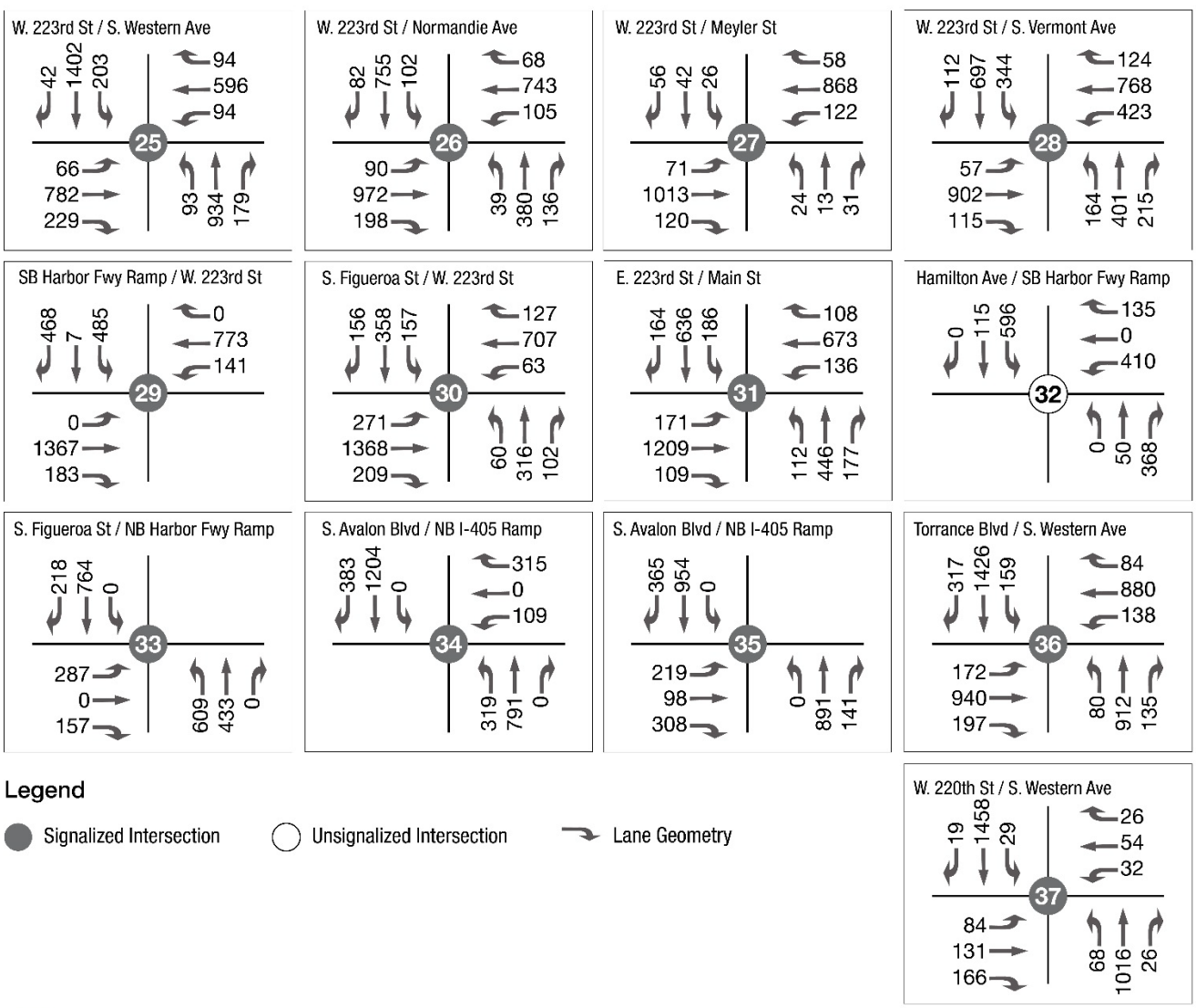

W. 223rd St / S. Western Ave
42 1402 203
94 596 94
25
66 782 229
93 934 179
W. 223rd St / Normandie Ave
82 755 102
68 743 105
26
90 972 198
39 380 136
W. 223rd St / Meyler St
56 42 26
58 868 122
27
71 1013 120
24 13 31
W. 223rd St / S. Vermont Ave
112 697 344
124 768 423
28
57 902 115
164 401 215
SB Harbor Fwy Ramp / W. 223rd St
468 7 485
0 773 141
29
0 1367 183
S. Figueroa St / W. 223rd St
156 358 157
127 707 63
30
271 1368 209
60 316 102
E. 223rd St / Main St
164 636 186
108 673 136
31
171 1209 109
112 446 177
Hamilton Ave / SB Harbor Fwy Ramp
0 115 596
135 0 410
32
0 50 368
S. Figueroa St / NB Harbor Fwy Ramp
218 764 0
33
287 0 157
609 433 0
S. Avalon Blvd / NB I-405 Ramp
383 1204 0
315 0 109
34
319 791 0
S. Avalon Blvd / NB I-405 Ramp
365 954 0
35
219 98 308
0 891 141
Torrance Blvd / S. Western Ave
317 1426 159
84 880 138
36
172 940 197
80 912 135
Legend
Signalized Intersection
Unsignalized Intersection
Lane Geometry
W. 220th St / S. Western Ave
19 1458 29
26 54 32
37
84 131 166
68 1016 26

TABLE 4.4: EXISTING YEAR (2016) NO PROJECT INTERSECTION LOS

INTERSECTION		Jurisdiction	Analysis Method	Intersection Control	AM		PM	
					V/C or Delay (S)	LOS	V/C or Delay (S)	LOS
1	Normandie / Torrance	City of Los Angeles	CMA	Signalized	**0.946**	**E**	**0.989**	**E**
		County of Los Angeles	ICU	Signalized	0.786	C	0.850	D
2	Vermont / Torrance	County of Los Angeles	ICU	Signalized	0.782	C	0.770	C
3	Figueroa / Torrance	City of Carson	ICU	Signalized	0.671	B	0.669	B
4	Vermont / Javelin	County of Los Angeles	ICU	Signalized	0.507	A	0.373	A
5	Carson / Cabrillo / Cravens	City of Torrance	HCM	Signalized	16.6	B	18.0	B
6	Western / Carson	City of Torrance	HCM	Signalized	25.0	C	37.4	D
		City of Los Angeles	CMA	Signalized	0.874	D	**0.999**	**E**
		Caltrans	HCM	Signalized	25.0	C	**37.4**	**D**
7	Normandie / Carson	City of Los Angeles	CMA	Signalized	0.870	D	0.900	D
		County of Los Angeles	ICU	Signalized	0.747	C	0.773	C
8	Budlong / Carson	County of Los Angeles	ICU	Signalized	0.450	A	0.388	A
9	Berendo / Carson	County of Los Angeles	ICU	Signalized	0.456	A	0.427	A
10	Vermont / Carson	County of Los Angeles	ICU	Signalized	0.758	C	0.702	C
11	SB I-110 Ramps / Carson	County of Los Angeles	ICU	Signalized	0.724	C	0.665	B
		Caltrans	HCM	Signalized	27.1	C	20.9	C
12	Figueroa / Carson	City of Carson	ICU	Signalized	0.562	A	0.567	A
13	Moneta / Carson	City of Carson	ICU	Signalized	0.319	A	0.291	A
14	Main / Carson	City of Carson	ICU	Signalized	0.378	A	0.501	A
15	Dolores / Carson	City of Carson	ICU	Signalized	0.295	A	0.339	A
16	Grace / Carson	City of Carson	ICU	Signalized	0.281	A	0.346	A
17	Avalon / Carson	City of Carson	ICU	Signalized	0.683	B	0.732	C
18	Bonita / Carson	City of Carson	ICU	Signalized	0.575	A	0.729	C
19	SB I-405 Ramps / Carson	City of Carson	ICU	Signalized	0.492	A	0.582	A
		Caltrans	HCM	Signalized	8.6	A	7.1	A
20	NB I-405 Ramps / Carson	City of Carson	ICU	Signalized	0.553	A	0.579	A
		Caltrans	HCM	Signalized	12.0	B	12.4	B
21	Normandie / 220th	City of Los Angeles	CMA	Signalized	0.439	A	0.442	A
		County of Los Angeles	ICU	Signalized	0.412	A	0.414	A
22	Meyler / 220th	County of Los Angeles	ICU	AWSC	0.307	A	0.315	A
23	Vermont / 220th	County of Los Angeles	ICU	Signalized	0.428	A	0.498	A
24	Figueroa / 220th and NB I-110	City of Carson	ICU	Signalized	0.871	D	0.786	C
		Caltrans	HCM	Signalized	**52.6**	**D**	**46.1**	**D**
25	Western / 223rd	City of Torrance	HCM	Signalized	27.3	C	29.4	C
		City of Los Angeles	CMA	Signalized	0.881	D	**0.930**	**E**
		Caltrans	HCM	Signalized	27.3	C	29.4	C
26	Normandie / 223rd	City of Los Angeles	CMA	Signalized	0.729	C	0.699	B
		County of Los Angeles	ICU	Signalized	0.683	B	0.655	B
27	Meyler / 223rd	County of Los Angeles	ICU	Signalized	0.593	A	0.523	A
28	Vermont / 223rd	County of Los Angeles	ICU	Signalized	0.845	D	0.769	C
29	SB I-110 Ramps / 223rd	County of Los Angeles	ICU	Signalized	0.748	C	0.818	D
		Caltrans	HCM	Signalized	18.6	B	28.4	C
30	Figueroa / 223rd	City of Carson	ICU	Signalized	0.690	B	0.664	B
31	Main / 223rd	City of Carson	ICU	Signalized	0.645	B	0.732	C
32	SB I-110 Ramps / Hamilton	County of Los Angeles	ICU	AWSC	**1.032**	**F**	**1.115**	**F**
		Caltrans	HCM	AWSC	**49.9**	**E**	**128.4**	**F**
33	Figueroa / NB I-110 Ramps	City of Carson	ICU	Signalized	0.617	B	0.615	B
		Caltrans	HCM	Signalized	26.5	C	20.9	C
34	Avalon / NB I-405	City of Carson	ICU	Signalized	0.301	A	0.410	A
		Caltrans	HCM	Signalized	15.9	B	15.1	B
35	Avalon / SB I-405	City of Carson	ICU	Signalized	0.460	A	0.408	A
		Caltrans	HCM	Signalized	11.8	B	10.3	B
36	Western / Torrance	City of Torrance	HCM	Signalized	40.9	D	34.1	C
		City of Los Angeles	CMA	Signalized	0.88	D	0.823	D
		Caltrans	HCM	Signalized	**40.9**	**D**	34.1	C
37	Western / 220th	City of Torrance	HCM	Signalized	7.2	A	14.6	B
		City of Los Angeles	CMA	Signalized	0.591	A	0.807	D
		Caltrans	HCM	Signalized	7.2	A	14.6	B

AWSC = All Way Stop Control. **Bold and shaded** = Intersection operates at an unacceptable LOS using the methodology listed.

4.6 CMP MONITORING STATION ANALYSIS

The CMP monitoring station analysis results for the AM and PM peak hours are summarized in Table 4.5 and Table 4.6, respectively. The analysis was performed in accordance with the methodology outlined in Section 3.4.1. An unacceptable LOS (LOS F) is observed at the following locations:

- I-405 at Santa Fe Avenue
- I-405 north of Inglewood Avenue

4.7 FREEWAY MAINLINE ANALYSIS

The freeway mainline analysis results for the AM and PM peak hours are summarized in Table 4.7 and Table 4.8, respectively. The analysis was conducted using the methodology and settings outlined in Section 3.4.2. All freeway segments operate at an unacceptable level of service (LOS D or worse) with the exception of:

- SR-91 at Avalon Boulevard
- I-110 at SR-1 (Pacific Coast Highway)

4.8 FREEWAY OFF-RAMP QUEUE ANALYSIS

Per Caltrans traffic study guidelines, a queue analysis for freeway off-ramps at intersections of interest is provided. Table 4.9 summarizes the storage capacities and queue lengths expected for these off-ramps. All freeway off-ramps provide sufficient storage capacity such that the 85% storage capacity is not exceeded by expected queues. The off-ramps evaluated in Existing Year (2016) scenarios are listed below:

- Southbound I-110 Off-Ramp at Carson Street
- Southbound I-405 Off-Ramp at Carson Street
- Northbound I-405 Off-Ramp at Carson Street
- Northbound I-110 Off-Ramp/220th Street at Figueroa Street
- Southbound I-110 Off-Ramp at 223rd Street
- Southbound I-110 Off-Ramp at Hamilton Avenue
- Northbound I-110 Off-Ramp at Figueroa Street
- Northbound I-405 Off-Ramp at Avalon Boulevard
- Southbound I-405 Off-Ramp at Avalon Boulevard

4.9 VEHICLE MILES TRAVELED (VMT) ANALYSIS

VMT calculations were prepared based on the land use characteristics in the Existing Year (2016) No Project scenario using the land use zoning outlined in Section 2.2. A summary of the results for this scenario is presented in Table 4.10.

TABLE 4.5: EXISTING YEAR (2016) NO PROJECT CMP MONITORING STATION ANALYSIS – AM PEAK HOUR

ID	Freeway	Segment	Station	Direction	Lanes	Capacity	Existing Year (2016) No Project		
							Peak Hour Volume	V/C	LOS
1	I-110	at Wilmington Boulevard s/o C Street	1045	NB	4	8,000	4,348	0.544	C
				SB	4	8,000	3,176	0.397	B
2	I-110	at Manchester Boulevard	1046	NB	6	12,000	8,479	0.707	C
				SB	6	12,000	10,330	0.861	D
3	I-405	at Santa Fe Avenue	1066	NB	5	10,000	10,365	**1.037**	**F(0)**
				SB	5	10,000	12,090	**1.209**	**F(0)**
4	I-405	south of I-110	1067	NB	5	10,000	9,065	0.907	D
				SB	5	10,000	7,438	0.744	C
5	I-405	north of Inglewood Avenue	1068	NB	5	10,000	8,075	0.808	D
				SB	5	10,000	10,608	**1.061**	**F(0)**
6	SR-91	east of Alameda Street/Santa Fe Avenue	1033	EB	6	12,000	7,978	0.665	C
				WB	6	12,000	5,800	0.483	B

Bold and shaded = Unacceptable evel of service (LOS F).

TABLE 4.6: EXISTING YEAR (2016) NO PROJECT CMP MONITORING STATION ANALYSIS – PM PEAK HOUR

ID	Freeway	Segment	Station	Direction	Lanes	Capacity	Existing Year (2016) No Project		
							Peak Hour Volume	V/C	LOS
1	I-110	at Wilmington Boulevard s/o C Street	1045	NB	4	8,000	2,921	0.365	B
				SB	4	8,000	4,436	0.555	C
2	I-110	at Manchester Boulevard	1046	NB	6	12,000	9,321	0.777	D
				SB	6	12,000	11,375	0.948	E
3	I-405	at Santa Fe Avenue	1066	NB	5	10,000	9,313	0.931	E
				SB	5	10,000	15,074	**1.507**	**F(3)**
4	I-405	south of I-110	1067	NB	5	10,000	8,250	0.825	D
				SB	5	10,000	9,408	0.941	E
5	I-405	north of Inglewood Avenue	1068	NB	5	10,000	10,015	**1.002**	**F(0)**
				SB	5	10,000	10,390	**1.039**	**F(0)**
6	SR-91	east of Alameda Street/Santa Fe Avenue	1033	EB	6	12,000	7,618	0.635	C
				WB	6	12,000	6,138	0.512	B

Bold and shaded = Unacceptable evel of service (LOS F).

TABLE 4.7: EXISTING YEAR (2016) NO PROJECT FREEWAY MAINLINE ANALYSIS SUMMARY – AM PEAK HOUR

ID	Freeway	Location	Direction	Density (pc/mi/ln)	LOS
1	SR-91	at Avalon Boulevard	EB	14.1	B
			WB	23.9	C
2	I-110	at SR-1 (Pacific Coast Highway)	NB	24.4	C
			SB	17.3	B
3	I-110	at Sepulveda Boulevard	NB	**30.7**	**D**
			SB	20.7	C
4	I-110	at El Segundo Boulevard	NB	23.6	C
			SB	**30.3**	**D**
5	I-405	at I-710	NB	**45.7**	**F**
			SB	**37.9**	**E**
6	I-405	south of I-110 (Carson Scales)	NB	25	C
			SB	19.8	C
7	I-405	at Western Avenue	NB	**26.2**	**D**
			SB	**27.5**	**D**

Bold and shaded = Unacceptable evel of service (LOS D or w orse). Pc/mi/ln = passenger-car per mile per lane.

TABLE 4.8: EXISTING YEAR (2016) NO PROJECT FREEWAY MAINLINE ANALYSIS SUMMARY – PM PEAK HOUR

ID	Freeway	Location	Direction	Density (pc/mi/ln)	LOS
1	SR-91	at Avalon Boulevard	EB	21.1	C
			WB	16.5	B
2	I-110	at SR-1 (Pacific Coast Highway)	NB	16.1	B
			SB	24.1	C
3	I-110	at Sepulveda Boulevard	NB	19.5	C
			SB	29.0	C
4	I-110	at El Segundo Boulevard	NB	22.8	C
			SB	**29.7**	**D**
5	I-405	at I-710	NB	**35.9**	**E**
			SB	**70.9**	**F**
6	I-405	south of I-110 (Carson Scales)	NB	22.3	C
			SB	**26.2**	**D**
7	I-405	at Western Avenue	NB	**28.1**	**D**
			SB	**31.9**	**D**

Bold and shaded = Unacceptable evel of service (LOS D or w orse). Pc/mi/ln = passenger-car per mile per lane.

TABLE 4.9: EXISTING YEAR (2016) NO PROJECT QUEUE ANALYSIS

ID	Ramp	Cross Street	Ramp Length (ft) [a]	85% Ramp Length (ft)	Ramp Turn Lanes at Intersection			AM Queue		PM Queue		Queue Exceeds 85% Storage?	
					Lanes	Movement	Length [a]	Lane (ft)	Max (ft)	Lane (ft)	Max (ft)	AM	PM
11	I-110 Southbound Off-Ramp	Carson Street	980	830	2	Left	980	60	483	99	320	No	No
						Right	380	483		320			
19	I-405 Southbound Off-Ramp	Carson Street	1,100	940	2	Left	660	41	41	28	28	No	No
						Right	1,100	41		19			
20	I-405 Northbound Off-Ramp	Carson Street	1,200	1,020	2	Through/Left	1,200	26	118	30	128	No	No
						Right	620	118		128			
24	I-110 Northbound Off-Ramp	Figueroa Street	1,150	980	2	Through/Left	1,150	397	397	408	408	No	No
						Right	530	0		14			
29	I-110 Southbound Off-Ramp	223rd Street	935	800	2	Through/Left	935	229	229	358	358	No	No
						Right/Through	405	229		358			
32	I-110 Southbound Off-Ramp	Hamilton Avenue	890	760	3	Left	890	325	325	68	68	No	No
						Left	355	325		68			
						Right	40	40		20			
33	I-110 Northbound Off-Ramp	Figueroa Street	880	750	2	Left	880	403	403	158	158	No	No
						Right/Left	340	206		70			
34	I-405 Northbound Off-Ramp	Avalon Boulevard	980	830	3	Left	980	26	219	41	133	No	No
						Through/Left	320	26		41			
						Right	320	219		133			
35	I-405 Southbound Off-Ramp	Avalon Boulevard	390	330	5	Left	390	66	207	43	127	No	No
						Left	390	66		43			
						Through	390	3		23			
						Through	390	3		23			
						Right	240	207		127			

[a] = Length measured from scaled aerial images.

TABLE 4.10: EXISTING YEAR (2016) NO PROJECT VMT SUMMARY

Land Use	Average Daily Trip Rate			Annual VMT	Population / Employees	Annual VMT Per Capita
	Weekday	Saturday	Sunday			
Apartments (Mid-Rise)	2,287.60	2,198.16	2,015.84	**7,640,752**	**955**	**8,001**
General Light Industry	1,314.26	248.90	128.22	**4,395,658**	**182**	**24,152**
General Office Building	807.62	180.12	76.88	**1,976,636**	**151**	**13,090**
Hospital	10,747.33	8,275.93	7,243.47	**38,356,399**	**5,637**	**6,804**
Single Family Housing	9,129.68	9,503.69	8,266.58	**30,958,747**	**2,924**	**10,588**
Strip Mall	14,589.70	13,839.15	6,725.35	**25,416,771**	**394**	**64,510**
Unrefrigerated Warehouse - No Rail	502.44	502.44	502.44	**2,153,305**	**279**	**7,718**
Total	**39,378.63**	**34,748.39**	**24,958.78**	**110,898,268**	**10,522**	**134,863**

5 FUTURE YEAR (2035) NO PROJECT

This section presents the ADT, peak hour link analysis, queue analysis, and intersection LOS analysis for the Future Year (20135) No Project scenario. Future Year (2035) No Project traffic is derived from the application of a forecasted growth rate of 0.6284% to each year from Existing Year (2016) No Project scenario. The growth rate is based on existing land uses within the project study area plus cumulative projects and ambient area-wide traffic growth. The cumulative projects and ambient area-wide traffic growth are based on the Southern California Association of Governments (SCAG) regional model. Additionally, the SCAG Year 2035 traffic forecasts assume implementation of projects consistent with the Year 2035 Preferred Plan from SCAG's 2012 Regional Transportation Plan (RTP). This scenario will serve as a base for comparison in order to establish impacts for the Future Year (2035) With Project scenario for intersections under City of Los Angeles, Carson, Torrance, and Caltrans control. Associated lane geometries and controls are consistent with the Existing Year (2016) No Project intersection geometries and controls.

5.1 AVERAGE DAILY TRAFFIC

The average daily traffic for selected links generated in the Future Year (2035) No Project scenario are presented in Table 5.1 below:

TABLE 5.1: FUTURE YEAR (2035) NO PROJECT ROADWAY SEGMENT SUMMARY

ID	Segment	ADT
1	Carson Street west of Berendo Avenue	35,233
2	Carson Street east of Vermont Avenue	41,473
3	Carson Street east of Figueroa Street	21,781
4	Carson Street west of Normandie Avenue	38,591
5	Normandie Avenue north of Carson Street	20,470
6	Normandie Avenue south of Carson Street	22,095
7	Vermont Avenue south of Javelin Street	19,520
8	Vermont Avenue south of Carson Street	23,824
9	Vermont Avenue south of 223rd Street	24,559
10	Figueroa Street south of Carson Street	23,964

5.2 PEAK HOUR LINK LEVEL OF SERVICE

AM and PM peak hour link analyses are presented in Table 5.2 and 5.3, respectively. The peak hour link volumes are derived from the turning movement volumes; more specifically, the arriving and departing volumes between two intersections that the link of interest joins. In the event that the departures of one intersection did not equal the arrivals of the second intersection, an average of the two volumes was taken to be the link volume experienced. A loss, or even gain, in volumes between two intersections is not uncommon, especially in situations where additional intersections or driveways are present between the intersections of interest. The following links are expected to be operate at LOS E or worse:

- Carson Street from Budlong Avenue to Berendo Avenue
- Carson Street from Vermont Avenue to I-110 SB Ramp
- Carson Street Western Avenue to Normandie Avenue
- Normandie Avenue from Carson Street to 220th Street

TABLE 5.2: FUTURE YEAR (2035) NO PROJECT AM PEAK HOUR LINK ANALYSIS

Link ID	Street	Segment		Class	Capacity per Lane	Number of Lanes		Volumes		V/C Ratio		Level of Service	
		From	To			NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
1	Carson Street	Budlong Ave	Berendo Ave	Major	750	2	2	887	1526	0.59	**1.02**	A	**F**
2	Carson Street	Vermont Ave	I-110 SB Ramp	Major	750	3	2	1017	1855	0.45	**1.24**	A	**F**
3	Carson Street	Figueroa St	Moneta Ave	Major	750	2	2	638	825	0.43	0.55	A	A
4	Carson Street	Western Ave	Normandie Ave	Major	750	2	2	1090	1513	0.73	**1.01**	C	**F**
5	Normandie Avenue	Torrance Blvd	Carson St	Secondary	600	2	2	1042	652	0.87	0.54	D	A
6	Normandie Avenue	Carson St	220th St	Secondary	600	2	2	1053	715	0.88	0.60	D	A
7	Vermont Avenue	Javelin St	Carson St	Major	750	2	2	1125	892	0.75	0.59	C	A
8	Vermont Avenue	Carson St	220th St	Major	750	2	2	1212	1089	0.81	0.73	D	C
9	Vermont Avenue	220th St	223rd St	Major	750	2	2	1302	736	0.87	0.49	D	A
10	Figueroa Street	Carson St	220th St	Major	750	2	2	1078	986	0.72	0.66	C	B

Bold and shaded = Unacceptable LOS.

TABLE 5.3: FUTURE YEAR (2035) NO PROJECT PM PEAK HOUR LINK ANALYSIS

Link ID	Street	Segment		Class	Capacity per Lane	Number of Lanes		Volumes		V/C Ratio		Level of Service	
		From	To			NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
1	Carson Street	Budlong Ave	Berendo Ave	Major	750	2	2	1346	1280	0.90	0.85	D	D
2	Carson Street	Vermont Ave	I-110 SB Ramp	Major	750	3	2	1489	1371	0.66	**0.91**	B	**E**
3	Carson Street	Figueroa St	Moneta Ave	Major	750	2	2	804	726	0.54	0.48	A	A
4	Carson Street	Western Ave	Normandie Ave	Major	750	2	2	1573	1293	**1.05**	0.86	**F**	D
5	Normandie Avenue	Torrance Blvd	Carson St	Secondary	600	2	2	811	1041	0.68	0.87	B	D
6	Normandie Avenue	Carson St	220th St	Secondary	600	2	2	736	1107	0.61	**0.92**	B	**E**
7	Vermont Avenue	Javelin St	Carson St	Major	750	2	2	765	1187	0.51	0.79	A	C
8	Vermont Avenue	Carson St	220th St	Major	750	2	2	860	1196	0.57	0.80	A	C
9	Vermont Avenue	220th St	223rd St	Major	750	2	2	653	1350	0.44	0.90	A	D
10	Figueroa Street	Carson St	220th St	Major	750	2	2	610	1247	0.41	0.83	A	D

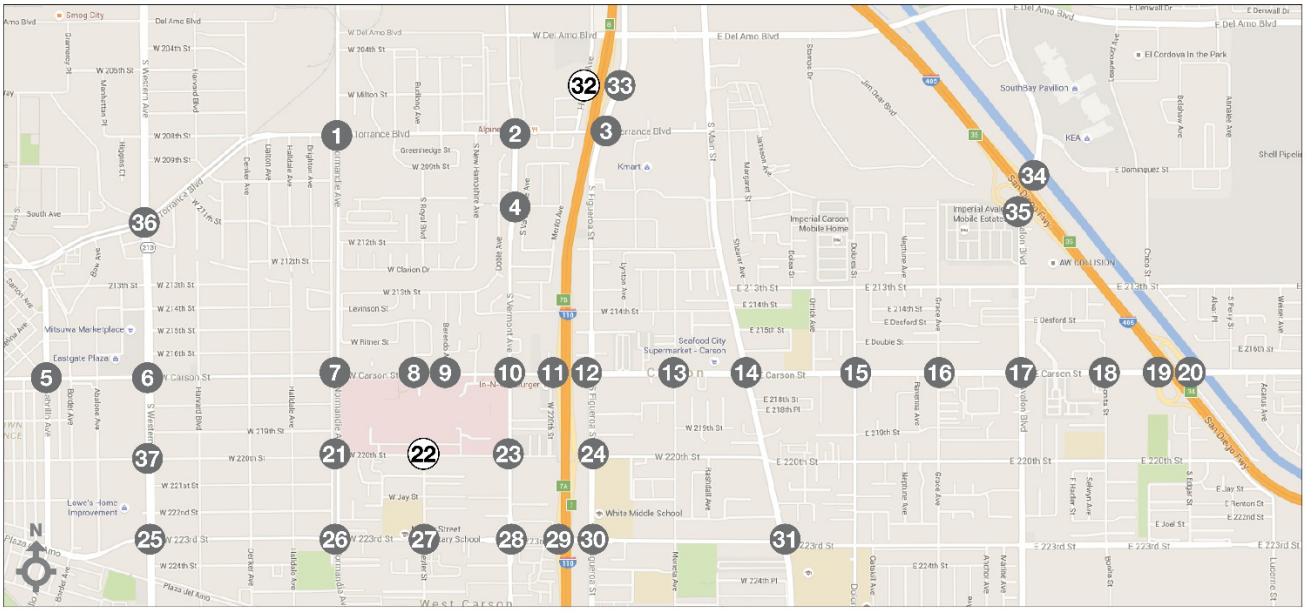
Bold and shaded = Unacceptable LOS.

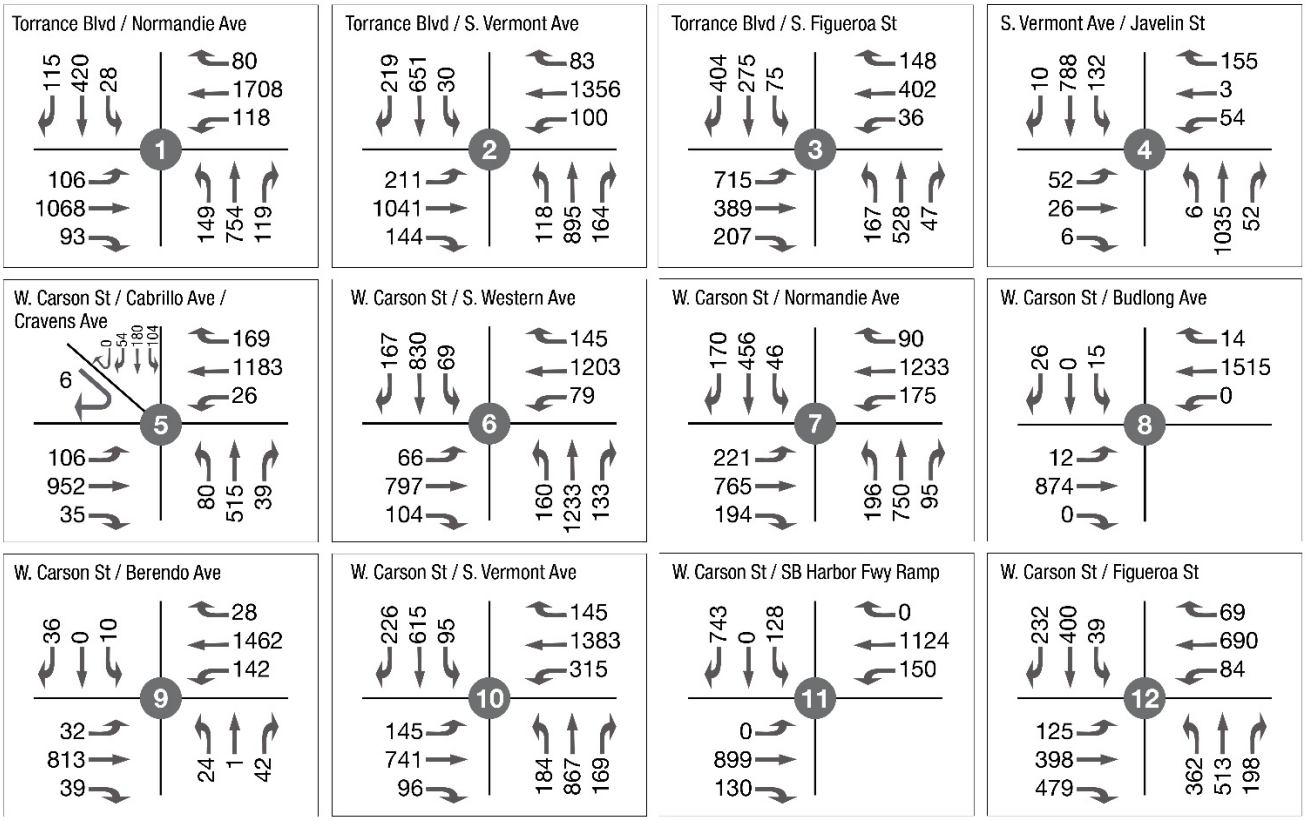
5.3 INTERSECTION LEVEL OF SERVICE

The peak hour turning movement volumes presented in Figure 5.1 and 5.2 were utilized in order to assess intersection performance. Intersection performance was determined using the methods outlined in Section 3. A summary of the AM and PM peak hour intersection level of service analysis results for the Future Year (2035) No Project condition is presented in Table 5.4. The following intersections are expected to operate at an unacceptable level of service:

- Normandie Avenue and Torrance Boulevard
- Western Avenue and Carson Street
- Normandie Avenue and Carson Street
- SB I-110 Ramps and Carson Street
- Figueroa Street and 220th Street/NB I-110 Ramps
- Western Avenue and 223rd Street
- SB I-110 Ramps and 223rd Street
- Hamilton Avenue and SB I-110 Ramps
- Western Avenue and Torrance Boulevard
- Western Avenue and 220th Street

FIGURE 5.1: FUTURE YEAR (2035) NO PROJECT TURNING MOVEMENT VOLUMES – AM PEAK HOUR



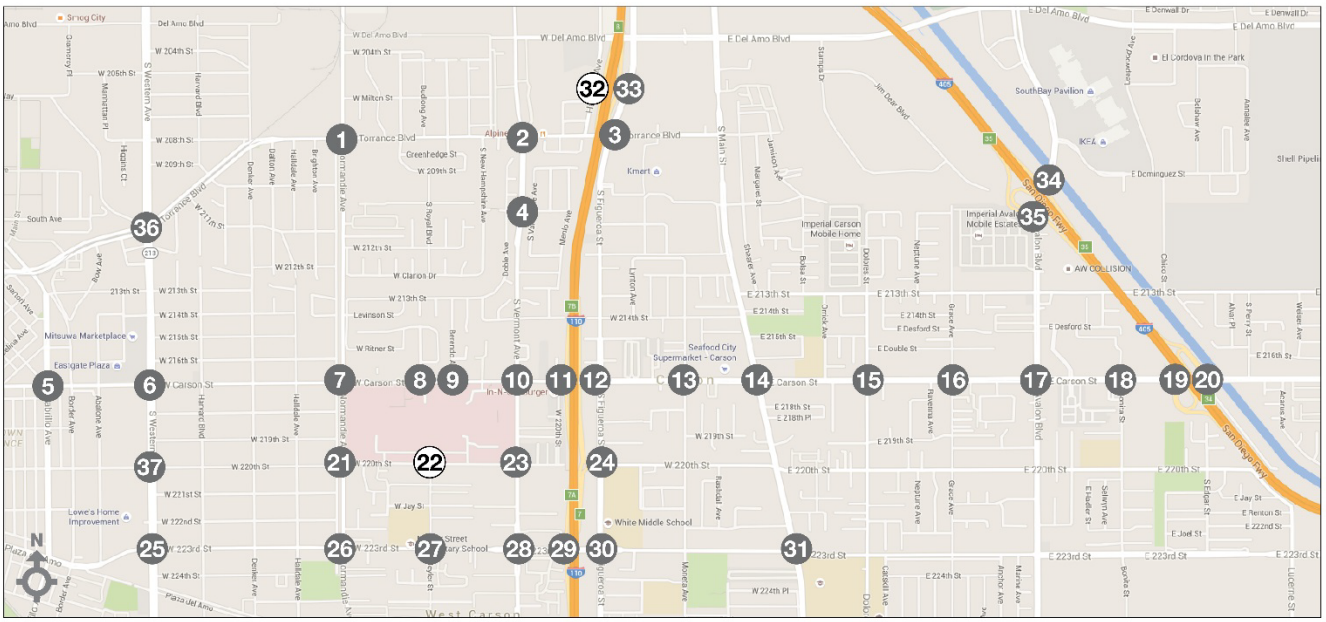


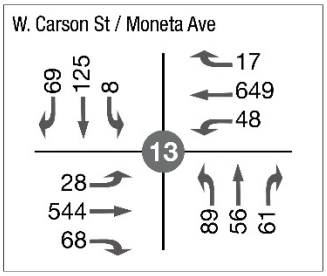
Legend

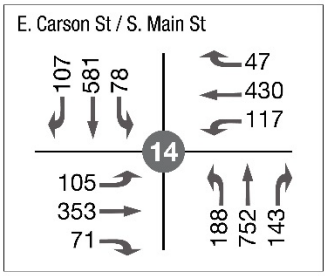
Signalized Intersection

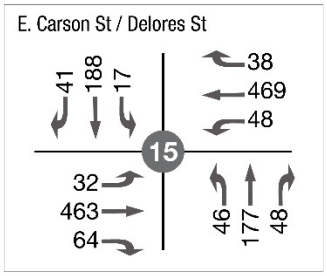
Unsignalized Intersection

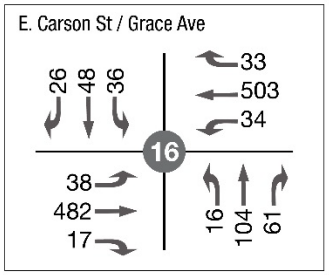
Lane Geometry

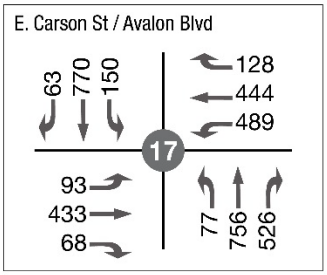


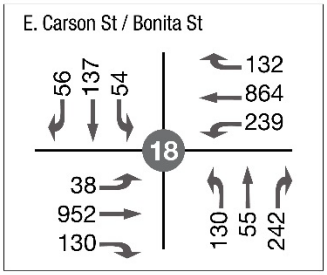


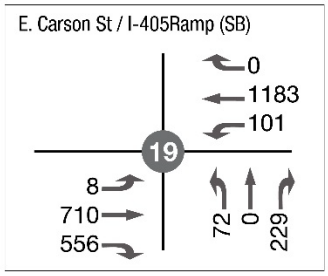


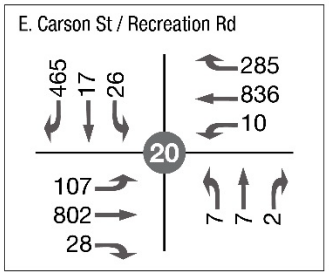


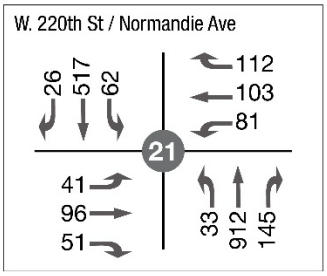


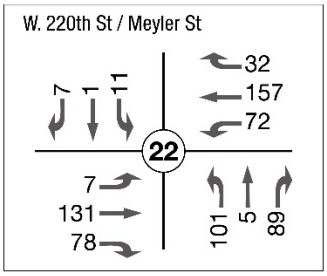


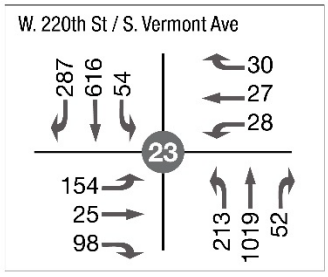


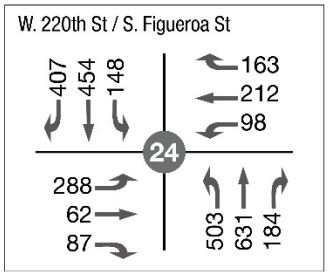






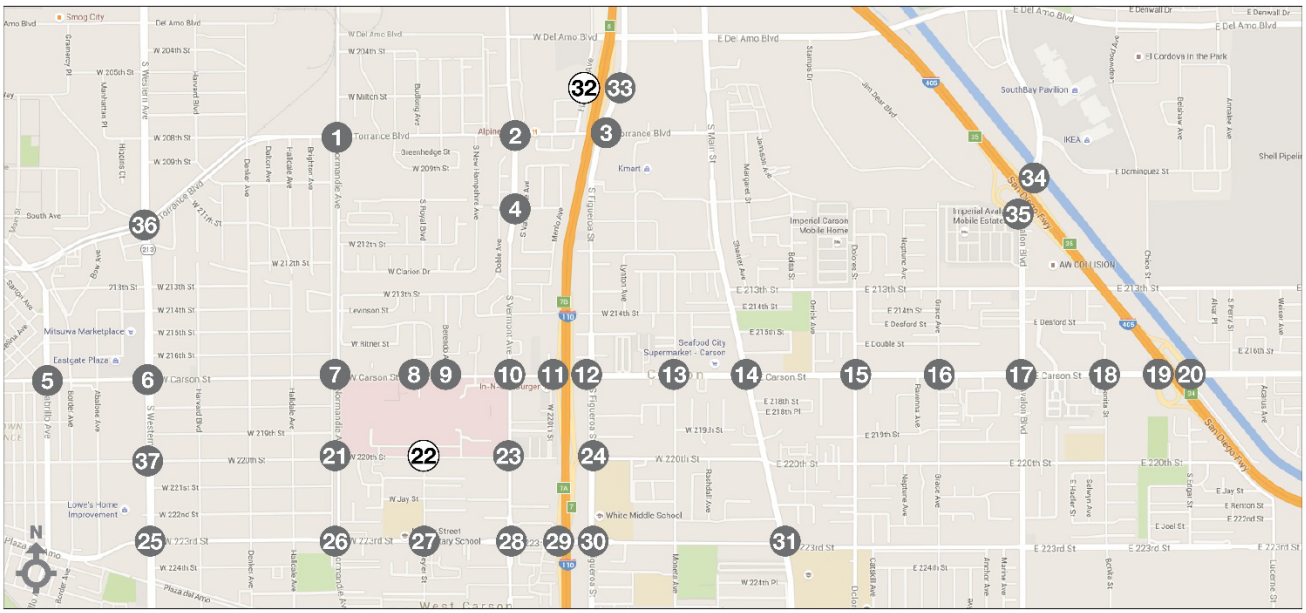


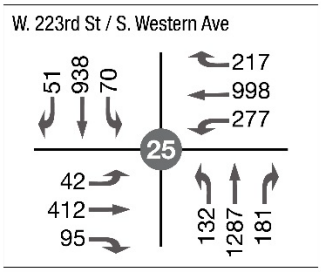


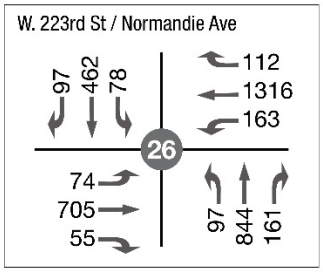


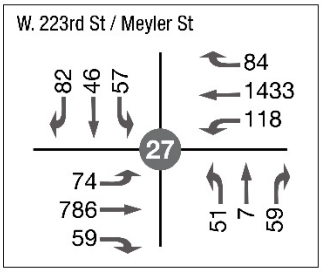
Legend

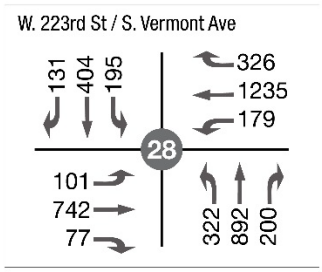
Signalized Intersection Unsignalized Intersection Lane Geometry

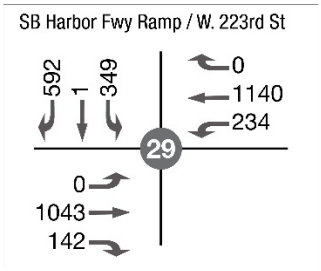


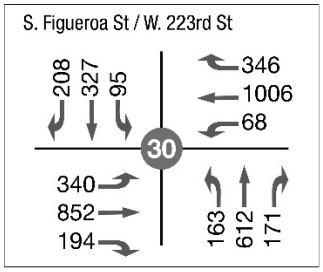


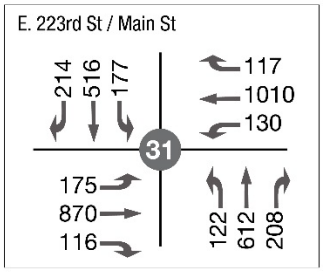


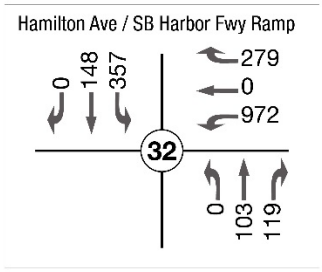


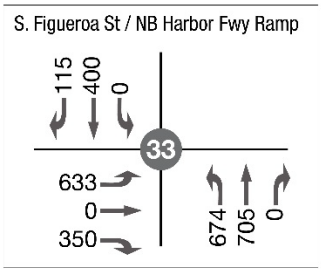


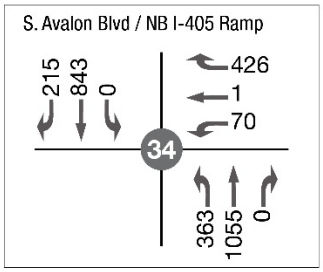


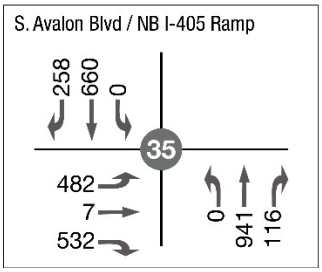


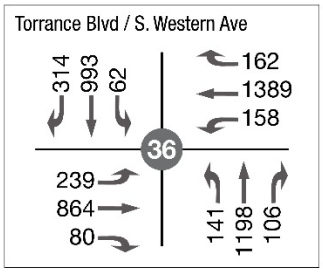












Legend

Signalized Intersection

Unsignalized Intersection

Lane Geometry

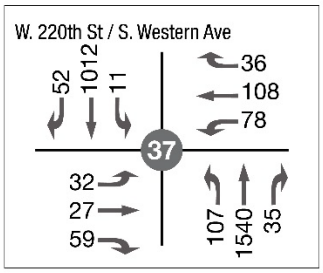
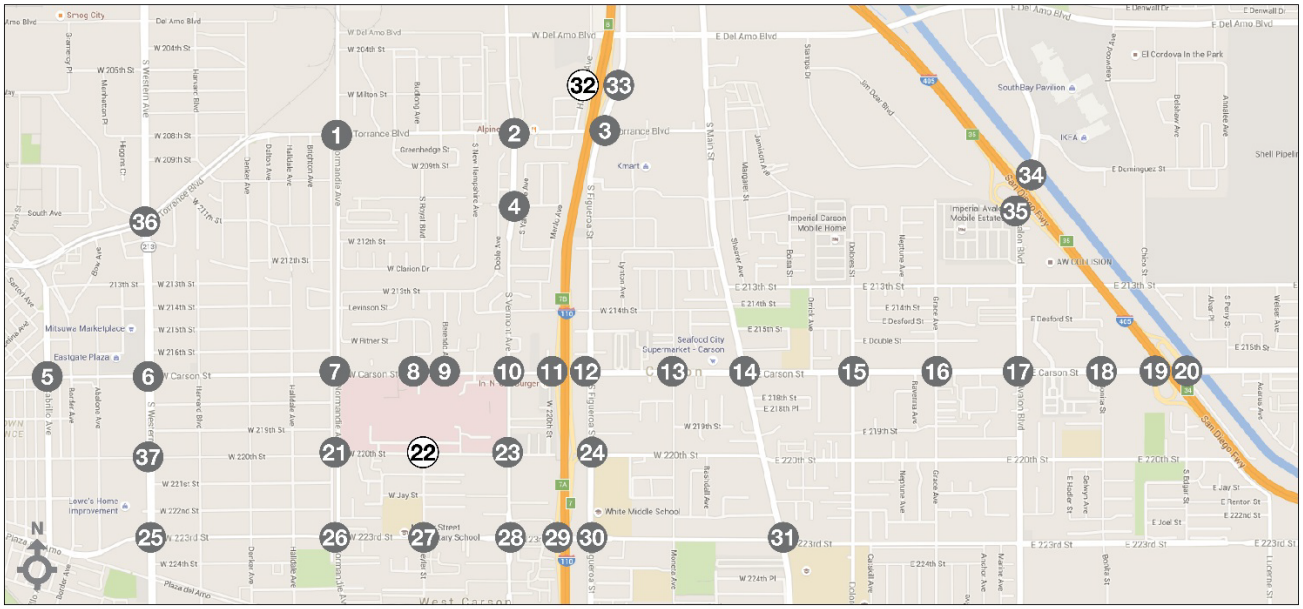
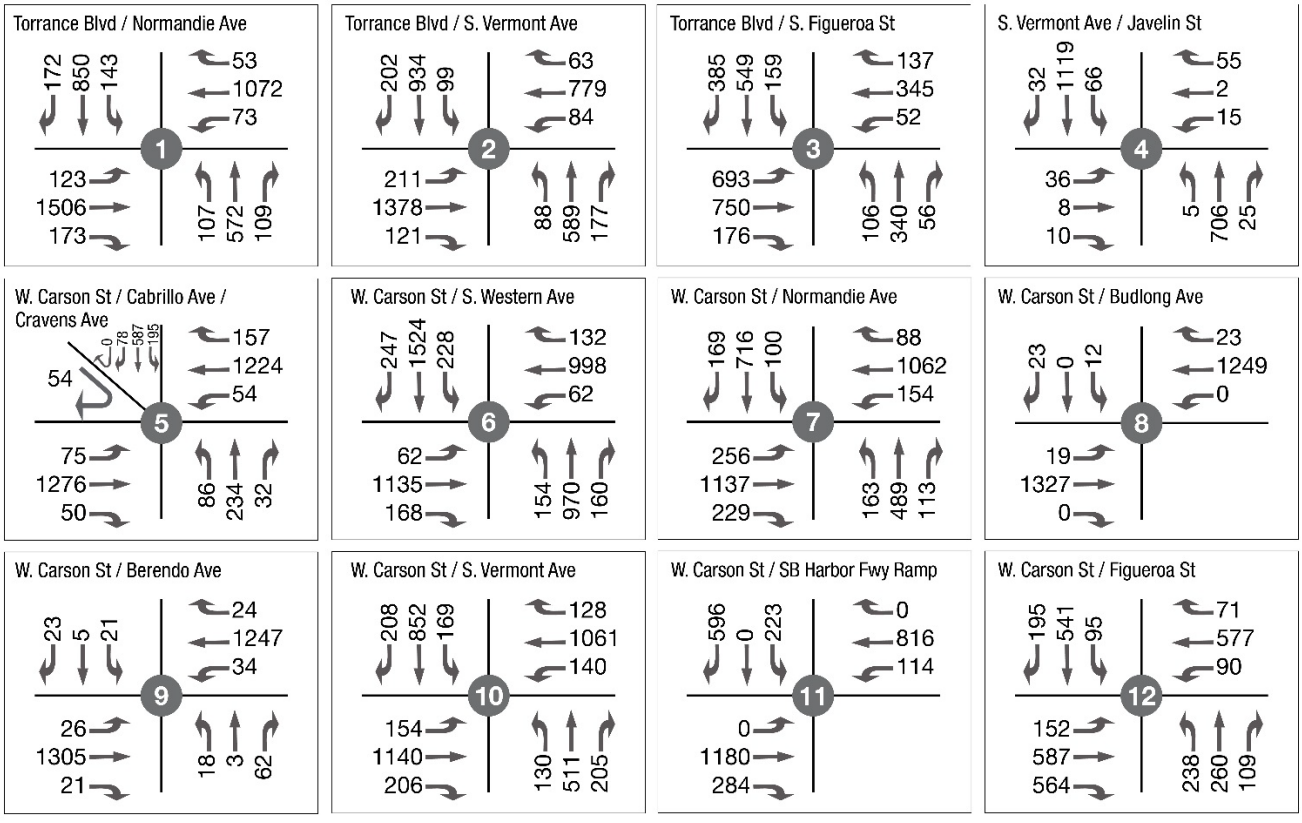


FIGURE 5.2: FUTURE YEAR (2035) NO PROJECT TURNING MOVEMENT VOLUMES – PM PEAK HOUR

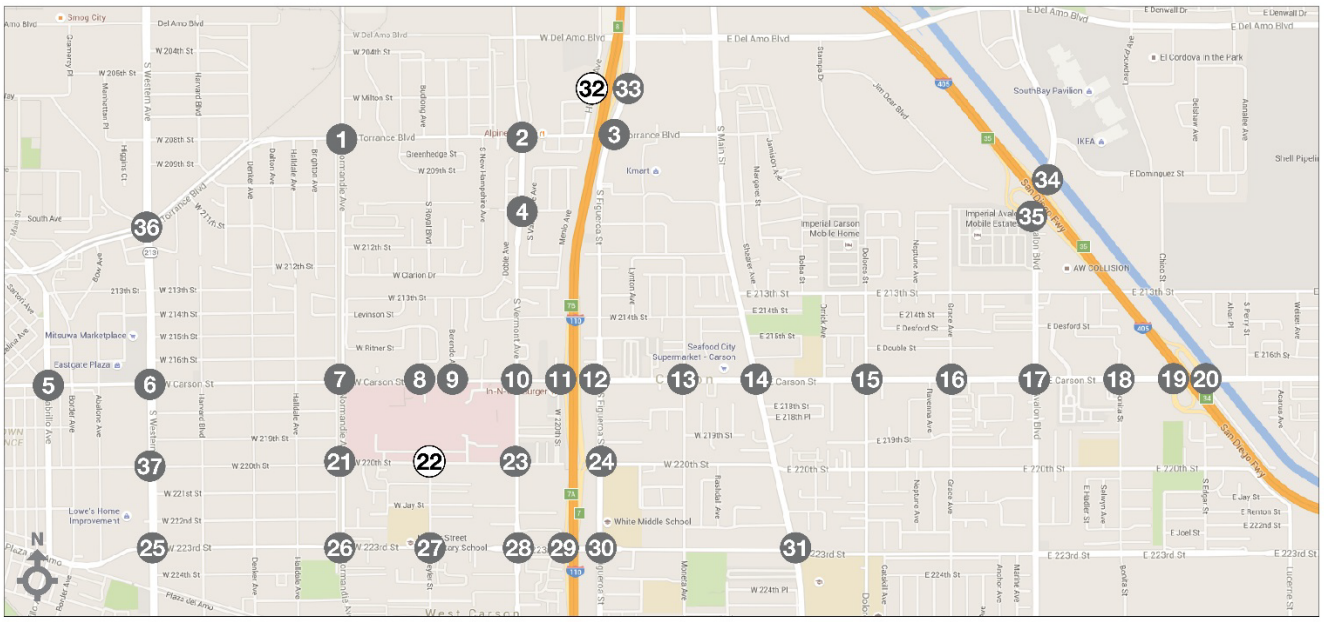


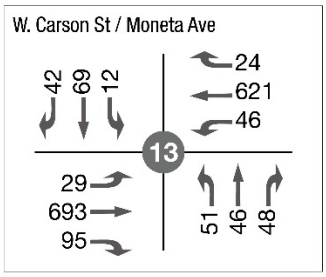


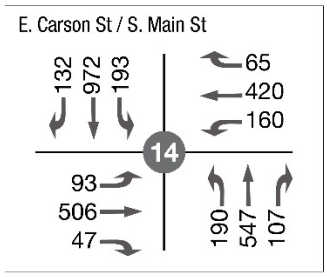
Legend

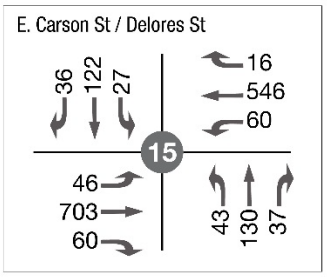
Signalized Intersection Unsignalized Intersection

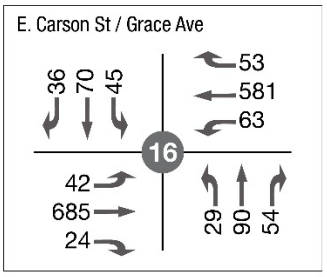
Lane Geometry

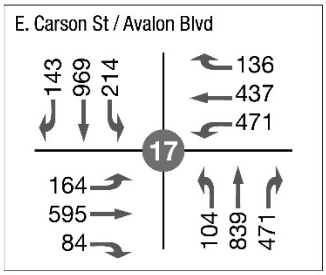


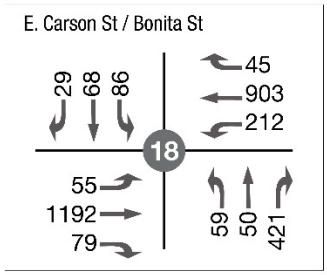


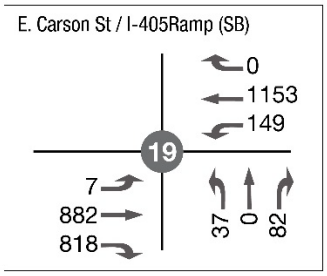


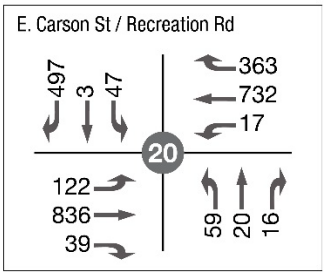


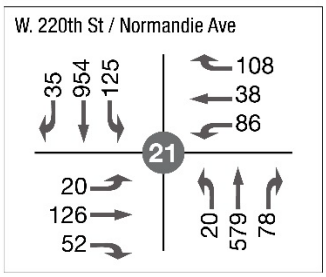


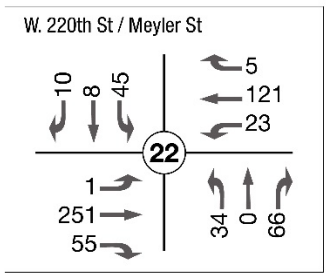


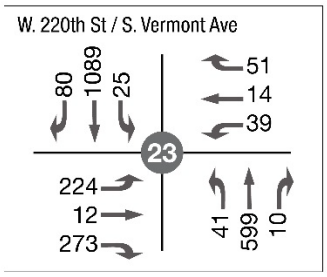


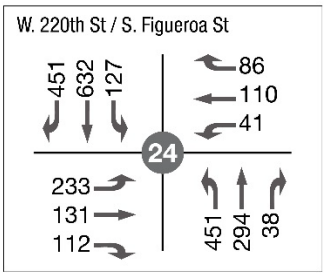






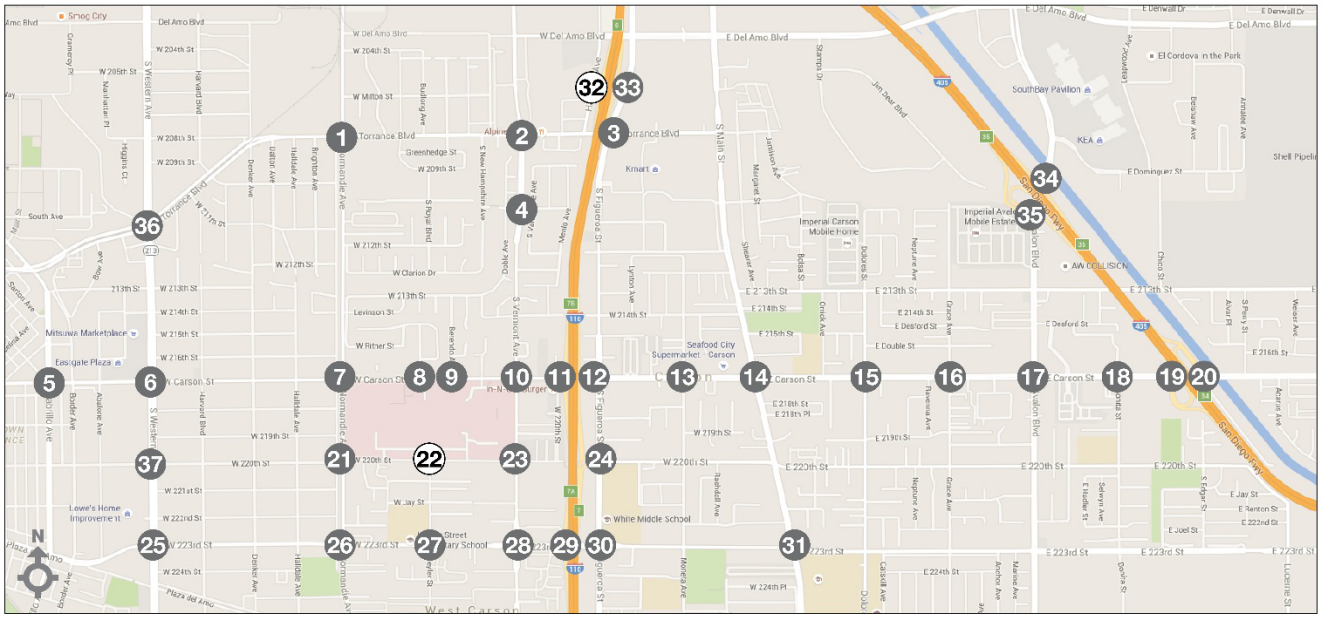






Legend

Signalized Intersection Unsignalized Intersection Lane Geometry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3
4
5
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8
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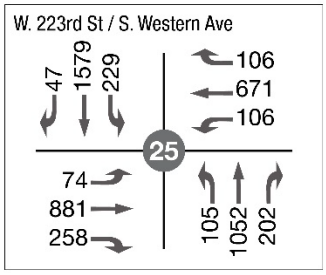
27
28
29
30
31
32
33
34
35
36
37
Torrance Blvd
W Carson St
Kmart
Seafood City Supermarket - Carson
Mitsuwa Marketplace
Eastgate Plaza
Lowe's Home Improvement
White Middle School
Imperial Carson Mobile Home Estates
AW COLLISION
El Cordova in the Park
SouthBay Pavilion
KEA
West Carson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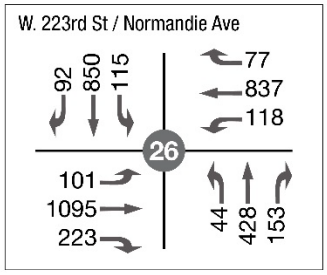
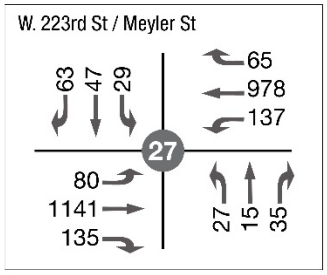
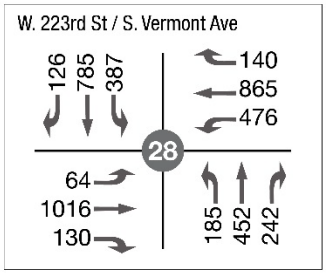
1579
229
106
671
106
25
74
881
258
105
1052
202


W. 223rd St / Normandie Ave
92
850
115
77
837
118
26
101
1095
223
44
428
153


W. 223rd St / Meyler St
63
47
29
65
978
137
27
80
1141
135
27
15
35


W. 223rd St / S. Vermont Ave
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785
387
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476
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64
1016
130
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452
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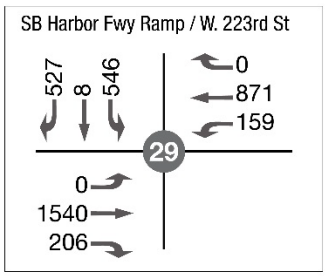
SB Harbor Fwy Ramp / W. 223rd St
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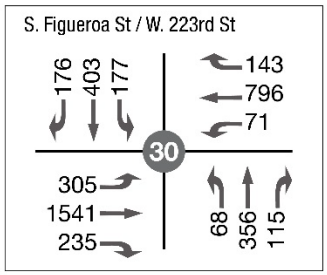
8
546
0
871
159
29
0
1540
206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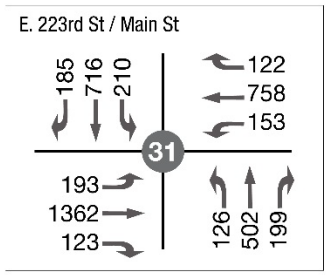
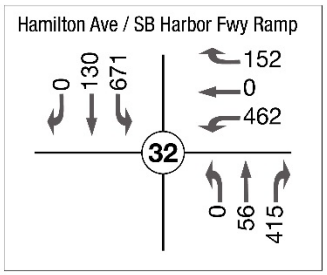
403
177
143
796
71
30
305
1541
235
68
356
115


E. 223rd St / Main St
185
716
210
122
758
153
31
193
1362
123
126
502
199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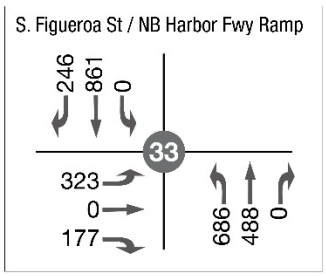
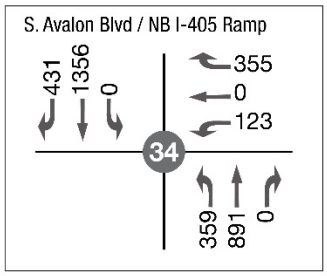
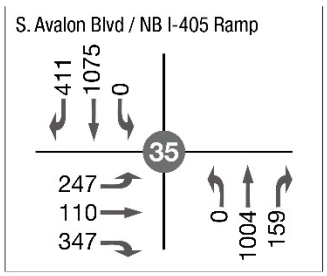
671
152
0
462
32
0
56
415


S. Figueroa St / NB Harbor Fwy Ramp
246
861
0
33
323
0
177
686
488
0


S. Avalon Blvd / NB I-405 Ramp
431
1356
0
355
0
123
34
359
891
0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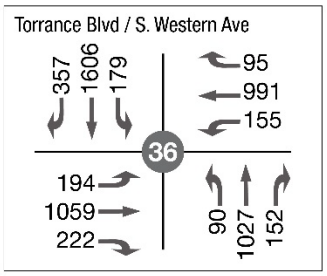
247
110
347
0
1004
159


Torrance Blvd / S. Western Ave
357
1606
179
95
991
155
36
194
1059
222
90
1027
152


Legend
Signalized Intersection
Unsignalized Intersection
Lane Geometry

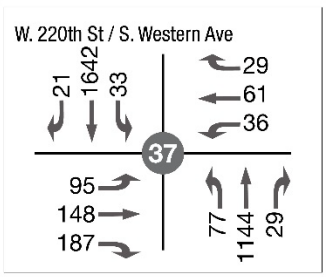

W. 220th St / S. Western Ave
21
1642
33
29
61
36
37
95
148
187
77
1144
29

TABLE 5.4: FUTURE YEAR (2035) NO PROJECT INTERSECTION LEVEL OF SERVICE

INTERSECTION		Jurisdiction	Analysis Method	Intersection Control	AM		PM	
					V/C or Delay (S)	LOS	V/C or Delay (S)	LOS
1	Normandie / Torrance	City of Los Angeles	CMA	Signalized	**1.065**	**F**	**1.113**	**F**
		County of Los Angeles	ICU	Signalized	-	-	-	-
2	Vermont / Torrance	County of Los Angeles	ICU	Signalized	-	-	-	-
3	Figueroa / Torrance	City of Carson	ICU	Signalized	0.756	C	0.754	C
4	Vermont / Javelin	County of Los Angeles	ICU	Signalized	-	-	-	-
5	Carson / Cabrillo / Cravens	City of Torrance	HCM	Signalized	20.7	C	22.1	C
6	Western / Carson	City of Torrance	HCM	Signalized	33.6	C	**56.9**	**E**
		City of Los Angeles	CMA	Signalized	**0.985**	**E**	**1.124**	**F**
		Caltrans	HCM	Signalized	33.6	C	**56.9**	**E**
7	Normandie / Carson	City of Los Angeles	CMA	Signalized	0.980	D	**1.013**	**F**
		County of Los Angeles	ICU	Signalized	-	-	-	-
8	Budlong / Carson	County of Los Angeles	ICU	Signalized	-	-	-	-
9	Berendo / Carson	County of Los Angeles	ICU	Signalized	-	-	-	-
10	Vermont / Carson	County of Los Angeles	ICU	Signalized	-	-	-	-
11	SB I-110 Ramps / Carson	County of Los Angeles	ICU	Signalized	-	-	-	-
		Caltrans	HCM	Signalized	**38.2**	**D**	31.6	C
12	Figueroa / Carson	City of Carson	ICU	Signalized	0.633	B	0.639	B
13	Moneta / Carson	City of Carson	ICU	Signalized	0.359	A	0.328	A
14	Main / Carson	City of Carson	ICU	Signalized	0.426	A	0.564	A
15	Dolores / Carson	City of Carson	ICU	Signalized	0.332	A	0.382	A
16	Grace / Carson	City of Carson	ICU	Signalized	0.317	A	0.390	A
17	Avalon / Carson	City of Carson	ICU	Signalized	0.770	C	0.824	D
18	Bonita / Carson	City of Carson	ICU	Signalized	0.648	B	0.822	D
19	SB I-405 Ramps / Carson	City of Carson	ICU	Signalized	0.554	A	0.656	B
		Caltrans	HCM	Signalized	7.9	A	8.7	A
20	NB I-405 Ramps / Carson	City of Carson	ICU	Signalized	0.623	B	0.653	B
		Caltrans	HCM	Signalized	14.2	B	13.8	B
21	Normandie / 220th	City of Los Angeles	CMA	Signalized	0.495	A	0.498	A
		County of Los Angeles	ICU	Signalized	-	-	-	-
22	Meyler / 220th	County of Los Angeles	ICU	AWSC	-	-	-	-
23	Vermont / 220th	County of Los Angeles	ICU	Signalized	-	-	-	-
24	Figueroa / 220th and NB I-110	City of Carson	ICU	Signalized	**0.981**	**E**	0.886	D
		Caltrans	HCM	Signalized	**65.6**	**E**	**58.3**	**E**
25	Western / 223rd	City of Torrance	HCM	Signalized	38.7	D	47.3	D
		City of Los Angeles	CMA	Signalized	**0.992**	**E**	**1.049**	**F**
		Caltrans	HCM	Signalized	**38.7**	**D**	**47.3**	**D**
26	Normandie / 223rd	City of Los Angeles	CMA	Signalized	0.821	D	0.787	C
		County of Los Angeles	ICU	Signalized	-	-	-	-
27	Meyler / 223rd	County of Los Angeles	ICU	Signalized	-	-	-	-
28	Vermont / 223rd	County of Los Angeles	ICU	Signalized	-	-	-	-
29	SB I-110 Ramps / 223rd	County of Los Angeles	ICU	Signalized	-	-	-	-
		Caltrans	HCM	Signalized	25.9	C	**46.7**	**D**
30	Figueroa / 223rd	City of Carson	ICU	Signalized	0.778	C	0.748	C
31	Main / 223rd	City of Carson	ICU	Signalized	0.727	C	0.824	D
32	SB I-110 Ramps / Hamilton	County of Los Angeles	ICU	AWSC	-	-	-	-
		Caltrans	HCM	AWSC	**78.0**	**F**	**184.2**	**F**
33	Figueroa / NB I-110 Ramps	City of Carson	ICU	Signalized	0.695	B	0.693	B
		Caltrans	HCM	Signalized	31.2	C	24.3	C
34	Avalon / NB I-405	City of Carson	ICU	Signalized	0.352	A	0.461	A
		Caltrans	HCM	Signalized	18.4	B	18.1	B
35	Avalon / SB I-405	City of Carson	ICU	Signalized	0.519	A	0.460	A
		Caltrans	HCM	Signalized	14.4	B	11.8	B
36	Western / Torrance	City of Torrance	HCM	Signalized	**55.1**	**E**	43.9	D
		City of Los Angeles	CMA	Signalized	**0.991**	**E**	**0.927**	**E**
		Caltrans	HCM	Signalized	**55.1**	**E**	**43.9**	**D**
37	Western / 220th	City of Torrance	HCM	Signalized	8.4	A	20.3	C
		City of Los Angeles	CMA	Signalized	0.666	B	**0.909**	**E**
		Caltrans	HCM	Signalized	8.4	A	20.3	C

AWSC = All Way Stop Control. **Bold and shaded** = Intersection operates at an unacceptable LOS using the methodology listed.

5.4 CMP MONITORING STATION ANALYSIS

The CMP monitoring station analysis results for the AM and PM peak hours are summarized in Table 5.5 and Table 5.6, respectively. The analysis was performed in accordance with the methodology outlined in Section 3.4.1. An unacceptable LOS (LOS F) is forecast at the following locations:

- I-110 at Manchester Boulevard
- I-405 at Santa Fe Avenue
- I-405 south of I-110
- I-405 north of Inglewood Avenue

5.5 FREEWAY MAINLINE ANALYSIS

The freeway mainline analysis results for the AM and PM peak hours are summarized in Table 5.7 and Table 5.8, respectively. The analysis was conducted using the methodology and settings outlined in Section 3.4.2. All freeway segments are forecast to operate at an unacceptable level of service (LOS D or worse).

5.6 FREEWAY OFF-RAMP QUEUE ANALYSIS

Per Caltrans traffic study guidelines, a queue analysis for freeway off-ramps at intersections of interest is to be provided. Table 5.5 summarizes the storage capacities and queue lengths expected for these off-ramps. All freeway off-ramps are forecast to provide sufficient storage capacity such that the 85% storage capacity is not exceeded by expected queues. The off-ramps evaluated in Future Year (2035) scenarios are listed below:

- Southbound I-110 Off-Ramp at Carson Street
- Southbound I-405 Off-Ramp at Carson Street
- Northbound I-405 Off-Ramp at Carson Street
- Northbound I-110 Off-Ramp/220th Street at Figueroa Street
- Southbound I-110 Off-Ramp at 223rd Street
- Southbound I-110 Off-Ramp at Hamilton Avenue
- Northbound I-110 Off-Ramp at Figueroa Street
- Northbound I-405 Off-Ramp at Avalon Boulevard
- Southbound I-405 Off-Ramp at Avalon Boulevard

5.7 VEHICLE MILES TRAVELED (VMT) ANALYSIS

VMT calculations were prepared based on the land use characteristics for the Future Year (2035) No Project scenario using the land use zoning outlined in Section 3.3. A summary of the results for this scenario are presented in Table 5.10.

TABLE 5.5: FUTURE YEAR (2035) NO PROJECT CMP MONITORING STATION ANALYSIS – AM PEAK HOUR

ID	Freeway	Segment	Station	Direction	Lanes	Capacity	Peak Hour Volume	V/C	LOS
1	I-110	at Wilmington Boulevard s/o C Street	1045	NB	4	8,000	4,898	0.612	C
				SB	4	8,000	3,577	0.447	B
2	I-110	at Manchester Boulevard	1046	NB	6	12,000	9,551	0.796	D
				SB	6	12,000	11,636	0.970	E
3	I-405	at Santa Fe Avenue	1066	**NB**	**5**	**10,000**	**11,675**	**1.168**	**F(0)**
				SB	**5**	**10,000**	**13,618**	**1.362**	**F(2)**
4	I-405	south of I-110	1067	**NB**	**5**	**10,000**	**10,211**	**1.021**	**F(0)**
				SB	5	10,000	8,378	0.838	D
5	I-405	north of Inglewood Avenue	1068	NB	5	10,000	9,096	0.910	D
				SB	**5**	**10,000**	**11,949**	**1.195**	**F(0)**
6	SR-91	east of Alameda Street/Santa Fe Avenue	1033	EB	6	12,000	8,986	0.749	C
				WB	6	12,000	6,533	0.544	C

Bold and shaded = Unacceptable evel of service (LOS F). Pc/mi/ln = passenger-car per mile per lane.

TABLE 5.6: FUTURE YEAR (2035) NO PROJECT CMP MONITORING STATION ANALYSIS – PM PEAK HOUR

ID	Freeway	Segment	Station	Direction	Lanes	Capacity	Peak Hour Volume	V/C	LOS
1	I-110	at Wilmington Boulevard s/o C Street	1045	NB	4	8,000	3,290	0.411	B
				SB	4	8,000	4,997	0.625	C
2	I-110	at Manchester Boulevard	1046	NB	6	12,000	10,499	0.875	D
				SB	**6**	**12,000**	**12,813**	**1.068**	**F(0)**
3	I-405	at Santa Fe Avenue	1066	**NB**	**5**	**10,000**	**10,490**	**1.049**	**F(0)**
				SB	**5**	**10,000**	**16,979**	**1.698**	**F(3)**
4	I-405	south of I-110	1067	NB	5	10,000	9,293	0.929	D
				SB	**5**	**10,000**	**10,597**	**1.060**	**F(0)**
5	I-405	north of Inglewood Avenue	1068	**NB**	**5**	**10,000**	**11,281**	**1.128**	**F(0)**
				SB	**5**	**10,000**	**11,703**	**1.170**	**F(0)**
6	SR-91	east of Alameda Street/Santa Fe Avenue	1033	EB	6	12,000	8,581	0.715	C
				WB	6	12,000	6,914	0.576	C

Bold and shaded = Unacceptable evel of service (LOS F). Pc/mi/ln = passenger-car per mile per lane.

TABLE 5.7: FUTURE YEAR (2035) NO PROJECT FREEWAY MAINLINE ANALYSIS SUMMARY – AM PEAK HOUR

ID	Freeway	Location	Direction	Density (pc/mi/ln)	LOS
1	SR-91	at Avalon Boulevard	EB	15.9	B
			WB	**27.9**	**D**
2	I-110	at SR-1 (Pacific Coast Highway)	NB	**28.6**	**D**
			SB	19.5	C
3	I-110	at Sepulveda Boulevard	NB	**37.6**	**E**
			SB	23.8	C
4	I-110	at El Segundo Boulevard	NB	**27.6**	**D**
			SB	**36.9**	**E**
5	I-405	at I-710	NB	**63.0**	**F**
			SB	**48.9**	**F**
6	I-405	south of I-110 (Carson Scales)	NB	**29.4**	**D**
			SB	22.4	C
7	I-405	at Western Avenue	NB	**31.0**	**D**
			SB	**32.9**	**D**

Bold and shaded = Unacceptable evel of service (LOS D or w orse). Pc/mi/ln = passenger-car per mile per lane.

TABLE 5.8: FUTURE YEAR (2035) NO PROJECT FREEWAY MAINLINE ANALYSIS SUMMARY – PM PEAK HOUR

ID	Freeway	Location	Direction	Density (pc/mi/ln)	LOS
1	SR-91	at Avalon Boulevard	EB	24.3	C
			WB	18.6	C
2	I-110	at SR-1 (Pacific Coast Highway)	NB	18.2	C
			SB	**28.3**	**D**
3	I-110	at Sepulveda Boulevard	NB	22.3	C
			SB	**35.1**	**E**
4	I-110	at El Segundo Boulevard	NB	**26.5**	**D**
			SB	**36.0**	**E**
5	I-405	at I-710	NB	**45.5**	**F**
			SB	**127.4**	**F**
6	I-405	south of I-110 (Carson Scales)	NB	25.8	C
			SB	**31.1**	**D**
7	I-405	at Western Avenue	NB	**33.8**	**D**
			SB	**39.3**	**E**

Bold and shaded = Unacceptable evel of service (LOS D or w orse). Pc/mi/ln = passenger-car per mile per lane.

TABLE 5.9: FUTURE YEAR (2035) NO PROJECT QUEUE ANALYSIS

ID	Ramp	Cross Street	Ramp Length (ft) [a]	85% Ramp Length (ft)	Ramp Turn Lanes at Intersection			AM Queue		PM Queue		Queue Exceeds 85% Storage?	
					Lanes	Movement	Length [a]	Lane (ft)	Max (ft)	Lane (ft)	Max (ft)	AM	PM
11	I-110 Southbound Off-Ramp	Carson Street	980	830	2	Left	980	66	577	111	390	No	No
						Right	380	577		390			
19	I-405 Southbound Off-Ramp	Carson Street	1,100	940	2	Left	660	44	44	30	30	No	No
						Right	1,100	43		23			
20	I-405 Northbound Off-Ramp	Carson Street	1,200	1,020	2	Through/Left	1,200	28	172	34	157	No	No
						Right	620	172		157			
24	I-110 Northbound Off-Ramp	Figueroa Street	1,150	980	2	Through/Left	1,150	503	503	512	512	No	No
						Right	530	18		41			
29	I-110 Southbound Off-Ramp	223rd Street	935	800	2	Through/Left	935	314	314	526	526	No	No
						Right/Through	405	314		526			
32	I-110 Southbound Off-Ramp	Hamilton Avenue	890	760	3	Left	890	448	448	85	85	No	No
						Left	355	448		85			
						Right	40	48		23			
33	I-110 Northbound Off-Ramp	Figueroa Street	880	750	2	Left	880	484	484	198	198	No	No
						Right/Left	340	271		85			
34	I-405 Northbound Off-Ramp	Avalon Boulevard	980	830	3	Left	980	29	268	44	200	No	No
						Through/Left	320	29		44			
						Right	320	268		200			
35	I-405 Southbound Off-Ramp	Avalon Boulevard	390	330	5	Left	390	75	266	54	176	No	No
						Left	390	75		54			
						Through	390	3		28			
						Through	390	3		28			
						Right	240	266		176			

[a] = Length measured from scaled aerial images.

TABLE 5.10: FUTURE YEAR (2035) NO PROJECT VMT SUMMARY

Land Use	Average Daily Trip Rate			Annual VMT	Population / Employees	Annual VMT Per Capita
	Weekday	Saturday	Sunday			
Apartments (Mid-Rise)	2,912.70	2,798.82	2,566.68	**9,728,632**	**1,217**	**7,994**
General Light Industry	1,674.33	317.09	163.35	**5,599,941**	**197**	**28,426**
General Office Building	1,028.88	229.47	97.94	**2,518,172**	**164**	**15,355**
Hospital	25,664.51	19,762.84	17,297.34	**91,594,680**	**6,116**	**14,976**
Single Family Housing	11,633.44	12,110.02	10,533.64	**39,448,998**	**3,725**	**10,590**
Strip Mall	18,587.36	17,631.16	8,568.14	**32,381,116**	**427**	**75,834**
Unrefrigerated Warehouse - No Rail	640.11	640.11	640.11	**2,743,346**	**303**	**9,054**
Total	**62,141.33**	**53,489.51**	**39,867.20**	**184,014,885**	**12,149**	**162,229**

6 PROJECT TRAFFIC

A description of the methods utilized to generate, distribute, and assign project-generated traffic to intersections within the study area are presented in this section.

6.1 TRIP GENERATION

The trip generation for the West Carson Traffic Study has been estimated using rates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition. The trip generation rates and the forecast trip volumes for the proposed land uses are in line with the land uses used to generate the VMT in CalEEMod.

The proposed project volumes were calculated by subtracting the generated trips under the existing land use from the proposed land use zoning. In order to account for pass-by, internal capture, and/or TDM reductions in the development of project volumes, the reductions were first applied to the existing and proposed land uses (if applicable); the difference in trips generated was then taken again, resulting in the project (net) trips with the reductions already accounted for.

The project is expected to generate 29,488 daily trips, with 2,989 trips (2,178 inbound / 811 outbound) during the AM peak hour and 2,745 trips (826 inbound / 1,919 outbound). The trip generation for the existing land use zoning, proposed land use zoning, and project are presented in the tables below:

TABLE 6.1: PEAK HOUR TRIP GENERATION RATES

Land Use	Land Use Subtype	ITE Code	Units	Daily	AM			PM		
					In	Out	Total	In	Out	Total
Industrial	General Light Industry	110	1000 Sq. Feet	6.97	0.88	0.12	0.92	0.12	0.88	0.97
Industrial	Unrefrigerated Warehouse - No Rail	152	1000 Sq. Feet	1.68	0.69	0.31	0.11	0.31	0.69	0.12
Residential	Single - Family	210	Dwelling Units	9.52	0.25	0.75	0.75	0.63	0.37	1.00
Residential	Multi - Family	223	Dwelling Units	6.65	0.31	0.69	0.30	0.58	0.42	0.39
Commercial	Hospital	610	1000 Sq. Feet	13.22	0.63	0.37	0.95	0.38	0.62	0.93
Commercial	General Office Building	710	1000 Sq. Feet	11.03	0.88	0.12	1.56	0.17	0.83	1.49
Retail	Strip Mall	826	1000 Sq. Feet	44.32	0.56	0.44	1.99	0.44	0.56	2.71

TABLE 6.2: EXISTING LAND USE PEAK HOUR TRIP GENERATION

Land Use	Land Use Subtype	Unit Amount	Units	Daily	AM			PM		
					In	Out	Total	In	Out	Total
Industrial	General Light Industry	188.560	1000 Sq. Feet	1,314	152	21	173	22	161	183
Industrial	Unrefrigerated Warehouse - No Rail	299.074	1000 Sq. Feet	502	23	10	33	11	25	36
Residential	Single - Family	959	Dwelling Units	9,130	180	539	719	604	355	959
Residential	Multi - Family	344	Dwelling Units	2,288	32	71	103	78	56	134
Commercial	Hospital	66.289	1000 Sq. Feet	876	40	23	63	24	38	62
Commercial	General Office Building	73.221	1000 Sq. Feet	808	100	14	114	19	90	109
Retail	Strip Mall	329.191	1000 Sq. Feet	14,590	367	288	655	392	500	892
			Total	29,508	894	966	1,860	1,150	1,225	2,375

TABLE 6.3: PROPOSED LAND USE PEAK HOUR TRIP GENERATION

Land Use	Land Use Subtype	Unit Amount	Units	Daily	AM			PM		
					In	Out	Total	In	Out	Total
Industrial	General Light Industry	571.952	1000 Sq. Feet	3,987	463	63	526	67	488	555
Industrial	Unrefrigerated Warehouse - No Rail	0	1000 Sq. Feet	0	0	0	0	0	0	0
Residential	Single - Family	939	Dwelling Units	8,939	176	528	704	592	347	939
Residential	Multi - Family	2,637	Dwelling Units	17,536	245	546	791	596	432	1,028
Commercial	Hospital	0	1000 Sq. Feet	0	0	0	0	0	0	0
Commercial	General Office Building	1,335.076	1000 Sq. Feet	14,726	1,833	250	2,083	338	1,651	1,989
Retail	Strip Mall	754.295	1000 Sq. Feet	33,430	841	660	1,501	899	1,145	2,044
			Total	78,618	3,558	2,047	5,605	2,492	4,063	6,555

TABLE 6.4: PROJECT (NET) PEAK HOUR TRIP GENERATION

Land Use	Land Use Subtype	Unit Amount	Units	Daily	AM			PM		
					In	Out	Total	In	Out	Total
Industrial	General Light Industry	383.392	1000 Sq. Feet	2,673	311	42	353	45	327	372
Industrial	Unrefrigerated Warehouse - No Rail	-299.074	1000 Sq. Feet	-502	-23	-10	-33	-11	-25	-36
Residential	Single - Family	-20	Dwelling Units	-191	-4	-11	-15	-12	-8	-20
Residential	Multi - Family	2,293	Dwelling Units	15,248	213	475	688	518	376	894
Commercial	Hospital	-66.289	1000 Sq. Feet	-876	-40	-23	-63	-24	-38	-62
Commercial	General Office Building	1,261.855	1000 Sq. Feet	13,918	1,733	236	1,969	319	1,561	1,880
Retail	Strip Mall	425.104	1000 Sq. Feet	18,840	474	372	846	507	645	1,152
			Total	49,110	2,664	1,081	3,745	1,342	2,838	4,180

A summary of the unreduced trip generation for the existing and proposed land use zoning in addition to the project (net) trips is provided in Table 6.5 below:

TABLE 6.5: UNREDUCED PROJECT PEAK HOUR TRIP GENERATION SUMMARY TABLE

Land Use Zoning	Daily	AM			PM		
		In	Out	Total	In	Out	Total
Existing	29,508	894	966	1,860	1,150	1,225	2,375
Proposed	78,618	3,558	2,047	5,605	2,492	4,063	6,555
Project (Net)	49,110	2,664	1,081	3,745	1,342	2,838	4,180

Due to the characterization of the proposed rezoning as a transit oriented development (TOD) project, it was deemed appropriate to apply trip reduction factors to the trips presented in Table 6.5. The project trips were reduced by 1) removing pass-by trips per land use, 2) performing internal trip capture calculations for suitable mixed-use zones, and by 3) applying appropriate traffic demand management (TDM) reductions. Additionally, it was deemed appropriate to only

apply the pass-by and internal capture reductions to the existing land use zoning trip generation; all three reductions were considered appropriate to be applied to the proposed land use zoning.

Trip types by land use provided within CalEEMod are presented in Table 6.6 below:

TABLE 6.6: TRIP TYPE BY LAND USE (%)

Land Use	Primary	Diverted	Pass-By
Apartments Mid Rise	86	11	3
General Light Industry	92	5	3
General Office Building	77	19	4
Hospital	73	25	2
Single Family Housing	86	11	3
Unrefrigerated Warehouse-No Rail	92	5	3
Strip Mall	45	40	15

With regards to the internal trip capture rates, it should be noted that internal trip capture rates were only applied to the total PM peak hour and Daily trips – the ITE Trip Generation Manual does not specify internal trip capture rates for origins or destinations within a mixed-use development during the AM peak hour. Furthermore, the internal capture rates were applied only to those trips between the Residential (single-family and multi-family), Service (General Office Building), and Retail (Strip Mall) land use types within the study area. Internal trip capture rates for the PM peak hour and Daily trips are presented in Table 6.7.

TABLE 6.7: INTERNAL TRIP CAPTURE RATES

Land Use Zoning	PM	Daily
Existing	16%	18%
Proposed	17%	21%

The TDM reduction was performed in accordance with planned community improvements in preliminary concepts of the *West Carson Transit Oriented Development Specific Plan* as well as methods provided in *Quantifying Greenhouse Gas Mitigation Measures*, California Air Pollution Control Officers Association (CAPCOA) 2010. The pertinent mitigation measures and their respective range of effectiveness listed in the report are summarized in Table 6.8.

TABLE 6.8: TRIP REDUCTION MEASURES AND RANGE OF EFFECTIVENESS

Measure Number	Measure	Range of Effectiveness			Notes
Land Use / Location					
LUT-2	Increase Location Efficiency	10.0%	to	65.0%	
LUT-3	Increase Diversity (Mixed-Use)	9.0%	to	30.0%	
LUT-6	Integrate Affordbale and Below Market Rate Housing	0.04%	to	1.2%	
LUT-9	Improve Design of Development	3.0%	to	21.3%	Improved design elements to enhance walkability and connectivity.
Neighborhood / Site Improvements					
SDT-1	Provide Pedestrian Network Improvements	0.0%	to	2.0%	
SDT-6	Provide Bike Parking in Non-Residential Projects	-	to	-	Grouped strategy (See LUT-9).
SDT-7	Provide Bike Parking in Multi-Unit Residential Projects	-	to	-	Grouped strategy (See LUT-9).

A TDM trip reduction rate of 10% was deemed appropriate based on the study area size, project size, project characteristics, and measures listed in Table 6.8. The resultant project trip generations is summarized in Table 6.9 below:

TABLE 6.9: PROJECT TRIP GENERATION SUMMARY TABLE

Land Use Zoning	Daily	AM			PM		
		In	Out	Total	In	Out	Total
Existing	29,508	894	966	1,860	1,150	1,225	2,375
Proposed	78,618	3,558	2,047	5,605	2,492	4,063	6,555
Project (Net)	49,110	2,664	1,081	3,745	1,342	2,838	4,180
Project (Internal Capture Reduction)	38,264	2,664	1,081	3,745	1,105	2,390	3,495
Project (Pass-By Reduction)	35,265	2,511	1,001	3,512	1,018	2,241	3,259
Project (TDM Reduction)	29,488	2,178	811	2,989	826	1,919	2,745

6.2 TRIP DISTRIBUTION

The project trip distribution developed for this study is similar to that shown in the Traffic Impact Analysis for the Harbor-UCLA Medical Center Master Plan Project; the distribution was established in consultation with County staff. Additionally, a regional select zone analysis using the SCAG Regional Model reinforces the distribution for this study. The project trip distribution is based on the following assumptions:

- 15% of the project traffic is generated by local trips to and from the east.
- 20% of the project traffic is generated by local trips to and from the west.
- 10% of the project traffic is generated by trips to the north on I-110.
- 15% of the project traffic is generated by trips to the south on I-110.
- 15% of the project traffic is generated by trips to/from the north on I-405 utilizing I-110 to access the project location.
- 15% of the project traffic is generated by SR-91 vehicle trips utilizing I-110 to access the project location.
- 10% of the project traffic is generated by trips to/from the south on I-405 utilizing Carson Street and I-110 to access the project location.

The aforementioned distribution of project trips is depicted in Figure 6.1. Figures 6.2 – 6.4 provide more detailed representations of this distribution. Figure 6.2 presents the inbound and outbound distribution percentages; Figure 6.3 presents the AM peak hour turning movement volumes; Figure 6.4 presents the PM peak hour turning movement volumes.

6.3 AVERAGE DAILY TRAFFIC

The average daily traffic generated by the project at segments of interest are listed in Table 6.10. The project ADT for Segment 6 is taken to be zero due to the increase in traffic being accounted for in the growth of traffic from the existing year to future year conditions. The project trip distribution was performed in a manner such that trips currently being made are accounted for only once (in the growth of Existing Year (2016) No Project to Future Year (2035) No Project trips).

TABLE 6.10: PROJECT TRIP AVERAGE DAILY TRAFFIC SUMMARY TABLE

ID	Segment	Project ADT
1	Carson Street west of Berendo Avenue	5,894
2	Carson Street east of Vermont Avenue	17,680
3	Carson Street east of Figueroa Street	5,894
4	Carson Street west of Normandie Avenue	4,420
5	Normandie Avenue north of Carson Street	246
6	Normandie Avenue south of Carson Street	0
7	Vermont Avenue south of Javelin Street	10,804
8	Vermont Avenue south of Carson Street	5,893
9	Vermont Avenue south of 223rd Street	5,894
10	Figueroa Street south of Carson Street	6,384

FIGURE 6.1: PROJECT TRIP DISTRIBUTION

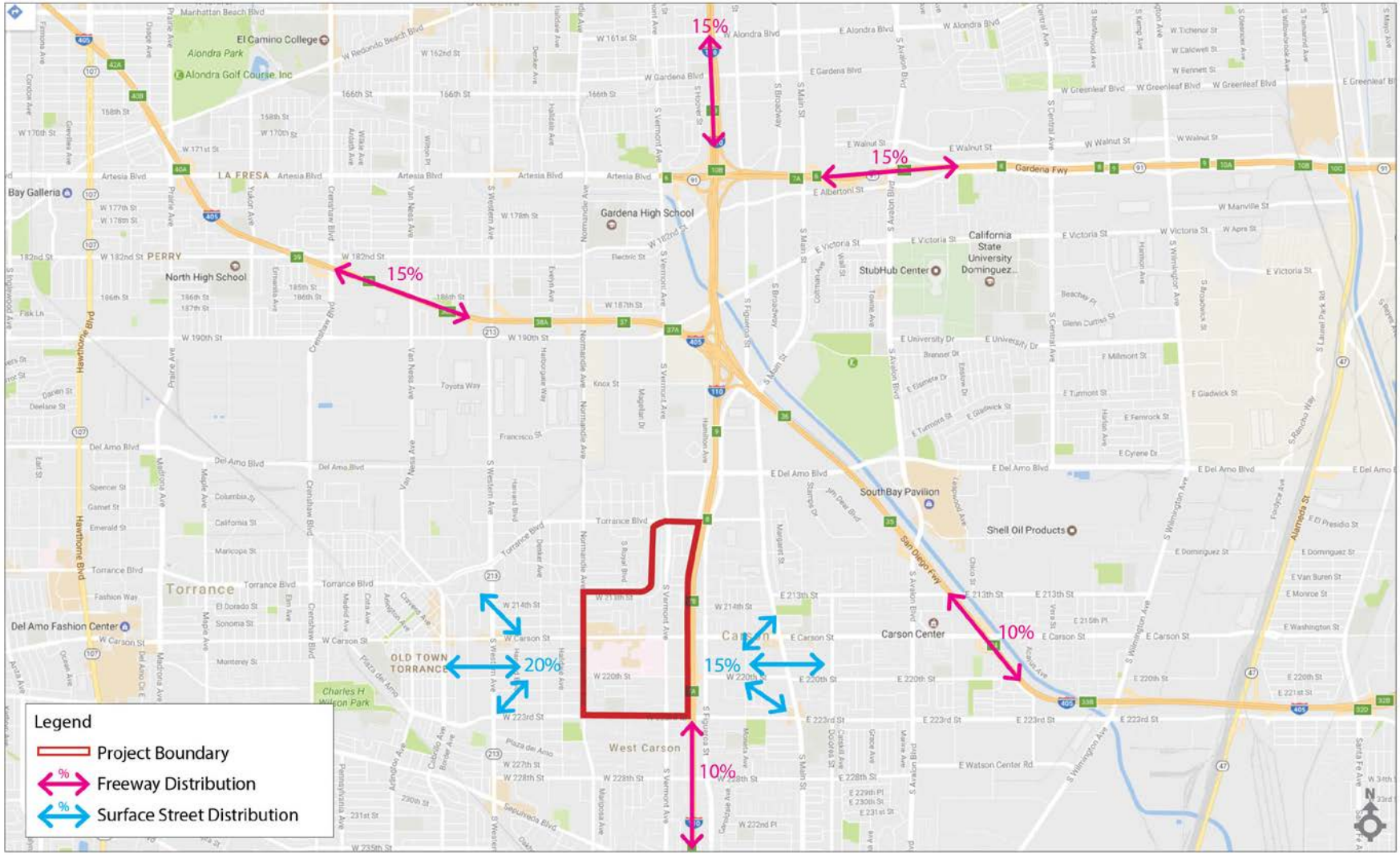
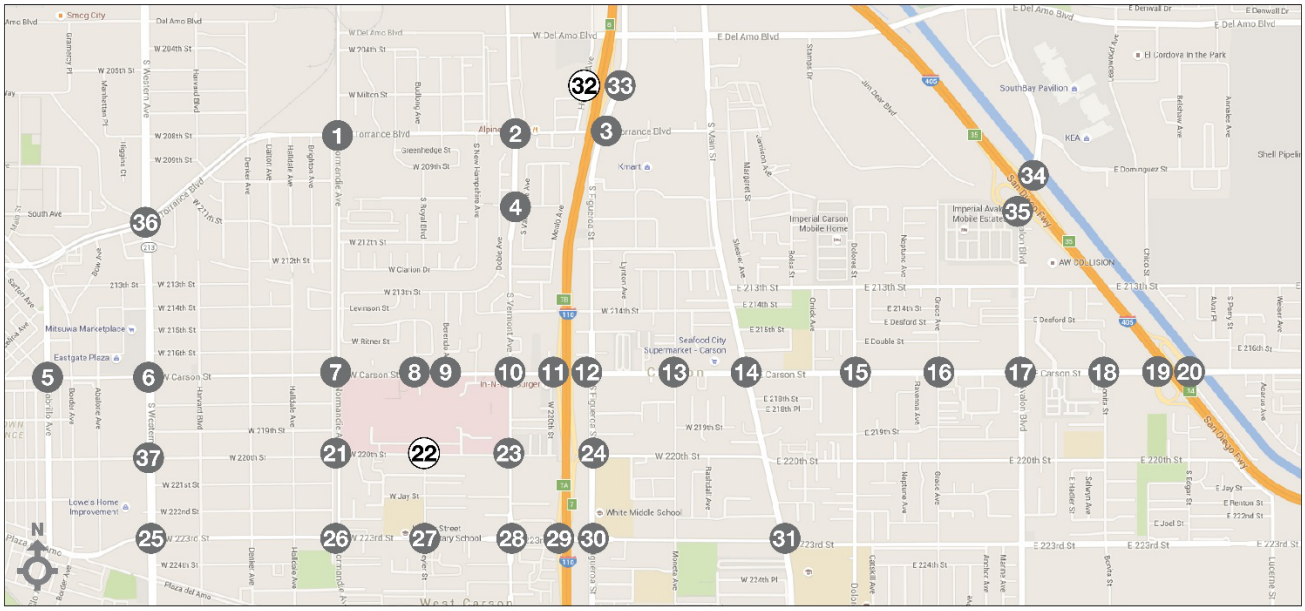
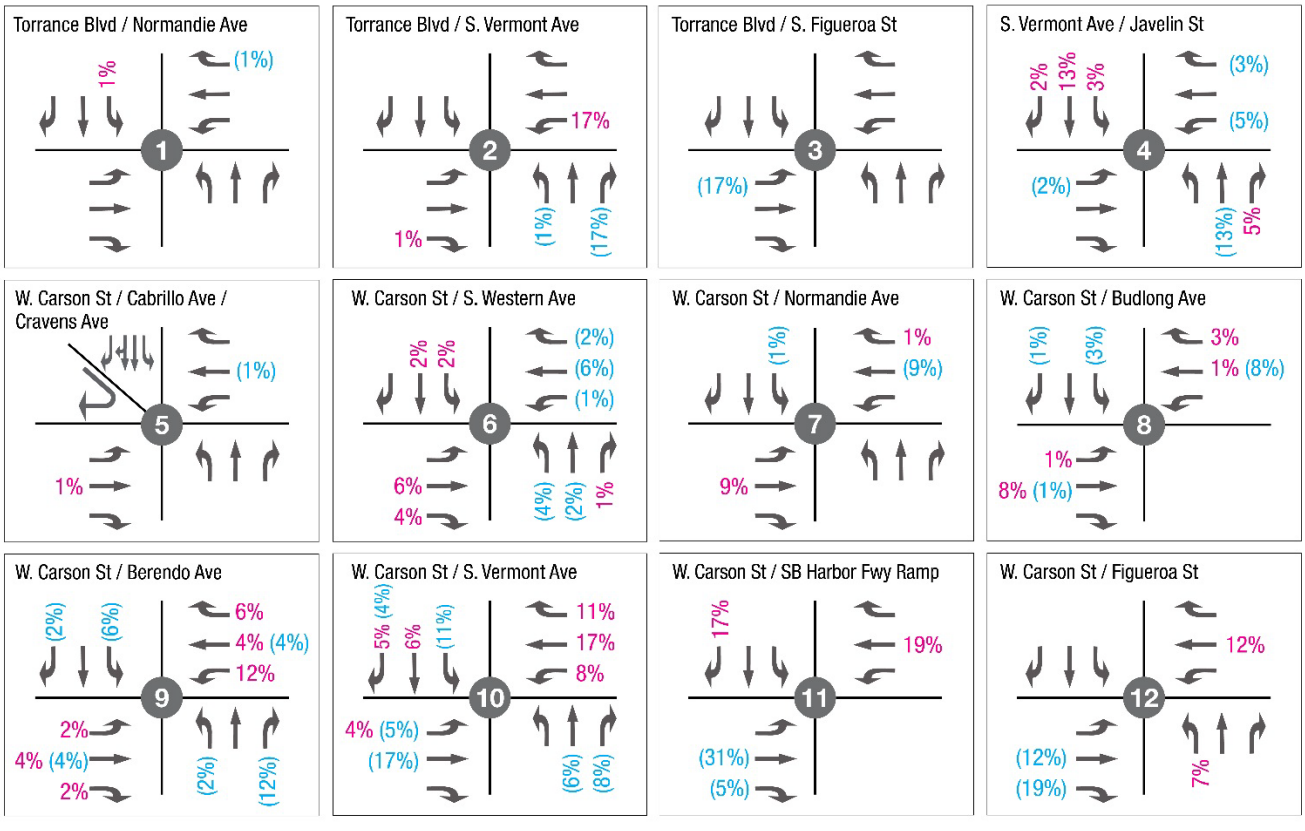


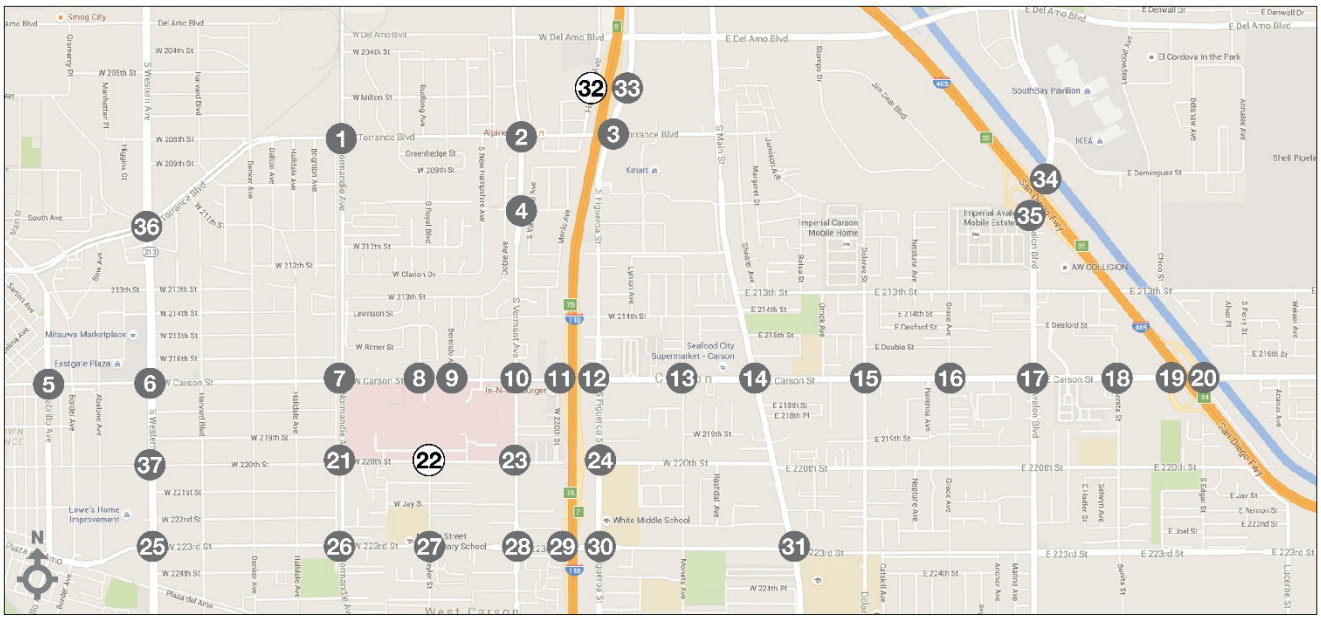
FIGURE 6.2: PROJECT TRIP ASSIGNMENT

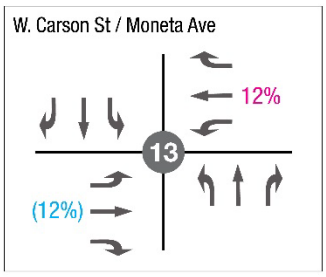


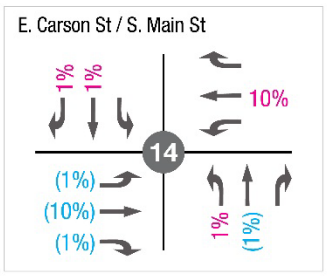


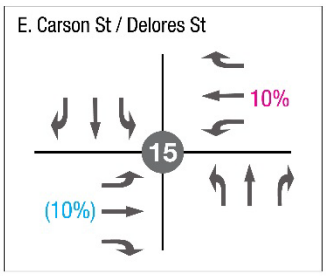
Legend

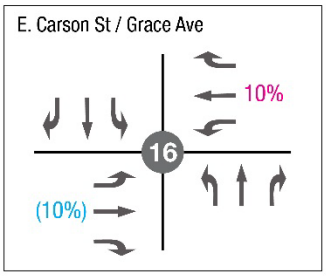
- Signalized Intersection
- Unsignalized Intersection
- Lane Geometry
- (#%) Outbound Volumes
- #% Inbound Volumes

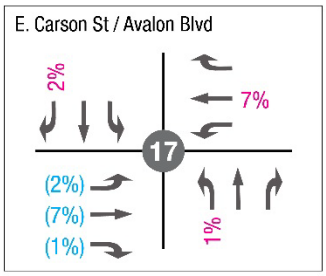


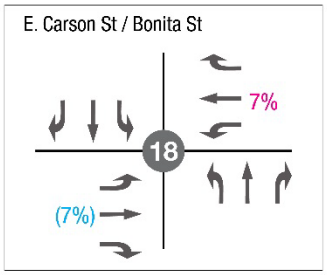


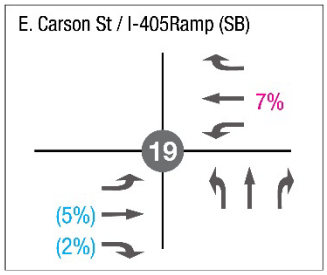


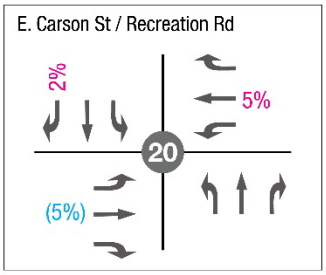


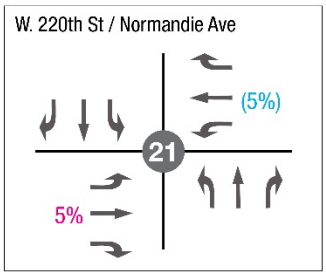


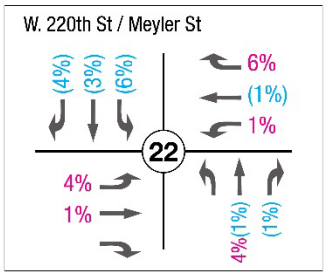


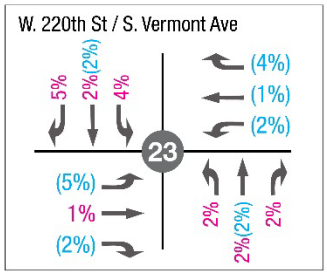


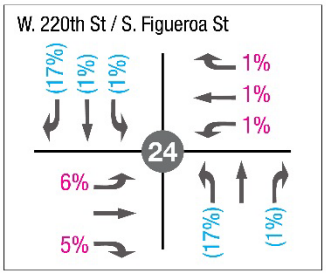












Legend

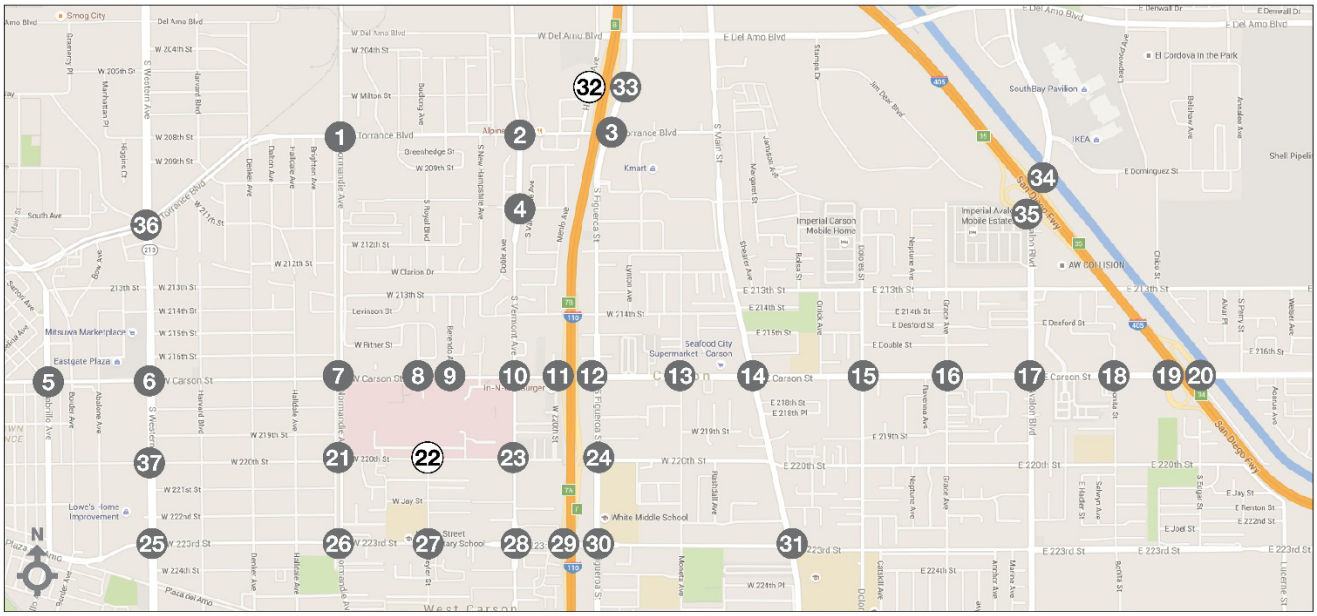
Signalized Intersection

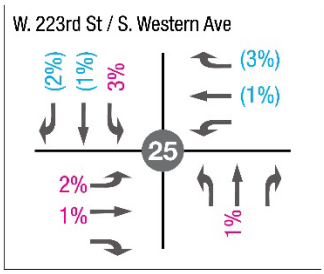
Unsignalized Intersection

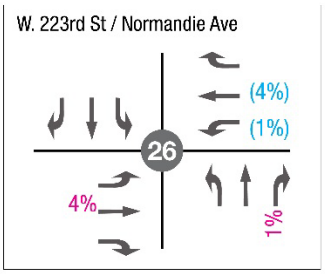
Lane Geometry

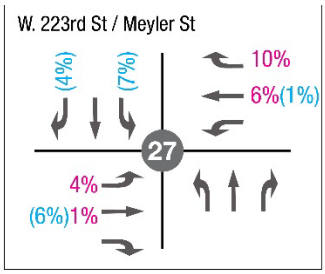
(#%) Outbound Volumes

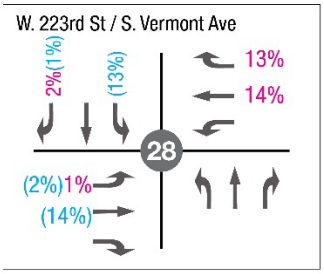
#% Inbound Volumes

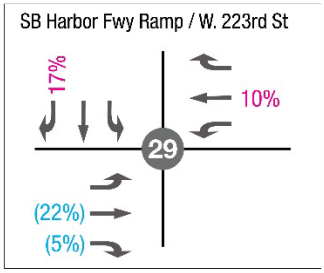


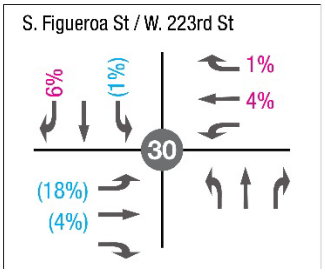


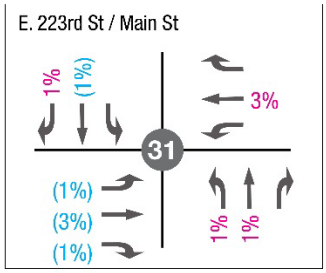


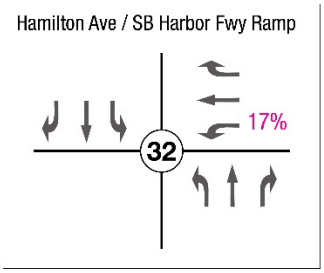


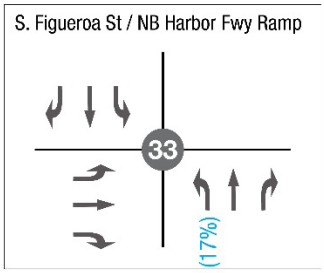


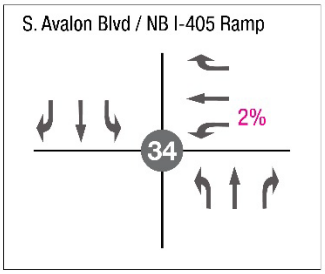


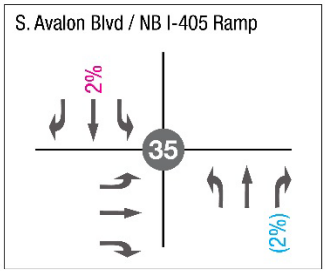


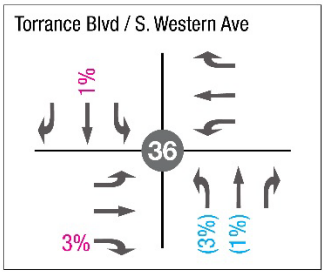












Legend

Signalized Intersection

Unsignalized Intersection

Lane Geometry

(#%) Outbound Volumes

#% Inbound Volumes

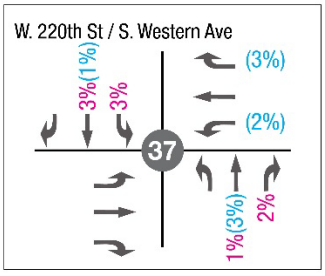
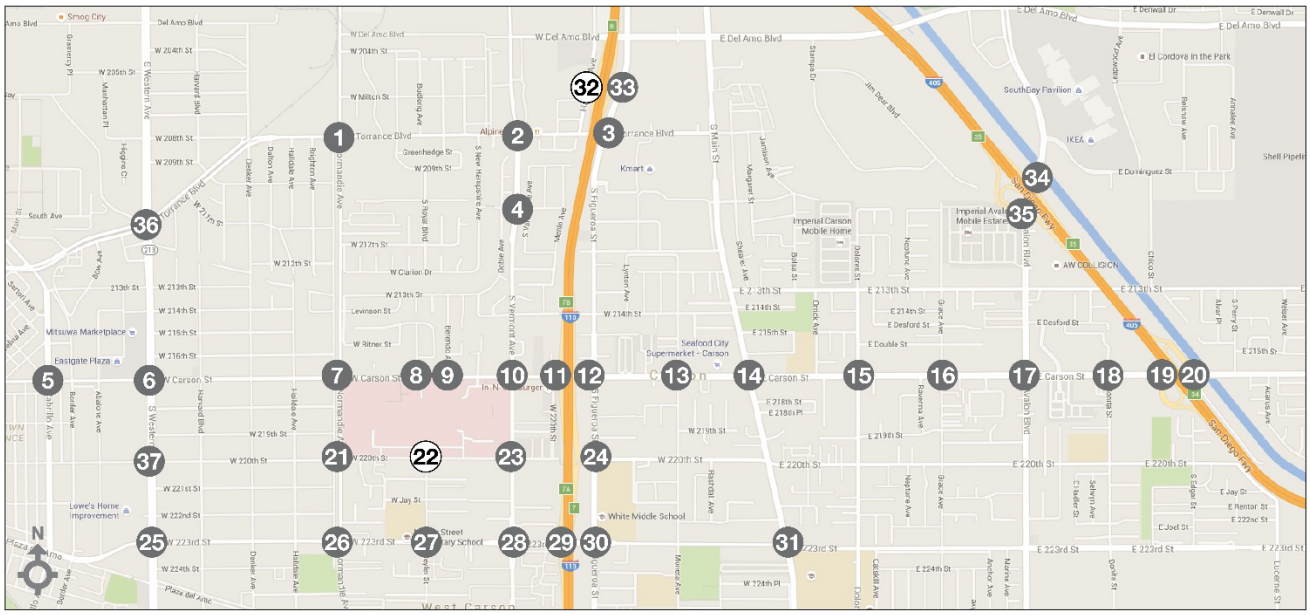
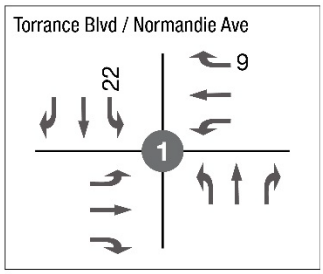
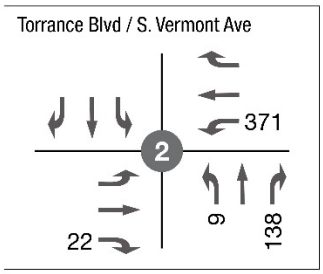
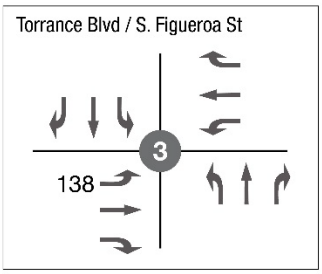


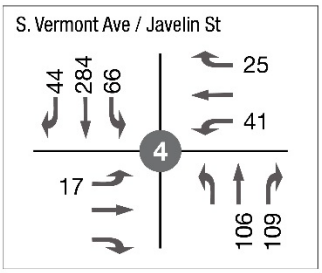
FIGURE 6.3: PROJECT TURNING MOVEMENT VOLUMES – AM PEAK HOUR

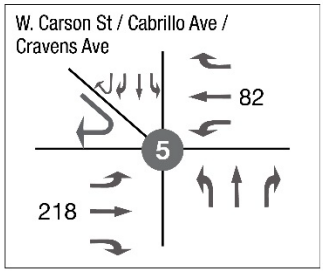


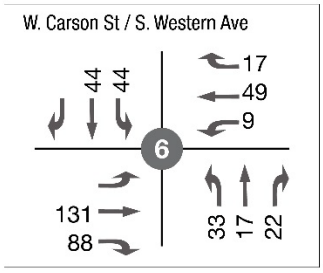


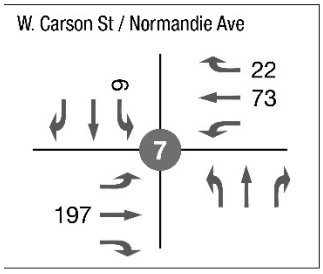


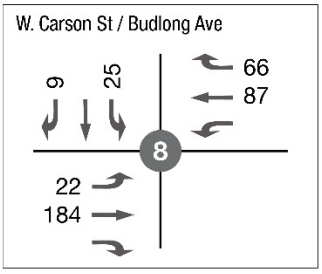


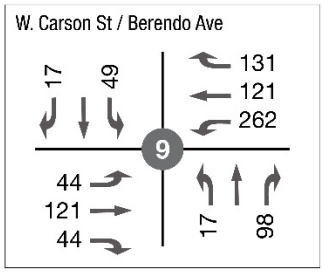


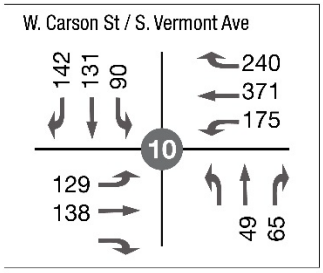


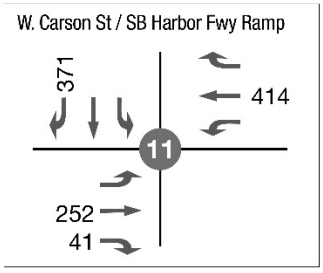


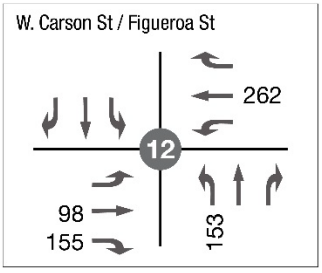






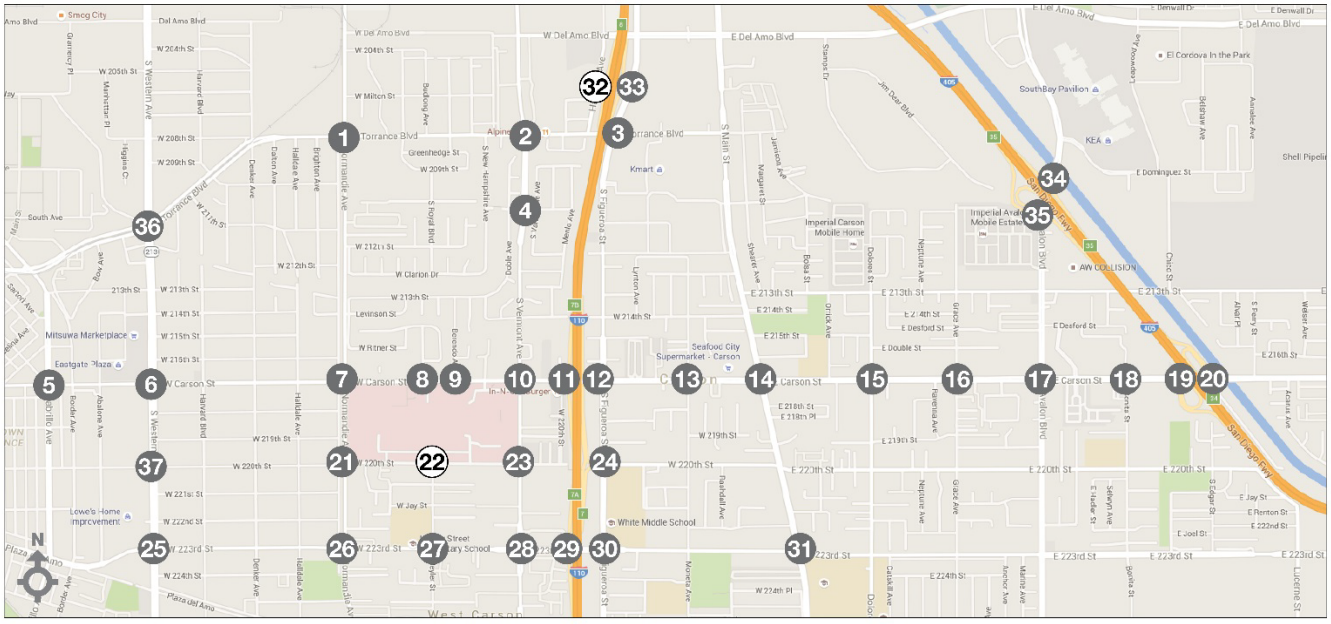


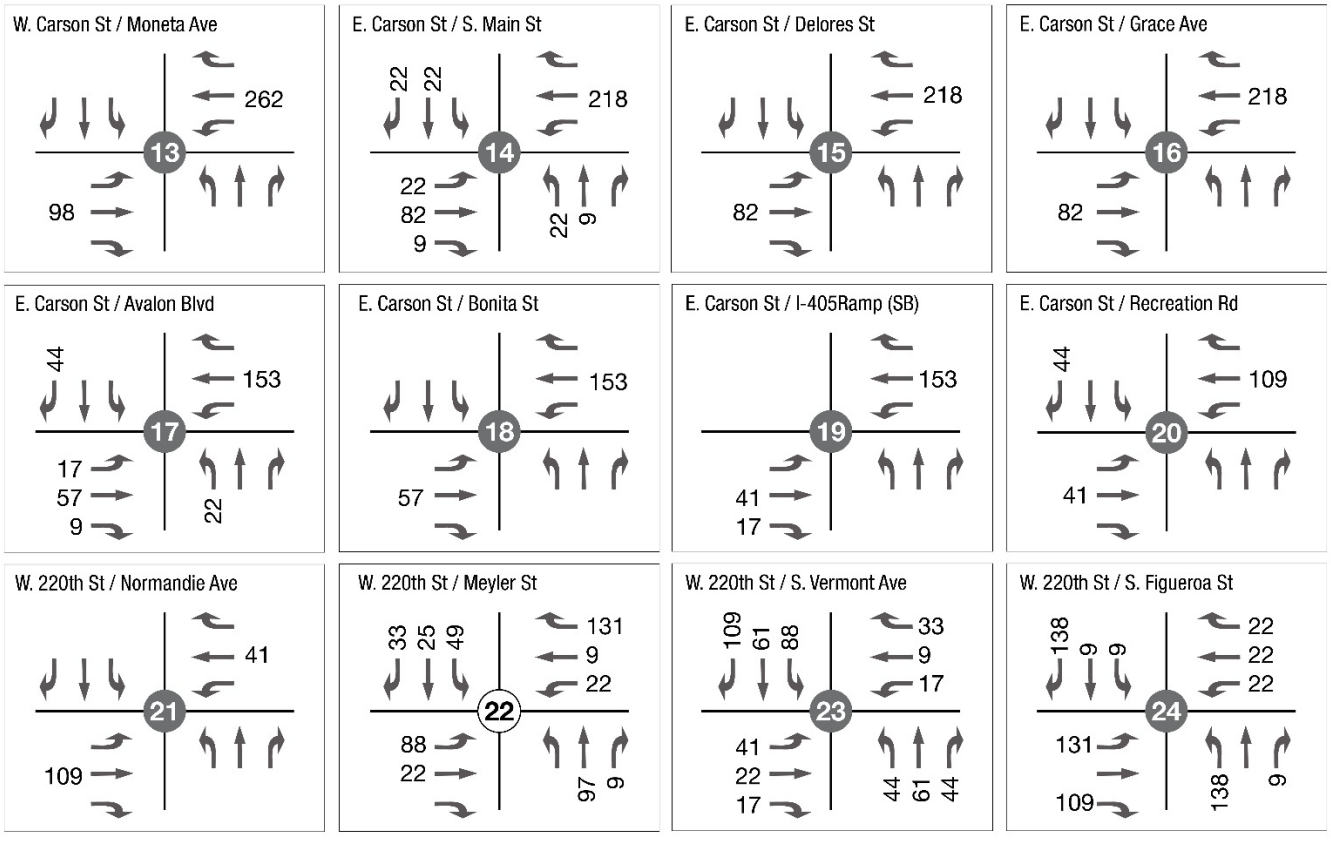




Legend

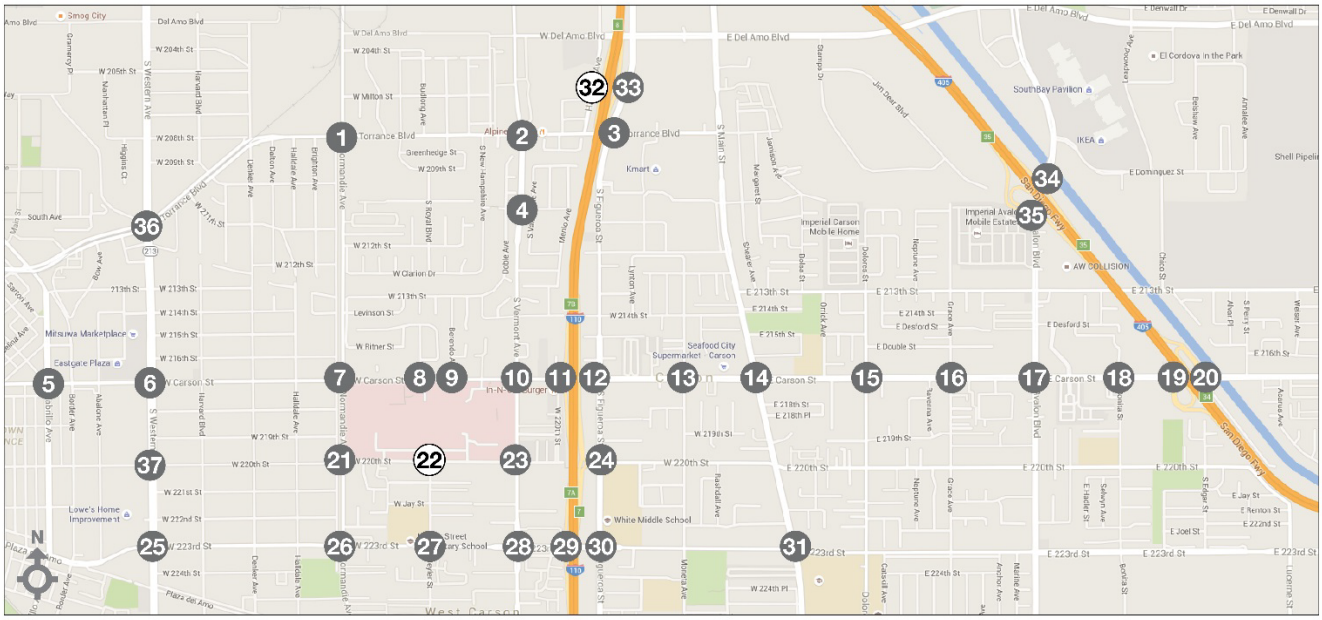
● Signalized Intersection ○ Unsignalized Intersection

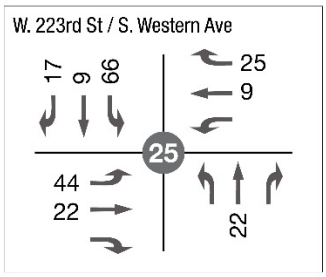


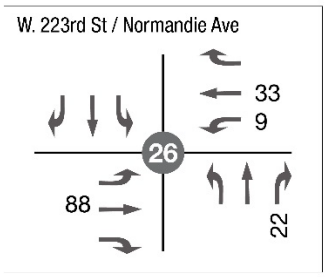


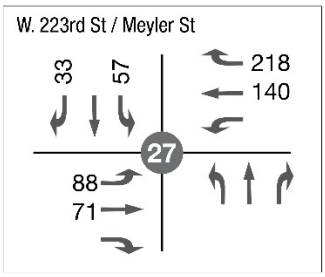
Legend

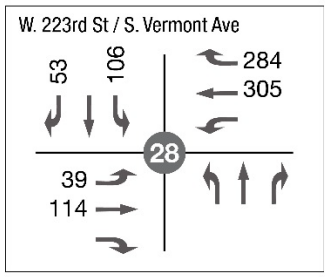
Signalized Intersection Unsignalized Intersection Lane Geometry

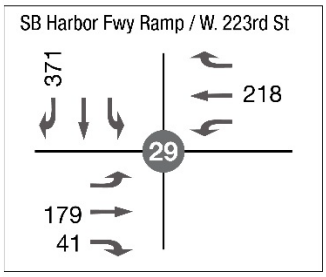


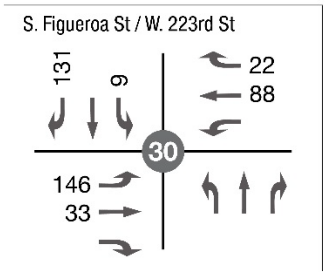


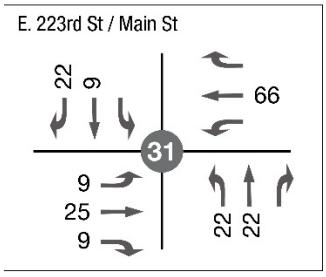


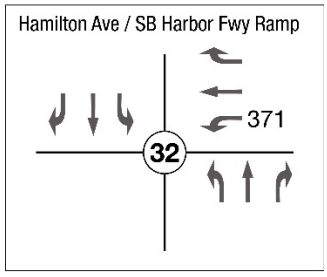


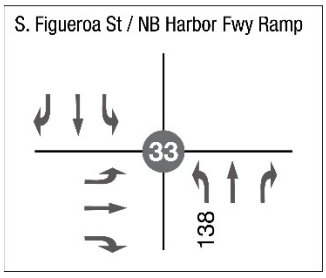


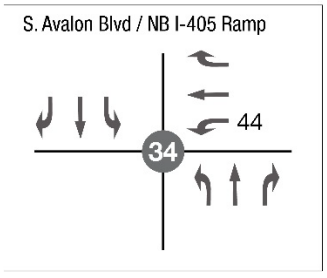


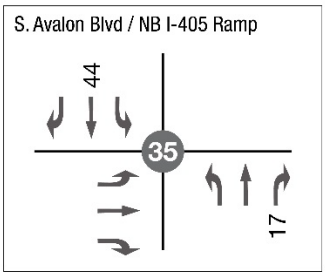


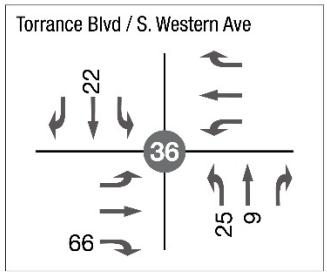












Legend

Signalized Intersection

Unsignalized Intersection

Lane Geometry

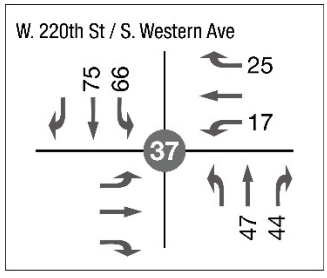
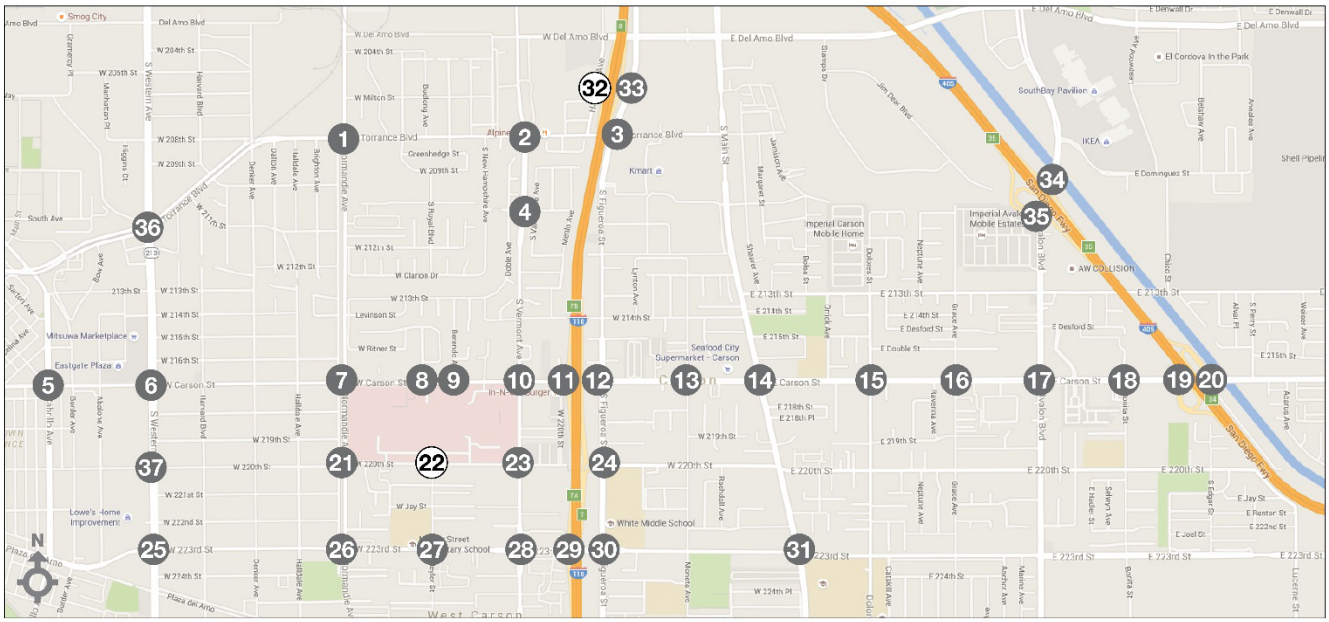
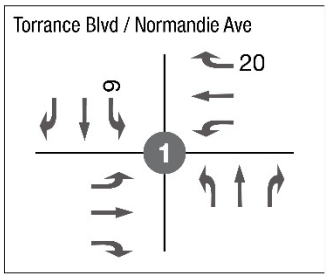
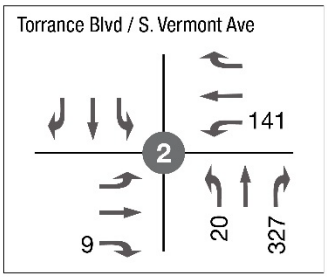
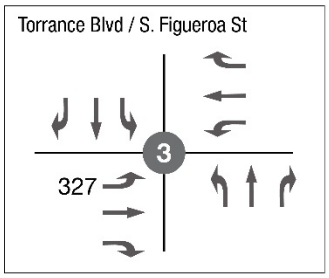


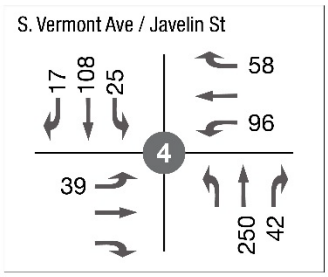
FIGURE 6.4: PROJECT TURNING MOVEMENT VOLUMES – PM PEAK HOUR

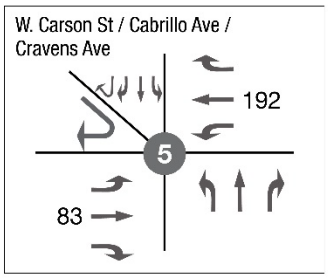


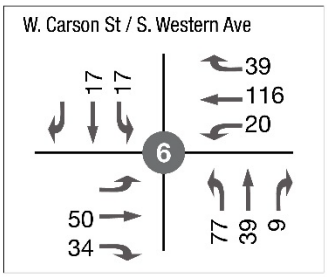


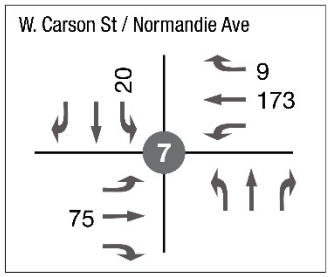


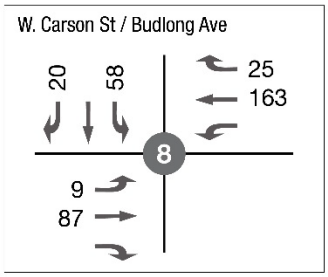


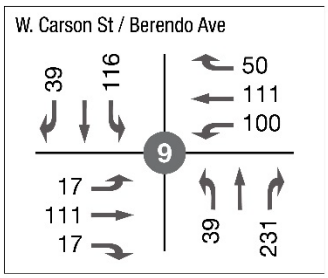


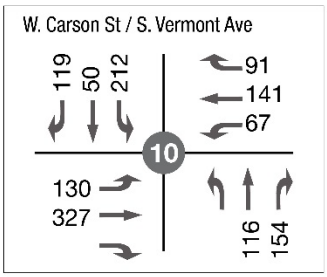


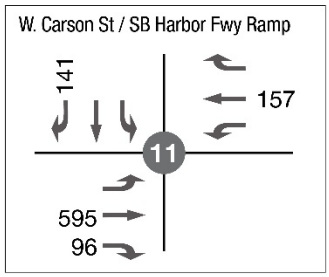


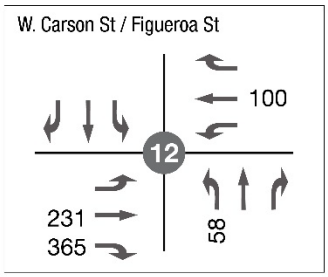






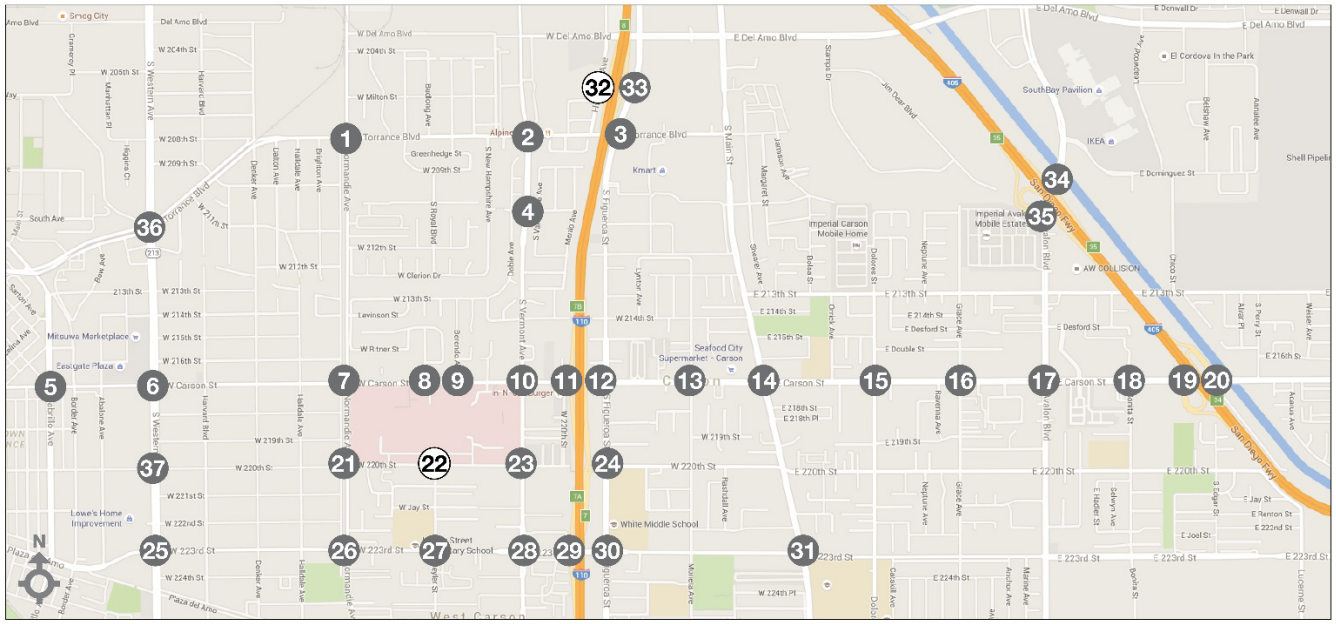


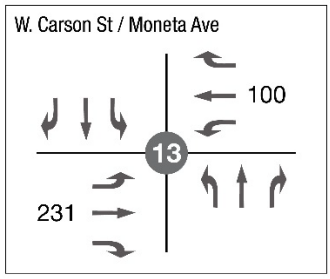


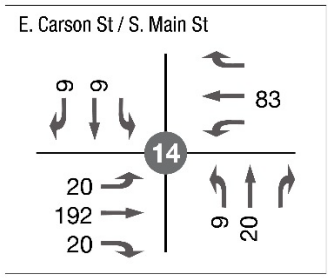


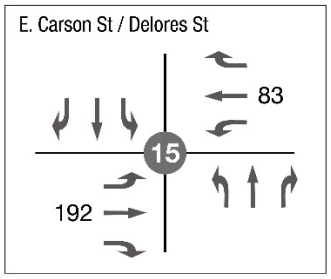
Legend

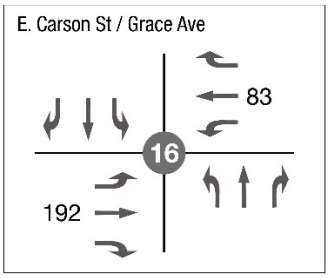
● Signalized Intersection ○ Unsignalized Intersection

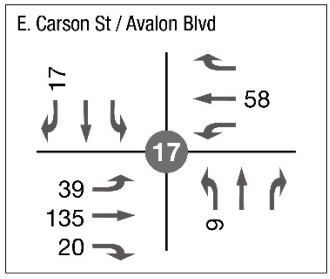


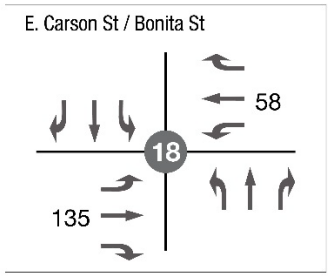


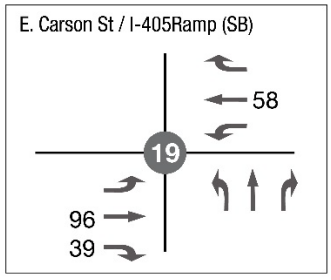


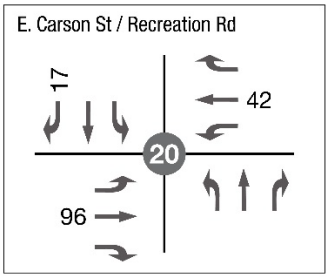


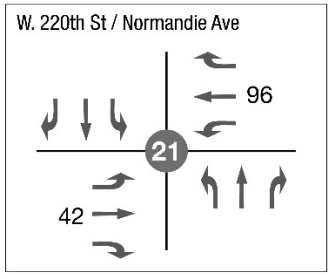


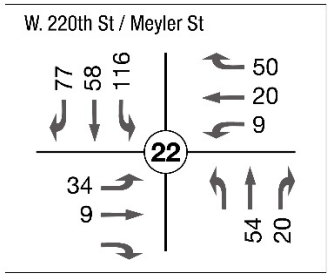


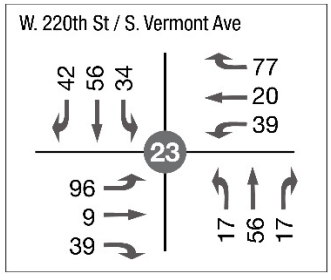


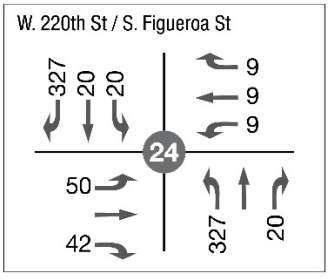






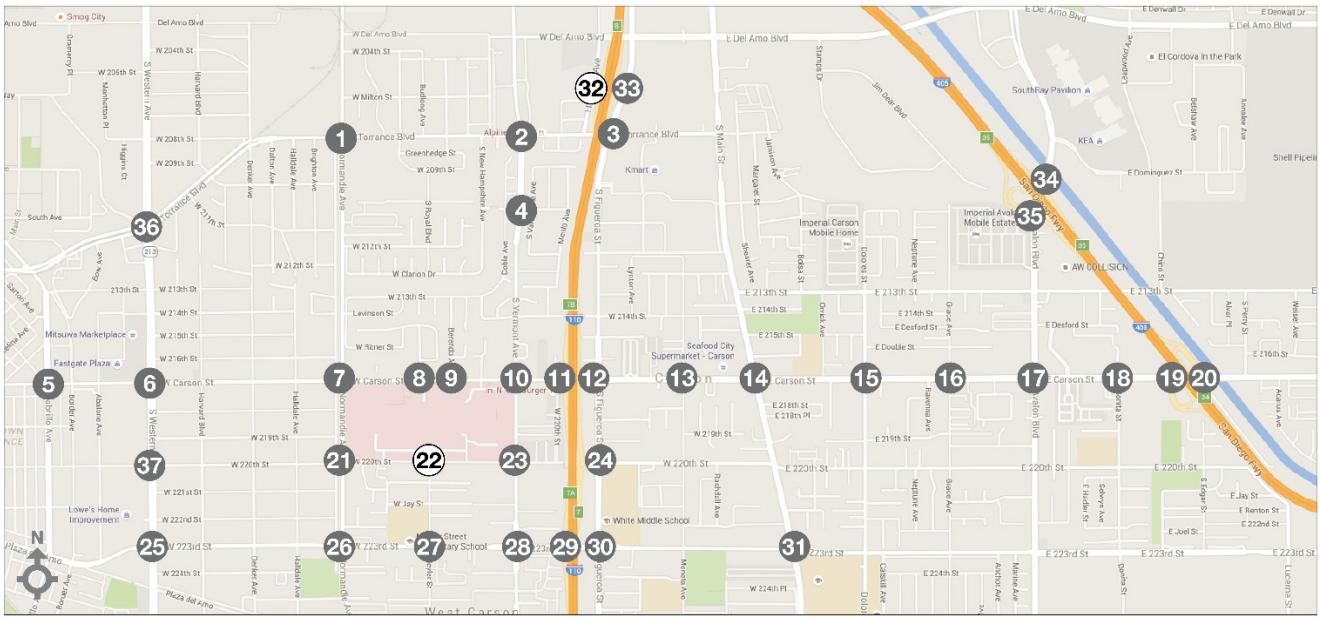


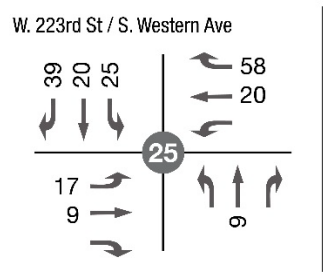


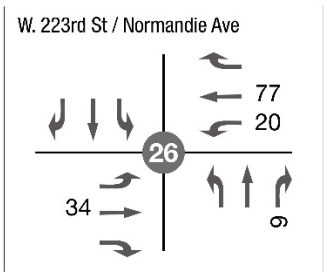


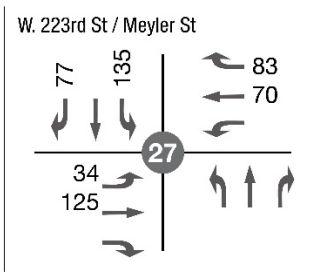
Legend

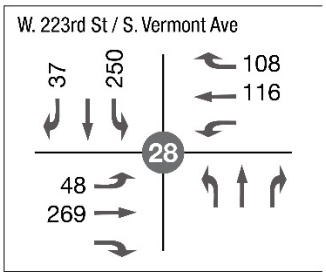
Signalized Intersection Unsignalized Intersection Lane Geometry

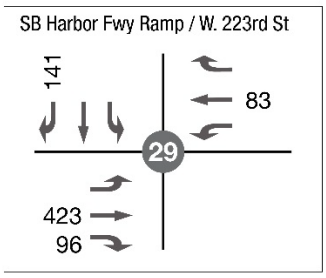


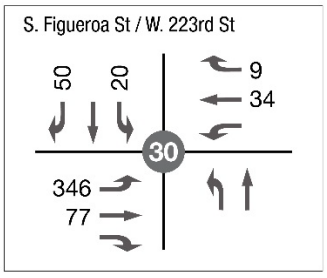


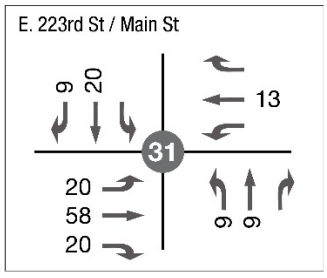


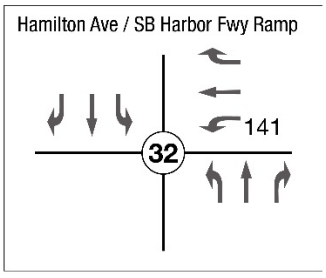


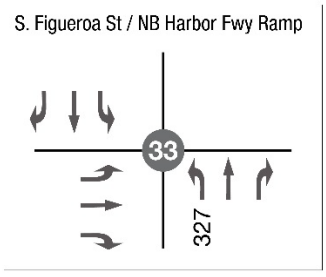


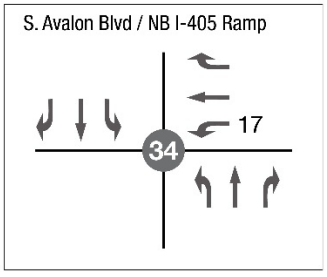


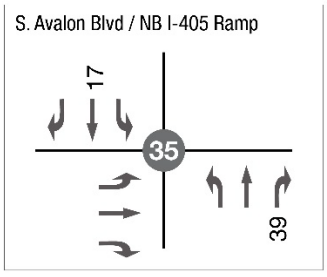


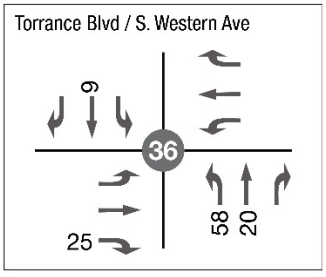










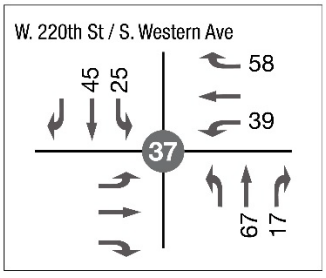


Legend

Signalized Intersection

Unsignalized Intersection

Lane Geometry



7 EXISTING YEAR (2016) WITH PROJECT

Per CEQA noise and air quality guidelines, an analysis of the Existing Year (2016) With Project scenario was conducted. Results for the average daily traffic, queue analysis, and intersection level of service for the Existing Year (2016) With Project scenario are presented in this section.

7.1 AVERAGE DAILY TRAFFIC

The average daily traffic for selected links generated by the project as well as in the Existing Year (2016) No Project and Existing Year (2016) With Project scenarios are presented in Table 7.1 below:

TABLE 7.1: EXISTING YEAR (2016) WITH PROJECT ROADWAY SEGMENT SUMMARY

ID	Segment	Existing Year (2016) No Project	Project ADT	Existing Year (2016) With Project
1	Carson Street west of Berendo Avenue	31,279	5,894	37,173
2	Carson Street east of Vermont Avenue	36,819	17,680	54,499
3	Carson Street east of Figueroa Street	19,337	5,894	25,231
4	Carson Street west of Normandie Avenue	34,261	4,420	38,681
5	Normandie Avenue north of Carson Street	18,173	246	18,419
6	Normandie Avenue south of Carson Street	19,616	0	19,616
7	Vermont Avenue south of Javelin Street	17,330	10,804	28,134
8	Vermont Avenue south of Carson Street	21,151	5,893	27,044
9	Vermont Avenue south of 223rd Street	21,803	5,894	27,697
10	Figueroa Street south of Carson Street	21,275	6,384	27,659

7.2 PEAK HOUR LINK LEVEL OF SERVICE

AM and PM peak hour link analyses are presented in Table 7.2 and 7.3, respectively. The peak hour link volumes are derived from the turning movement volumes; more specifically, the arriving and departing volumes between two intersections that the link of interest joins. In the event that the departures of one intersection did not equal the arrivals of the second intersection, an average of the two volumes was taken to be the link volume experienced. A loss, or even gain, in volumes between two intersections is not uncommon, especially in situations where additional intersections or driveways are present between the intersections of interest. The following links are expected to be operate at LOS E or worse:

- Carson Street from Budlong Avenue to Berendo Avenue
- Carson Street from Vermont Avenue to I-110 SB Ramp
- Carson Street from Western Avenue to Normandie Avenue
- Vermont Avenue from Javelin Street to Carson Street
- Vermont Avenue from 220th Street to 223rd Street
- Figueroa Street from Carson Street to 220th Street

TABLE 7.2: EXISTING YEAR (2016) WITH PROJECT AM PEAK HOUR LINK ANALYSIS

Link ID	Street	Segment		Class	Capacity per Lane	Number of Lanes		Volumes		V/C Ratio		Level of Service	
		From	To			NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
1	W Carson St	Budlong Ave	Berendo Ave	Major	750	2	2	996	1508	0.66	**1.01**	B	**F**
2	W Carson St	Vermont Ave	I-110 SB Ramp	Major	750	3	2	1196	2433	0.53	**1.62**	A	**F**
3	W Carson St	Figueroa St	Moneta Ave	Major	750	2	2	664	995	0.44	0.66	A	B
4	W Carson St	Western Ave	Normandie Ave	Major	750	2	2	1164	1418	0.78	**0.95**	C	**E**
5	Normandie Ave	Torrance Blvd	Carson St	Secondary	600	2	2	936	584	0.78	0.49	C	A
6	Normandie Ave	Carson St	220th St	Secondary	600	2	2	935	635	0.78	0.53	C	A
7	S Vermont Ave	Javelin St	Carson St	Major	750	2	2	1316	1136	0.88	0.76	D	C
8	S Vermont Ave	Carson St	220th St	Major	750	2	2	1201	1153	0.80	0.77	C	C
9	S Vermont Ave	220th St	223rd St	Major	750	2	2	1392	781	**0.93**	0.52	**E**	A
10	S Figueroa St	Carson St	220th St	Major	750	2	2	1110	1031	0.74	0.69	C	B

Bold and shaded = Unacceptable LOS.

TABLE 7.3: EXISTING YEAR (2016) WITH PROJECT PM PEAK HOUR LINK ANALYSIS

Link ID	Street	Segment		Class	Capacity per Lane	Number of Lanes		Volumes		V/C Ratio		Level of Service	
		From	To			NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
1	W Carson St	Budlong Ave	Berendo Ave	Major	750	2	2	1340	1325	0.89	0.88	D	D
2	W Carson St	Vermont Ave	I-110 SB Ramp	Major	750	3	2	2014	1515	0.90	**1.01**	D	**F**
3	W Carson St	Figueroa St	Moneta Ave	Major	750	2	2	945	744	0.63	0.50	B	A
4	W Carson St	Western Ave	Normandie Ave	Major	750	2	2	1471	1322	**0.98**	0.88	**E**	D
5	Normandie Ave	Torrance Blvd	Carson St	Secondary	600	2	2	724	975	0.60	0.81	A	D
6	Normandie Ave	Carson St	220th St	Secondary	600	2	2	654	983	0.55	0.82	A	D
7	S Vermont Ave	Javelin St	Carson St	Major	750	2	2	994	1346	0.66	**0.90**	B	**E**
8	S Vermont Ave	Carson St	220th St	Major	750	2	2	1013	1186	0.68	0.79	B	C
9	S Vermont Ave	220th St	223rd St	Major	750	2	2	703	1409	0.47	**0.94**	A	**E**
10	S Figueroa St	Carson St	220th St	Major	750	2	2	600	1434	0.40	**0.96**	A	**E**

Bold and shaded = Unacceptable LOS.

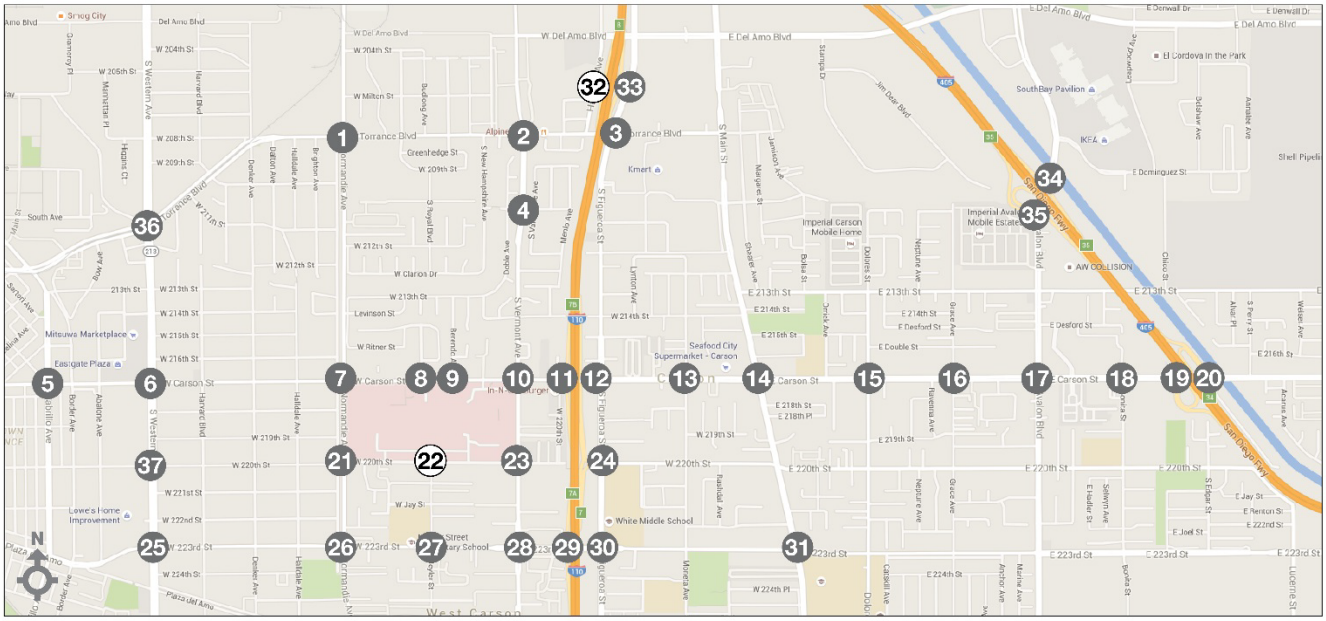
7.3 INTERSECTION LEVEL OF SERVICE

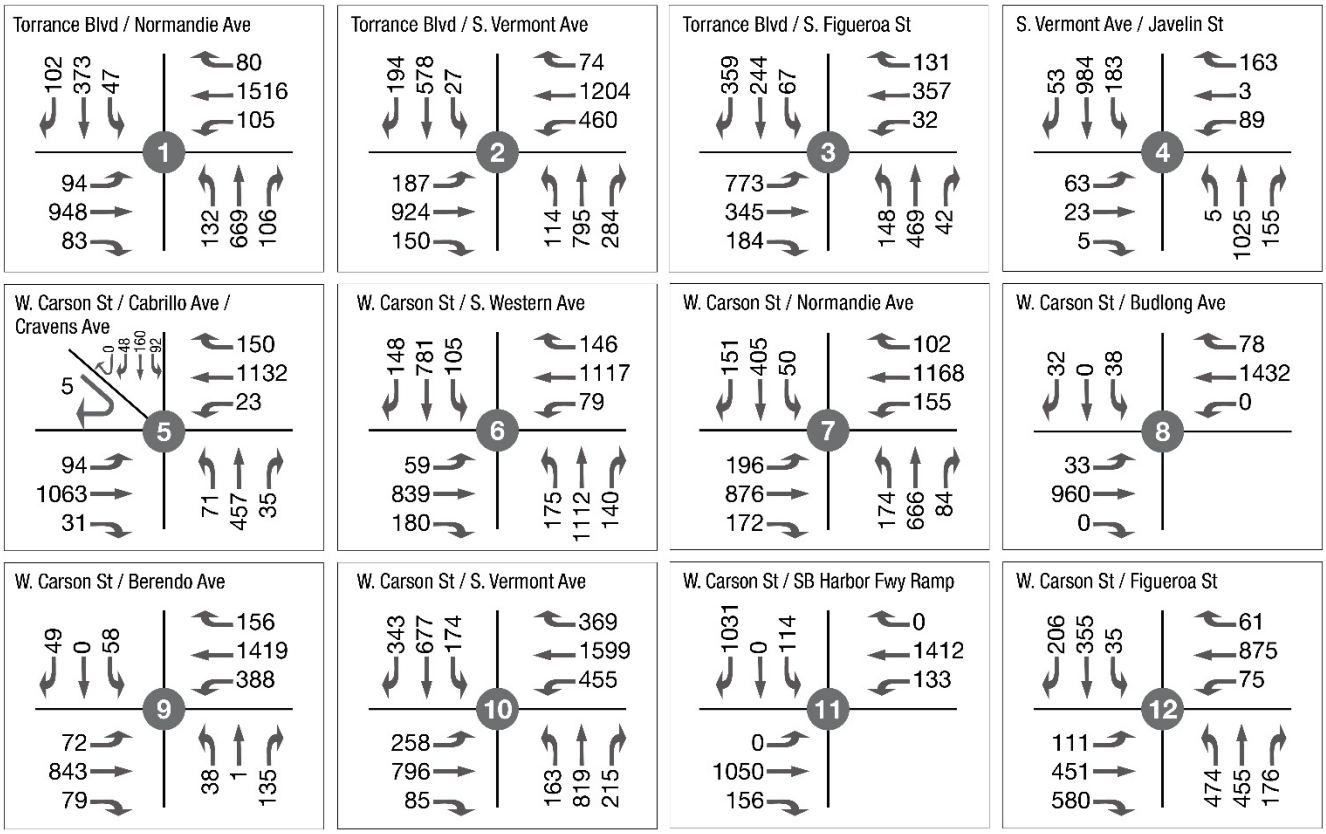
The peak hour turning movement volumes presented in Figure 7.1 and 7.2 were utilized in order to assess intersection performance. A summary of the AM and PM peak hour intersection level of service analysis results for the Existing Year (2016) With Project condition is presented in Table 7.4. Additionally, study intersections were evaluated to determine if they were significantly impacted by the addition of project-generated traffic; summary tables for the AM and PM peak hours are presented in Table 7.5 and Table 7.6, respectively. The significant impact thresholds used to determine the impacts are summarized in Section 3.1.

The following fourteen intersections are expected to be significantly impacted due to the addition of project traffic:

- Normandie Avenue and Torrance Boulevard
- Vermont Avenue and Torrance Boulevard
- Western Avenue and Carson Street
- Normandie Avenue and Carson Street
- Vermont Avenue and Carson Street
- SB I-110 Ramps and Carson Street
- Figueroa Street and 220th Street / NB I-110 Ramps
- Western Avenue and 223rd Street
- Meyler Street and 223rd Street
- Vermont Avenue and 223rd Street
- SB I-110 Ramps and 223rd Street
- Hamilton Avenue and SB I-110 Ramps
- Western Avenue and Torrance Boulevard
- Western Avenue and 220th Street

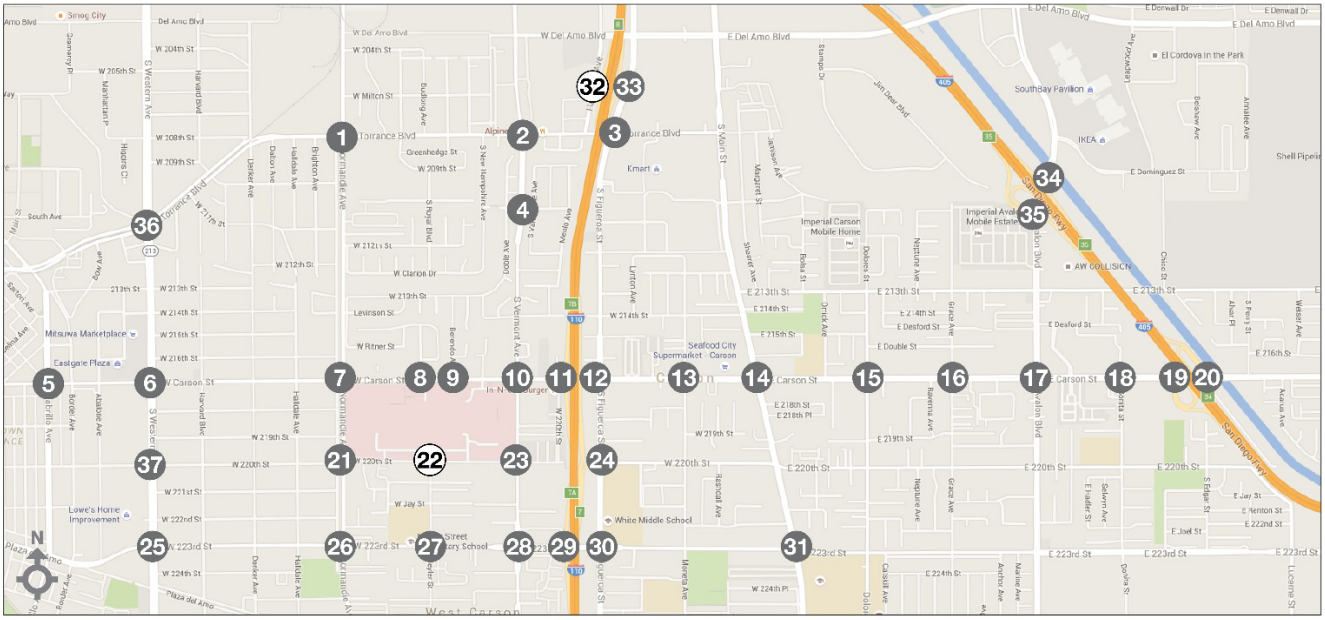
FIGURE 7.1: EXISTING YEAR (2016) WITH PROJECT TURNING MOVEMENT VOLUMES – AM PEAK HOUR

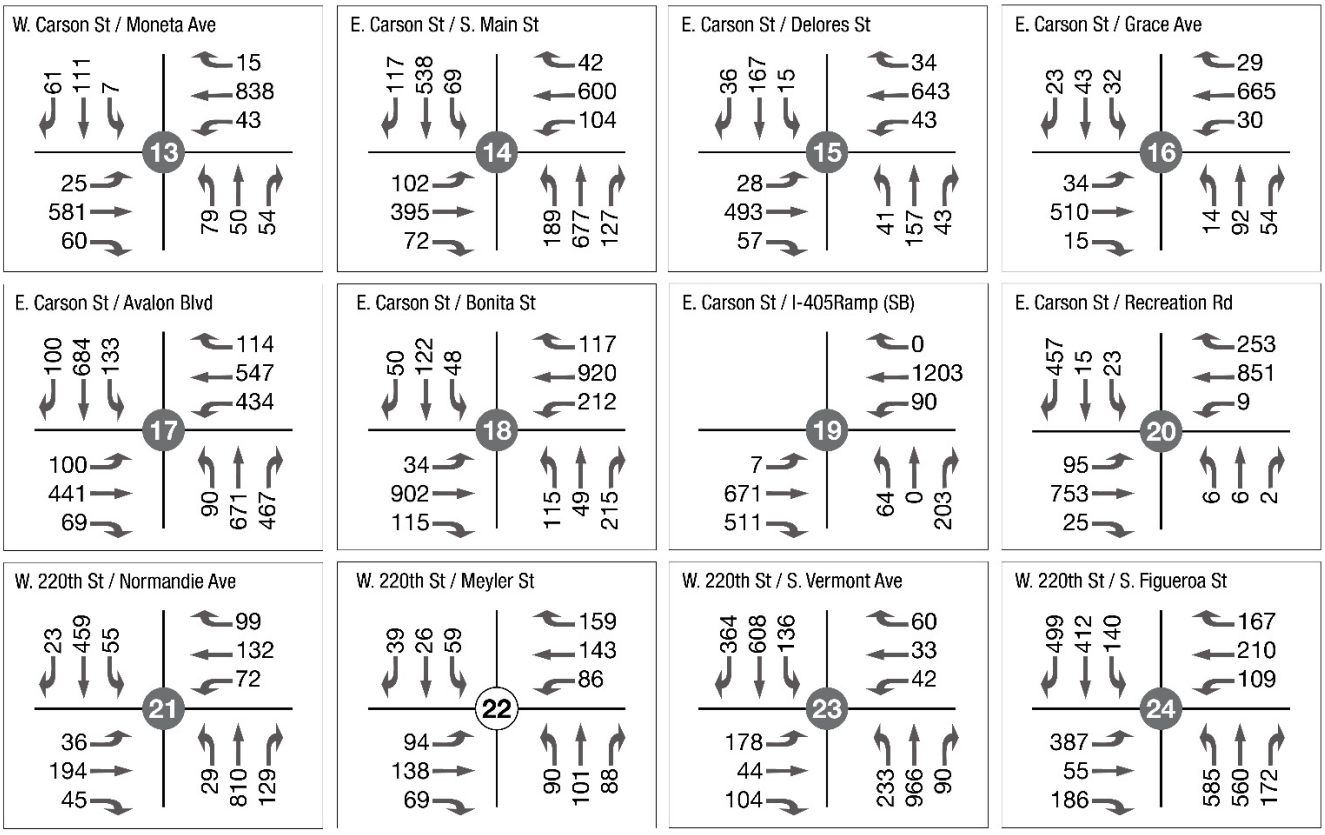




Legend

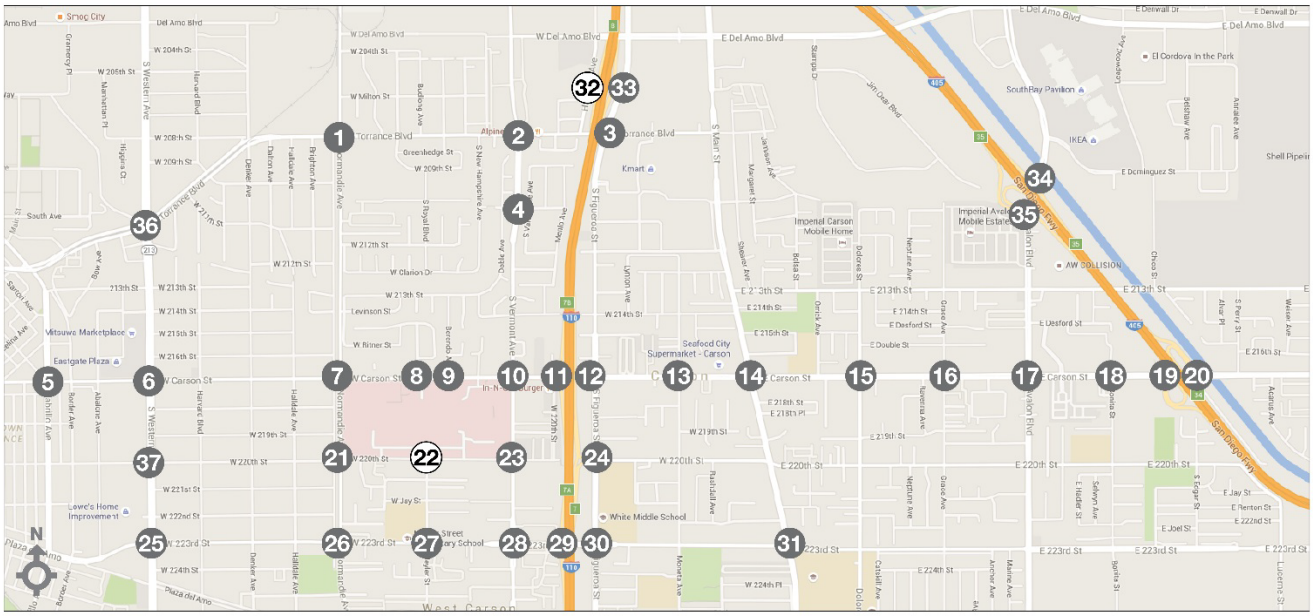
● Signalized Intersection ○ Unsignalized Intersection

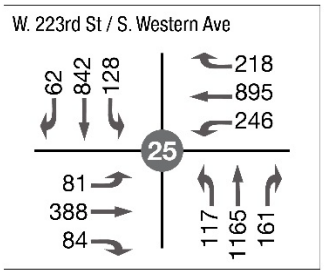


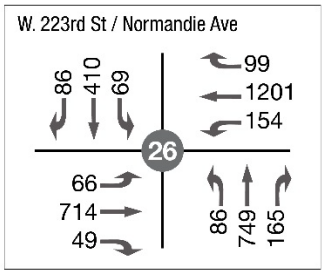


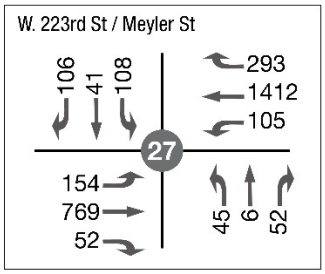
Legend

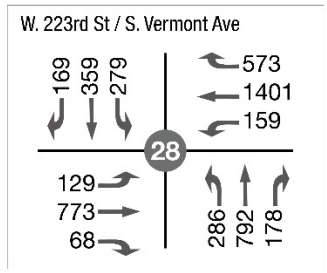
Signalized Intersection Unsignalized Intersection Lane Geometry

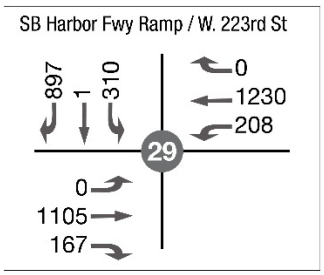


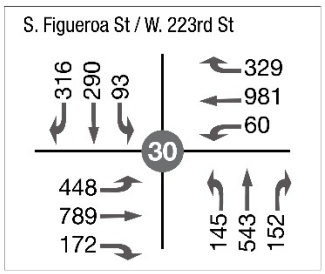


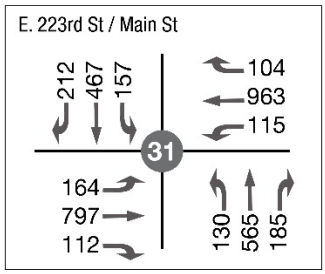


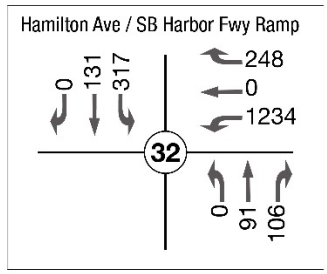


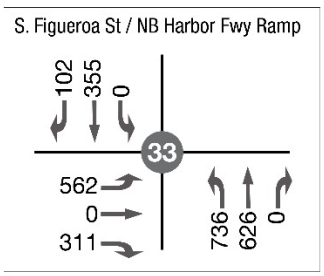


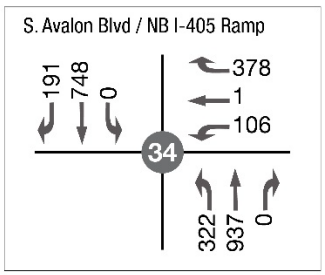


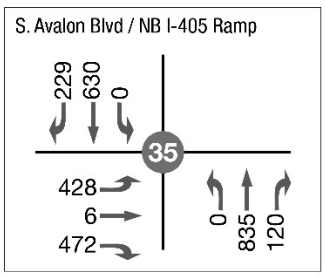


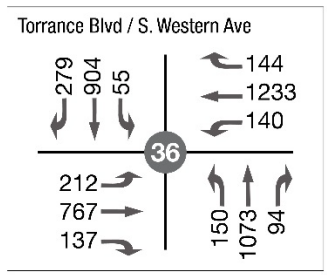












Legend

Signalized Intersection

Unsignalized Intersection

Lane Geometry

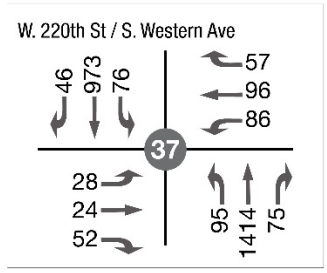
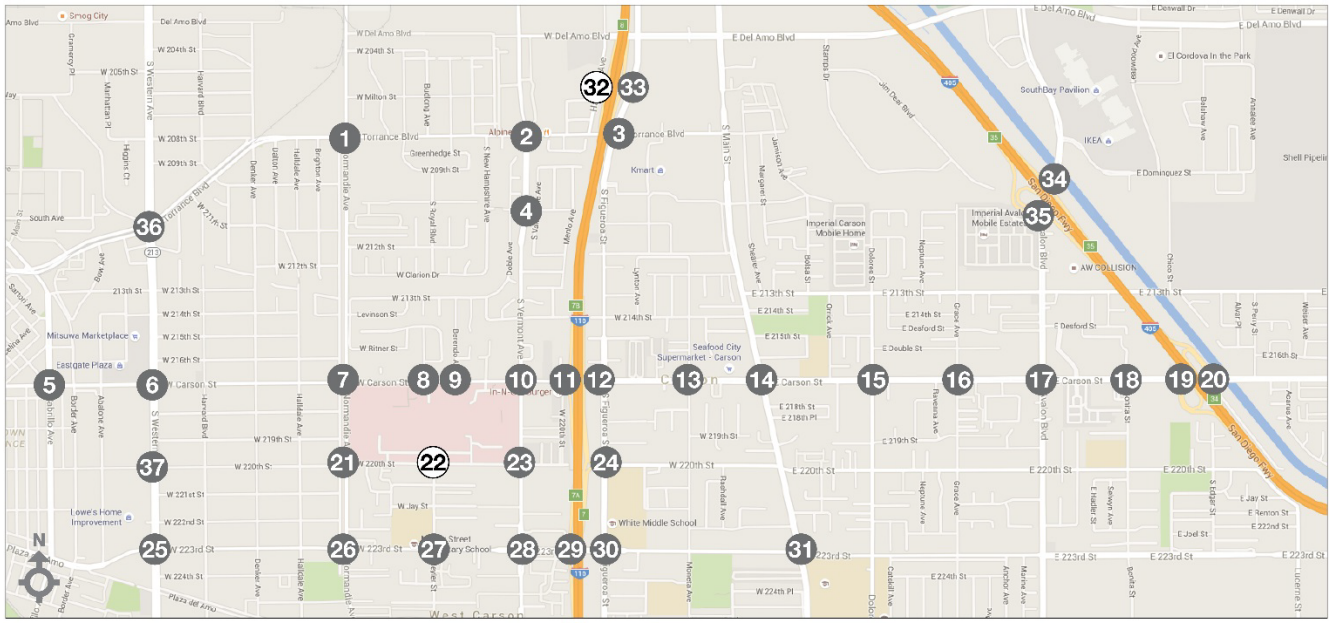
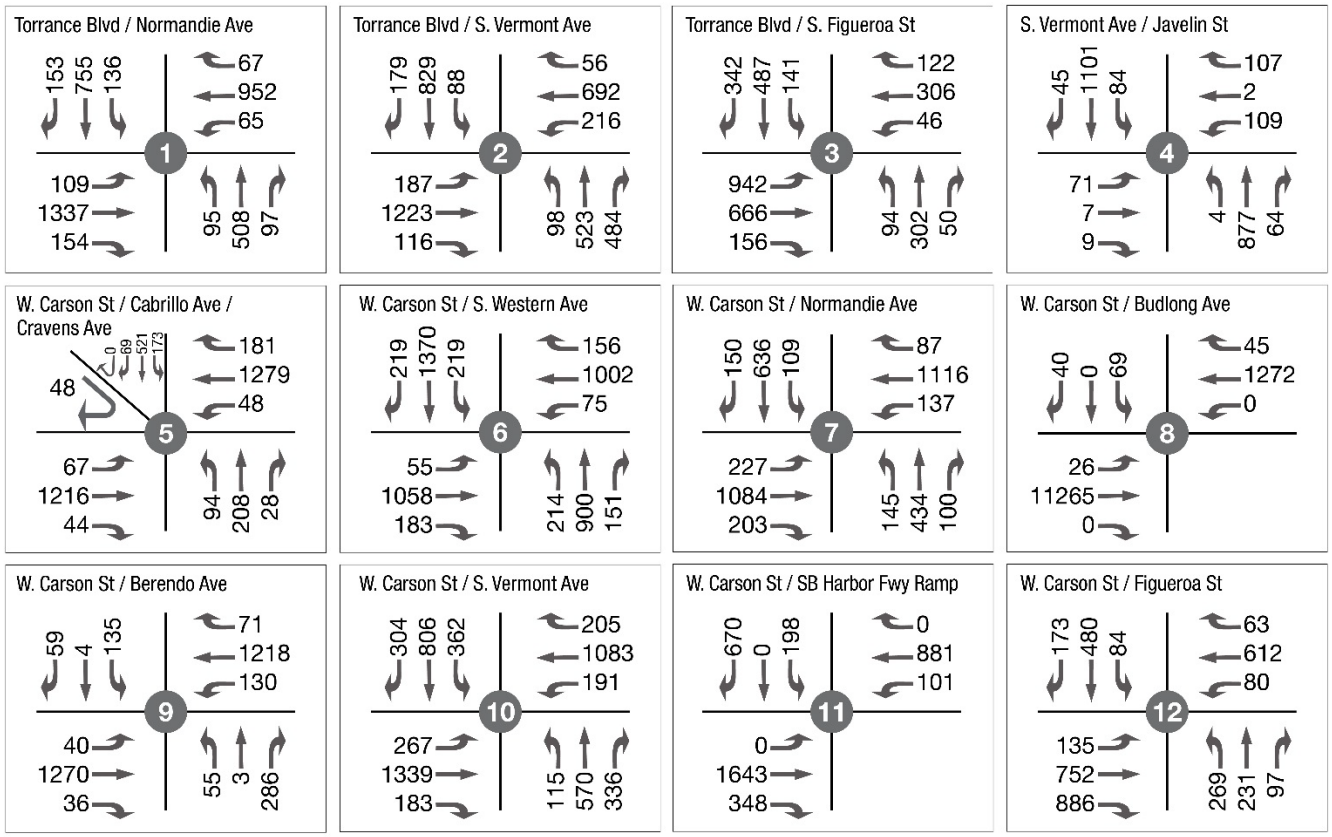


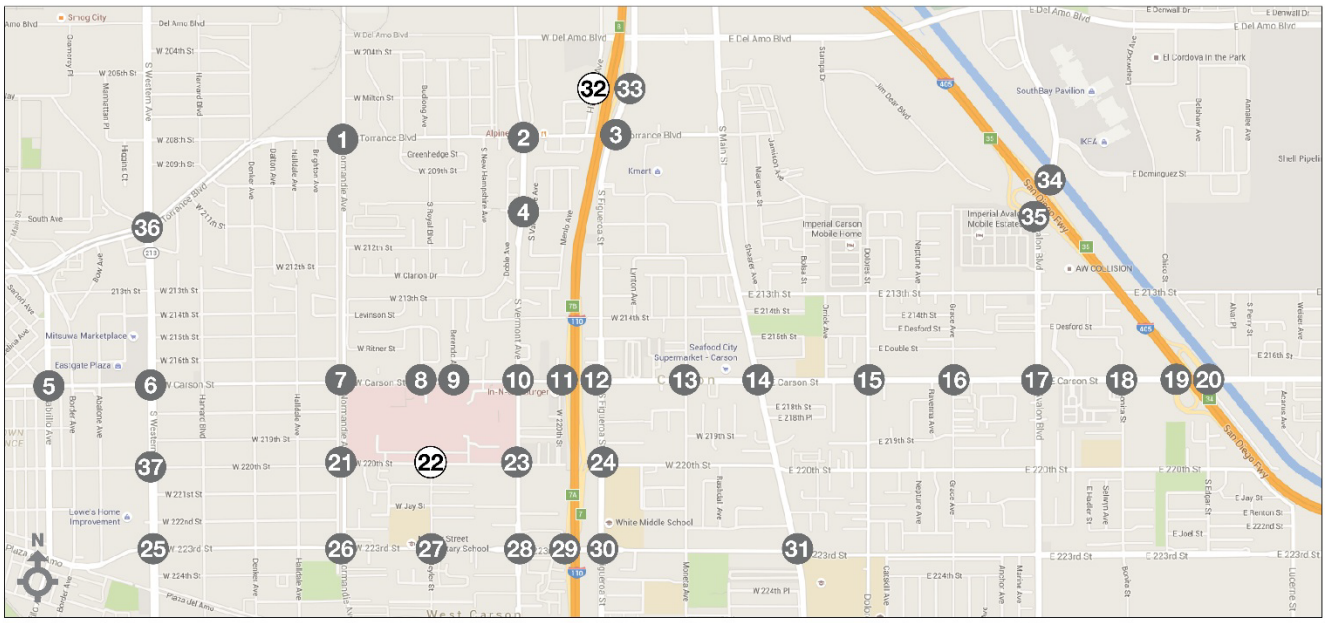
FIGURE 7.2: EXISTING YEAR (2016) WITH PROJECT TURNING MOVEMENT VOLUMES – PM PEAK HOUR

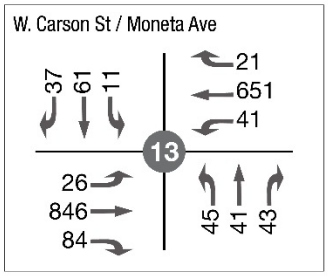


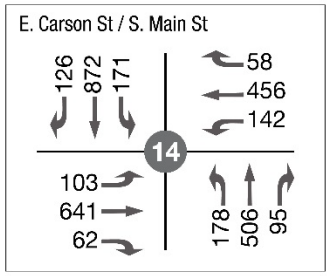


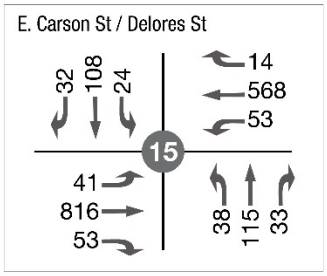
Legend

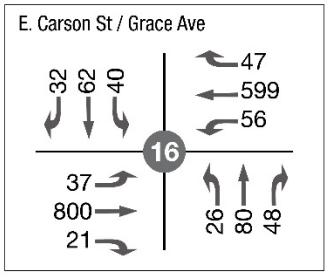
● Signalized Intersection ○ Unsignalized Intersection

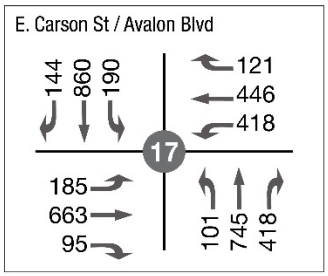


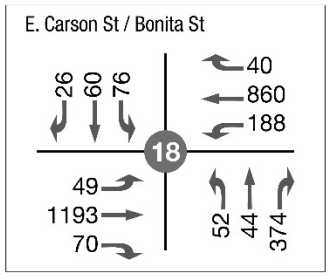


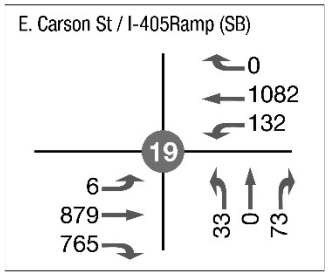


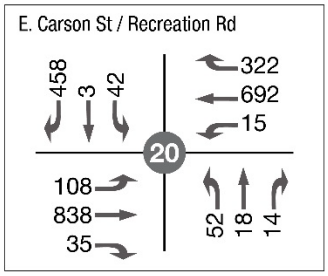


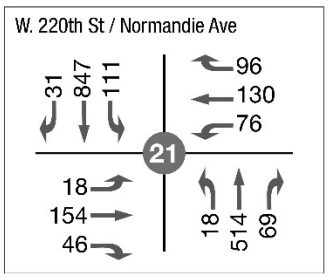


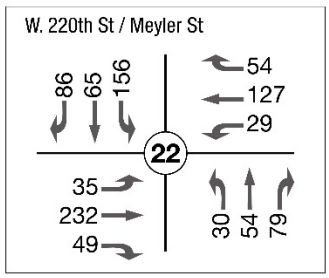


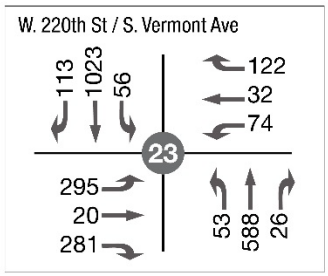


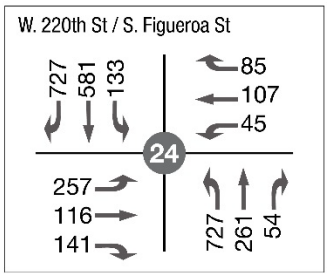






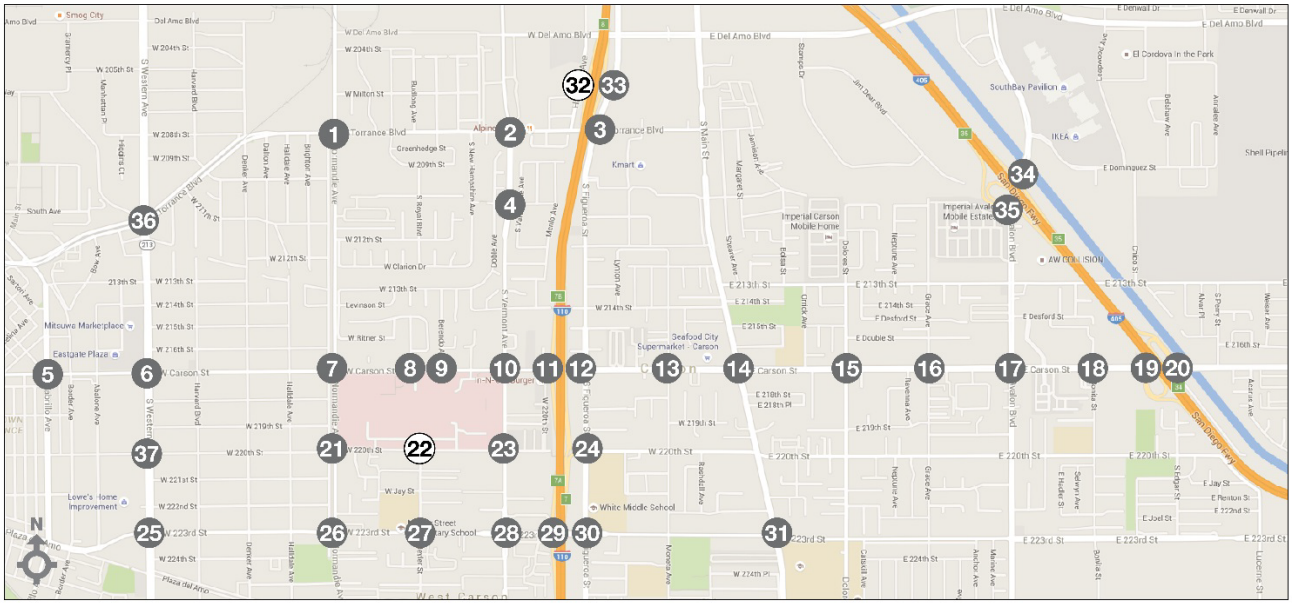


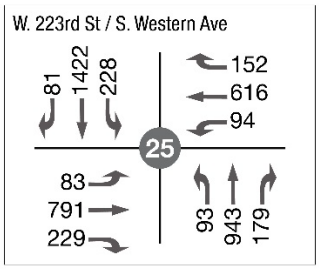


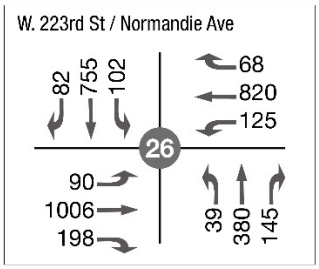


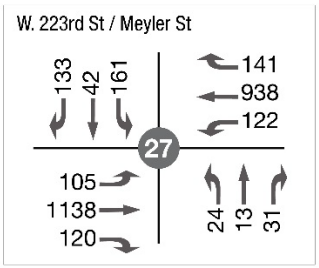
Legend

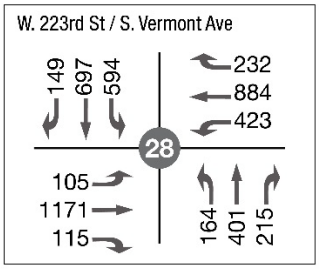
Signalized Intersection Unsignalized Intersection Lane Geometry

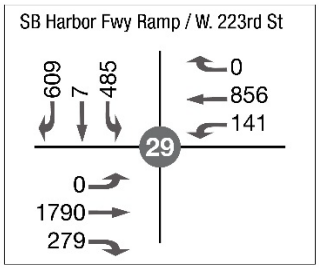


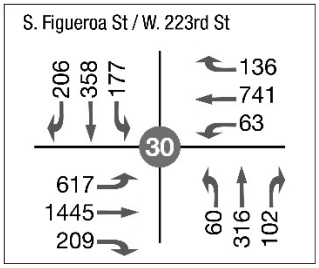


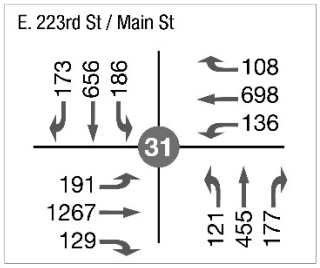


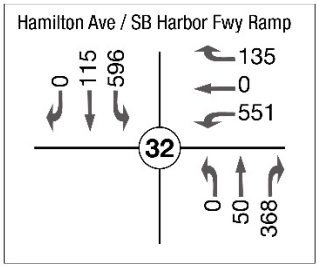


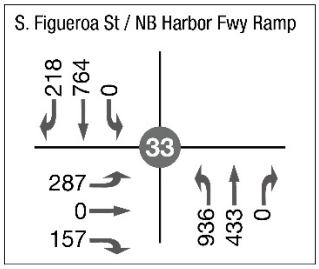


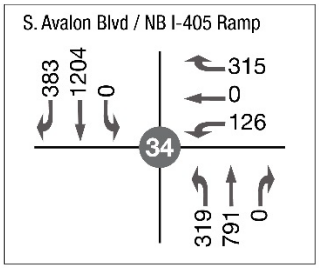


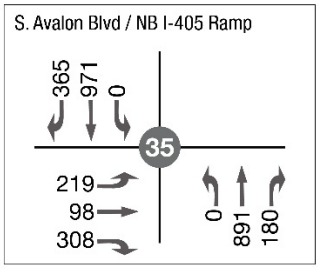


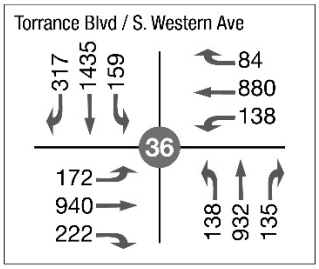












Legend

Signalized Intersection Unsignalized Intersection Lane Geometry

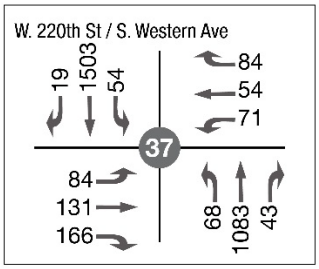


TABLE 7.4: EXISTING YEAR (2016) WITH PROJECT INTERSECTION LOS

INTERSECTION		Jurisdiction	Analysis Method	Intersection Control	AM		PM	
					V/C or Delay (S)	LOS	V/C or Delay (S)	LOS
1	Normandie / Torrance	City of Los Angeles	CMA	Signalized	**0.965**	**E**	**0.989**	**E**
		County of Los Angeles	ICU	Signalized	0.796	C	0.850	D
2	Vermont / Torrance	County of Los Angeles	ICU	Signalized	0.888	D	**0.911**	**E**
3	Figueroa / Torrance	City of Carson	ICU	Signalized	0.701	C	0.736	C
4	Vermont / Javelin	County of Los Angeles	ICU	Signalized	0.633	B	0.527	A
5	Carson / Cabrillo / Cravens	City of Torrance	HCM	Signalized	17.4	B	19.9	B
6	Western / Carson	City of Torrance	HCM	Signalized	30.0	C	51.3	D
		City of Los Angeles	CMA	Signalized	**0.930**	**E**	**1.093**	**F**
		Caltrans	HCM	Signalized	30.0	C	**51.3**	**D**
7	Normandie / Carson	City of Los Angeles	CMA	Signalized	0.896	D	**0.962**	**E**
		County of Los Angeles	ICU	Signalized	0.770	C	0.827	D
8	Budlong / Carson	County of Los Angeles	ICU	Signalized	0.512	A	0.482	A
9	Berendo / Carson	County of Los Angeles	ICU	Signalized	0.627	B	0.741	C
10	Vermont / Carson	County of Los Angeles	ICU	Signalized	**1.026**	**F**	**0.974**	**E**
11	SB I-110 Ramps / Carson	County of Los Angeles	ICU	Signalized	**1.086**	**F**	0.897	D
		Caltrans	HCM	Signalized	**103.0**	**F**	**60.5**	**E**
12	Figueroa / Carson	City of Carson	ICU	Signalized	0.703	C	0.795	C
13	Moneta / Carson	City of Carson	ICU	Signalized	0.401	A	0.363	A
14	Main / Carson	City of Carson	ICU	Signalized	0.452	A	0.554	A
15	Dolores / Carson	City of Carson	ICU	Signalized	0.355	A	0.399	A
16	Grace / Carson	City of Carson	ICU	Signalized	0.349	A	0.406	A
17	Avalon / Carson	City of Carson	ICU	Signalized	0.704	C	0.780	C
18	Bonita / Carson	City of Carson	ICU	Signalized	0.593	A	0.772	C
19	SB I-405 Ramps / Carson	City of Carson	ICU	Signalized	0.503	A	0.606	B
		Caltrans	HCM	Signalized	7.4	A	7.3	A
20	NB I-405 Ramps / Carson	City of Carson	ICU	Signalized	0.615	B	0.603	B
		Caltrans	HCM	Signalized	13.8	B	13.0	B
21	Normandie / 220th	City of Los Angeles	CMA	Signalized	0.508	A	0.470	A
		County of Los Angeles	ICU	Signalized	0.476	A	0.441	A
22	Meyler / 220th	County of Los Angeles	ICU	AWSC	0.472	A	0.499	A
23	Vermont / 220th	County of Los Angeles	ICU	Signalized	0.538	A	0.613	B
24	Figueroa / 220th and NB I-110	City of Carson	ICU	Signalized	**1.153**	**F**	**1.237**	**F**
		Caltrans	HCM	Signalized	**89.9**	**F**	**134.4**	**F**
25	Western / 223rd	City of Torrance	HCM	Signalized	35.5	D	31.3	C
		City of Los Angeles	CMA	Signalized	**0.981**	**E**	**0.941**	**E**
		Caltrans	HCM	Signalized	**35.5**	**D**	31.3	C
26	Normandie / 223rd	City of Los Angeles	CMA	Signalized	0.741	C	0.724	C
		County of Los Angeles	ICU	Signalized	0.694	B	0.678	B
27	Meyler / 223rd	County of Los Angeles	ICU	Signalized	0.817	D	0.694	B
28	Vermont / 223rd	County of Los Angeles	ICU	Signalized	**1.119**	**F**	**1.009**	**F**
29	SB I-110 Ramps / 223rd	County of Los Angeles	ICU	Signalized	**1.036**	**F**	**1.028**	**F**
		Caltrans	HCM	Signalized	**42.3**	**D**	**64.3**	**E**
30	Figueroa / 223rd	City of Carson	ICU	Signalized	0.875	D	0.827	D
31	Main / 223rd	City of Carson	ICU	Signalized	0.678	B	0.762	C
32	SB I-110 Ramps / Hamilton	County of Los Angeles	ICU	AWSC	**1.404**	**F**	**1.173**	**F**
		Caltrans	HCM	AWSC	**140.5**	**F**	**139.0**	**F**
33	Figueroa / NB I-110 Ramps	City of Carson	ICU	Signalized	0.671	B	0.743	C
		Caltrans	HCM	Signalized	30.0	C	27.9	C
34	Avalon / NB I-405	City of Carson	ICU	Signalized	0.315	A	0.415	A
		Caltrans	HCM	Signalized	15.9	B	15.2	B
35	Avalon / SB I-405	City of Carson	ICU	Signalized	0.466	A	0.420	A
		Caltrans	HCM	Signalized	12.1	B	10.5	B
36	Western / Torrance	City of Torrance	HCM	Signalized	41.4	D	36.4	D
		City of Los Angeles	CMA	Signalized	0.884	D	0.836	D
		Caltrans	HCM	Signalized	**41.4**	**D**	**36.4**	**D**
37	Western / 220th	City of Torrance	HCM	Signalized	8.9	A	15.0	B
		City of Los Angeles	CMA	Signalized	0.662	B	0.848	D
		Caltrans	HCM	Signalized	8.9	A	15.0	B

AWSC = All Way Stop Control. **Bold and shaded** = Intersection operates at an unacceptable LOS using the methodology listed.

TABLE 7.5: EXISTING YEAR (2016) WITH PROJECT SIGNIFICANT IMPACT TABLE – AM PEAK HOUR

INTERSECTION		Jurisdiction	Analysis Method	Intersection Control	EXISTING		W/ PROJECT		Change in V/C or Delay	Significant Impact?
					V/C or Delay (S)	LOS	V/C or Delay (S)	LOS		
1	Normandie / Torrance	City of Los Angeles	CMA	Signalized	**0.946**	**E**	**0.965**	**E**	0.019	Yes
		County of Los Angeles	ICU	Signalized	0.786	C	0.796	C	0.010	No
2	Vermont / Torrance	County of Los Angeles	ICU	Signalized	0.782	C	0.888	D	0.106	Yes
3	Figueroa / Torrance	City of Carson	ICU	Signalized	0.671	B	0.701	C	0.030	No
4	Vermont / Javelin	County of Los Angeles	ICU	Signalized	0.507	A	0.633	B	0.126	No
5	Carson / Cabrillo / Cravens	City of Torrance	HCM	Signalized	16.6	B	17.4	B	0.8	No
6	Western / Carson	City of Torrance	HCM	Signalized	25.0	C	30.0	C	5.0	No
		City of Los Angeles	CMA	Signalized	0.874	D	**0.930**	**E**	0.056	Yes
		Caltrans	HCM	Signalized	25.0	C	30.0	C	5.0	No
7	Normandie / Carson	City of Los Angeles	CMA	Signalized	0.870	D	0.896	D	0.026	Yes
		County of Los Angeles	ICU	Signalized	0.747	C	0.770	C	0.023	No
8	Budlong / Carson	County of Los Angeles	ICU	Signalized	0.450	A	0.512	A	0.062	No
9	Berendo / Carson	County of Los Angeles	ICU	Signalized	0.456	A	0.627	B	0.171	No
10	Vermont / Carson	County of Los Angeles	ICU	Signalized	0.758	C	**1.026**	**F**	0.268	Yes
11	SB I-110 Ramps / Carson	County of Los Angeles	ICU	Signalized	0.724	C	**1.086**	**F**	0.362	Yes
		Caltrans	HCM	Signalized	27.1	C	**103.0**	**F**	75.9	Yes
12	Figueroa / Carson	City of Carson	ICU	Signalized	0.562	A	0.703	C	0.141	No
13	Moneta / Carson	City of Carson	ICU	Signalized	0.319	A	0.401	A	0.082	No
14	Main / Carson	City of Carson	ICU	Signalized	0.378	A	0.452	A	0.074	No
15	Dolores / Carson	City of Carson	ICU	Signalized	0.295	A	0.355	A	0.060	No
16	Grace / Carson	City of Carson	ICU	Signalized	0.281	A	0.349	A	0.068	No
17	Avalon / Carson	City of Carson	ICU	Signalized	0.683	B	0.704	C	0.021	No
18	Bonita / Carson	City of Carson	ICU	Signalized	0.575	A	0.593	A	0.018	No
19	SB I-405 Ramps / Carson	City of Carson	ICU	Signalized	0.492	A	0.503	A	0.011	No
		Caltrans	HCM	Signalized	8.6	A	7.4	A	-1.2	No
20	NB I-405 Ramps / Carson	City of Carson	ICU	Signalized	0.553	A	0.615	B	0.062	No
		Caltrans	HCM	Signalized	12.0	B	13.8	B	1.8	No
21	Normandie / 220th	City of Los Angeles	CMA	Signalized	0.439	A	0.508	A	0.069	No
		County of Los Angeles	ICU	Signalized	0.412	A	0.476	A	0.064	No
22	Meyler / 220th	County of Los Angeles	HCM	AWSC	0.307	A	0.472	A	0.165	No
23	Vermont / 220th	County of Los Angeles	ICU	Signalized	0.428	A	0.538	A	0.110	No
24	Figueroa / 220th and NB I-110	City of Carson	ICU	Signalized	0.871	D	**1.153**	**F**	0.282	Yes
		Caltrans	HCM	Signalized	**52.6**	**D**	**89.9**	**F**	37.3	Yes
25	Western / 223rd	City of Torrance	HCM	Signalized	27.3	C	35.5	D	8.2	No
		City of Los Angeles	CMA	Signalized	0.881	D	**0.981**	**E**	0.100	Yes
		Caltrans	HCM	Signalized	27.3	C	**35.5**	**D**	8.2	Yes
26	Normandie / 223rd	City of Los Angeles	CMA	Signalized	0.729	C	0.741	C	0.012	No
		County of Los Angeles	ICU	Signalized	0.683	B	0.694	B	0.011	No
27	Meyler / 223rd	County of Los Angeles	ICU	Signalized	0.593	A	0.817	D	0.224	Yes
28	Vermont / 223rd	County of Los Angeles	ICU	Signalized	0.845	D	**1.119**	**F**	0.274	Yes
29	SB I-110 Ramps / 223rd	County of Los Angeles	ICU	Signalized	0.748	C	**1.036**	**F**	0.288	Yes
		Caltrans	HCM	Signalized	18.6	B	**42.3**	**D**	23.7	Yes
30	Figueroa / 223rd	City of Carson	ICU	Signalized	0.690	B	0.875	D	0.185	No
31	Main / 223rd	City of Carson	ICU	Signalized	0.645	B	0.678	B	0.033	No
32	SB I-110 Ramps / Hamilton	County of Los Angeles	ICU	AWSC	**1.032**	**F**	**1.404**	**F**	0.372	Yes
		Caltrans	HCM	AWSC	**49.9**	**E**	**140.5**	**F**	90.6	Yes
33	Figueroa / NB I-110 Ramps	City of Carson	ICU	Signalized	0.617	B	0.671	B	0.054	No
		Caltrans	HCM	Signalized	26.5	C	30.0	C	3.5	No
34	Avalon / NB I-405	City of Carson	ICU	Signalized	0.301	A	0.315	A	0.014	No
		Caltrans	HCM	Signalized	15.9	B	15.9	B	0.0	No
35	Avalon / SB I-405	City of Carson	ICU	Signalized	0.460	A	0.466	A	0.006	No
		Caltrans	HCM	Signalized	11.8	B	12.1	B	0.3	No
36	Western / Torrance	City of Torrance	HCM	Signalized	40.9	D	41.4	D	0.5	No
		City of Los Angeles	CMA	Signalized	0.88	D	0.884	D	0.004	No
		Caltrans	HCM	Signalized	**40.9**	**D**	**41.4**	**D**	0.5	No
37	Western / 220th	City of Torrance	HCM	Signalized	7.2	A	8.9	A	1.7	No
		City of Los Angeles	CMA	Signalized	0.591	A	0.662	B	0.071	No
		Caltrans	HCM	Signalized	7.2	A	8.9	A	1.7	No

AWSC = All Way Stop Control. **Bold and shaded** = Intersection operates at an unacceptable LOS using the methodology listed.

TABLE 7.6: EXISTING YEAR (2016) WITH PROJECT SIGNIFICANT IMPACT TABLE – PM PEAK HOUR

INTERSECTION		Jurisdiction	Analysis Method	Intersection Control	EXISTING		W/ PROJECT		Change in V/C or Delay	Significant Impact?
					V/C or Delay (S)	LOS	V/C or Delay (S)	LOS		
1	Normandie / Torrance	City of Los Angeles	CMA	Signalized	**0.989**	**E**	**0.989**	**E**	0.000	No
		County of Los Angeles	ICU	Signalized	0.850	D	0.850	D	0.000	No
2	Vermont / Torrance	County of Los Angeles	ICU	Signalized	0.770	C	**0.911**	**E**	0.141	Yes
3	Figueroa / Torrance	City of Carson	ICU	Signalized	0.669	B	0.736	C	0.067	No
4	Vermont / Javelin	County of Los Angeles	ICU	Signalized	0.373	A	0.527	A	0.154	No
5	Carson / Cabrillo / Cravens	City of Torrance	HCM	Signalized	18.0	B	19.9	B	1.9	No
6	Western / Carson	City of Torrance	HCM	Signalized	37.4	D	51.3	D	13.9	No
		City of Los Angeles	CMA	Signalized	**0.999**	**E**	**1.093**	**F**	0.094	Yes
		Caltrans	HCM	Signalized	37.4	D	**51.3**	**D**	13.900	No
7	Normandie / Carson	City of Los Angeles	CMA	Signalized	0.900	D	**0.962**	**E**	0.062	Yes
		County of Los Angeles	ICU	Signalized	0.773	C	0.827	D	0.054	Yes
8	Budlong / Carson	County of Los Angeles	ICU	Signalized	0.388	A	0.482	A	0.094	No
9	Berendo / Carson	County of Los Angeles	ICU	Signalized	0.427	A	0.741	C	0.314	No
10	Vermont / Carson	County of Los Angeles	ICU	Signalized	0.702	C	**0.974**	**E**	0.272	Yes
11	SB I-110 Ramps / Carson	County of Los Angeles	ICU	Signalized	0.665	B	0.897	D	0.232	Yes
		Caltrans	HCM	Signalized	20.9	C	**60.5**	**E**	39.6	Yes
12	Figueroa / Carson	City of Carson	ICU	Signalized	0.567	A	0.795	C	0.228	No
13	Moneta / Carson	City of Carson	ICU	Signalized	0.291	A	0.363	A	0.072	No
14	Main / Carson	City of Carson	ICU	Signalized	0.501	A	0.554	A	0.053	No
15	Dolores / Carson	City of Carson	ICU	Signalized	0.339	A	0.399	A	0.060	No
16	Grace / Carson	City of Carson	ICU	Signalized	0.346	A	0.406	A	0.060	No
17	Avalon / Carson	City of Carson	ICU	Signalized	0.732	C	0.780	C	0.048	No
18	Bonita / Carson	City of Carson	ICU	Signalized	0.729	C	0.772	C	0.043	No
19	SB I-405 Ramps / Carson	City of Carson	ICU	Signalized	0.582	A	0.606	B	0.024	No
		Caltrans	HCM	Signalized	7.1	A	7.3	A	0.2	No
20	NB I-405 Ramps / Carson	City of Carson	ICU	Signalized	0.579	A	0.603	B	0.024	No
		Caltrans	HCM	Signalized	12.4	B	13.0	B	0.6	No
21	Normandie / 220th	City of Los Angeles	CMA	Signalized	0.442	A	0.470	A	0.028	No
		County of Los Angeles	ICU	Signalized	0.414	A	0.441	A	0.027	No
22	Meyler / 220th	County of Los Angeles	HCM	AWSC	0.315	A	0.499	A	0.184	No
23	Vermont / 220th	County of Los Angeles	ICU	Signalized	0.498	A	0.613	B	0.115	No
24	Figueroa / 220th and NB I-110	City of Carson	ICU	Signalized	0.786	C	**1.237**	**F**	0.451	Yes
		Caltrans	HCM	Signalized	**46.1**	**D**	**134.4**	**F**	88.3	Yes
25	Western / 223rd	City of Torrance	HCM	Signalized	29.4	C	31.3	C	1.9	No
		City of Los Angeles	CMA	Signalized	0.930	E	**0.941**	**E**	0.011	Yes
		Caltrans	HCM	Signalized	29.4	C	31.3	C	1.9	No
26	Normandie / 223rd	City of Los Angeles	CMA	Signalized	0.699	B	0.724	C	0.025	No
		County of Los Angeles	ICU	Signalized	0.655	B	0.678	B	0.023	No
27	Meyler / 223rd	County of Los Angeles	ICU	Signalized	0.523	A	0.694	B	0.171	No
28	Vermont / 223rd	County of Los Angeles	ICU	Signalized	0.769	C	**1.009**	**F**	0.240	Yes
29	SB I-110 Ramps / 223rd	County of Los Angeles	ICU	Signalized	0.818	D	**1.028**	**F**	0.210	Yes
		Caltrans	HCM	Signalized	28.4	C	**64.3**	**E**	35.9	Yes
30	Figueroa / 223rd	City of Carson	ICU	Signalized	0.664	B	0.827	D	0.163	No
31	Main / 223rd	City of Carson	ICU	Signalized	0.732	C	0.762	C	0.030	No
32	SB I-110 Ramps / Hamilton	County of Los Angeles	ICU	AWSC	**1.115**	**F**	**1.173**	**F**	0.058	Yes
		Caltrans	HCM	AWSC	**128.4**	**F**	**139.0**	**F**	10.6	Yes
33	Figueroa / NB I-110 Ramps	City of Carson	ICU	Signalized	0.615	B	0.743	C	0.128	No
		Caltrans	HCM	Signalized	20.9	C	27.9	C	7.0	No
34	Avalon / NB I-405	City of Carson	ICU	Signalized	0.410	A	0.415	A	0.005	No
		Caltrans	HCM	Signalized	15.1	B	15.2	B	0.1	No
35	Avalon / SB I-405	City of Carson	ICU	Signalized	0.408	A	0.420	A	0.012	No
		Caltrans	HCM	Signalized	10.3	B	10.5	B	0.2	No
36	Western / Torrance	City of Torrance	HCM	Signalized	34.1	C	36.4	D	2.3	No
		City of Los Angeles	CMA	Signalized	0.823	D	0.836	D	0.013	No
		Caltrans	HCM	Signalized	34.1	C	**36.4**	**D**	2.3	Yes
37	Western / 220th	City of Torrance	HCM	Signalized	14.6	B	15.0	B	0.4	No
		City of Los Angeles	CMA	Signalized	0.807	D	0.848	D	0.041	Yes
		Caltrans	HCM	Signalized	14.6	B	15.0	B	0.4	No

AWSC = All Way Stop Control. **Bold and shaded** = Intersection operates at an unacceptable LOS using the methodology listed.

7.4 CMP MONITORING STATION ANALYSIS

The CMP monitoring station analysis results for the AM and PM peak hours are summarized in Table 7.7 and Table 7.8, respectively. The analysis was performed in accordance with the methodology outlined in Section 3. An unacceptable LOS (LOS F) is observed at the following locations:

- I-405 at Santa Fe Avenue
- I-405 north of Inglewood Avenue

No significant impacts are expected due to the addition of project traffic.

7.5 FREEWAY MAINLINE ANALYSIS

The freeway mainline analysis results for the AM and PM peak hours are summarized in Table 7.9 and Table 7.10, respectively. The analysis was conducted using the methodology and settings outlined in Section 3.4.2. All freeway segments are anticipated to operate at an unacceptable level of service (LOS D or worse) with the exception of:

- SR-91 at Avalon Boulevard
- I-110 at SR-1 (Pacific Coast Highway)

A significant impact is expected to occur at the following locations due to the onset of project traffic:

- I-405 at I-710

7.6 FREEWAY OFF-RAMP QUEUE ANALYSIS

Per Caltrans traffic study guidelines, a queue analysis for freeway off-ramps at intersections of interest is to be provided. Table 7.11 summarizes the storage capacities and queue lengths expected for these off-ramps. All freeway off-ramps are expected to provide sufficient storage capacity such that the 85% storage capacity is not exceeded with the addition of project traffic with the exception of:

- I-110 Southbound Off-Ramp at Carson Street
- I-110 Southbound Off-Ramp at Hamilton Avenue

7.7 VEHICLE MILES TRAVELED (VMT) ANALYSIS

VMT calculations were prepared based on the land use characteristics in the Existing Year (2016) With Project scenario; project-related changes in land uses were calculated using the land use existing and proposed zoning outlined in Section 2.2 and Section 2.3, respectively. A summary of the following scenarios is presented in Table 7.12 and Table 7.13.

- Existing Year (2016) w/ Project
- Existing Year (2016) w/ Project + Pass-By and Internal Capture Reductions

TABLE 7.7: EXISTING YEAR (2016) WITH PROJECT CMP MONITORING STATION ANALYSIS – AM PEAK HOUR

ID	Freeway	Segment	Station	Direction	Lanes	Capacity	Existing Year (2016) No Project			Project Trips	Existing Year (2016) With Project			Change in V/C	Significant Impact?
							Peak Hour Volume	V/C	LOS		Peak Hour Volume	V/C	LOS		
1	I-110	at Wilmington Boulevard s/o C Street	1045	NB	4	8,000	4,348	0.544	C	218	4,566	0.571	C	0.027	No
				SB	4	8,000	3,176	0.397	B	81	3,257	0.407	B	0.010	No
2	I-110	at Manchester Boulevard	1046	NB	6	12,000	8,479	0.707	C	122	8,601	0.717	C	0.010	No
				SB	6	12,000	10,330	0.861	D	327	10,657	0.888	D	0.027	No
3	I-405	at Santa Fe Avenue	1066	NB	5	10,000	10,365	**1.037**	**F(0)**	218	10,583	**1.058**	**F(0)**	0.022	No
				SB	5	10,000	12,090	**1.209**	**F(0)**	81	12,171	**1.217**	**F(0)**	0.008	No
4	I-405	south of I-110	1067	NB	5	10,000	9,065	0.907	D	446	9,511	0.951	E	0.045	No
				SB	5	10,000	7,438	0.744	C	1,198	8,636	0.864	D	0.120	No
5	I-405	north of Inglewood Avenue	1068	NB	5	10,000	8,075	0.808	D	122	8,197	0.820	D	0.012	No
				SB	5	10,000	10,608	**1.061**	**F(0)**	327	10,935	**1.094**	**F(0)**	0.033	No
6	SR-91	east of Alameda Street/Santa Fe Avenue	1033	EB	6	12,000	7,978	0.665	C	122	8,100	0.675	C	0.010	No
				WB	6	12,000	5,800	0.483	B	327	6,127	0.511	B	0.027	No

Bold and shaded = Unacceptable evel of service (LOS F).

TABLE 7.8: EXISTING YEAR (2016) WITH PROJECT CMP MONITORING STATION ANALYSIS – PM PEAK HOUR

ID	Freeway	Segment	Station	Direction	Lanes	Capacity	Existing Year (2016) No Project			Project Trips	Existing Year (2016) With Project			Change in V/C	Significant Impact?
							Peak Hour Volume	V/C	LOS		Peak Hour Volume	V/C	LOS		
1	I-110	at Wilmington Boulevard s/o C Street	1045	NB	4	8,000	2,921	0.365	B	83	3,004	0.376	B	0.010	No
				SB	4	8,000	4,436	0.555	C	192	4,628	0.579	C	0.024	No
2	I-110	at Manchester Boulevard	1046	NB	6	12,000	9,321	0.777	D	288	9,609	0.801	D	0.024	No
				SB	6	12,000	11,375	0.948	E	124	11,499	0.958	E	0.010	No
3	I-405	at Santa Fe Avenue	1066	NB	5	10,000	9,313	0.931	E	83	9,396	0.940	E	0.008	No
				SB	5	10,000	15,074	**1.507**	**F(3)**	192	15,266	**1.527**	**F(3)**	0.019	No
4	I-405	south of I-110	1067	NB	5	10,000	8,250	0.825	D	1,055	9,305	0.931	E	0.106	No
				SB	5	10,000	9,408	0.941	E	454	9,862	0.986	E	0.045	No
5	I-405	north of Inglewood Avenue	1068	NB	5	10,000	10,015	**1.002**	**F(0)**	288	10,303	**1.030**	**F(0)**	0.029	No
				SB	5	10,000	10,390	**1.039**	**F(0)**	124	10,514	**1.051**	**F(0)**	0.012	No
6	SR-91	east of Alameda Street/Santa Fe Avenue	1033	EB	6	12,000	7,618	0.635	C	288	7,906	0.659	C	0.024	No
				WB	6	12,000	6,138	0.512	B	124	6,262	0.522	B	0.010	No

Bold and shaded = Unacceptable evel of service (LOS F).

TABLE 7.9: EXISTING YEAR (2016) WITH PROJECT FREEWAY MAINLINE ANALYSIS SUMMARY – AM PEAK HOUR

ID	Freeway	Location	California Postmile	Absolute Postmile	Direction	Existing Year (2016) No Project		Project Trips	Existing Year (2016) With Project		Change in Density	Project Impact?
						Density (pc/mi/ln)	LOS		Density (pc/mi/ln)	LOS		
1	SR-91	at Avalon Boulevard	7.55	11.5	EB	14.1	B	122	14.5	B	0.4	No
					WB	23.9	C	327	25	C	1.1	No
2	I-110	at SR-1 (Pacific Coast Highway)	4.17	4.1	NB	24.4	C	218	25.5	C	1.1	No
					SB	17.3	B	81	17.6	B	0.3	No
3	I-110	at Sepulveda Boulevard	5.6	5.5	NB	**30.7**	**D**	218	**32.2**	**D**	1.5	No
					SB	20.7	C	81	21.1	C	0.4	No
4	I-110	at El Segundo Boulevard	12.86	12.8	NB	23.6	C	122	24.1	C	0.5	No
					SB	**30.3**	**D**	327	**31.8**	**D**	1.5	No
5	I-405	at I-710	7.63	31.4	NB	**45.7**	**F**	218	**47.9**	**F**	2.2	**Yes**
					SB	**37.9**	**E**	81	**38.5**	**E**	0.6	No
6	I-405	south of I-110 (Carson Scales)	11.82	35.6	NB	25	C	218	25.8	C	0.8	No
					SB	19.8	C	81	20.1	C	0.3	No
7	I-405	at Western Avenue	14.34	38.1	NB	**26.2**	**D**	122	**26.7**	**D**	0.5	No
					SB	**27.5**	**D**	327	**29.1**	**D**	1.6	No

TABLE 7.10: EXISTING YEAR (2016) WITH PROJECT FREEWAY MAINLINE ANALYSIS SUMMARY – PM PEAK HOUR

ID	Freeway	Location	California Postmile	Absolute Postmile	Direction	Existing Year (2016) No Project		Project Trips	Existing Year (2016) With Project		Change in Density	Project Impact?
						Density (pc/mi/ln)	LOS		Density (pc/mi/ln)	LOS		
1	SR-91	at Avalon Boulevard	7.55	11.5	EB	21.1	C	288	22	C	0.9	No
					WB	16.5	B	124	16.8	C	0.3	No
2	I-110	at SR-1 (Pacific Coast Highway)	4.17	4.1	NB	16.1	B	83	16.5	B	0.4	No
					SB	24.1	C	192	25.1	C	1	No
3	I-110	at Sepulveda Boulevard	5.6	5.5	NB	19.5	C	83	19.9	D	0.4	No
					SB	29.0	C	192	**30.2**	**D**	1.2	No
4	I-110	at El Segundo Boulevard	12.86	12.8	NB	22.8	C	288	23.7	C	0.9	No
					SB	**29.7**	**D**	124	**30.2**	**D**	0.5	No
5	I-405	at I-710	7.63	31.4	NB	**35.9**	**E**	83	**36.4**	**D**	0.5	No
					SB	**70.9**	**F**	192	**75**	**F**	4.1	**Yes**
6	I-405	south of I-110 (Carson Scales)	11.82	35.6	NB	22.3	C	83	22.5	C	0.2	No
					SB	**26.2**	**D**	192	**27**	**D**	0.8	No
7	I-405	at Western Avenue	14.34	38.1	NB	**28.1**	**D**	288	**29.5**	**D**	1.4	No
					SB	**31.9**	**D**	124	**32.6**	**D**	0.7	No

Bold and shaded = Unacceptable evel of service (LOS D or worse). Pc/mi/ln = passenger-car per mile per lane.

TABLE 7.11: EXISTING YEAR (2016) WITH PROJECT QUEUE ANALYSIS

ID	Ramp	Cross Street	Ramp Length (ft) [a]	85% Ramp Length (ft)	Ramp Turn Lanes at Intersection			AM Queue		PM Queue		Queue Exceeds 85% Storage?	
					Lanes	Movement	Length [a]	Lane (ft)	Max (ft)	Lane (ft)	Max (ft)	AM	PM
11	I-110 Southbound Off-Ramp	Carson Street	980	830	2	Left	980	57	842	851	851	Yes	Yes
						Right	380	842		182			
19	I-405 Southbound Off-Ramp	Carson Street	1,100	940	2	Left	660	41	41	28	28	No	No
						Right	1,100	41		19			
20	I-405 Northbound Off-Ramp	Carson Street	1,200	1,020	2	Through/Left	1,200	26	163	30	144	No	No
						Right	620	163		144			
24	I-110 Northbound Off-Ramp	Figueroa Street	1,150	980	2	Through/Left	1,150	739	739	688	688	No	No
						Right	530	108		92			
29	I-110 Southbound Off-Ramp	223rd Street	935	800	2	Through/Left	935	545	545	759	759	No	No
						Right/Through	405	545		759			
32	I-110 Southbound Off-Ramp	Hamilton Avenue	890	760	3	Left	890	800	800	213	213	Yes	No
						Left	355	800		118			
						Right	40	38		118			
33	I-110 Northbound Off-Ramp	Figueroa Street	880	750	2	Left	880	432	432	210	210	No	No
						Right/Left	340	230		90			
34	I-405 Northbound Off-Ramp	Avalon Boulevard	980	830	3	Left	980	38	219	45	133	No	No
						Through/Left	320	40		46			
						Right	320	219		133			
35	I-405 Southbound Off-Ramp	Avalon Boulevard	390	330	5	Left	390	66	215	43	128	No	No
						Left	390	66		43			
						Through	390	3		23			
						Through	390	3		23			
						Right	240	215		128			

[a] = Length measured from scaled aerial images.

TABLE 7.12: EXISTING YEAR (2016) WITH PROJECT VMT SUMMARY

Land Use	Average Daily Trip Rate			Annual VMT	Population / Employees	Annual VMT Per Capita
	Weekday	Saturday	Sunday			
Apartments (Mid-Rise)	17,536.05	16,850.43	15,452.82	**58,571,693**	**7,397**	**7,918**
General Light Industry	3,986.49	754.97	388.93	**13,333,138**	**548**	**24,331**
General Office Building	14,725.94	3,284.30	1,401.83	**36,041,610**	**2,741**	**13,149**
Hospital	9,870.98	7,601.10	6,652.83	**35,228,760**	**5,500**	**6,405**
Single Family Housing	8,939.28	9,305.49	8,094.18	**30,313,101**	**2,443**	**12,408**
Strip Mall	33,430.13	31,710.35	15,410.14	**58,238,756**	**906**	**64,281**
Unrefrigerated Warehouse - No Rail	0.00	0.00	0.00	**0**	**0**	-
Total	**88,488.87**	**69,506.64**	**47,400.73**	**231,727,058**	**19,535**	**128,492**

TABLE 7.13: EXISTING YEAR (2016) WITH PROJECT + PASS-BY, INTERNAL CAPTURE, AND TDM REDUCTIONS VMT SUMMARY

Land Use	Average Daily Trip Rate			Annual VMT	Population / Employees	Annual VMT Per Capita
	Weekday	Saturday	Sunday			
Apartments (Mid-Rise)	13,437.88	12,912.48	11,841.50	**44,883,488**	**7,397**	**6,068**
General Light Industry	3,866.90	732.32	377.26	**12,933,144**	**548**	**23,601**
General Office Building	11,168.15	2,490.82	1,063.15	**27,333,957**	**2,741**	**9,972**
Hospital	9,673.56	7,449.08	6,519.77	**34,524,185**	**5,500**	**6,277**
Single Family Housing	6,850.17	7,130.80	6,202.57	**23,228,930**	**2,443**	**9,508**
Strip Mall	22,448.33	21,293.50	10,347.91	**39,107,324**	**906**	**43,165**
Unrefrigerated Warehouse - No Rail	0.00	0.00	0.00	**0**	**0**	-
Total	**67,444.99**	**52,009.00**	**36,352.16**	**182,011,028**	**19,535**	**98,591**

8 FUTURE YEAR (2035) WITH PROJECT

This section presents the ADT, peak hour link analysis, queue analysis, and intersection LOS analysis for the Future Year (2035) With Project scenario. The scenario is based on the addition of project traffic proposed as part of the West Carson TOD Specific Plan described in Section 2. Associated lane geometries and controls are consistent with the Future Year (2035) No Project intersection geometries and controls.

8.1 AVERAGE DAILY TRAFFIC

The average daily traffic for selected links generated by the project as well as in the Future Year (2035) No Project and Future Year (2035) With Project scenarios are presented in Table 8.1.

TABLE 8.1: FUTURE YEAR (2035) WITH PROJECT ROADWAY SEGMENT SUMMARY

ID	Segment	Future Year (2035) No Project	Project ADT	Future Year (2035) With Project
1	Carson Street west of Berendo Avenue	35,233	5,894	41,127
2	Carson Street east of Vermont Avenue	41,473	17,680	59,153
3	Carson Street east of Figueroa Street	21,781	5,894	27,675
4	Carson Street west of Normandie Avenue	38,591	4,420	43,011
5	Normandie Avenue north of Carson Street	20,470	246	20,716
6	Normandie Avenue south of Carson Street	22,095	0	22,095
7	Vermont Avenue south of Javelin Street	19,520	10,804	30,324
8	Vermont Avenue south of Carson Street	23,824	5,893	29,717
9	Vermont Avenue south of 223rd Street	24,559	5,894	30,453
10	Figueroa Street south of Carson Street	23,964	6,384	30,348

8.2 PEAK HOUR LINK LEVEL OF SERVICE

AM and PM peak hour link analyses are presented in Table 8.2 and 8.3, respectively. The peak hour link volumes are derived from the turning movement volumes; more specifically, the arriving and departing volumes between two intersections that the link of interest joins. In the event that the departures of one intersection did not equal the arrivals of the second intersection, an average of the two volumes was taken to be the link volume experienced. A loss, or even gain, in volumes between two intersections is not uncommon, especially in situations where additional intersections or driveways are present between the intersections of interest. The following links are expected to be operate at LOS E or worse:

- Carson Street from Budlong Ave to Berendo Ave
- Carson Street from Vermont Ave to SB Harbor Fwy ramp
- Carson Street from Western Ave to Normandie Ave
- Normandie Avenue from Carson Street to 220th Street
- Vermont Avenue from 220th Street to 223rd Street
- Figueroa Street from Carson Street to 220th Street

TABLE 8.2: FUTURE YEAR (2035) WITH PROJECT AM PEAK HOUR LINK ANALYSIS

Link ID	Street	Segment		Class	Capacity per Lane	Number of Lanes		Volumes		V/C Ratio		Level of Service	
		From	To			NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
1	W Carson St	Budlong Ave	Berendo Ave	Major	750	2	2	1096	1680	0.73	**1.12**	C	**F**
2	W Carson St	Vermont Ave	I-110 SB Ramp	Major	750	3	2	1310	2641	0.58	**1.76**	A	**F**
3	W Carson St	Figueroa St	Moneta Ave	Major	750	2	2	736	1087	0.49	0.72	A	C
4	W Carson St	Western Ave	Normandie Ave	Major	750	2	2	1287	1587	0.86	**1.06**	D	**F**
5	Normandie Ave	Torrance Blvd	Carson St	Secondary	600	2	2	1053	656	0.88	0.55	D	A
6	Normandie Ave	Carson St	220th St	Secondary	600	2	2	1053	715	0.88	0.60	D	A
7	S Vermont Ave	Javelin St	Carson St	Major	750	2	2	1442	1236	**0.96**	0.82	**E**	D
8	S Vermont Ave	Carson St	220th St	Major	750	2	2	1336	1274	0.89	0.85	D	D
9	S Vermont Ave	220th St	223rd St	Major	750	2	2	1538	863	**1.03**	0.58	**E**	A
10	S Figueroa St	Carson St	220th St	Major	750	2	2	1231	1142	0.82	0.76	D	C

Bold and shaded = Unacceptable LOS.

TABLE 8.3: FUTURE YEAR (2035) WITH PROJECT PM PEAK HOUR LINK ANALYSIS

Link ID	Street	Segment		Class	Capacity per Lane	Number of Lanes		Volumes		V/C Ratio		Level of Service	
		From	To			NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
1	W Carson St	Budlong Ave	Berendo Ave	Major	750	2	2	1491	1469	**0.99**	**0.98**	**E**	**E**
2	W Carson St	Vermont Ave	I-110 SB Ramp	Major	750	3	2	2181	1669	**0.97**	**1.11**	**E**	**F**
3	W Carson St	Figueroa St	Moneta Ave	Major	750	2	2	1035	826	0.69	0.55	B	A
4	W Carson St	Western Ave	Normandie Ave	Major	750	2	2	1648	1467	**1.10**	**0.98**	**F**	**E**
5	Normandie Ave	Torrance Blvd	Carson St	Secondary	600	2	2	815	1051	0.68	0.88	B	D
6	Normandie Ave	Carson St	220th St	Secondary	600	2	2	736	1107	0.61	**0.92**	B	**E**
7	S Vermont Ave	Javelin St	Carson St	Major	750	2	2	1079	1479	0.72	**0.99**	C	**E**
8	S Vermont Ave	Carson St	220th St	Major	750	2	2	1110	1321	0.74	0.88	C	D
9	S Vermont Ave	220th St	223rd St	Major	750	2	2	776	1560	0.52	**1.04**	A	**E**
10	S Figueroa St	Carson St	220th St	Major	750	2	2	669	1569	0.45	**1.05**	A	**E**

Bold and shaded = Unacceptable LOS.

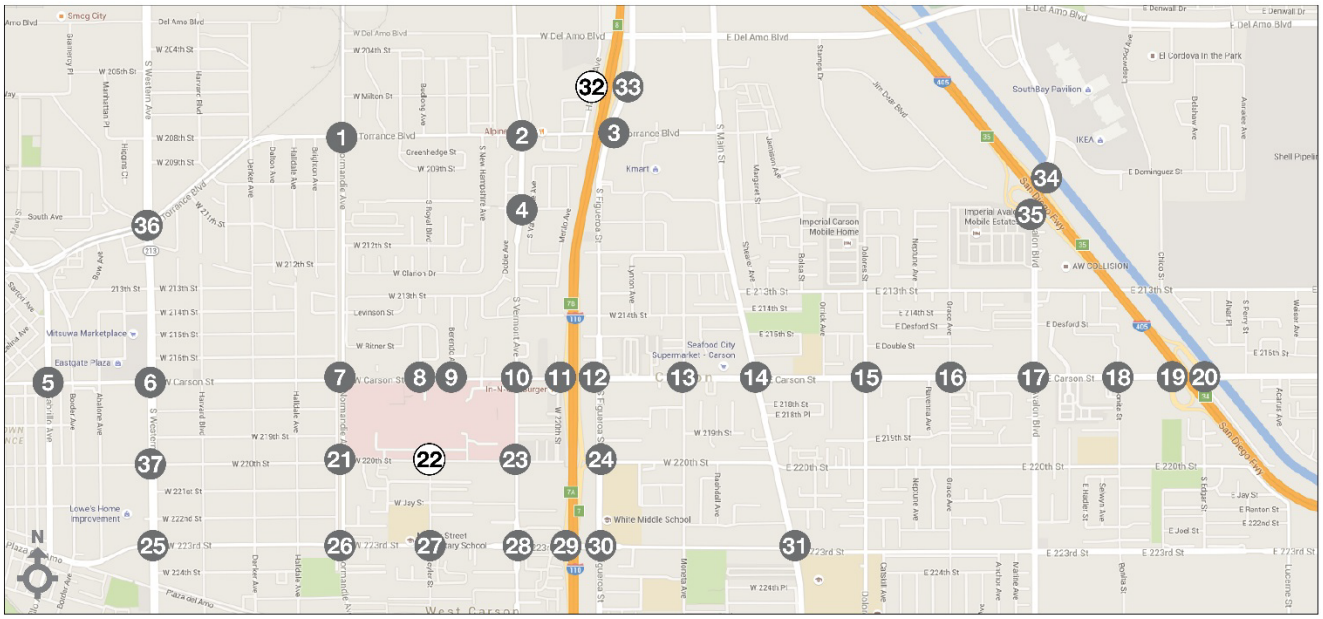
8.3 INTERSECTION LEVEL OF SERVICE

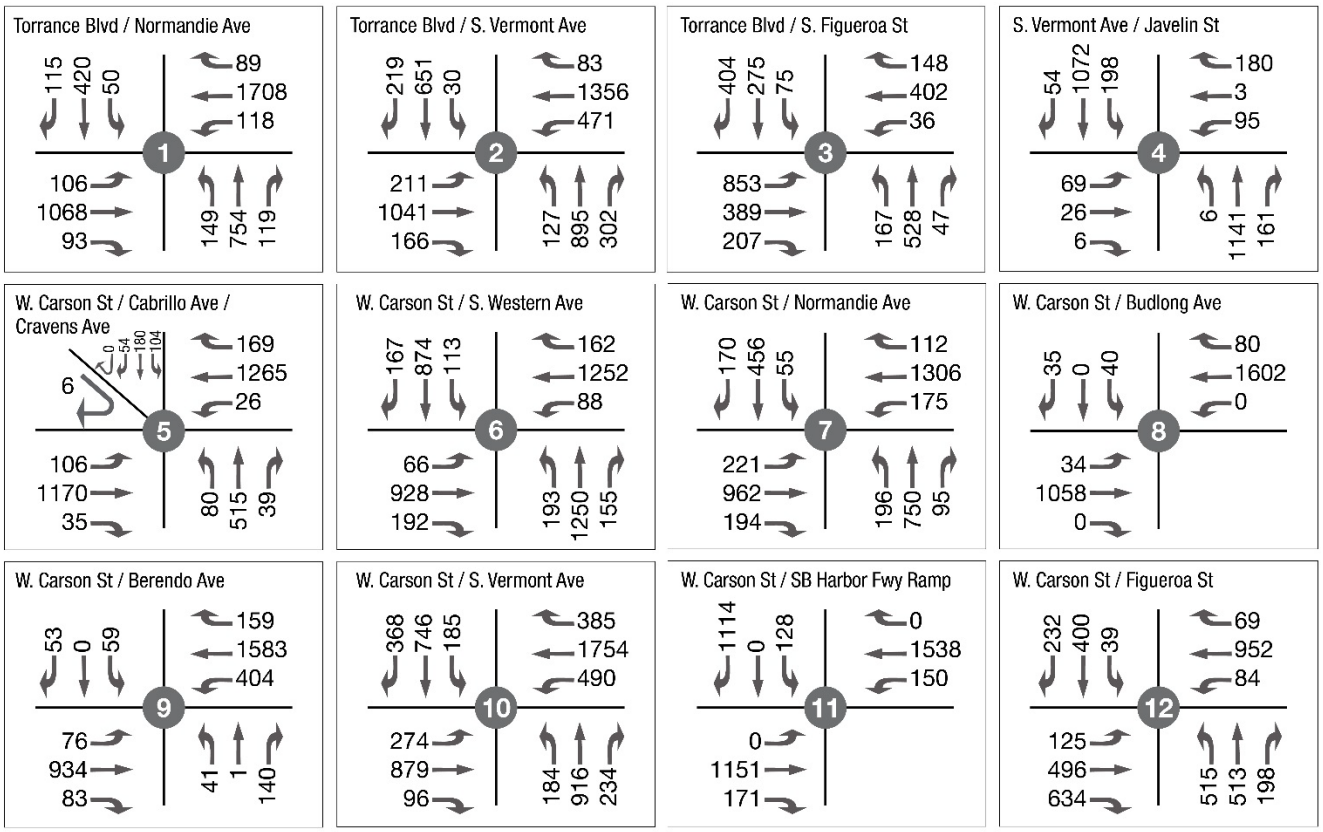
The peak hour turning movement volumes presented in Figure 8.1 and 8.2 were utilized in order to assess intersection performance. A summary of the AM and PM peak hour intersection level of service analysis results for the Future Year (2035) With Project condition is presented in Table 8.4. Additionally, study intersections were evaluated to determine if they were significantly impacted by the addition of project-generated traffic; summary tables for the AM and PM peak hours are presented in Table 8.5 and Table 8.6, respectively. The intersection impact thresholds are outlined in Section 3.

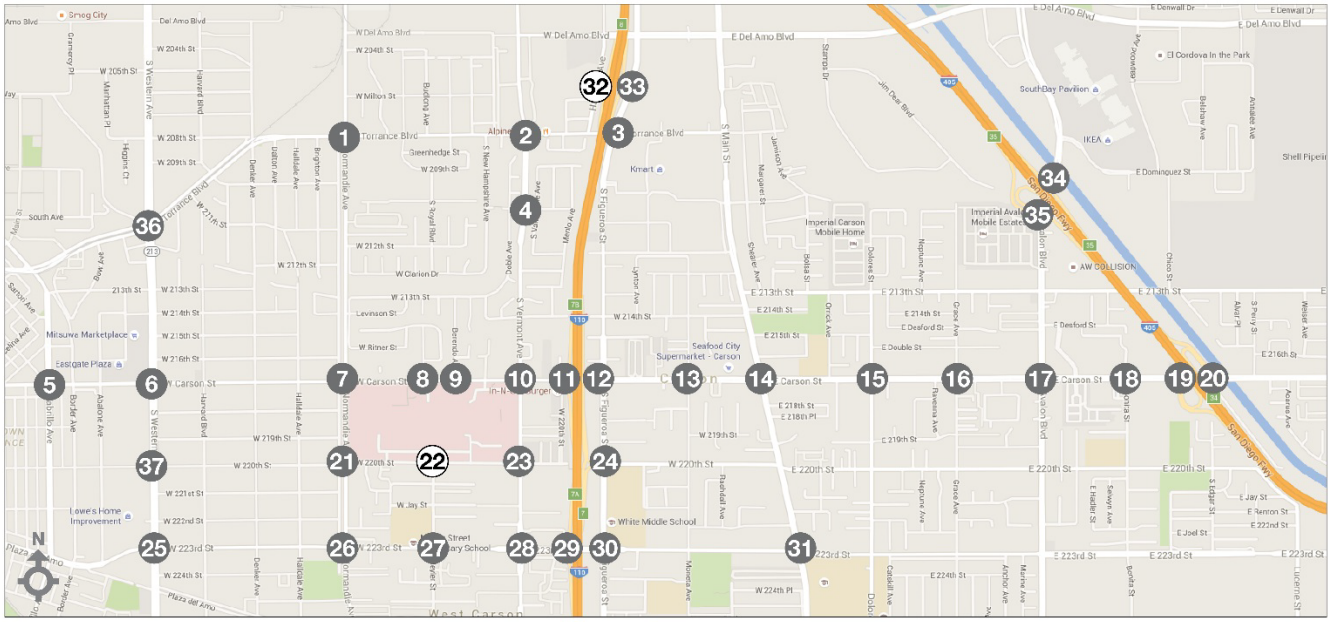
The following seventeen intersections are expected to be significantly impacted by project traffic:

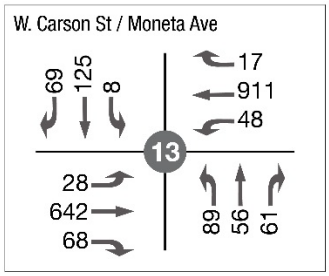
- Normandie Avenue and Torrance Boulevard
- Vermont Avenue and Torrance Boulevard
- Western Avenue and Carson Street
- Normandie Avenue and Carson Street
- Berendo Avenue and Carson Street
- Vermont Avenue and Carson Street
- SB I-110 Ramps and Carson Street
- Figueroa Street and 220th Street / NB I-110 Ramps
- Western Avenue and 223rd Street
- Normandie Avenue and 223rd Street
- Meyler Street and 223rd Street
- Vermont Avenue and 223rd Street
- SB I-110 Ramps and 223rd Street
- Figueroa Street and 223rd Street
- Hamilton Avenue and SB I-110 Ramps
- Western Avenue and Torrance Boulevard
- Western Avenue and 220th Street

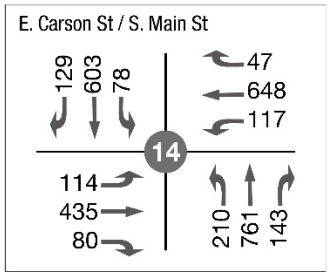
FIGURE 8.1: FUTURE YEAR (2035) WITH PROJECT TURNING MOVEMENT VOLUMES – AM PEAK HOUR

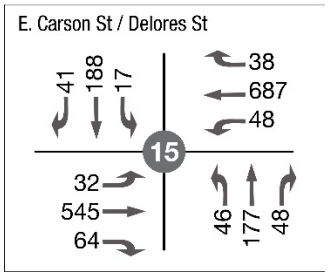


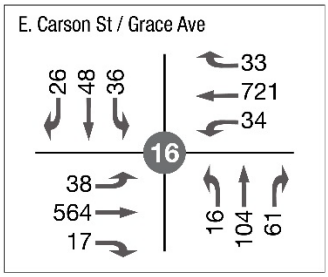


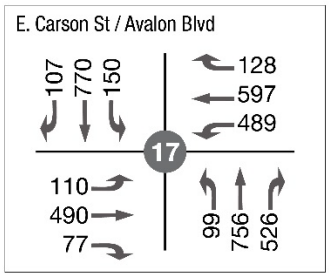


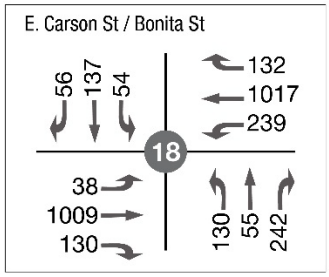


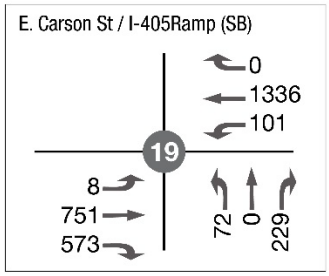


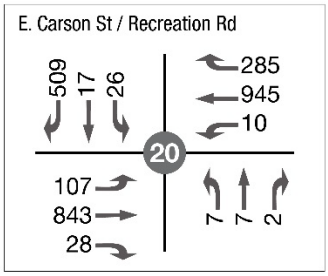


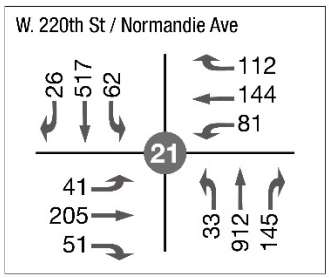


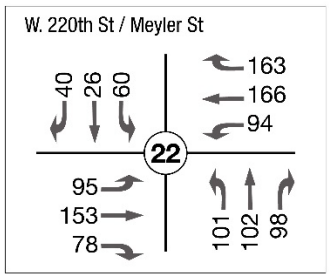


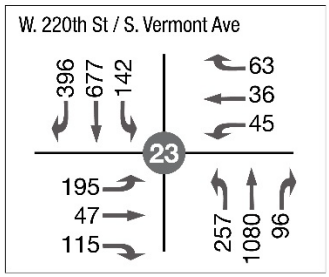


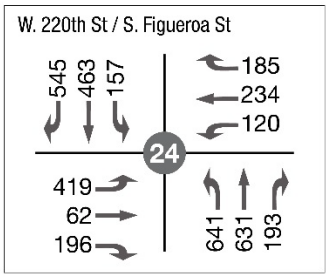






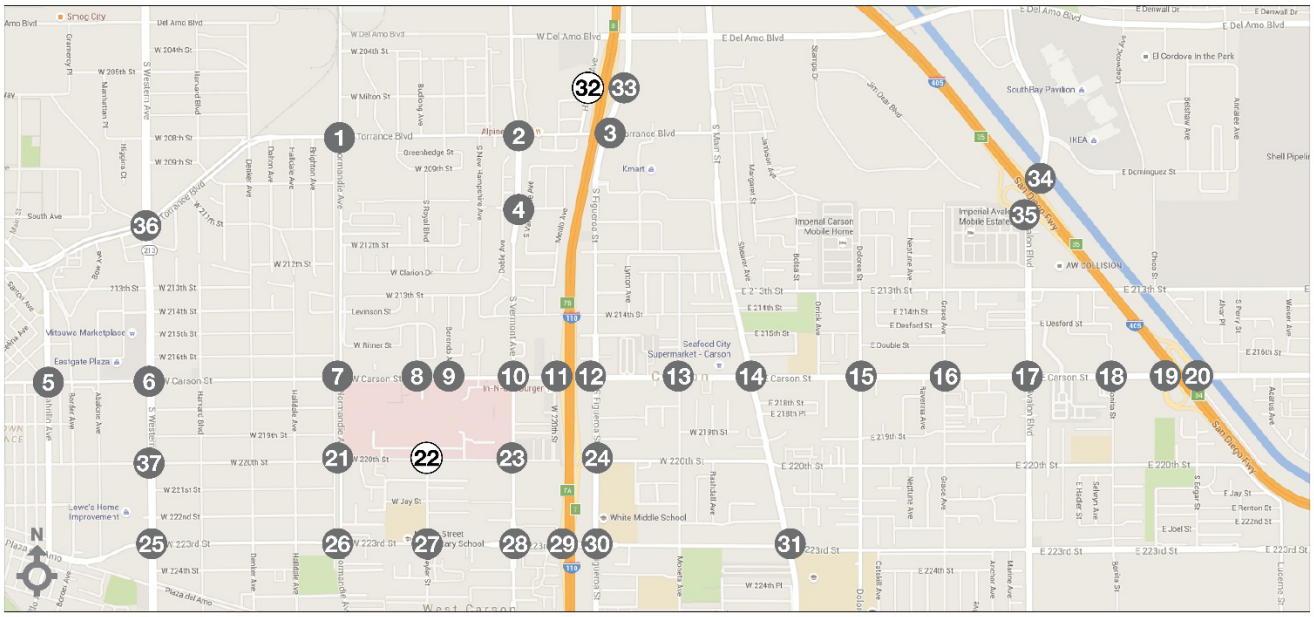






Legend

Signalized Intersection Unsignalized Intersection Lane Geometry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Torrance Blvd
W. Del Amo Blvd
E. Del Amo Blvd
Kmart
IKEA
SouthBay Pavilion
Imperial Carson Mobile Home
Seafood City Supermarket - Carson
White Middle School
W. Carson
E. Carson St
W. 223rd St
E. 223rd St
W. 220th St
E. 220th St
W. 219th St
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E. Dominguez St
W. Milton St
W. Clarion Dr
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E. Torrance Blvd
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S. Figueroa St
S. Vermont Ave
S. Main St
Normandie Ave
Harbor Fwy
Avalon Blvd
Alameda St
Wilmington Ave
Main St
Figueroa St
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Western Ave
Hamilton Ave
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Vons
Vitsuwe Marketplace
Eastgate Plaza
Love's Home Improvement
AW COLLISION
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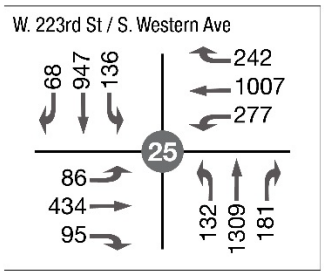
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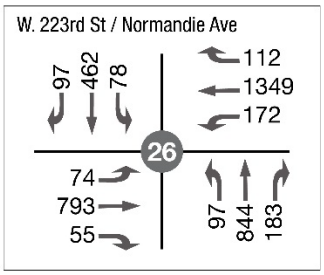
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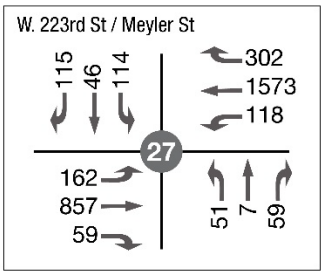
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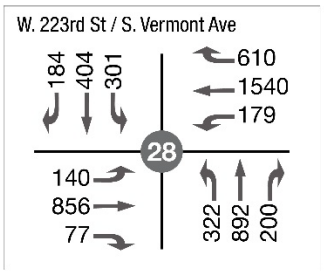
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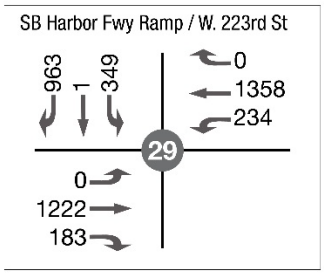
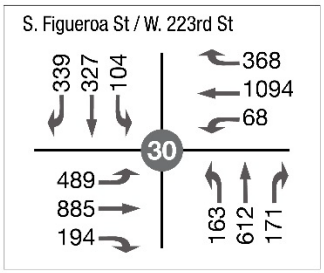
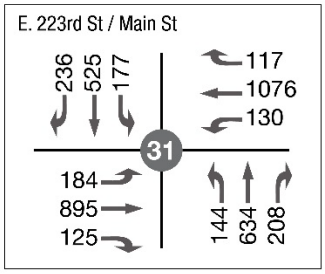
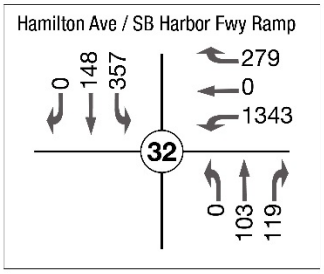
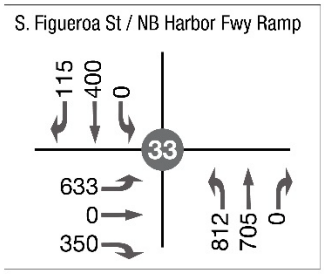
892
200

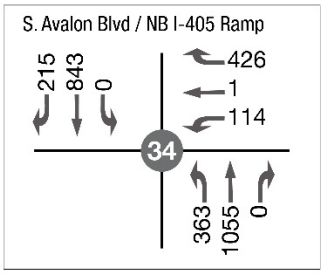

SB Harbor Fwy Ramp / W. 223rd St
963
1
349
0
1358
234
29
0
1222
183

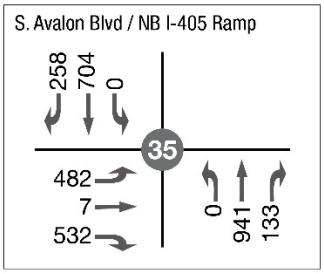

S. Figueroa St / W. 223rd St
339
327
104
368
1094
68
30
489
885
194
163
612
171

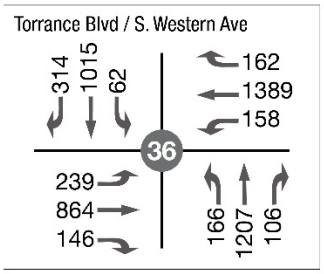

E. 223rd St / Main St
236
525
177
117
1076
130
31
184
895
125
144
634
208


Hamilton Ave / SB Harbor Fwy Ramp
0
148
357
279
0
1343
32
0
103
119


S. Figueroa St / NB Harbor Fwy Ramp
115
400
0
33
633
0
350
812
705
0


S. Avalon Blvd / NB I-405 Ramp
215
843
0
426
1
114
34
363
1055
0


S. Avalon Blvd / NB I-405 Ramp
258
704
0
35
482
7
532
0
941
133


Torrance Blvd / S. Western Ave
314
1015
62
162
1389
158
36
239
864
146
166
1207
106


Legend
Signalized Intersection
Unsignalized Intersection
Lane Geometry

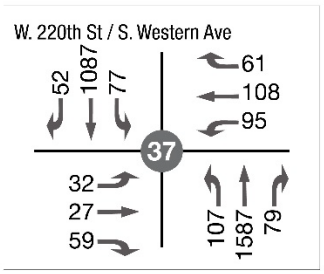
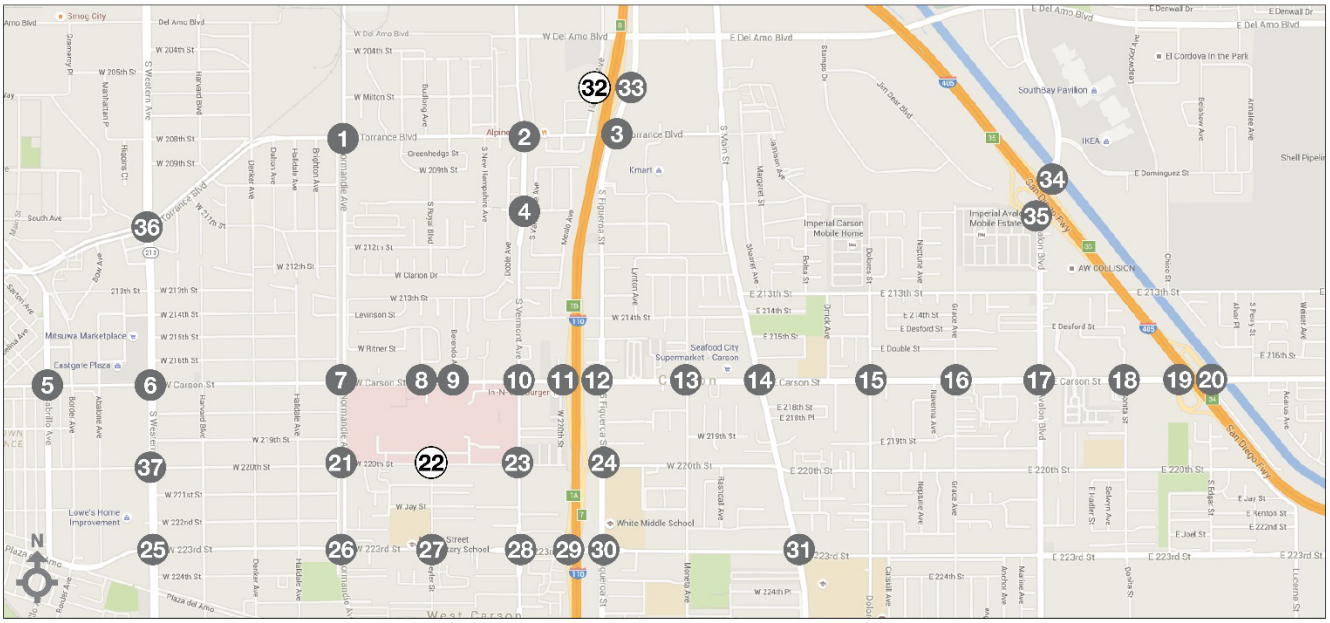
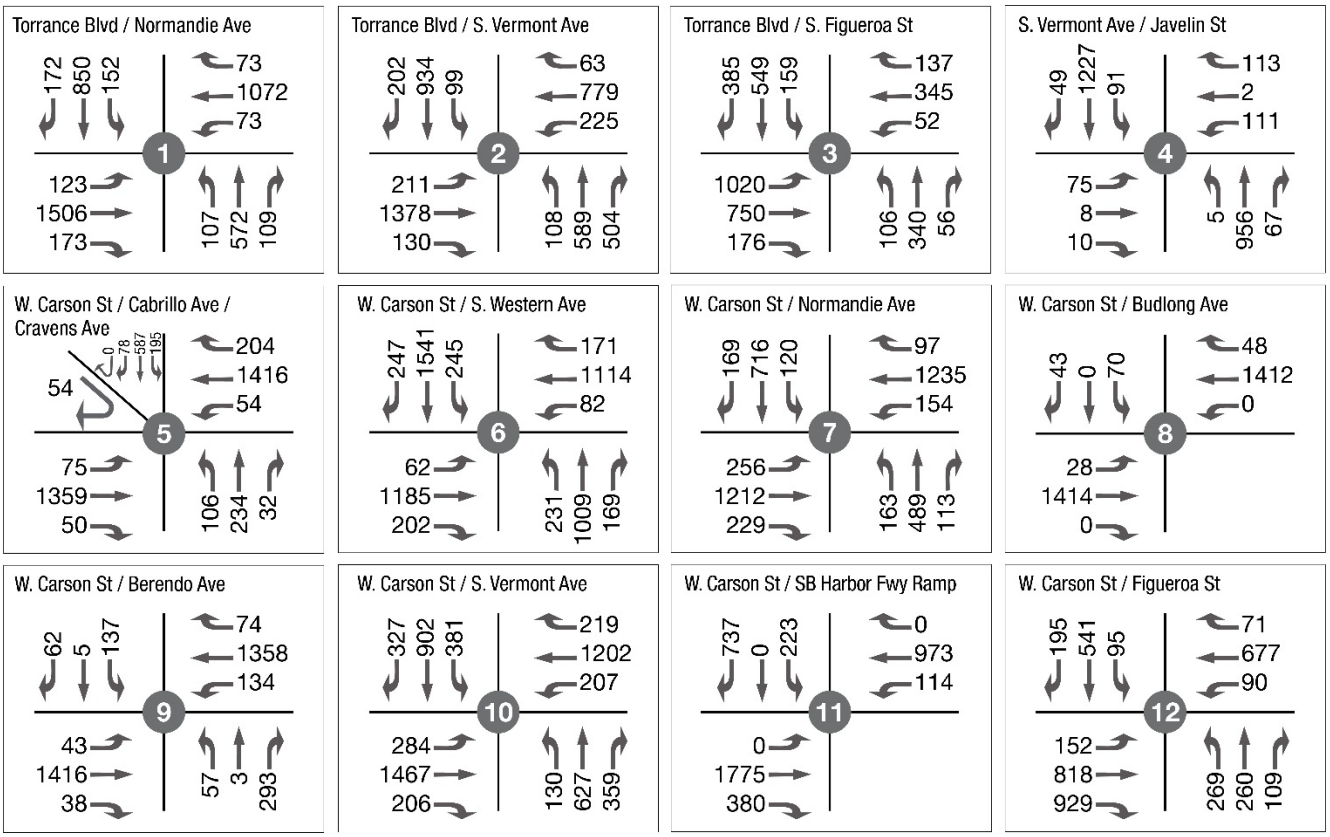

W. 220th St / S. Western Ave
52
1087
77
61
108
95
37
32
27
59
107
1587
79

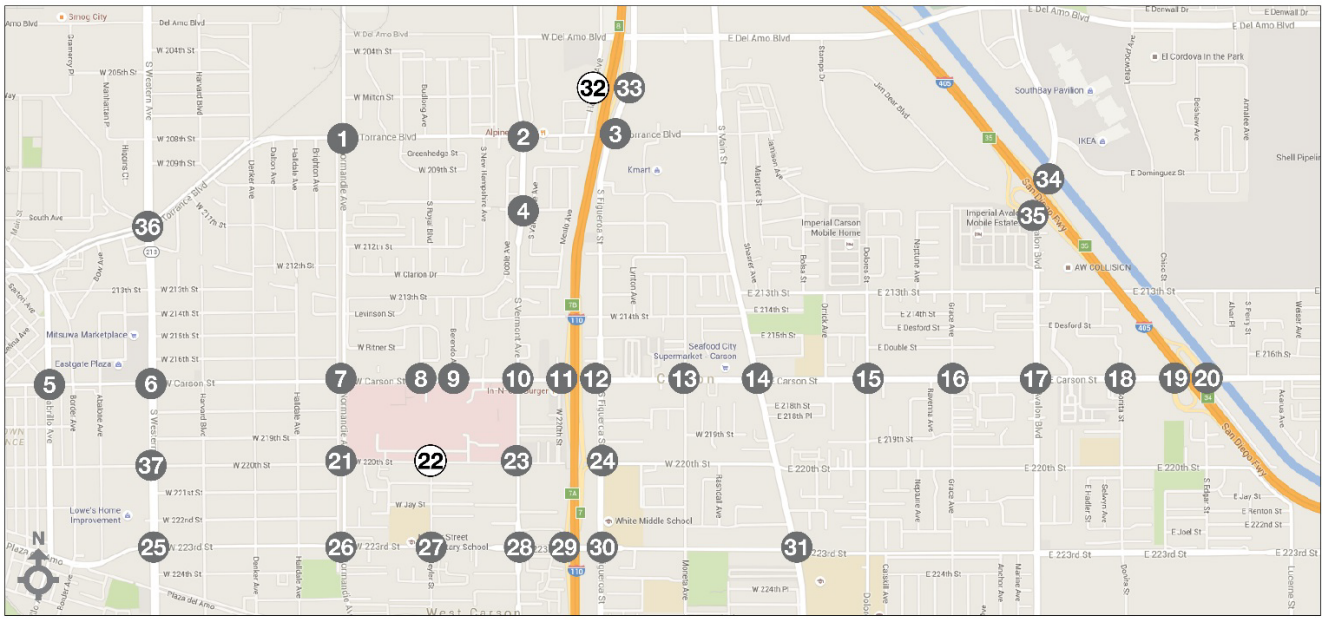
FIGURE 8.2: FUTURE YEAR (2035) WITH PROJECT TURNING MOVEMENT VOLUMES – PM PEAK HOUR

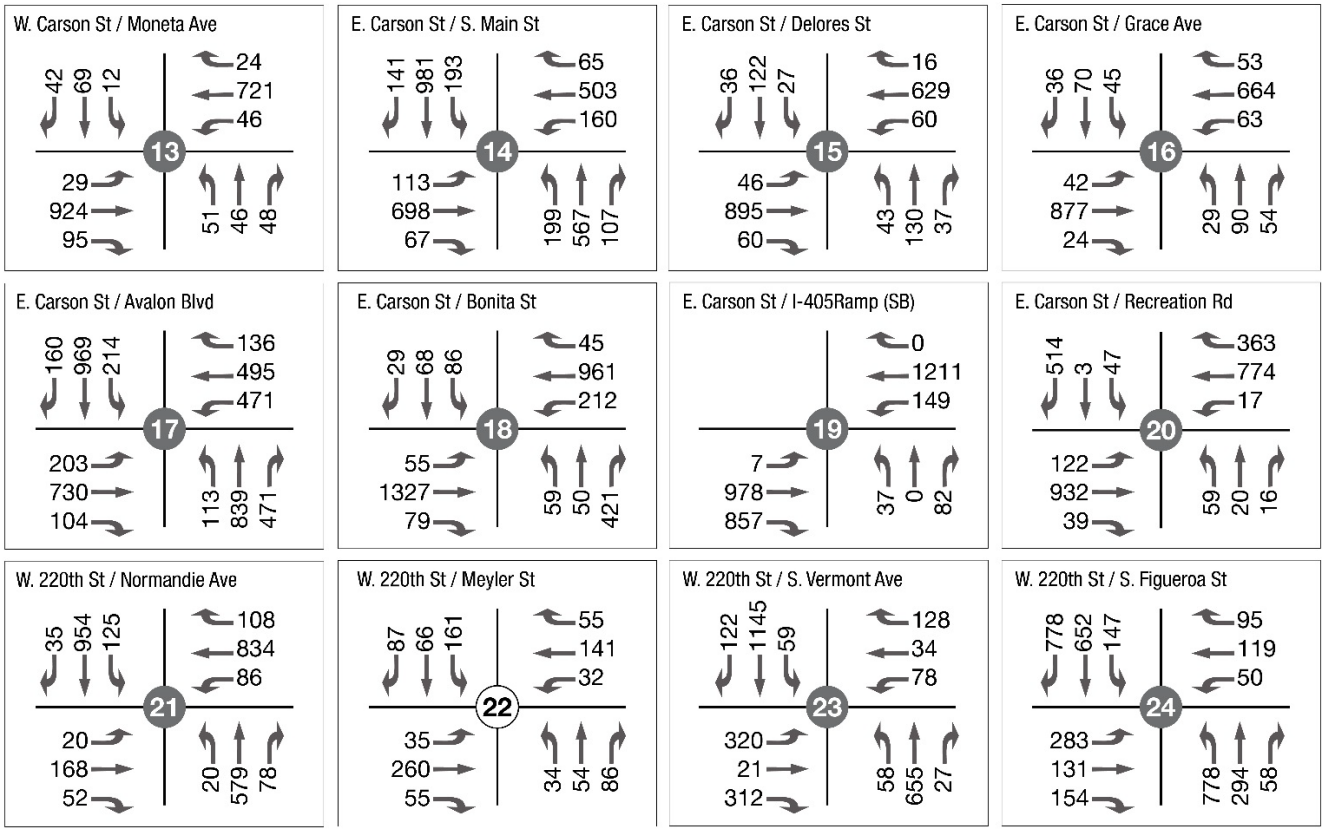




Legend

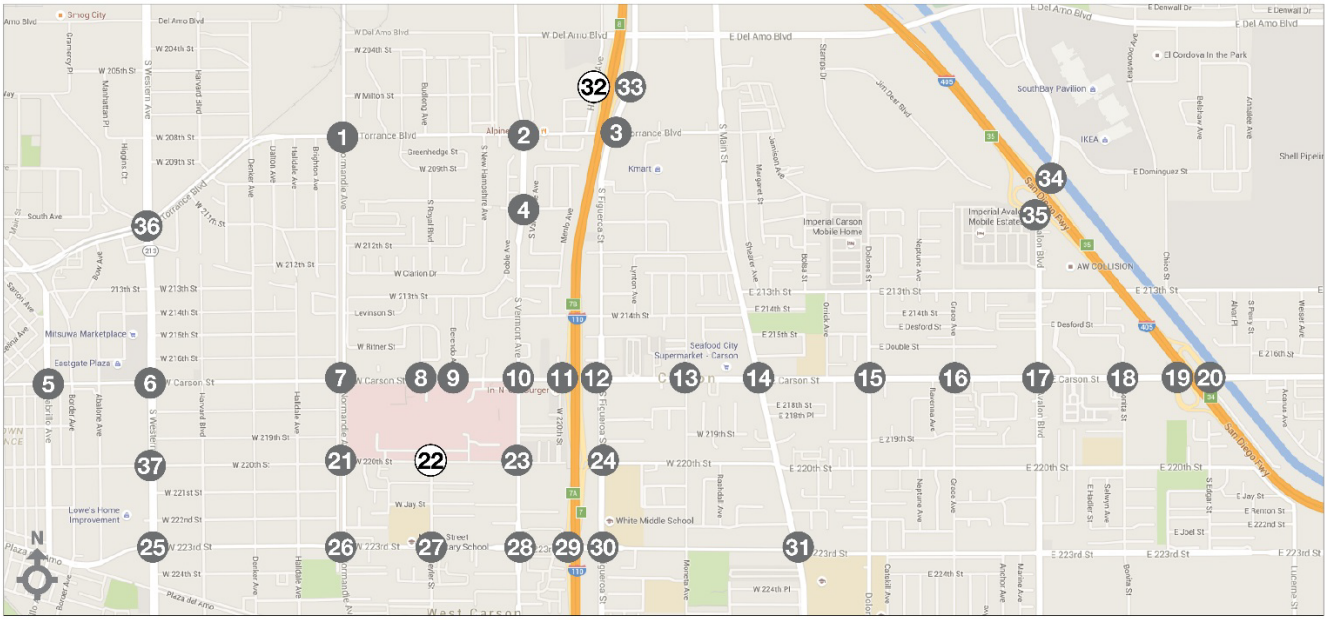
● Signalized Intersection ○ Unsignalized Intersection

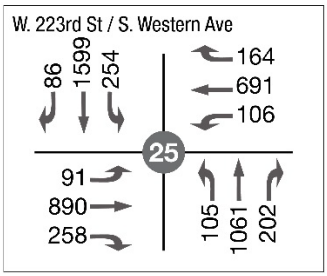


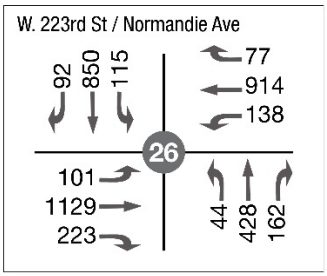


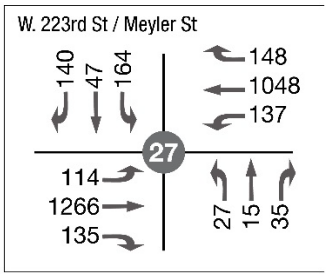
Legend

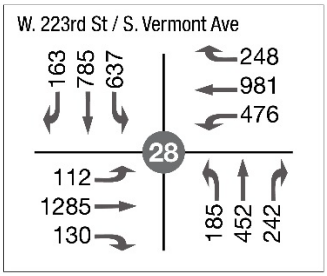
Signalized Intersection Unsignalized Intersection Lane Geometry

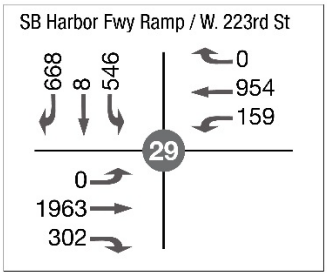


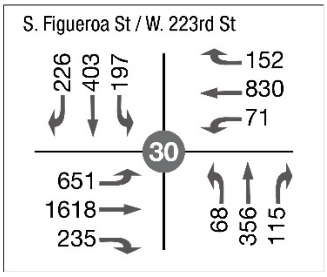


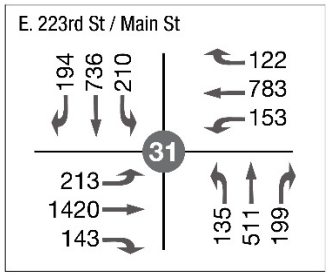


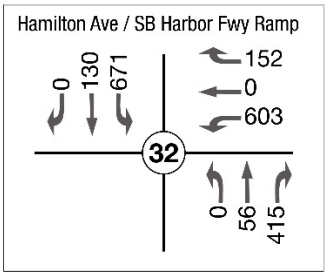


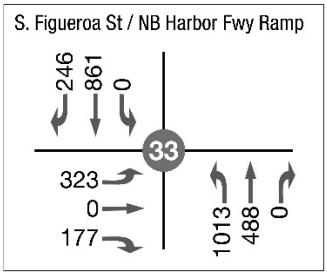


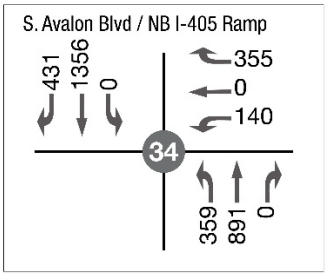


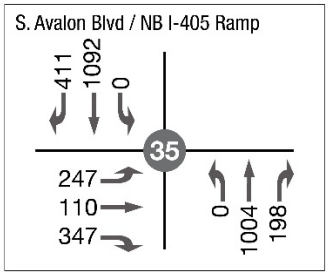


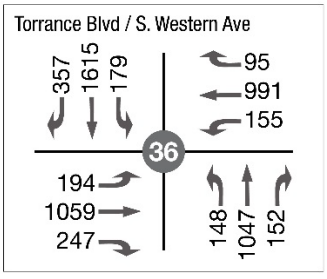












Legend

Signalized Intersection

Unsignalized Intersection

Lane Geometry

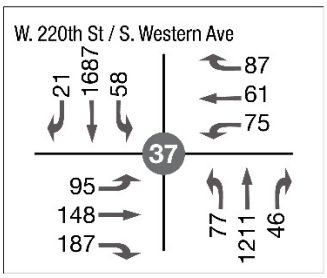


TABLE 8.4: FUTURE YEAR (2035) WITH PROJECT INTERSECTION LOS

INTERSECTION		Jurisdiction	Analysis Method	Intersection Control	AM		PM	
					V/C or Delay (S)	LOS	V/C or Delay (S)	LOS
1	Normandie / Torrance	City of Los Angeles	CMA	Signalized	**1.085**	**F**	**1.113**	**F**
		County of Los Angeles	ICU	Signalized	0.895	D	**0.957**	**E**
2	Vermont / Torrance	County of Los Angeles	ICU	Signalized	**0.970**	**E**	**0.989**	**E**
3	Figueroa / Torrance	City of Carson	ICU	Signalized	0.784	C	0.820	D
4	Vermont / Javelin	County of Los Angeles	ICU	Signalized	0.697	B	0.575	A
5	Carson / Cabrillo / Cravens	City of Torrance	HCM	Signalized	21.7	C	26.2	C
6	Western / Carson	City of Torrance	HCM	Signalized	42.6	D	**75.7**	**E**
		City of Los Angeles	CMA	Signalized	**1.040**	**F**	**1.220**	**F**
		Caltrans	HCM	Signalized	**42.6**	**D**	**75.7**	**E**
7	Normandie / Carson	City of Los Angeles	CMA	Signalized	**1.006**	**F**	**1.076**	**F**
		County of Los Angeles	ICU	Signalized	0.864	D	**0.924**	**E**
8	Budlong / Carson	County of Los Angeles	ICU	Signalized	0.569	A	0.529	A
9	Berendo / Carson	County of Los Angeles	ICU	Signalized	0.669	B	0.795	C
10	Vermont / Carson	County of Los Angeles	ICU	Signalized	**1.121**	**F**	**1.050**	**F**
11	SB I-110 Ramps / Carson	County of Los Angeles	ICU	Signalized	**1.177**	**F**	**0.981**	**E**
		Caltrans	HCM	Signalized	**138.2**	**F**	**92.4**	**F**
12	Figueroa / Carson	City of Carson	ICU	Signalized	0.774	C	0.867	D
13	Moneta / Carson	City of Carson	ICU	Signalized	0.441	A	0.400	A
14	Main / Carson	City of Carson	ICU	Signalized	0.500	A	0.618	B
15	Dolores / Carson	City of Carson	ICU	Signalized	0.392	A	0.442	A
16	Grace / Carson	City of Carson	ICU	Signalized	0.385	A	0.450	A
17	Avalon / Carson	City of Carson	ICU	Signalized	0.791	C	0.873	D
18	Bonita / Carson	City of Carson	ICU	Signalized	0.666	B	0.864	D
19	SB I-405 Ramps / Carson	City of Carson	ICU	Signalized	0.564	A	0.680	B
		Caltrans	HCM	Signalized	7.8	A	9.1	A
20	NB I-405 Ramps / Carson	City of Carson	ICU	Signalized	0.685	B	0.676	B
		Caltrans	HCM	Signalized	17.8	B	14.5	B
21	Normandie / 220th	City of Los Angeles	CMA	Signalized	0.563	A	0.526	A
		County of Los Angeles	ICU	Signalized	0.528	A	0.493	A
22	Meyler / 220th	County of Los Angeles	ICU	AWSC	0.522	A	0.537	A
23	Vermont / 220th	County of Los Angeles	ICU	Signalized	0.606	B	0.674	B
24	Figueroa / 220th and NB I-110	City of Carson	ICU	Signalized	**1.263**	**F**	**1.337**	**F**
		Caltrans	HCM	Signalized	**114.3**	**F**	**168.3**	**F**
25	Western / 223rd	City of Torrance	HCM	Signalized	53.7	D	51.6	D
		City of Los Angeles	CMA	Signalized	**1.092**	**F**	**1.059**	**F**
		Caltrans	HCM	Signalized	**53.7**	**D**	**51.6**	**D**
26	Normandie / 223rd	City of Los Angeles	CMA	Signalized	0.833	D	0.812	D
		County of Los Angeles	ICU	Signalized	0.780	C	0.761	C
27	Meyler / 223rd	County of Los Angeles	ICU	Signalized	0.891	D	0.760	C
28	Vermont / 223rd	County of Los Angeles	ICU	Signalized	**1.226**	**F**	**1.116**	**F**
29	SB I-110 Ramps / 223rd	County of Los Angeles	ICU	Signalized	**1.130**	**F**	**1.130**	**F**
		Caltrans	HCM	Signalized	**62.0**	**E**	**97.6**	**F**
30	Figueroa / 223rd	City of Carson	ICU	Signalized	**0.959**	**E**	**0.901**	**E**
31	Main / 223rd	City of Carson	ICU	Signalized	0.760	C	0.854	D
32	SB I-110 Ramps / Hamilton	County of Los Angeles	ICU	AWSC	**1.576**	**F**	**1.351**	**F**
		Caltrans	HCM	AWSC	**183.5**	**F**	**195.9**	**F**
33	Figueroa / NB I-110 Ramps	City of Carson	ICU	Signalized	0.749	C	0.821	D
		Caltrans	HCM	Signalized	34.8	C	34.2	C
34	Avalon / NB I-405	City of Carson	ICU	Signalized	0.366	A	0.466	A
		Caltrans	HCM	Signalized	18.3	B	18.1	B
35	Avalon / SB I-405	City of Carson	ICU	Signalized	0.524	A	0.472	A
		Caltrans	HCM	Signalized	15.0	B	12.1	B
36	Western / Torrance	City of Torrance	HCM	Signalized	**55.8**	**E**	48.1	D
		City of Los Angeles	CMA	Signalized	**0.995**	**E**	**0.94**	**E**
		Caltrans	HCM	Signalized	**55.8**	**E**	48.1	D
37	Western / 220th	City of Torrance	HCM	Signalized	11.3	B	22.0	C
		City of Los Angeles	CMA	Signalized	0.737	C	0.951	E
		Caltrans	HCM	Signalized	11.3	B	22.0	C

AWSC = All Way Stop Control. **Bold and shaded** = Intersection operates at an unacceptable LOS using the methodology listed.

TABLE 8.5: FUTURE YEAR (2035) WITH PROJECT INTERSECTION LOS – AM PEAK HOUR

	INTERSECTION	Jurisdiction	Analysis Method	Intersection Control	FUTURE [a]		W/ PROJECT		Change in V/C or Delay	Significant Impact?
					V/C or Delay (S)	LOS	V/C or Delay (S)	LOS		
1	Normandie / Torrance	City of Los Angeles	CMA	Signalized	**1.065**	**F**	**1.085**	**F**	0.020	Yes
		County of Los Angeles	ICU	Signalized	0.786	C	0.895	D	0.109	Yes
2	Vermont / Torrance	County of Los Angeles	ICU	Signalized	0.782	C	**0.970**	**E**	0.188	Yes
3	Figueroa / Torrance	City of Carson	ICU	Signalized	0.756	C	0.784	C	0.028	No
4	Vermont / Javelin	County of Los Angeles	ICU	Signalized	0.507	A	0.697	B	0.190	No
5	Carson / Cabrillo / Cravens	City of Torrance	HCM	Signalized	20.7	C	21.7	C	1.0	No
6	Western / Carson	City of Torrance	HCM	Signalized	33.6	C	42.6	D	9.0	No
		City of Los Angeles	CMA	Signalized	**0.985**	**E**	**1.040**	**F**	0.055	Yes
		Caltrans	HCM	Signalized	33.6	C	**42.6**	**D**	9.0	Yes
7	Normandie / Carson	City of Los Angeles	CMA	Signalized	0.980	D	**1.006**	**F**	0.026	Yes
		County of Los Angeles	ICU	Signalized	0.747	C	0.864	D	0.117	Yes
8	Budlong / Carson	County of Los Angeles	ICU	Signalized	0.450	A	0.569	A	0.119	No
9	Berendo / Carson	County of Los Angeles	ICU	Signalized	0.456	A	0.669	B	0.213	No
10	Vermont / Carson	County of Los Angeles	ICU	Signalized	0.758	C	**1.121**	**F**	0.363	Yes
11	SB I-110 Ramps / Carson	County of Los Angeles	ICU	Signalized	0.724	C	**1.177**	**F**	0.453	Yes
		Caltrans	HCM	Signalized	**38.2**	**D**	**138.2**	**F**	100.0	Yes
12	Figueroa / Carson	City of Carson	ICU	Signalized	0.633	B	0.774	C	0.141	No
13	Moneta / Carson	City of Carson	ICU	Signalized	0.359	A	0.441	A	0.082	No
14	Main / Carson	City of Carson	ICU	Signalized	0.426	A	0.500	A	0.074	No
15	Dolores / Carson	City of Carson	ICU	Signalized	0.332	A	0.392	A	0.060	No
16	Grace / Carson	City of Carson	ICU	Signalized	0.317	A	0.385	A	0.068	No
17	Avalon / Carson	City of Carson	ICU	Signalized	0.770	C	0.791	C	0.021	No
18	Bonita / Carson	City of Carson	ICU	Signalized	0.648	B	0.666	B	0.018	No
19	SB I-405 Ramps / Carson	City of Carson	ICU	Signalized	0.554	A	0.564	A	0.010	No
		Caltrans	HCM	Signalized	7.9	A	7.8	A	-0.1	No
20	NB I-405 Ramps / Carson	City of Carson	ICU	Signalized	0.623	B	0.685	B	0.062	No
		Caltrans	HCM	Signalized	14.2	B	17.8	B	3.6	No
21	Normandie / 220th	City of Los Angeles	CMA	Signalized	0.495	A	0.563	A	0.068	No
		County of Los Angeles	ICU	Signalized	0.412	A	0.528	A	0.116	No
22	Meyler / 220th	County of Los Angeles	HCM	AWSC	0.307	A	0.522	A	0.215	No
23	Vermont / 220th	County of Los Angeles	ICU	Signalized	0.428	A	0.606	B	0.178	No
24	Figueroa / 220th and NB I-110	City of Carson	ICU	Signalized	**0.981**	**E**	**1.263**	**F**	0.282	Yes
		Caltrans	HCM	Signalized	**65.6**	**E**	**114.3**	**F**	48.7	Yes
25	Western / 223rd	City of Torrance	HCM	Signalized	38.7	D	53.7	D	15.0	No
		City of Los Angeles	CMA	Signalized	**0.992**	**E**	**1.092**	**F**	0.100	Yes
		Caltrans	HCM	Signalized	**38.7**	**D**	**53.7**	**D**	15.000	No
26	Normandie / 223rd	City of Los Angeles	CMA	Signalized	0.821	D	0.833	D	0.012	No
		County of Los Angeles	ICU	Signalized	0.683	B	0.780	C	0.097	Yes
27	Meyler / 223rd	County of Los Angeles	ICU	Signalized	0.593	A	0.891	D	0.298	Yes
28	Vermont / 223rd	County of Los Angeles	ICU	Signalized	0.845	D	**1.226**	**F**	0.381	Yes
29	SB I-110 Ramps / 223rd	County of Los Angeles	ICU	Signalized	0.748	C	**1.130**	**F**	0.382	Yes
		Caltrans	HCM	Signalized	25.9	C	**62.0**	**E**	36.1	Yes
30	Figueroa / 223rd	City of Carson	ICU	Signalized	0.778	C	**0.959**	**E**	0.181	Yes
31	Main / 223rd	City of Carson	ICU	Signalized	0.727	C	0.760	C	0.033	No
32	SB I-110 Ramps / Hamilton	County of Los Angeles	ICU	AWSC	**1.032**	**F**	**1.576**	**F**	0.544	Yes
		Caltrans	HCM	AWSC	**78.0**	**F**	**183.5**	**F**	105.5	Yes
33	Figueroa / NB I-110 Ramps	City of Carson	ICU	Signalized	0.695	B	0.749	C	0.054	No
		Caltrans	HCM	Signalized	31.2	C	34.8	C	3.6	No
34	Avalon / NB I-405	City of Carson	ICU	Signalized	0.352	A	0.366	A	0.014	No
		Caltrans	HCM	Signalized	18.4	B	18.3	B	-0.1	No
35	Avalon / SB I-405	City of Carson	ICU	Signalized	0.519	A	0.524	A	0.005	No
		Caltrans	HCM	Signalized	14.4	B	15.0	B	0.6	No
36	Western / Torrance	City of Torrance	HCM	Signalized	**55.1**	**E**	**55.8**	**E**	0.7	Yes
		City of Los Angeles	CMA	Signalized	**0.991**	**E**	**0.995**	**E**	0.004	No
		Caltrans	HCM	Signalized	**55.1**	**E**	**55.8**	**E**	0.7	No
37	Western / 220th	City of Torrance	HCM	Signalized	8.4	A	11.3	B	2.9	No
		City of Los Angeles	CMA	Signalized	0.666	B	0.737	C	0.071	No
		Caltrans	HCM	Signalized	8.4	A	11.3	B	2.9	No

[a] = Existing Year (2016) No Project V/C and LOS are presented for County of Los Angeles intersections; County guidelines specify use of the Existing Year (2016) No Project V/C and LOS as the baseline for comparison to the Future Year (2035) With Project V/C and LOS. AWSC = All Way Stop Control. **Bold and shaded** = Intersection operates at an unacceptable LOS using the methodology listed.

TABLE 8.6: FUTURE YEAR (2035) WITH PROJECT INTERSECTION LOS – PM PEAK HOUR

	INTERSECTION	Jurisdiction	Analysis Method	Intersection Control	FUTURE [a]		W/ PROJECT		Change in V/C or Delay	Significant Impact?
					V/C or Delay (S)	LOS	V/C or Delay (S)	LOS		
1	Normandie / Torrance	City of Los Angeles	CMA	Signalized	**1.113**	**F**	**1.113**	**F**	0.000	No
		County of Los Angeles	ICU	Signalized	0.850	D	**0.957**	**E**	0.107	Yes
2	Vermont / Torrance	County of Los Angeles	ICU	Signalized	0.770	C	**0.989**	**E**	0.219	Yes
3	Figueroa / Torrance	City of Carson	ICU	Signalized	0.754	C	0.820	D	0.066	No
4	Vermont / Javelin	County of Los Angeles	ICU	Signalized	0.373	A	0.575	A	0.202	No
5	Carson / Cabrillo / Cravens	City of Torrance	HCM	Signalized	22.1	C	26.2	C	4.1	No
6	Western / Carson	City of Torrance	HCM	Signalized	**56.9**	**E**	**75.7**	**E**	18.8	Yes
		City of Los Angeles	CMA	Signalized	**1.124**	**F**	**1.220**	**F**	0.096	Yes
		Caltrans	HCM	Signalized	**56.9**	**E**	**75.7**	**E**	18.8	No
7	Normandie / Carson	City of Los Angeles	CMA	Signalized	**1.013**	**F**	**1.076**	**F**	0.063	Yes
		County of Los Angeles	ICU	Signalized	0.773	C	**0.924**	**E**	0.151	Yes
8	Budlong / Carson	County of Los Angeles	ICU	Signalized	0.388	A	0.529	A	0.141	No
9	Berendo / Carson	County of Los Angeles	ICU	Signalized	0.427	A	0.795	C	0.368	Yes
10	Vermont / Carson	County of Los Angeles	ICU	Signalized	0.702	C	**1.050**	**F**	0.348	Yes
11	SB I-110 Ramps / Carson	County of Los Angeles	ICU	Signalized	0.665	B	**0.981**	**E**	0.316	Yes
		Caltrans	HCM	Signalized	31.6	C	**92.4**	**F**	60.8	Yes
12	Figueroa / Carson	City of Carson	ICU	Signalized	0.639	B	0.867	D	0.228	No
13	Moneta / Carson	City of Carson	ICU	Signalized	0.328	A	0.400	A	0.072	No
14	Main / Carson	City of Carson	ICU	Signalized	0.564	A	0.618	B	0.054	No
15	Dolores / Carson	City of Carson	ICU	Signalized	0.382	A	0.442	A	0.060	No
16	Grace / Carson	City of Carson	ICU	Signalized	0.390	A	0.450	A	0.060	No
17	Avalon / Carson	City of Carson	ICU	Signalized	0.824	D	0.873	D	0.049	No
18	Bonita / Carson	City of Carson	ICU	Signalized	0.822	D	0.864	D	0.042	No
19	SB I-405 Ramps / Carson	City of Carson	ICU	Signalized	0.656	B	0.680	B	0.024	No
		Caltrans	HCM	Signalized	8.7	A	9.1	A	0.4	No
20	NB I-405 Ramps / Carson	City of Carson	ICU	Signalized	0.653	B	0.676	B	0.023	No
		Caltrans	HCM	Signalized	13.8	B	14.5	B	0.7	No
21	Normandie / 220th	City of Los Angeles	CMA	Signalized	0.498	A	0.526	A	0.028	No
		County of Los Angeles	ICU	Signalized	0.414	A	0.493	A	0.079	No
22	Meyler / 220th	County of Los Angeles	HCM	AWSC	0.315	A	0.537	A	0.222	No
23	Vermont / 220th	County of Los Angeles	ICU	Signalized	0.498	A	0.674	B	0.176	No
24	Figueroa / 220th and NB I-110	City of Carson	ICU	Signalized	0.886	D	**1.337**	**F**	0.451	Yes
		Caltrans	HCM	Signalized	**58.3**	**E**	**168.3**	**F**	110.0	Yes
25	Western / 223rd	City of Torrance	HCM	Signalized	47.3	D	51.6	D	4.3	No
		City of Los Angeles	CMA	Signalized	1.049	F	**1.059**	**F**	0.010	Yes
		Caltrans	HCM	Signalized	47.3	D	**51.6**	**D**	4.300	No
26	Normandie / 223rd	City of Los Angeles	CMA	Signalized	0.787	C	0.812	D	0.025	No
		County of Los Angeles	ICU	Signalized	0.655	B	0.761	C	0.106	Yes
27	Meyler / 223rd	County of Los Angeles	ICU	Signalized	0.523	A	0.760	C	0.237	Yes
28	Vermont / 223rd	County of Los Angeles	ICU	Signalized	0.769	C	**1.116**	**F**	0.347	Yes
29	SB I-110 Ramps / 223rd	County of Los Angeles	ICU	Signalized	0.818	D	**1.130**	**F**	0.312	Yes
		Caltrans	HCM	Signalized	**46.7**	**D**	**97.6**	**F**	50.9	Yes
30	Figueroa / 223rd	City of Carson	ICU	Signalized	0.748	C	**0.901**	**E**	0.153	Yes
31	Main / 223rd	City of Carson	ICU	Signalized	0.824	D	0.854	D	0.030	No
32	SB I-110 Ramps / Hamilton	County of Los Angeles	ICU	AWSC	**1.115**	**F**	**1.351**	**F**	0.236	Yes
		Caltrans	HCM	AWSC	**184.2**	**F**	**195.9**	**F**	11.7	Yes
33	Figueroa / NB I-110 Ramps	City of Carson	ICU	Signalized	0.693	B	0.821	D	0.128	No
		Caltrans	HCM	Signalized	24.3	C	34.2	C	9.9	No
34	Avalon / NB I-405	City of Carson	ICU	Signalized	0.461	A	0.466	A	0.005	No
		Caltrans	HCM	Signalized	18.1	B	18.1	B	0.0	No
35	Avalon / SB I-405	City of Carson	ICU	Signalized	0.460	A	0.472	A	0.012	No
		Caltrans	HCM	Signalized	11.8	B	12.1	B	0.3	No
36	Western / Torrance	City of Torrance	HCM	Signalized	43.9	D	48.1	D	4.2	No
		City of Los Angeles	CMA	Signalized	**0.927**	**E**	**0.94**	**E**	0.013	Yes
		Caltrans	HCM	Signalized	**43.9**	**D**	48.1	D	4.2	No
37	Western / 220th	City of Torrance	HCM	Signalized	20.3	C	22.0	C	1.7	No
		City of Los Angeles	CMA	Signalized	**0.909**	**E**	0.951	E	0.042	Yes
		Caltrans	HCM	Signalized	20.3	C	22.0	C	1.7	No

[a] = Existing Year (2016) No Project V/C and LOS are presented for County of Los Angeles intersections; County guidelines specify use of the Existing Year (2016) No Project V/C and LOS as the baseline for comparison to the Future Year (2035) With Project V/C and LOS. AWSC = All Way Stop Control. **Bold and shaded** = Intersection operates at an unacceptable LOS using the methodology listed.

8.4 CMP MONITORING STATION ANALYSIS

The CMP monitoring station analysis results for the AM and PM peak hours are summarized in Table 8.7 and Table 8.8, respectively. The analysis was performed in accordance with the methodology outlined in Section 3.4.1. An unacceptable LOS (LOS F) is observed at the following locations:

- I-110 at Manchester Boulevard
- I-405 at Santa Fe Avenue
- I-405 south of I-110
- I-405 north of Inglewood Avenue

Per CMP significant impact criteria outlined in section 3.4.1, no significant impacts are expected due to the addition of project traffic.

8.5 FREEWAY MAINLINE ANALYSIS

The freeway mainline analysis results for the AM and PM peak hours are summarized in Table 8.9 and Table 8.10, respectively. The analysis was conducted using the methodology and settings outlined in Section 3.4.2. All freeway segments operate at an unacceptable level of service (LOS D or worse). A significant impact is expected to occur at the following location:

- I-405 at I-710

8.6 FREEWAY OFF-RAMP QUEUE ANALYSIS

Per Caltrans traffic study guidelines, a queue analysis for freeway off-ramps at intersections of interest is to be provided. Table 8.11 summarizes the storage capacities and queue lengths expected for these off-ramps. All freeway off-ramps are provide sufficient storage capacity such that the 85% storage capacity is not exceeded by expected queues with the exception of:

- I-110 Southbound Off-Ramp at Carson Street
- I-110 Southbound Off-Ramp at 223rd Street
- I-110 Southbound Off-Ramp at Hamilton Avenue

8.7 VEHICLE MILES TRAVELED (VMT) ANALYSIS

VMT calculations were prepared based on the land use characteristics in the Future Year (2035) With Project scenario; project-related changes in land uses were calculated using the land use existing and proposed zoning outlined in Section 2.2 and Section 2.3, respectively. A summary of the following scenarios is presented in Table 8.12 and Table 8.13.

- Future Year (2035) w/ Project
- Future Year (2035) w/ Project + Pass-By, Internal Capture, and TDM Trip Reductions

TABLE 8.7: FUTURE YEAR (2035) WITH PROJECT CMP MONITORING STATION ANALYSIS – AM PEAK HOUR

ID	Freeway	Segment	Station	Direction	Lanes	Capacity	Future Year (2035) No Project			Project Trips	Future Year (2035) With Project			Change in V/C	Significant Impact?
							Peak Hour Volume	V/C	LOS		Peak Hour Volume	V/C	LOS		
1	I-110	at Wilmington Boulevard s/o C Street	1045	NB	4	8,000	4,898	0.612	C	218	5,116	0.640	C	0.027	No
				SB	4	8,000	3,577	0.447	B	81	3,658	0.457	B	0.010	No
2	I-110	at Manchester Boulevard	1046	NB	6	12,000	9,551	0.796	D	122	9,673	0.806	D	0.010	No
				SB	6	12,000	11,636	0.970	E	327	11,963	0.997	E	0.027	No
3	I-405	at Santa Fe Avenue	1066	NB	5	10,000	11,675	**1.168**	**F(0)**	218	11,893	**1.189**	**F(0)**	0.022	No
				SB	5	10,000	13,618	**1.362**	**F(2)**	81	13,699	**1.370**	**F(2)**	0.008	No
4	I-405	south of I-110	1067	NB	5	10,000	10,211	**1.021**	**F(0)**	446	10,657	**1.066**	**F(0)**	0.045	No
				SB	5	10,000	8,378	0.838	D	1,198	9,576	0.958	E	0.120	No
5	I-405	north of Inglewood Avenue	1068	NB	5	10,000	9,096	0.910	D	122	9,218	0.922	D	0.012	No
				SB	5	10,000	11,949	**1.195**	**F(0)**	327	12,276	**1.228**	**F(0)**	0.033	No
6	SR-91	east of Alameda Street/Santa Fe Avenue	1033	EB	6	12,000	8,986	0.749	C	122	9,108	0.759	C	0.010	No
				WB	6	12,000	6,533	0.544	C	327	6,860	0.572	C	0.027	No

Bold and shaded = Unacceptable evel of service (LOS F).

TABLE 8.8: FUTURE YEAR (2035) WITH PROJECT CMP MONITORING STATION ANALYSIS – PM PEAK HOUR

ID	Freeway	Segment	Station	Direction	Lanes	Capacity	Future Year (2035) No Project			Project Trips	Future Year (2035) With Project			Change in V/C	Significant Impact?
							Peak Hour Volume	V/C	LOS		Peak Hour Volume	V/C	LOS		
1	I-110	at Wilmington Boulevard s/o C Street	1045	NB	4	8,000	3,290	0.411	B	83	3,373	0.422	B	0.010	No
				SB	4	8,000	4,997	0.625	C	192	5,189	0.649	C	0.024	No
2	I-110	at Manchester Boulevard	1046	NB	6	12,000	10,499	0.875	D	288	10,787	0.899	D	0.024	No
				SB	6	12,000	12,813	**1.068**	**F(0)**	124	12,937	**1.078**	**F(0)**	0.010	No
3	I-405	at Santa Fe Avenue	1066	NB	5	10,000	10,490	**1.049**	**F(0)**	83	10,573	**1.057**	**F(0)**	0.008	No
				SB	5	10,000	16,979	**1.698**	**F(3)**	192	17,171	**1.717**	**F(3)**	0.019	No
4	I-405	south of I-110	1067	NB	5	10,000	9,293	0.929	D	1,055	10,348	**1.035**	**F(0)**	0.106	No
				SB	5	10,000	10,597	**1.060**	**F(0)**	454	11,051	**1.105**	**F(0)**	0.045	No
5	I-405	north of Inglewood Avenue	1068	NB	5	10,000	11,281	**1.128**	**F(0)**	288	11,569	**1.157**	**F(0)**	0.029	No
				SB	5	10,000	11,703	**1.170**	**F(0)**	124	11,827	**1.183**	**F(0)**	0.012	No
6	SR-91	east of Alameda Street/Santa Fe Avenue	1033	EB	6	12,000	8,581	0.715	C	288	8,869	0.739	C	0.024	No
				WB	6	12,000	6,914	0.576	C	124	7,038	0.587	C	0.010	No

Bold and shaded = Unacceptable evel of service (LOS F).

TABLE 8.9: FUTURE YEAR (2035) WITH PROJECT FREEWAY MAINLINE ANALYSIS SUMMARY – AM PEAK HOUR

ID	Freeway	Location	Direction	Future Year (2035) No Project		Project Trips	Future Year (2035) With Project		Change in Density	Project Impact?
				Density (pc/mi/ln)	LOS		Density (pc/mi/ln)	LOS		
1	SR-91	at Avalon Boulevard	EB	15.9	B	122	16.3	B	0.4	No
			WB	**27.9**	**D**	327	**29.3**	**D**	1.4	No
2	I-110	at SR-1 (Pacific Coast Highway)	NB	**28.6**	**D**	218	**30.0**	**D**	1.4	No
			SB	19.5	C	81	19.9	C	0.4	No
3	I-110	at Sepulveda Boulevard	NB	**37.6**	**E**	218	**39.6**	**E**	2	No
			SB	23.8	C	81	24.2	C	0.4	No
4	I-110	at El Segundo Boulevard	NB	**27.6**	**D**	122	**28.1**	**D**	0.5	No
			SB	**36.9**	**E**	327	**38.9**	**E**	2	No
5	I-405	at I-710	NB	**63.0**	**F**	218	**66.8**	**F**	3.8	**Yes**
			SB	**48.9**	**F**	81	**49.8**	**F**	0.9	**Yes**
6	I-405	south of I-110 (Carson Scales)	NB	**29.4**	**D**	218	**30.4**	**D**	1	No
			SB	22.4	C	81	22.9	C	0.5	No
7	I-405	at Western Avenue	NB	**31.0**	**D**	122	**31.7**	**D**	0.7	No
			SB	**32.9**	**D**	327	**34.9**	**D**	2	No

Bold and shaded = Unacceptable evel of service (LOS D or w orse). Pc/mi/ln = passenger-car per mile per lane.

TABLE 8.10: FUTURE YEAR (2035) WITH PROJECT FREEWAY MAINLINE ANALYSIS SUMMARY – PM PEAK HOUR

ID	Freeway	Location	Direction	Future Year (2035) No Project		Project Trips	Future Year (2035) With Project		Change in Density	Project Impact?
				Density (pc/mi/ln)	LOS		Density (pc/mi/ln)	LOS		
1	SR-91	at Avalon Boulevard	EB	24.3	C	288	25.4	C	1.1	No
			WB	18.6	C	124	18.9	C	0.3	No
2	I-110	at SR-1 (Pacific Coast Highway)	NB	18.2	C	83	18.6	C	0.4	No
			SB	**28.3**	**D**	192	**29.5**	**D**	1.2	No
3	I-110	at Sepulveda Boulevard	NB	22.3	C	83	22.7	C	0.4	No
			SB	**35.1**	**E**	192	**36.6**	**E**	1.5	No
4	I-110	at El Segundo Boulevard	NB	**26.5**	**D**	288	**27.6**	**D**	1.1	No
			SB	**36.0**	**E**	124	**36.8**	**D**	0.8	No
5	I-405	at I-710	NB	**45.5**	**F**	83	**46.4**	**F**	0.9	**Yes**
			SB	**127.4**	**F**	192	**140.1**	**F**	12.7	**Yes**
6	I-405	south of I-110 (Carson Scales)	NB	25.8	C	83	**26.1**	**D**	0.3	No
			SB	**31.1**	**D**	192	**32.0**	**D**	0.9	No
7	I-405	at Western Avenue	NB	**33.8**	**D**	288	**35.6**	**E**	1.8	No
			SB	**39.3**	**E**	124	**40.2**	**E**	0.9	No

Bold and shaded = Unacceptable evel of service (LOS D or w orse). Pc/mi/ln = passenger-car per mile per lane.

TABLE 8.11: FUTURE YEAR (2035) WITH PROJECT QUEUE ANALYSIS

ID	Ramp	Cross Street	Ramp Length (ft) [a]	85% Ramp Length (ft)	Ramp Turn Lanes at Intersection			AM Queue		PM Queue		Queue Exceeds 85% Storage?	
					Lanes	Movement	Length [a]	Lane (ft)	Max (ft)	Lane (ft)	Max (ft)	AM	PM
11	I-110 Southbound Off-Ramp	Carson Street	980	840	2	Left	980	65	886	211	1051	Yes	Yes
						Right	380	886		1051			
19	I-405 Southbound Off-Ramp	Carson Street	1,100	940	2	Left	660	44	44	36	36	No	No
						Right	1,100	43		31			
20	I-405 Northbound Off-Ramp	Carson Street	1,200	1,020	2	Through/Left	1,200	28	244	34	185	No	No
						Right	620	244		185			
24	I-110 Northbound Off-Ramp	Figueroa Street	1,150	980	2	Through/Left	1,150	872	872	775	775	No	No
						Right	530	141		109			
29	I-110 Southbound Off-Ramp	223rd Street	935	800	2	Through/Left	935	679	679	911	911	No	Yes
						Right/Through	405	679		911			
32	I-110 Southbound Off-Ramp	Hamilton Avenue	890	760	3	Left	890	970	970	148	148	Yes	No
						Left	355	970		148			
						Right	40	48		23			
33	I-110 Northbound Off-Ramp	Figueroa Street	880	750	2	Left	880	527	527	302	302	No	No
						Right/Left	340	310		144			
34	I-405 Northbound Off-Ramp	Avalon Boulevard	980	830	3	Left	980	41	268	49	200	No	No
						Through/Left	320	42		49			
						Right	320	268		200			
35	I-405 Southbound Off-Ramp	Avalon Boulevard	390	330	5	Left	390	81	286	60	194	No	No
						Left	390	81		60			
						Through	390	3		31			
						Through	390	3		31			
						Right	240	286		194			

[a] = Length measured from scaled aerial images.

TABLE 8.12: FUTURE YEAR (2035) WITH PROJECT VMT SUMMARY

Land Use	Average Daily Trip Rate			Annual VMT	Population / Employees	Annual VMT Per Capita
	Weekday	Saturday	Sunday			
Apartments (Mid-Rise)	18,161.15	17,451.09	16,003.66	**60,659,573**	**7,659**	**7,920**
General Light Industry	4,346.56	823.16	424.06	**14,537,421**	**563**	**25,821**
General Office Building	14,947.20	3,333.65	1,422.89	**36,583,146**	**2,754**	**13,284**
Hospital	24,788.16	19,088.01	16,706.70	**88,467,041**	**5,979**	**14,796**
Single Family Housing	11,443.04	11,911.82	10,361.24	**38,803,352**	**3,244**	**11,962**
Strip Mall	37,427.79	35,502.36	17,252.93	**65,203,101**	**939**	**69,439**
Unrefrigerated Warehouse - No Rail	0.00	0.00	0.00	**0**	**0**	-
Total	**111,113.90**	**88,110.09**	**62,171.48**	**304,253,634**	**21,138**	**143,222**

TABLE 8.13: FUTURE YEAR (2035) WITH PROJECT + PASS-BY, INTERNAL CAPTURE, AND TDM TRIP REDUCTIONS VMT SUMMARY

Land Use	Average Daily Trip Rate			Annual VMT	Population / Employees	Annual VMT Per Capita
	Weekday	Saturday	Sunday			
Apartments (Mid-Rise)	12,525.20	12,035.49	11,037.24	**41,835,088**	**7,659**	**5,462**
General Light Industry	3,794.54	718.62	370.21	**12,691,168**	**563**	**22,542**
General Office Building	10,202.36	2,275.42	971.21	**24,970,192**	**2,754**	**9,067**
Hospital	21,863.16	16,835.63	14,735.31	**78,027,930**	**5,979**	**13,050**
Single Family Housing	7,891.92	8,215.23	7,145.84	**26,761,508**	**3,244**	**8,250**
Strip Mall	22,619.48	21,455.85	10,426.81	**39,405,495**	**939**	**41,965**
Unrefrigerated Warehouse - No Rail	0.00	0.00	0.00	**0**	**0**	-
Total	**78,896.66**	**61,536.24**	**44,686.62**	**223,691,381**	**21,138**	**100,336**

9 MITIGATION MEASURES AND FUNDING

This section provides a summary of the mitigation process utilized for this project. The first phase of the process consists of identifying intersections, freeway segments, and freeway off-ramps significantly impacted by the addition of project traffic. Upon identification of the facilities, measures which would result in full mitigation of the impacts were developed. Fair share calculations were prepared in order to assess the expected contribution of the project to intersection mitigation funding.

9.1 SIGNIFICANT IMPACT IDENTIFICATION

The proposed project is anticipated to create significant traffic impacts at fourteen of the study intersections and one freeway mainline study locations in the Existing Year (2016) With Project Scenario; significant impacts at seventeen study intersections and one freeway mainline location are anticipated for the Future Year (2035) With Project scenario. A summary of the impacts and the scenarios in which they occur is provided in Table 9.1 below:

TABLE 9.1: SIGNIFICANT IMPACT SUMMARY

ID	Location	Existing Year (2016) With Project		Future Year (2035) With Project	
		AM	PM	AM	PM
INTERSECTION					
1	Normandie / Torrance	**X**		**X**	**X**
2	Vermont / Torrance	**X**	**X**	**X**	**X**
6	Western / Carson	**X**	**X**	**X**	**X**
7	Normandie / Carson	**X**	**X**	**X**	**X**
9	Berendo / Carson				**X**
10	Vermont / Carson	**X**	**X**	**X**	**X**
11	SB I-110 Ramps / Carson	**X**	**X**	**X**	**X**
24	Figueroa / 220th and NB I-110	**X**	**X**	**X**	**X**
25	Western / 223rd	**X**	**X**	**X**	**X**
26	Normandie / 223rd			**X**	**X**
27	Meyler / 223rd	**X**		**X**	**X**
28	Vermont / 223rd	**X**	**X**	**X**	**X**
29	SB I-110 Ramps / 223rd	**X**	**X**	**X**	**X**
30	Figueroa / 223rd			**X**	**X**
32	SB I-110 Ramps / Hamilton	**X**	**X**	**X**	**X**
36	Western / Torrance		**X**	**X**	**X**
37	Western / 220th		**X**		**X**
FREEWAY MAINLINE					
5	I-405 at I-710	**X**	**X**	**X**	**X**

Bold and shaded = Significant impact due to onset of project traffic compared to the No Project scenario.

9.2 EXISTING YEAR (2016) WITH PROJECT + MITIGATION INTERSECTION MITIGATION MEASURES

The intersections significantly impacted by the addition of project-generated traffic and their respective mitigation measures are listed below:

- **MM1 – Normandie Avenue and Torrance Boulevard:** Full mitigation of the impact observed at this intersection is expected with the expansion of the Automated Traffic Surveillance and Control (ATSAC) network to include this intersection; the Adaptive Traffic Control System (ATCS) software is to be employed as well. Implementation of this measure mitigates all significant impacts.
- **MM2 – Vermont Avenue and Torrance Boulevard:** Modifications to the westbound, eastbound, northbound, and southbound approaches were explored. One right-turn pocket is to be added in the eastbound and westbound directions; a 60 foot minimum length is recommended for the pocket. The eastbound and westbound approaches are to consist of one left-turn lane, two through lanes, and one right-turn pocket. The northbound and southbound right-turn lanes are to be restriped to be through-right lanes. The northbound and southbound approaches are to feature one left-turn lane, two through lanes, and one through-right lane. The proposed enhancements will require the acquisition of right-of-way for the westbound and eastbound improvements. Implementation of this measure does not fully mitigate all significant impacts; however, an acceptable LOS is anticipated during both peak hours. Further expansion of this measure requires right-of-way acquisition that is believed to be infeasible due to the development of the adjacent land. The impact at this intersection is to be significant and unavoidable.
- **MM6 – Western Avenue and Carson Street:** Full mitigation of the impact observed at this intersection is expected with the expansion of the Automated Traffic Surveillance and Control (ATSAC) network to include this intersection; the Adaptive Traffic Control System (ATCS) software is to be employed as well. Implementation of this measure mitigates all significant impacts.
- **MM7 – Normandie Avenue and Carson Street:** The impact observed at this intersection is expected to be full mitigated with the expansion of the Automated Traffic Surveillance and Control (ATSAC) network to include this intersection; the Adaptive Traffic Control System (ATCS) software is to be employed as well. Implementation of this measure mitigates all significant impacts.
- **MM10 – Vermont Avenue and Carson Street:** Modifications to the eastbound, westbound, and southbound approaches were explored as intersection capacity improvements. Westbound and eastbound modifications include restriping the right-turn lanes to be a through-right lane. Both approaches are to feature one left-turn lane, two through lanes, and one through-right lane. The southbound approach is to be modified such that an additional left-turn pocket is provided; left-turn phasing controls for this approach is to be set to protected. The southbound approach is to feature two left-turn lanes, two through lanes, and one right-turn lane. Minor right-of-way acquisition may be required in order to provide these modifications in addition to the bike lanes proposed in the *West Carson Transit Oriented Development Specific Plan*. Preliminary concepts of the plan propose the addition of bike lanes in the eastbound and westbound directions along Carson Street at this intersection. Implementation of this measure does not fully mitigate all significant impacts; however, it should be noted that the intersection LOS is returned to an acceptable LOS in both peak hours. Further expansion of this measure requires right-of-way acquisition that is believed to be infeasible due to the development of the adjacent land. The impact at this intersection is to be significant and unavoidable.

- **MM11 – SB I-110 Ramps and Carson Street:** Modifications to the eastbound, westbound, and southbound approaches were explored as intersection capacity improvements. The improvements consist of: restriping the southbound approach to feature a right-turn lane and a shared left-/right-turn lane; restriping of the westbound approach to provide an additional through lane; modify eastbound approach in order to provide a right-turn pocket. The eastbound approach is to feature three through lanes and one right-turn pocket; a 40 foot minimum length is recommended. Additionally, it is advised that the pedestrian crossing across Carson Street be evaluated for pedestrian safety and/or need. Coordination with and approval by Caltrans is required for the implementation of the proposed southbound restriping. Implementation of this measure fully mitigates all impacts.
- **MM24 – Figueroa Street and 220th Street / NB I-110 Ramps:** Per the Transportation and Infrastructure Element of the Carson General Plan, Figueroa Street is to be widened to three lanes in each direction between Carson Street and 223rd Street. Given this information, intersection improvements such as the restriping of the eastbound, northbound, and southbound approaches were considered. The southbound approach is to be restriped to feature one right-turn lane, one through-right lane, one through lane, and a left turn lane. The northbound approach is to be restriped to feature two left-turn lanes, one through lane, and one through-right lane. The eastbound approach is to be restriped to feature one left-turn lane and one through-right lane. Signage showing the lane layout for the intersection should be provided for the eastbound, northbound, and southbound directions, per standards outlined in the California Manual on Uniform Traffic Control Devices (CAMUTCD). The southbound phasing controls should be modified to reflect the following: permitted left-turn and permitted-overlap right-turn. Additional signal modifications may be necessary when implementing the proposed lane configurations. Implementation of this measure fully mitigates all significant impacts.
- **MM25 – Western Avenue and 223rd Street:** Full mitigation of the impact observed at this intersection is expected with the expansion of the Automated Traffic Surveillance and Control (ATSAC) network to include this intersection; implementation of the Adaptive Traffic Control System (ATCS) software is to be implemented as well. Implementation of this measure mitigates all significant impacts.
- **MM27 – Meyler Street and 223rd Street:** Striping modifications to the westbound approach was explored. An additional through lane is to be added in the westbound direction; the approach is to feature one left-turn lane, two through lanes, and one through-right lane. The addition of the proposed lane requires the removal of on-street parking on the south side of 223rd Street. Implementation of this measure mitigates all significant impacts.
- **MM28 – Vermont Avenue and 223rd Street:** Modifications to the southbound approach was considered. The southbound approach is to be restriped to provide an additional left-turn lane; left-turn phasing control is to be set to protected. The southbound approach is to feature two left-turn lanes, one through lane, and one through-right lane. Implementation of this measure does not fully mitigate all significant impacts; the intersection LOS is returned to an acceptable LOS in the PM peak hour, but is anticipated to perform at an unacceptable LOS during the AM peak hour. Further expansion of this measure requires right-of-way acquisition that is believed to be infeasible due to the development of the adjacent land as well as the addition of bike lanes put forth in the *West Carson Transit Oriented Development Specific Plan*. Preliminary concepts of the plan propose the addition of bike lanes in the eastbound and westbound directions along 223rd Street at this intersection. The impact at this intersection is to be significant and unavoidable.
- **MM29 – SB I-110 Ramps and 223rd Street:** Intersection improvements such as the restriping of the eastbound and modifications to southbound approaches were explored.

In order to fully mitigate the impacts in all scenarios, the following measures were identified: restriping of the eastbound right-turn lane to be a through-right lane; modification of the southbound approach such that a right-turn lane, shared through-/left-/right-turn lane, and left-turn lane are provided. Implementation of this measure will require the acquisition of right-of-way. Signage showing the lane configurations for the eastbound and southbound approaches should be provided, per standards outlined in the California Manual on Uniform Traffic Control Devices (CAMUTCD). Additionally, coordination with and approval by Caltrans is required for the implementation of the southbound restriping.

- **MM32 – Hamilton Avenue and SB I-110 Ramps:** Intersection improvements such as the signalization of the intersection, restriping of the southbound lanes, and restriping of the eastbound receiving lanes were explored. All improvements are believed to be feasible and appropriate measures. The eastbound receiving lanes are to be restriped such that the outside receiving lane can accommodate the proposed northbound free-right-turn lane. The north leg will require restriping such that one southbound through lane, a two-way-left-turn lane (TWLTL), and two northbound through lanes are provided. The two southbound receiving lanes at the intersection of Del Amo Boulevard and Hamilton Avenue are to merge in order to provide the TWLTL; the TWLTL is to become a 180' southbound left-turn pocket at the intersection of Hamilton Avenue and the Southbound I-110 Ramps. The proposed phasing is as follows: permitted phasing for the northbound approach; protected left-turn phasing for the southbound approach; and split phasing for the westbound approach. Implementation of this measure fully mitigates all impacts.
- **MM36 – Western Avenue and Torrance Boulevard:** Full mitigation of the impact observed at this intersection is expected with the expansion of the Automated Traffic Surveillance and Control (ATSAC) network to include this intersection; the Adaptive Traffic Control System (ATCS) software is to be employed as well. Implementation of this measure mitigates all significant impacts.
- **MM37 – Western Avenue and 220th Street:** Full mitigation of the impact observed at this intersection is expected with the expansion of the Automated Traffic Surveillance and Control (ATSAC) network to include this intersection; the Adaptive Traffic Control System (ATCS) software is to be employed as well. Implementation of this measure mitigates all significant impacts.

A summary of the study intersection performance, with the implementation of the aforementioned mitigation measures, for the AM and PM peak hours of the Existing Year (2016) With Project are provided in Table 9.3 and Table 9.4, respectively.

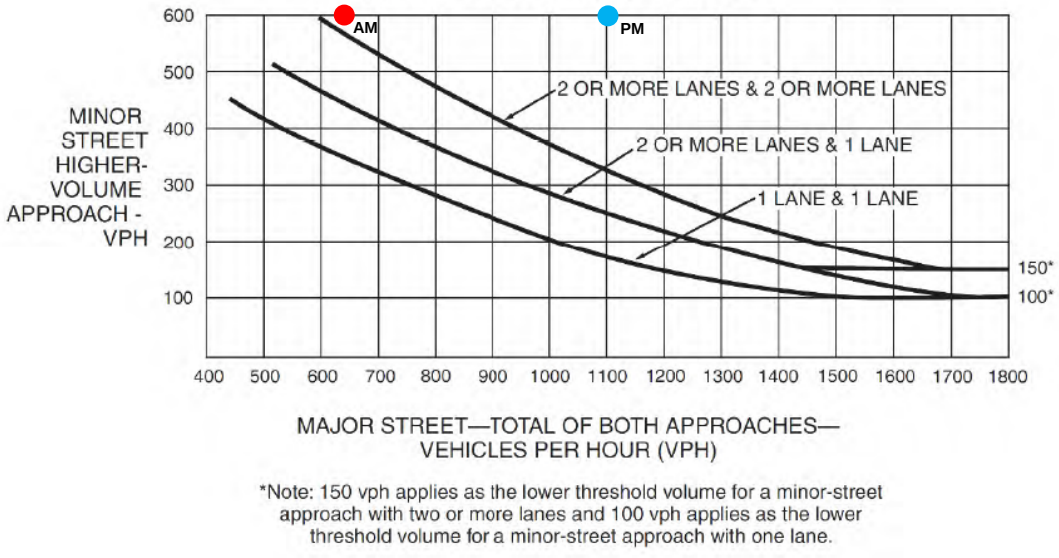
9.3 EXISTING YEAR (2016) WITH PROJECT + MITIGATION FREEWAY OFF-RAMP QUEUE ANALYSIS

As shown in Table 7.11, two locations were identified as experiencing a queue greater than 85% of the measured queue capacity (lane length). Upon implementation of the respective intersection mitigation measure outlined in Section 9.2, all freeway off-ramps are expected to provide sufficient queue storage such that 85% of the queue capacity is not exceeded by estimated queues. An updated queue analysis is presented in Table 9.5 for the aforementioned intersections.

9.4 EXISTING YEAR (2016) WITH PROJECT + MITIGATION CALTRANS WARRANT 3, PEAK HOUR ANALYSIS

Per the Caltrans Guide for the Preparation of Traffic Impact Studies (December 2002), a signal warrant analysis is to be performed to determine the need for a traffic signal. Of the methods outlined in the guidelines, option B was chosen (use of Table 4C-3 in the guidelines). The analysis was performed in response to the proposal of the signalization of the intersection of Hamilton Avenue and the I-110 southbound ramps. The plot of the intersection data is presented in Table 9.2. The AM and PM coordinates are (645, 1482) and (1129, 686), respectively. Both points are placed at the topmost position, but it should be noted that the actual positions cannot be plotted with the axis range of the table. Hamilton Avenue was taken as the major street; the SB I-110 Ramps were taken as the minor street.

TABLE 9.2: WARRANT 3, PEAK HOUR ANALYSIS



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

9.5 EXISTING YEAR (2016) WITH PROJECT + MITIGATION INTERSECTION IMPACT MITIGATION FUNDING

Due to the manner in which fair share calculations are prepared, calculations are not provided for this scenario as the project traffic is 100% of the total new traffic. Therefore, all mitigation costs are to be funded by the development project.

TABLE 9.3: EXISTING YEAR (2016) WITH PROJECT SIGNIFICANT IMPACT COMPARISON – AM PEAK HOUR

INTERSECTION		Jurisdiction	Analysis Method	Intersection Control	EXISTING		WITH PROJECT				Intersection Control	WITH PROJECT + MITIGATION			
					V/C or Delay (S)	LOS	V/C or Delay (S)	LOS	Change in V/C or Delay	Significant Impact?		V/C or Delay (S)	LOS	Change in V/C or Delay	Significant Impact?
1	Normandie / Torrance	City of Los Angeles	CMA	Signalized	**0.946**	**E**	**0.965**	**E**	0.019	Yes	Signalized	0.865	D	-0.081	No
		County of Los Angeles	ICU	Signalized	0.786	C	0.796	C	0.010	No	Signalized	0.724	C	-0.062	No
2	Vermont / Torrance	County of Los Angeles	ICU	Signalized	0.782	C	0.888	D	0.106	Yes	Signalized	0.818	D	0.036	No
6	Western / Carson	City of Torrance	HCM	Signalized	25.0	C	30.0	C	5.0	No	Signalized	24.4	C	-0.6	No
		City of Los Angeles	CMA	Signalized	0.874	D	**0.930**	**E**	0.056	Yes	Signalized	0.830	D	-0.044	No
		Caltrans	HCM	Signalized	25.0	C	30.0	C	5.0	No	Signalized	24.4	C	-0.6	No
7	Normandie / Carson	City of Los Angeles	CMA	Signalized	0.870	D	0.896	D	0.026	Yes	Signalized	0.796	C	-0.074	No
		County of Los Angeles	ICU	Signalized	0.747	C	0.770	C	0.023	No	Signalized	0.700	B	-0.047	No
10	Vermont / Carson	County of Los Angeles	ICU	Signalized	0.758	C	**1.026**	**F**	0.268	Yes	Signalized	0.888	D	0.130	Yes
11	SB I-110 Ramps / Carson	County of Los Angeles	ICU	Signalized	0.724	C	**1.086**	**F**	0.362	Yes	Signalized	0.660	B	-0.064	No
		Caltrans	HCM	Signalized	27.1	C	**103.0**	**F**	75.9	Yes	Signalized	24.8	C	-2.3	No
24	Figueroa / 220th and NB I-110	City of Carson	ICU	Signalized	0.871	D	**1.153**	**F**	0.282	Yes	Signalized	0.860	D	-0.011	No
		Caltrans	HCM	Signalized	**52.6**	**D**	**89.9**	**F**	37.3	Yes	Signalized	53.3	C	0.7	No
25	Western / 223rd	City of Torrance	HCM	Signalized	27.3	C	35.5	D	8.2	No	Signalized	27.4	C	0.1	No
		City of Los Angeles	CMA	Signalized	0.881	D	**0.981**	**E**	0.100	Yes	Signalized	0.881	D	0.000	No
		Caltrans	HCM	Signalized	27.3	C	**35.5**	**D**	8.2	Yes	Signalized	27.4	C	0.1	No
27	Meyler / 223rd	County of Los Angeles	ICU	Signalized	0.593	A	0.817	D	0.224	Yes	Signalized	0.639	B	0.046	No
28	Vermont / 223rd	County of Los Angeles	ICU	Signalized	0.845	D	**1.119**	**F**	0.274	Yes	Signalized	**1.041**	**F**	0.196	Yes
29	SB I-110 Ramps / 223rd	County of Los Angeles	ICU	Signalized	0.748	C	**1.036**	**F**	0.288	Yes	Signalized	0.677	B	-0.071	No
		Caltrans	HCM	Signalized	18.6	B	**42.3**	**D**	23.7	Yes	Signalized	23.3	C	4.7	No
32	SB I-110 Ramps / Hamilton	County of Los Angeles	ICU	AWSC	**1.032**	**F**	**1.404**	**F**	0.372	Yes	Signalized	0.718	C	-0.314	-
		Caltrans	HCM	AWSC	**49.9**	**E**	**140.5**	**F**	90.600	Yes	Signalized	21.4	C	-28.5	-
36	Western / Torrance	City of Torrance	HCM	Signalized	40.9	D	41.4	D	0.5	No	Signalized	33.0	C	-7.9	No
		City of Los Angeles	CMA	Signalized	0.880	D	0.884	D	0.004	No	Signalized	0.784	C	-0.096	No
		Caltrans	HCM	Signalized	**40.9**	**D**	**41.4**	**D**	0.5	No	Signalized	33.0	C	-7.9	No
37	Western / 220th	City of Torrance	HCM	Signalized	7.2	A	8.9	A	1.7	No	Signalized	7.1	A	-0.1	No
		City of Los Angeles	CMA	Signalized	0.591	A	0.662	B	0.071	No	Signalized	0.562	A	-0.029	No
		Caltrans	HCM	Signalized	7.2	A	8.9	A	1.7	No	Signalized	7.1	A	-0.1	No

AWSC = All Way Stop Control. **Bold and shaded** = Intersection operates at an unacceptable LOS using the methodology listed.

TABLE 9.4: EXISTING YEAR (2016) WITH PROJECT SIGNIFICANT IMPACT COMPARISON – PM PEAK HOUR

INTERSECTION		Jurisdiction	Analysis Method	Intersection Control	EXISTING		WITH PROJECT				Intersection Control	WITH PROJECT + MITIGATION			
					V/C or Delay (S)	LOS	V/C or Delay (S)	LOS	Change in V/C or Delay	Significant Impact?		V/C or Delay (S)	LOS	Change in V/C or Delay	Significant Impact?
1	Normandie / Torrance	City of Los Angeles	CMA	Signalized	**0.989**	**E**	**0.989**	**E**	0.000	No	Signalized	0.889	D	-0.100	No
		County of Los Angeles	ICU	Signalized	0.850	D	0.850	D	0.000	No	Signalized	0.772	C	-0.078	No
2	Vermont / Torrance	County of Los Angeles	ICU	Signalized	0.770	C	**0.911**	**E**	0.141	Yes	Signalized	0.875	D	0.105	Yes
6	Western / Carson	City of Torrance	HCM	Signalized	37.4	D	51.3	D	13.9	No	Signalized	36.9	D	-0.5	No
		City of Los Angeles	CMA	Signalized	**0.999**	**E**	**1.093**	**F**	0.094	Yes	Signalized	**0.993**	**E**	-0.006	No
		Caltrans	HCM	Signalized	**37.4**	**D**	**51.3**	**D**	13.9	No	Signalized	**36.9**	**D**	-0.5	No
7	Normandie / Carson	City of Los Angeles	CMA	Signalized	0.900	D	**0.962**	**E**	0.062	Yes	Signalized	0.862	D	-0.038	No
		County of Los Angeles	ICU	Signalized	0.773	C	0.827	D	0.054	Yes	Signalized	0.752	C	-0.021	No
10	Vermont / Carson	County of Los Angeles	ICU	Signalized	0.702	C	**0.974**	**E**	0.272	Yes	Signalized	0.771	C	0.069	Yes
11	SB I-110 Ramps / Carson	County of Los Angeles	ICU	Signalized	0.665	B	0.897	D	0.232	Yes	Signalized	0.677	B	0.012	No
		Caltrans	HCM	Signalized	20.9	C	**60.5**	**E**	39.6	Yes	Signalized	21.6	C	0.7	No
24	Figueroa / 220th and NB I-110	City of Carson	ICU	Signalized	0.786	C	**1.237**	**F**	0.451	Yes	Signalized	0.812	D	0.026	No
		Caltrans	HCM	Signalized	**46.1**	**D**	**134.4**	**F**	88.3	Yes	Signalized	**48.4**	**D**	2.3	No
25	Western / 223rd	City of Torrance	HCM	Signalized	29.4	C	31.3	C	1.9	No	Signalized	24.4	C	-5.0	No
		City of Los Angeles	CMA	Signalized	**0.930**	**E**	**0.941**	**E**	0.011	Yes	Signalized	0.841	D	-0.089	No
		Caltrans	HCM	Signalized	29.4	C	31.3	C	1.9	No	Signalized	24.4	C	-5.0	No
27	Meyler / 223rd	County of Los Angeles	ICU	Signalized	0.523	A	0.694	B	0.171	No	Signalized	0.694	B	0.171	No
28	Vermont / 223rd	County of Los Angeles	ICU	Signalized	0.769	C	**1.009**	**F**	0.240	Yes	Signalized	0.880	D	0.111	Yes
29	SB I-110 Ramps / 223rd	County of Los Angeles	ICU	Signalized	0.818	D	**1.028**	**F**	0.210	Yes	Signalized	0.749	C	-0.069	No
		Caltrans	HCM	Signalized	28.4	C	**64.3**	**E**	35.9	Yes	Signalized	26.8	C	-1.6	No
32	SB I-110 Ramps / Hamilton	County of Los Angeles	ICU	AWSC	**1.115**	**F**	**1.173**	**F**	0.058	Yes	Signalized	0.618	B	-0.497	-
		Caltrans	HCM	AWSC	**128.4**	**F**	**139.0**	**F**	10.6	Yes	Signalized	18.4	B	-110.0	-
36	Western / Torrance	City of Torrance	HCM	Signalized	34.1	C	36.4	D	2.3	No	Signalized	31.0	C	-3.1	No
		City of Los Angeles	CMA	Signalized	0.823	D	0.836	D	0.013	No	Signalized	0.736	C	-0.087	No
		Caltrans	HCM	Signalized	34.1	C	**36.4**	**D**	2.3	Yes	Signalized	31.0	C	-3.1	No
37	Western / 220th	City of Torrance	HCM	Signalized	14.6	B	15.0	B	0.4	No	Signalized	12.4	B	-2.2	No
		City of Los Angeles	CMA	Signalized	0.807	D	0.848	D	0.041	Yes	Signalized	0.748	C	-0.059	No
		Caltrans	HCM	Signalized	14.6	B	15.0	B	0.4	No	Signalized	12.4	B	-2.2	No

AWSC = All Way Stop Control. **Bold and shaded** = Intersection operates at an unacceptable LOS using the methodology listed.

TABLE 9.5: EXISTING YEAR (2016) WITH PROJECT + MITIGATION QUEUE ANALYSIS

ID	Ramp	Cross Street	Ramp Length (ft) [a]	85% Ramp Length (ft)	Ramp Turn Lanes at Intersection			AM Queue		PM Queue		Queue Exceeds 85% Storage?	
					Lanes	Movement	Length [a]	Lane (ft)	Max (ft)	Lane (ft)	Max (ft)	AM	PM
11	I-110 Southbound Off-Ramp	Carson Street	980	830	2	Left	980	417	417	298	298	No	No
						Right	380	412		285			
32	I-110 Southbound Off-Ramp	Hamilton Avenue	890	760	3	Left	890	426	426	177	177	No	No
						Left	355	426		177			
						Right	40	121		70			

[a] = Length measured from scaled aerial images.

9.6 FUTURE YEAR (2035) WITH PROJECT + MITIGATION INTERSECTION MITIGATION MEASURES

The intersections significantly impacted by the addition of project-generated traffic and their respective mitigation measures are listed below:

- **MM1 – Normandie Avenue and Torrance Boulevard:** Intersection improvements such as the expansion of the Automated Traffic Surveillance and Control (ATSAC) network to include this intersection and restriping the eastbound approach to provide a right-turn pocket were explored and are believed to be feasible enhancements. A 60' minimum is recommended for the right-turn pocket. The eastbound approach is to feature one left-turn lane, two through lanes, and one right-turn pocket. Additional restriping of the east-west approaches should be expected in order to account for the lane shift due to the addition of the proposed lane. All significant impacts are mitigated with implementation of this measure.
- **MM2 – Vermont Avenue and Torrance Boulevard:** Modifications to the westbound, eastbound, northbound, and southbound approaches were explored. One right-turn pocket is to be added in the eastbound and westbound directions; a 60 foot minimum length is recommended for the pocket. The eastbound and westbound approaches are to consist of one left-turn lane, two through lanes, and one right-turn pocket. The northbound and southbound right-turn lanes are to be restriped to be through-right lanes. The northbound and southbound approaches are to feature one left-turn lane, two through lanes, and one through-right lane. The proposed enhancements will require the acquisition of right-of-way for the westbound and eastbound improvements. Implementation of this measure does not fully mitigate all significant impacts; the intersection LOS is returned to an acceptable LOS in the AM peak hour, but is anticipated to perform at an unacceptable LOS during the PM peak hour. Further expansion of this measure requires right-of-way acquisition that is believed to be infeasible due to the development of the adjacent land. The impact at this intersection is to be significant and unavoidable.
- **MM6 – Western Avenue and Carson Street:** Full mitigation of the impact observed at this intersection is expected with the expansion of the Automated Traffic Surveillance and Control (ATSAC) network to include this intersection; the supplementary Adaptive Traffic Control System (ATCS) software is to be employed as well. Implementation of this measure mitigates all significant impacts.
- **MM7 – Normandie Avenue and Carson Street:** The impact observed at this intersection is expected to be fully mitigated by restriping the westbound approach in addition to expansion of the Automated Traffic Surveillance and Control (ATSAC) network to include this intersection; the Adaptive Traffic Control System (ATCS) software is to be employed as well. The westbound approach is to feature one left-turn lane, two through lanes, and one through-right lane. Implementation of this measure mitigates all significant impacts.
- **MM9 – Berendo Avenue and Carson Street:** Signal improvements to the northbound approach were considered. It was found that all impacts were fully mitigated by modifying the northbound right-turn phase control to be permitted-overlap.
- **MM10 – Vermont Avenue and Carson Street:** Modifications to the eastbound, westbound, northbound, and southbound approaches were explored as intersection improvements. Conversion of the right-turn lane to a through-right in every direction is believed to be a feasible striping improvement. All approaches are to feature one left-turn lane, two through lanes, and one through-right lane. Right-of-way acquisition may be required in order to add these lanes in addition to the bike lanes proposed in the *West Carson Transit Oriented Development Specific Plan*. Preliminary concepts of the plan propose the addition of bike lanes in the eastbound and westbound directions along

Carson Street at this intersection. Implementation of this measure does not fully mitigate all significant impacts; the intersection LOS is anticipated to perform at an unacceptable LOS during both peak hours. Further expansion of this measure requires right-of-way acquisition that is believed to be infeasible due to the development of the adjacent land. The impact at this intersection is to be significant and unavoidable.

- **MM11 – SB I-110 Ramps and Carson Street:** Modifications to the eastbound, westbound, and southbound approaches were explored as intersection capacity improvements. The improvements consist of: restriping the southbound approach to feature one right-turn lane and one shared left-/right-turn lane; restriping of the westbound approach to provide an additional through lane; modify eastbound approach in order to provide a right-turn pocket. The eastbound approach is to feature three through lanes and one right-turn pocket; a 40 foot minimum length is recommended. The westbound approach is to feature one left-turn lane and three through lanes. Additionally, it is advised that the pedestrian crossing across Carson Street be evaluated for pedestrian safety and/or need. Coordination with and approval by Caltrans is required for the implementation of the proposed southbound enhancements. Implementation of this measure fully mitigates all significant impacts.
- **MM24 – Figueroa Street and 220th Street / NB I-110 Ramps:** Per the Transportation and Infrastructure Element of the Carson General Plan, Figueroa Street is to be widened to three lanes in each direction between Carson Street and 223rd Street. Given this information, intersection improvements such as the restriping of the eastbound, northbound, and southbound approaches were considered. The southbound approach is to be restriped to feature one right-turn lane, one through-right lane, one through lane, and a left turn lane. The northbound approach is to be restriped to feature two left-turn lanes, one through lane, and one through-right lane. The eastbound approach is to be restriped to feature one left-turn lane and one through-right lane. Signage showing the lane layout for the intersection should be provided for the eastbound, northbound, and southbound directions, per standards outlined in the California Manual on Uniform Traffic Control Devices (CAMUTCD). Existing phasing is to remain in place; however, signal modifications may be necessary when implementing the proposed lane configurations. Implementation of this measure fully mitigates all significant impacts.
- **MM25 – Western Avenue and 223rd Street:** Full mitigation of the impact observed at this intersection is expected with the expansion of the Automated Traffic Surveillance and Control (ATSAC) network to include this intersection; implementation of the Adaptive Traffic Control System (ATCS) software is to be implemented as well. Implementation of this measure mitigates all significant impacts.
- **MM26 – Normandie Avenue and 223rd Street:** Full mitigation of the impact observed at this intersection is expected with the restriping of the eastbound approach and expansion of the Automated Traffic Surveillance and Control (ATSAC) network to include this intersection; implementation of the Adaptive Traffic Control System (ATCS) software is to be implemented as well. The eastbound approach is to feature one left-turn lane, two through lanes, and one through-right lane. Additional restriping is expected for the lane shifts due to the proposed striping. Implementation of this measure mitigates all significant impacts.
- **MM27 – Meyler Street and 223rd Street:** Striping modifications to the westbound and southbound approaches were explored. An additional through lane is to be added in the westbound direction; the westbound approach is to feature one left-turn lane, two through lanes, and one through-right lane. The southbound approach is to be restriped to feature a left-turn lane and a through-right lane. The addition of the proposed lane requires the removal of on-street parking on the south side of 223rd Street. Implementation of this measure mitigates all significant impacts.

- **MM28 – Vermont Avenue and 223rd Street:** Improvements to the southbound approach were considered. The southbound approach is to be restriped to provide an additional left-turn lane; left-turn phasing control is to be set to protected. The southbound approach is to feature two left-turn lanes, one through lane, and one through-right lane. Implementation of this measure does not fully mitigate all significant impacts. This intersection is anticipated to perform at an unacceptable LOS during the both peak hours. Further expansion of this measure requires right-of-way acquisition that is believed to be infeasible due to the development of the adjacent land as well as the addition of bike lanes put forth in the *West Carson Transit Oriented Development Specific Plan*. Preliminary concepts of the plan propose the addition of bike lanes in the eastbound and westbound directions along 223rd Street at this intersection. The impact at this intersection is to be significant and unavoidable.
- **MM29 – SB I-110 Ramps and 223rd Street:** Modifications to the eastbound and southbound approaches were explored. In order to fully mitigate all impacts, the following enhancements were identified: restriping of the eastbound right-turn lane to be a through-right lane and restriping of the southbound approach such that one left-turn lane, one shared left-/through/right-turn lane, and one right-turn lane are provided. Signage showing the lane configurations for the southbound approach should be provided, per standards outlined in the California Manual on Uniform Traffic Control Devices (CAMUTCD). Implementation of this measure will require the acquisition of right-of-way. Additionally, coordination with and approval by Caltrans is required for the implementation of the southbound restriping. It should be noted that implementation of this measure is complimentary to the improvements outlined in MM28.
- **MM30 – Figueroa Street and 223rd Street:** Per the Transportation and Infrastructure Element of the Carson General Plan, Figueroa Street is to be widened to three lanes in each direction between Carson Street and 223rd Street. Given this information, striping configurations for the westbound and southbound approaches were explored. The westbound approach is to be restriped to feature one left-turn lane, two through lanes, and one through-right lane. The southbound approach is to feature one left-turn lane, two through lanes, and one right-turn lane; the right-turn phasing control is to be changed to permitted-overlap. Implementation of this configuration mitigates all significant impacts.
- **MM32 – Hamilton Avenue and SB I-110 Ramps:** Intersection improvements such as the signalization of the intersection, restriping of the southbound lanes, and restriping of the eastbound receiving lanes were explored. All improvements are believed to be feasible and appropriate measures. The eastbound receiving lanes are to be restriped such that the outside receiving lane can accommodate the proposed northbound free-right-turn lane. The north leg will require restriping such that one southbound through lane, a two-way-left-turn lane (TWLTL), and two northbound through lanes are provided. The two southbound receiving lanes at the intersection of Del Amo Boulevard and Hamilton Avenue are to merge in order to provide the TWLTL; the TWLTL is to become a 180' southbound left-turn pocket at the intersection of Hamilton Avenue and the Southbound I-110 Ramps. The proposed phasing is as follows: permitted phasing for the northbound approach; protected left-turn phasing for the southbound approach; and split phasing for the westbound approach. Implementation of this measure fully mitigates all impacts.
- **MM36 – Western Avenue and Torrance Boulevard:** Full mitigation of the impact observed at this intersection is expected with the expansion of the Automated Traffic Surveillance and Control (ATSAC) network to include this intersection; the Adaptive Traffic Control System (ATCS) software is to be employed as well. Implementation of this measure mitigates all significant impacts.
- **MM37 – Western Avenue and 220th Street:** Full mitigation of the impact observed at this intersection is expected with the expansion of the Automated Traffic Surveillance and Control (ATSAC) network to include this intersection; the Adaptive Traffic Control System

(ATCS) software is to be employed as well. Implementation of this measure mitigates all significant impacts.

A summary of the study intersection performance, with the implementation of the aforementioned mitigation measures, for the AM and PM peak hours of the Future Year (2035) With Project is provided in Table 9.7 and Table 9.8, respectively. Fair share calculations are provided in Table 9.10.

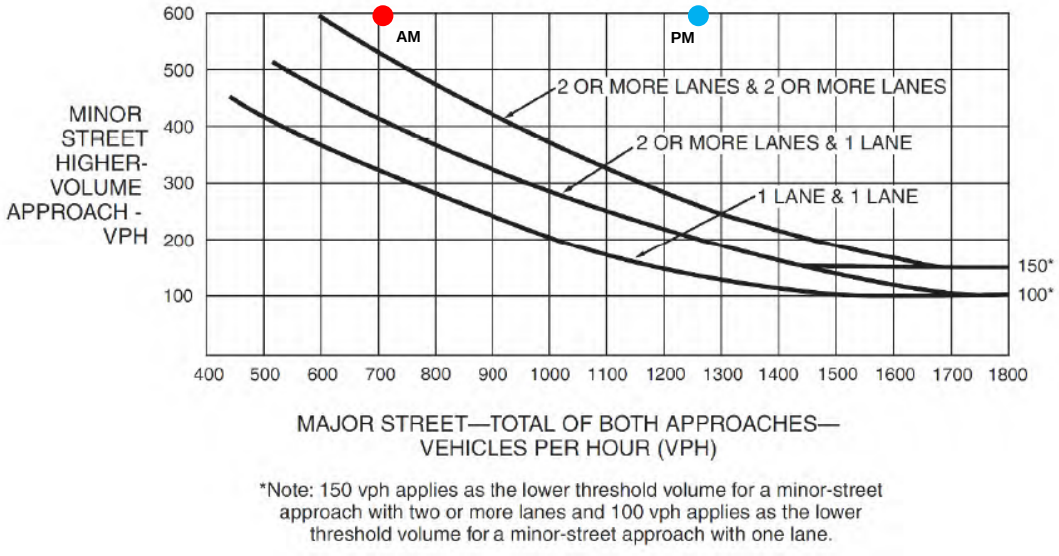
9.7 FUTURE YEAR (2035) WITH PROJECT + MITIGATION FREEWAY OFF-RAMP QUEUE ANALYSIS

As shown in Table 8.11, three locations were identified as experiencing a queue greater than 85% of the measured queue capacity (lane length). Upon implementation of the respective intersection mitigation measure outlined in Section 9.6, all freeway off-ramps are expected to provide sufficient queue storage such that 85% of the queue capacity is not exceeded by estimated queues. An updated queue analysis is presented in Table 9.9 for the aforementioned intersections.

9.8 FUTURE YEAR (2035) WITH PROJECT + MITIGATION CALTRANS WARRANT 3, PEAK HOUR ANALYSIS

Per the Caltrans Guide for the Preparation of Traffic Impact Studies (December 2002), a signal warrant analysis is to be performed to determine the need for a traffic signal. Of the methods outlined in the guidelines, option B was chosen (use of Table 4C-3 in the guidelines). The analysis was performed in response to the proposal of the signalization of the intersection of Hamilton Avenue and the I-110 southbound ramps. The plot of the intersection data is presented in Table 9.5. The AM and PM coordinates are (727, 1251) and (1274, 614), respectively; both points are placed at the topmost position, but it should be noted that the actual positions cannot be plotted with the axis range of the table. Hamilton Avenue was taken as the major street; the SB I-110 Ramps were taken as the minor street.

TABLE 9.6: WARRANT 3, PEAK HOUR ANALYSIS



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

9.9 FUTURE YEAR (2035) WITH PROJECT + MITIGATION INTERSECTION IMPACT MITIGATION FUNDING

Fair share calculations were prepared in order to calculate developer contributions to mitigation measures for intersections impacted by project traffic. Fair share calculations were developed by calculating the project-generated traffic and the total new traffic at each intersection where mitigation was proposed. The project-generated traffic was then divided by the total new traffic in order to establish the percent increase of traffic for which the project is responsible. This presents the proportional contribution of project traffic, as well as proportional mitigation funding, at each intersection for the AM and PM peak hours. The fair share is taken to be the maximum of the peak hour contributions. The fair share calculations are presented in Table 9.8. The equation is presented below:

$$Fair\ Share\ (\%) = \frac{Project\ Traffic}{Total\ New\ Traffic} \times 100\%$$

TABLE 9.7: FUTURE YEAR (2035) WITH PROJECT SIGNIFICANT IMPACT COMPARISON – AM PEAK HOUR

INTERSECTION		Jurisdiction	Analysis Method	Intersection Control	FUTURE [a]		WITH PROJECT				Intersection Control	WITH PROJECT + MITIGATION			
					V/C or Delay (S)	LOS	V/C or Delay (S)	LOS	Change in V/C or Delay	Significant Impact?		V/C or Delay (S)	LOS	Change in V/C or Delay	Significant Impact?
1	Normandie / Torrance	City of Los Angeles	CMA	Signalized	**1.065**	**F**	**1.085**	**F**	0.020	Yes	Signalized	0.767	C	-0.298	No
		County of Los Angeles	ICU	Signalized	0.812	D	0.895	D	0.083	Yes	Signalized	0.813	D	0.001	No
2	Vermont / Torrance	County of Los Angeles	ICU	Signalized	0.782	C	**0.970**	**E**	0.188	Yes	Signalized	0.888	D	0.106	Yes
6	Western / Carson	City of Torrance	HCM	Signalized	33.6	C	42.6	D	9.0	No	Signalized	30.8	C	-2.8	No
		City of Los Angeles	CMA	Signalized	**0.985**	**E**	**1.040**	**F**	0.055	Yes	Signalized	**0.940**	**E**	-0.045	No
		Caltrans	HCM	Signalized	33.6	C	**42.6**	**D**	9.0	Yes	Signalized	30.8	C	-2.8	No
7	Normandie / Carson	City of Los Angeles	CMA	Signalized	0.980	E	**1.006**	**F**	0.026	Yes	Signalized	0.775	C	-0.205	No
		County of Los Angeles	ICU	Signalized	0.747	C	0.864	D	0.117	Yes	Signalized	0.683	B	-0.064	No
9	Berendo / Carson	County of Los Angeles	ICU	Signalized	0.456	A	0.669	B	0.213	No	Signalized	0.603	B	0.147	No
10	Vermont / Carson	County of Los Angeles	ICU	Signalized	0.758	C	**1.121**	**F**	0.363	Yes	Signalized	**0.972**	**E**	0.214	Yes
11	SB I-110 Ramps / Carson	County of Los Angeles	ICU	Signalized	0.724	C	**1.177**	**F**	0.453	Yes	Signalized	0.722	C	-0.002	No
		Caltrans	HCM	Signalized	**38.2**	**D**	**138.2**	**F**	100.0	Yes	Signalized	31.1	C	-7.1	No
24	Figueroa / 220th and NB I-110	City of Carson	ICU	Signalized	**0.981**	**E**	**1.263**	**F**	0.282	Yes	Signalized	**0.944**	**E**	-0.037	No
		Caltrans	HCM	Signalized	**65.6**	**E**	**114.3**	**F**	48.7	Yes	Signalized	**74.8**	**E**	9.2	No
25	Western / 223rd	City of Torrance	HCM	Signalized	38.7	D	53.7	D	15.0	No	Signalized	37.2	D	-1.5	No
		City of Los Angeles	CMA	Signalized	**0.992**	**E**	**1.092**	**F**	0.100	Yes	Signalized	**0.992**	**E**	0.000	No
		Caltrans	HCM	Signalized	**38.7**	**D**	**53.7**	**D**	15.0	No	Signalized	**37.2**	**D**	-1.5	No
26	Normandie / 223rd	City of Los Angeles	CMA	Signalized	0.821	D	0.833	D	0.012	No	Signalized	0.733	C	-0.088	No
		County of Los Angeles	ICU	Signalized	0.683	B	0.780	C	0.097	Yes	Signalized	0.709	C	0.026	No
27	Meyler / 223rd	County of Los Angeles	ICU	Signalized	0.593	A	0.891	D	0.298	Yes	Signalized	0.636	B	0.043	No
28	Vermont / 223rd	County of Los Angeles	ICU	Signalized	0.845	D	**1.226**	**F**	0.381	Yes	Signalized	**1.144**	**F**	0.299	Yes
29	SB I-110 Ramps / 223rd	County of Los Angeles	ICU	Signalized	0.748	C	**1.130**	**F**	0.382	Yes	Signalized	0.741	C	-0.007	No
		Caltrans	HCM	Signalized	25.9	C	**62.0**	**E**	36.1	Yes	Signalized	30.5	C	4.6	No
30	Figueroa 223rd	City of Carson	ICU	Signalized	0.778	C	**0.959**	**E**	0.181	Yes	Signalized	0.865	D	0.087	No
32	SB I-110 Ramps / Hamilton	County of Los Angeles	ICU	AWSC	**1.032**	**F**	**1.576**	**F**	0.544	Yes	Signalized	0.794	C	-0.238	-
		Caltrans	HCM	AWSC	**78.0**	**F**	**183.5**	**F**	105.5	Yes	Signalized	28.5	C	-49.5	-
36	Western / Torrance	City of Torrance	HCM	Signalized	**55.1**	**E**	**55.8**	**E**	0.7	Yes	Signalized	42.3	D	-12.8	No
		City of Los Angeles	CMA	Signalized	**0.991**	**E**	**0.995**	**E**	0.004	No	Signalized	0.895	D	-0.096	No
		Caltrans	HCM	Signalized	**55.1**	**E**	**55.8**	**E**	0.7	No	Signalized	**42.3**	**D**	-12.8	No
37	Western / 220th	City of Torrance	HCM	Signalized	8.4	A	11.3	B	2.9	No	Signalized	11.3	B	2.9	No
		City of Los Angeles	CMA	Signalized	0.666	B	0.737	C	0.071	No	Signalized	0.637	B	-0.029	No
		Caltrans	HCM	Signalized	8.4	A	11.3	B	2.9	No	Signalized	11.3	B	2.9	No

[a] = Existing Year (2016) No Project V/C and LOS are presented for County of Los Angeles intersections; County guidelines specify use of the Existing Year (2016) No Project V/C and LOS as the baseline for comparison to the Future Year (2035) With Project V/C and LOS. AWSC = All Way Stop Control. Bold and shaded = Intersection operates at an unacceptable LOS using the methodology listed.

TABLE 9.8: FUTURE YEAR (2035) WITH PROJECT SIGNIFICANT IMPACT COMPARISON – PM PEAK HOUR

INTERSECTION		Jurisdiction	Analysis Method	Intersection Control	FUTURE [a]		WITH PROJECT				Intersection Control	WITH PROJECT + MITIGATION			
					V/C or Delay (S)	LOS	V/C or Delay (S)	LOS	Change in V/C or Delay	Significant Impact?		V/C or Delay (S)	LOS	Change in V/C or Delay	Significant Impact?
1	Normandie / Torrance	City of Los Angeles	CMA	Signalized	**1.113**	**F**	**1.113**	**F**	0.000	No	Signalized	**0.950**	**E**	-0.163	No
		County of Los Angeles	ICU	Signalized	0.850	D	**0.957**	**E**	0.107	Yes	Signalized	0.820	D	-0.030	No
2	Vermont / Torrance	County of Los Angeles	ICU	Signalized	0.770	C	**0.989**	**E**	0.219	Yes	Signalized	**0.948**	**E**	0.178	Yes
6	Western / Carson	City of Torrance	HCM	Signalized	**56.9**	**E**	**75.7**	**E**	18.8	Yes	Signalized	52.9	D	-4.0	No
		City of Los Angeles	CMA	Signalized	**1.124**	**F**	**1.220**	**F**	0.096	Yes	Signalized	**1.120**	**F**	-0.004	No
		Caltrans	HCM	Signalized	**56.9**	**E**	**75.7**	**E**	18.8	No	Signalized	**52.9**	**D**	-4.0	No
7	Normandie / Carson	City of Los Angeles	CMA	Signalized	**1.013**	**F**	**1.076**	**F**	0.063	Yes	Signalized	0.850	D	-0.163	No
		County of Los Angeles	ICU	Signalized	0.773	C	**0.924**	**E**	0.151	Yes	Signalized	0.776	C	0.003	No
9	Berendo / Carson	County of Los Angeles	ICU	Signalized	0.427	A	0.795	C	0.368	Yes	Signalized	0.711	C	0.284	No
10	Vermont / Carson	County of Los Angeles	ICU	Signalized	0.702	C	**1.050**	**F**	0.348	Yes	Signalized	**0.936**	**E**	0.234	Yes
11	SB I-110 Ramps / Carson	County of Los Angeles	ICU	Signalized	0.665	B	**0.981**	**E**	0.316	Yes	Signalized	0.741	C	0.076	No
		Caltrans	HCM	Signalized	31.6	C	**92.4**	**F**	60.8	Yes	Signalized	28.8	C	-2.8	No
24	Figueroa / 220th and NB I-110	City of Carson	ICU	Signalized	0.886	D	**1.337**	**F**	0.451	Yes	Signalized	0.886	D	0.000	No
		Caltrans	HCM	Signalized	**58.3**	**E**	**168.3**	**F**	110.0	Yes	Signalized	**69.7**	**E**	11.4	No
25	Western / 223rd	City of Torrance	HCM	Signalized	47.3	D	51.6	D	4.3	No	Signalized	35.4	D	-11.9	No
		City of Los Angeles	CMA	Signalized	**1.049**	**F**	**1.059**	**F**	0.010	Yes	Signalized	**0.959**	**E**	-0.090	No
		Caltrans	HCM	Signalized	**47.3**	**D**	**51.6**	**D**	4.3	No	Signalized	**35.4**	**D**	-11.9	No
26	Normandie / 223rd	City of Los Angeles	CMA	Signalized	0.787	C	0.812	D	0.025	No	Signalized	0.712	C	-0.075	No
		County of Los Angeles	ICU	Signalized	0.655	B	0.761	C	0.106	Yes	Signalized	0.627	B	-0.028	No
27	Meyler / 223rd	County of Los Angeles	ICU	Signalized	0.523	A	0.760	C	0.237	Yes	Signalized	0.674	B	0.151	No
28	Vermont / 223rd	County of Los Angeles	ICU	Signalized	0.769	C	**1.116**	**F**	0.347	Yes	Signalized	**0.979**	**E**	0.210	Yes
29	SB I-110 Ramps / 223rd	County of Los Angeles	ICU	Signalized	0.818	D	**1.130**	**F**	0.312	Yes	Signalized	0.826	D	0.008	No
		Caltrans	HCM	Signalized	**46.7**	**D**	**97.6**	**F**	50.9	Yes	Signalized	**39.7**	**D**	-7.0	No
30	Figueroa 223rd	City of Carson	ICU	Signalized	0.748	C	**0.901**	**E**	0.153	Yes	Signalized	0.846	D	0.098	No
32	SB I-110 Ramps / Hamilton	County of Los Angeles	ICU	AWSC	**1.115**	**F**	**1.351**	**F**	0.236	Yes	Signalized	0.690	B	-0.425	-
		Caltrans	HCM	AWSC	**184.2**	**F**	**195.9**	**F**	11.7	Yes	Signalized	21.7	C	-162.5	-
36	Western / Torrance	City of Torrance	HCM	Signalized	43.9	D	48.1	D	4.2	No	Signalized	37.4	D	-6.5	No
		City of Los Angeles	CMA	Signalized	**0.927**	**E**	**0.940**	**E**	0.013	Yes	Signalized	0.840	D	-0.087	No
		Caltrans	HCM	Signalized	**43.9**	**D**	48.1	D	4.2	No	Signalized	**37.4**	**D**	-6.5	No
37	Western / 220th	City of Torrance	HCM	Signalized	20.3	C	22.0	C	1.7	No	Signalized	15.9	B	-4.4	No
		City of Los Angeles	CMA	Signalized	**0.909**	**E**	**0.951**	**E**	0.042	Yes	Signalized	0.851	D	-0.058	No
		Caltrans	HCM	Signalized	20.3	C	22.0	C	1.7	No	Signalized	15.9	B	-4.4	No

[a] = Existing Year (2016) No Project V/C and LOS are presented for County of Los Angeles intersections; County guidelines specify use of the Existing Year (2016) No Project V/C and LOS as the baseline for comparison to the Future Year (2035) With Project V/C and LOS. AWSC = All Way Stop Control. Bold and shaded = Intersection operates at an unacceptable LOS using the methodology listed.

TABLE 9.9: FUTURE YEAR (2035) WITH PROJECT + MITIGATION QUEUE ANALYSIS

ID	Ramp	Cross Street	Ramp Length (ft) [a]	85% Ramp Length (ft)	Ramp Turn Lanes at Intersection			AM Queue		PM Queue		Queue Exceeds 85% Storage?	
					Lanes	Movement	Length [a]	Lane (ft)	Max (ft)	Lane (ft)	Max (ft)	AM	PM
11	I-110 Southbound Off-Ramp	Carson Street	980	840	2	Left	980	355	355	251	251	No	No
						Right	380	342		241			
29	I-110 Southbound Off-Ramp	223rd Street	935	800	2	Through/Left	935	679	679	517	517	No	No
						Right/Through	405	679		396			
32	I-110 Southbound Off-Ramp	Hamilton Avenue	890	760	3	Left	890	425	425	148	148	No	No
						Left	355	425		148			
						Right	40	148		23			

[a] = Length measured from scaled aerial images.

TABLE 9.10: FUTURE YEAR (2035) WITH PROJECT MITIGATION FAIR SHARE SUMMARY

ID	INTERSECTION	AM					PM					FAIR SHARE CONTRIBUTION
		EXISTING TRAFFIC	FUTURE TRAFFIC + PROJECT	PROJECT TRAFFIC	TOTAL NEW TRAFFIC	PROJECT % OF NEW TRAFFIC	EXISTING TRAFFIC	FUTURE TRAFFIC + PROJECT	PROJECT TRAFFIC	TOTAL NEW TRAFFIC	PROJECT % OF NEW TRAFFIC	
1	Normandie Avenue (N/S) & Torrance Boulevard (E/W)	4,224	4,789	31	565	5%	4,399	4,982	29	583	5%	**5%**
2	Vermont Avenue (N/S) & Torrance Boulevard (E/W)	4,451	5,552	540	1,101	49%	4,194	5,222	497	1,028	48%	**49%**
6	Western Avenue (N/S) & Carson Street (E/W)	4,427	5,440	454	1,013	45%	5,184	6,258	418	1,074	39%	**45%**
7	Normandie Avenue (N/S) & Carson Street (E/W)	3,898	4,692	301	794	38%	4,151	4,953	277	802	35%	**38%**
9	Berendo Avenue (N/S) & Carson Street (E/W)	2,334	3,533	904	1,199	75%	2,476	3,620	831	1,144	73%	**75%**
10	Vermont Avenue (N/S) & Carson Street (E/W)	4,423	6,511	1,530	2,088	73%	4,354	6,311	1,407	1,957	72%	**73%**
11	I-110 Southbound Ramps (N/S) & Carson Street (E/W)	2,818	4,252	1,078	1,434	75%	2,852	4,202	989	1,350	73%	**75%**
24	Figeroa Street (N/S) & 220th Street / I-110 Northbound Ramps (E/W)	2,873	3,846	609	973	63%	2,401	3,539	833	1,138	73%	**73%**
25	Western Avenue (N/S) & 223rd Street (E/W)	4,173	4,914	214	741	29%	4,714	5,507	197	793	25%	**29%**
26	Normandie Avenue (N/S) & 223rd Street (E/W)	3,696	4,316	152	620	25%	3,670	4,273	140	603	23%	**25%**
27	Meyler Street (N/S) & 223rd Street (E/W)	2,536	3,463	607	927	65%	2,444	3,276	524	832	63%	**65%**
28	Vermont Ave (N/S) & 223rd St (E/W)	4,265	5,705	901	1,440	63%	4,322	5,696	828	1,374	60%	**63%**
29	SB I-110 Ramps (N/S) & 223rd St (E/W)	3,109	4,310	809	1,201	67%	3,424	4,600	743	1,176	63%	**67%**
30	Figueroa Street (N/S) & 223rd Street (E/W)	3,889	4,811	429	922	47%	3,894	4,922	536	1,028	52%	**52%**
32	Hamilton Ave (N/S) & SB I-110 Ramps (E/W)	1,756	2,349	371	593	63%	1,674	2,027	141	353	40%	**63%**
36	Western Ave (N/S) & Torrance Blvd (E/W)	5,066	5,828	122	762	16%	5,440	6,239	112	799	14%	**16%**
37	Vermont Ave (N/S) & 22th St (E/W)	2,748	3,371	274	623	44%	3,109	3,753	251	644	39%	**44%**

Fair share taken to be the maximum of the peak hour Project % of New Traffic values for each intersection.

9.10 FREEWAY MAINLINE MITIGATION MEASURES

As shown in Table 9.1, significant impacts are expected to occur at one freeway mainline study location. The location and mitigation of the impacts falls outside of the jurisdiction of the lead agency; however, potential methods for impact mitigation are presented due to the project's contribution to the impact at said locations. Methods believed to be effective in alleviating the expected impacts are as follows:

- Implementation of more aggressive Traffic Demand Management (TDM) measures. Similar measures from the *Quantifying Greenhouse Gas Mitigation Measures* (California Air Pollution Control Officers Association (CAPCOA)) were implemented in Section 6.1 to provide a trip reduction based on project characteristics. The report provides additional, more specific measures that can be utilized to further reduce project trips. Implementation of a requirement for residential developments consisting of 50 or more units to provide annual Metro bus passes to residents, for example, could potentially serve to reduce project-generated vehicle trips; businesses with a certain number of employees may also be considered for such a requirement.
- Implement improvement projects at the impacted locations which provide additional mainline capacity, increase the incentive for ride-sharing, or allow for inter-city bus transit are recommended. Fair share calculations should be prepared in order to determine the contributions of projects within the region believed to add traffic to the locations of interest.

Measures listed above are intended to provide guidance in further reducing project trips as well as methods for implementing/funding such measures. Implementation of these measures is outside the control of the lead agency; coordination with and the approval of Caltrans is required.

10 CONCLUSIONS

This traffic analysis report has been prepared as part of the West Carson TOD Specific Plan Environmental Impact Report (EIR). The purpose of this traffic study is to document the forecast traffic conditions within the study area with development proposed in the Specific Plan in order to identify potential impacts to study area intersections, select freeway segments, and freeway off-ramps based on the various jurisdiction standards, and to formulate measures to mitigate those impacts. A summary of the study scenarios is provided below.

10.1 Existing Year (2016) No Project

Two of the ten links assessed were observed to operate at an unacceptable level of service (LOS E or worse). All but six of the thirty-seven study intersections currently operate at an acceptable level of service using their respective standards. An unacceptable level of service is observed at two of the six CMP monitoring stations and five of the seven freeway mainline study locations. The queue analysis for this scenario shows that at all freeway off-ramps are expected to provide sufficient queue storage such that 85% of the maximum capacity is not exceeded.

10.2 Existing Year (2016) With Project

Six of the ten links assessed in this study are projected to operate at an unacceptable level of service (LOS E or worse) with the addition of project traffic. A significant impact at fourteen of the thirty-seven intersections evaluated is anticipated as a result of the addition of project traffic. Mitigation measures were developed for all of the significantly impacted intersections. The measures were found to fully mitigate all impacts during both peak hours of this scenario for eleven of the fourteen intersections; impacts at the three remaining intersections are to be significant and unavoidable. Two of the six CMP monitoring are expected to perform at an unacceptable level of service; no impacts are anticipated. An unacceptable level of service is expected at five of the seven freeway mainline study locations; an impact is anticipated to occur at one of the study locations. Mitigation recommendations for freeway mainline impacts are provided in Section 9.8.The queue analysis for this scenario shows that at all freeway off-ramps are expected to provide sufficient queue storage such that 85% of the maximum capacity is not exceeded with the exception of two I-110 southbound off-ramp locations (at Carson Street and Hamilton Avenue). Upon implementation of the respective intersection mitigation measure outlined in Section 9.2, all freeway off-ramps are expected to provide sufficient queue storage such that 85% of the queue capacity is not exceeded by estimated queues.

10.3 Future Year (2035) No Project

Four of the ten links assessed are forecast to operate at an unacceptable level of service (LOS E or worse). Ten of the thirty-seven study intersections are projected to operate at an unacceptable level of service using their respective standards. An unacceptable level of service is observed at four of the six CMP monitoring stations and all seven freeway mainline study locations. The queue analysis for this scenario shows that at all freeway off-ramps are expected to provide sufficient queue storage such that 85% of the maximum capacity is not exceeded

10.4 Future Year (2035) With Project

Six of the ten links assessed are projected to begin operating at an unacceptable level of service (LOS E or worse) with the addition of project traffic. A significant impact at seventeen of the thirty-seven intersections evaluated is anticipated as a result of the addition of project traffic. Mitigation measures were developed for all of the significantly impacted intersections. The measures were found to fully mitigate all impacts during both peak hours of this scenario for fourteen of the seventeen intersections; impacts at the three remaining intersections are to be significant and

unavoidable. Four of the six CMP monitoring are expected to perform at an unacceptable level of service; no impacts are anticipated. An unacceptable level of service is expected at all seven freeway mainline study locations; an impact is anticipated to occur at one of the study locations. Mitigation recommendations for freeway mainline impacts are provided in Section 9.8.The queue analysis for this scenario shows that at all freeway off-ramps are expected to provide sufficient queue storage such that 85% of the maximum capacity is not exceeded with the exception of three I-110 southbound off-ramp locations (at Carson Street, 223rd Street, and Hamilton Avenue). Upon implementation of the respective intersection mitigation measure outlined in Section 9.6, all freeway off-ramps are expected to provide sufficient queue storage such that 85% of the queue capacity is not exceeded by estimated queues.

11 REFERENCES

Draft Traffic Impact Analysis Report Guidelines (Los Angeles County Department of Public Works, December 2013)

California Manual on Uniform Traffic Control Devices (California Department of Transportation, 2014); http://www.dot.ca.gov/trafficops/camutcd/docs/2014r2/CAMUTCD2014-Part4_rev2.pdf

Caltrans Performance Measurement System (California Department of Transportation, 2014); http://pems.dot.ca.gov/

Quantifying Greenhouse Gas Mitigation Measures (California Air Pollution Control Officers Association, 2010); http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

Carson General Plan Update (City of Carson, amended August 2013); http://ci.carson.ca.us/communitydevelopment/generalplan.aspx

Congestion Management Program (Los Angeles County Metropolitan Transportation Authority, 2010); http://media.metro.net/projects_studies/cmp/images/CMP_Final_2010.pdf

Guide for the Preparation of Traffic Impact Studies (California Department of Transportation, December 2002); http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf

Traffic Census Program (California Department of Transportation, 2015); http://www.dot.ca.gov/trafficops/census/

City of Torrance Citywide Traffic Analysis (RBF, 2013); http://www.torranceca.gov/pdf/traffic/4211_Trf_06-03-2008.pdf

City of Torrance General Plan Update Traffic Impact Analysis (RBF, 2009); http://www.torranceca.gov/pdf/gp_drafteir/Appendix%20J.pdf

Transportation Research Circular No. 212, Interim Materials on Highway Capacity (Transportation Research Board, 1980)

Trip Generation, 9th Edition (ITE, 2012)

12 APPENDICES

APPENDIX A – TRAFFIC COUNTS

APPENDIX B – LOS ANALYSIS (ICU METHODOLOGY)

APPENDIX C – LOS ANALYSIS W/ MITIGATION (ICU METHODOLOGY)

APPENDIX D – LOS/QUEUE ANALYSIS (HCM METHODOLOGY)

APPENDIX E – LOS/QUEUE ANALYSIS W/ MITIGATION (HCM METHODOLOGY)

APPENDIX F – LAND USE SUMMARY TABLE

APPENDIX G – MIXED USE INTERNAL TRIP CAPTURE CALCULATIONS

APPENDIX H – LINK VOLUMES

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APPENDIX J – LOS ANALYSIS (CMA METHODOLOGY)

Appendix A
Traffic Counts

Average Daily Traffic

Tuesday, May 24, 2016 Location: Carson PROJECT: SC0964

ADT1 Carson west of Berendo. **Prepared by AimTD tel. 714 753 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:30			55		54			12:00			215		252		
00:15			33		45			12:15			225		274		
00:30			45		38			12:30			192		261		
00:45			28	161	32	169	330	12:45			223	855	255	1042	1897
01:00			22		26			13:00			189		270		
01:15			10		20			13:15			207		245		
01:30			14		26			13:30			231		263		
01:45			17	63	13	85	148	13:45			204	831	254	1032	1863
02:00			18		27			14:00			215		223		
02:15			15		16			14:15			244		232		
02:30			13		14			14:30			196		286		
02:45			9	55	14	71	126	14:45			206	861	280	1021	1882
03:00			13		16			15:00			237		262		
03:15			9		20			15:15			234		238		
03:30			16		31			15:30			225		256		
03:45			12	50	35	102	152	15:45			245	941	260	1016	1957
04:00			10		22			16:00			262		270		
04:15			18		33			16:15			240		263		
04:30			30		43			16:30			254		272		
04:45			39	97	70	168	265	16:45			298	1054	256	1061	2115
05:00			46		51			17:00			298		302		
05:15			43		97			17:15			301		303		
05:30			77		128			17:30			267		279		
05:45			83	249	147	423	672	17:45			265	1131	300	1184	2315
06:00			108		142			18:00			243		282		
06:15			108		152			18:15			261		258		
06:30			120		212			18:30			219		249		
06:45			146	482	219	725	1207	18:45			196	919	202	991	1910
07:00			139		270			19:00			235		218		
07:15			144		328			19:15			200		218		
07:30			199		369			19:30			173		206		
07:45			203	685	342	1309	1994	19:45			165	773	187	829	1602
08:00			189		333			20:00			184		184		
08:15			197		290			20:15			212		155		
08:30			176		310			20:30			172		161		
08:45			163	725	284	1217	1942	20:45			177	745	138	638	1383
09:00			158		249			21:00			172		131		
09:15			168		261			21:15			189		145		
09:30			169		268			21:30			171		139		
09:45			189	684	256	1034	1718	21:45			111	643	116	531	1174
10:00			168		249			22:00			133		91		
10:15			164		224			22:15			109		92		
10:30			164		260			22:30			101		87		
10:45			173	669	241	974	1643	22:45			85	428	60	330	758
11:00			195		259			23:00			66		61		
11:15			152		252			23:15			62		62		
11:30			200		247			23:30			66		52		
11:45			206	753	239	997	1750	23:45			56	250	51	226	476
Total Vol.				4673		7274	**11947**					9431		9901	**19332**

Daily Totals

NB	SB	EB	WB	Combined
		14104	17175	**31279**

			AM				PM		
Split %			39.1%	60.9%	**38.2%**		48.8%	51.2%	**61.8%**
Peak Hour	00:30	00:30	11:30	07:15	**07:30**		16:45	17:00	**17:00**
Volume			846	1372	**2122**		1164	1184	**2315**
P.H.F.			0.94	0.93	**0.93**		0.97	0.98	**0.96**

Tuesday, May 24, 2016 Location: Carson PROJECT: SC0964

ADT2 Carson east of Vermont. **Prepared by AimTD tel. 714 753 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:30			75		64			12:00			220		260		
00:15			41		56			12:15			264		300		
00:30			50		46			12:30			247		277		
00:45			37	203	40	206	409	12:45			243	974	300	1137	2111
01:00			36		43			13:00			240		321		
01:15			24		25			13:15			261		282		
01:30			19		28			13:30			253		302		
01:45			25	104	25	121	225	13:45			255	1009	319	1224	2233
02:00			21		29			14:00			249		266		
02:15			22		28			14:15			298		280		
02:30			17		18			14:30			261		331		
02:45			19	79	20	95	174	14:45			291	1099	327	1204	2303
03:00			19		17			15:00			291		280		
03:15			17		30			15:15			281		287		
03:30			18		27			15:30			303		261		
03:45			12	66	39	113	179	15:45			252	1127	274	1102	2229
04:00			20		22			16:00			337		261		
04:15			27		45			16:15			310		303		
04:30			36		49			16:30			328		289		
04:45			40	123	103	219	342	16:45			316	1291	283	1136	2427
05:00			53		61			17:00			304		300		
05:15			52		124			17:15			307		310		
05:30			85		155			17:30			319		279		
05:45			91	281	213	553	834	17:45			309	1239	329	1218	2457
06:00			118		206			18:00			295		271		
06:15			143		236			18:15			279		271		
06:30			126		305			18:30			236		254		
06:45			164	551	367	1114	1665	18:45			226	1036	256	1052	2088
07:00			159		360			19:00			246		248		
07:15			195		385			19:15			237		240		
07:30			251		405			19:30			216		225		
07:45			229	834	452	1602	2436	19:45			193	892	210	923	1815
08:00			200		394			20:00			196		189		
08:15			205		383			20:15			253		187		
08:30			165		363			20:30			175		185		
08:45			196	766	351	1491	2257	20:45			188	812	157	718	1530
09:00			178		306			21:00			215		130		
09:15			191		318			21:15			209		158		
09:30			189		296			21:30			197		160		
09:45			213	771	338	1258	2029	21:45			149	770	141	589	1359
10:00			181		304			22:00			139		118		
10:15			208		280			22:15			117		124		
10:30			198		272			22:30			131		121		
10:45			225	812	301	1157	1969	22:45			97	484	155	518	1002
11:00			231		273			23:00			97		94		
11:15			207		257			23:15			128		77		
11:30			227		297			23:30			133		59		
11:45			242	907	269	1096	2003	23:45			82	440	73	303	743
Total Vol.				5497		9025	**14522**					11173		11124	**22297**

Daily Totals

NB	SB	EB	WB	Combined
		16670	20149	**36819**

			AM					PM		
Split %			37.9%	62.1%	**39.4%**			50.1%	49.9%	**60.6%**
Peak Hour	00:30	00:30	11:45	07:15	**07:30**			16:00	14:30	**17:00**
Volume			973	1636	**2519**			1291	1225	**2457**
P.H.F.			0.92	0.90	**0.92**			0.96	0.93	**0.96**

Tuesday, May 24, 2016 Location: Carson PROJECT: SC0964

ADT3 Carson east of Figueroa. **Prepared by AimTD tel. 714 753 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:30			30		37			12:00			135		133		
00:15			36		48			12:15			135		161		
00:30			32		31			12:30			164		128		
00:45			22	120	33	149	269	12:45			161	595	141	563	1158
01:00			17		33			13:00			151		135		
01:15			8		21			13:15			151		122		
01:30			14		25			13:30			137		155		
01:45			12	51	18	97	148	13:45			165	604	144	556	1160
02:00			13		19			14:00			136		143		
02:15			10		14			14:15			156		145		
02:30			7		19			14:30			181		160		
02:45			10	40	15	67	107	14:45			170	643	181	629	1272
03:00			17		10			15:00			178		144		
03:15			7		9			15:15			177		163		
03:30			8		16			15:30			156		139		
03:45			10	42	18	53	95	15:45			157	668	140	586	1254
04:00			5		7			16:00			176		141		
04:15			14		12			16:15			179		142		
04:30			12		26			16:30			171		149		
04:45			24	55	29	74	129	16:45			175	701	126	558	1259
05:00			25		13			17:00			203		164		
05:15			18		42			17:15			192		154		
05:30			35		59			17:30			181		140		
05:45			43	121	76	190	311	17:45			179	755	184	642	1397
06:00			52		83			18:00			191		150		
06:15			63		82			18:15			182		142		
06:30			75		117			18:30			157		137		
06:45			82	272	157	439	711	18:45			174	704	140	569	1273
07:00			74		144			19:00			154		125		
07:15			112		150			19:15			122		116		
07:30			163		197			19:30			127		115		
07:45			183	532	188	679	1211	19:45			135	538	119	475	1013
08:00			129		196			20:00			114		99		
08:15			110		146			20:15			128		102		
08:30			99		131			20:30			127		100		
08:45			94	432	127	600	1032	20:45			110	479	89	390	869
09:00			117		128			21:00			115		90		
09:15			83		144			21:15			100		95		
09:30			116		143			21:30			89		71		
09:45			111	427	140	555	982	21:45			147	451	69	325	776
10:00			124		111			22:00			112		55		
10:15			89		131			22:15			83		48		
10:30			127		118			22:30			63		65		
10:45			128	468	128	488	956	22:45			56	314	56	224	538
11:00			156		130			23:00			51		38		
11:15			130		118			23:15			36		41		
11:30			116		126			23:30			58		34		
11:45			157	559	148	522	1081	23:45			49	194	29	142	336
Total Vol.				3119		3913	**7032**					6646		5659	**12305**

Daily Totals

NB	SB	EB	WB	Combined
		9765	9572	**19337**

			AM					PM		
Split %			44.4%	55.6%	**36.4%**			54.0%	46.0%	**63.6%**
Peak Hour	00:30	00:30	11:45	07:15	**07:15**			17:00	14:30	**17:00**
Volume			591	731	**1318**			755	648	**1397**
P.H.F.			0.90	0.93	**0.89**			0.93	0.90	**0.95**

Tuesday, May 24, 2016 Location: Carson PROJECT: SC0964

ADT4 Carson west of Normandie. **Prepared by AimTD tel. 714 753 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:30			68		51			12:00			247		229		
00:15			31		43			12:15			242		258		
00:30			50		28			12:30			261		235		
00:45			29	178	34	156	334	12:45			247	997	260	982	1979
01:00			23		26			13:00			255		235		
01:15			17		22			13:15			228		231		
01:30			21		23			13:30			278		265		
01:45			25	86	20	91	177	13:45			248	1009	222	953	1962
02:00			19		24			14:00			291		270		
02:15			16		12			14:15			273		268		
02:30			14		10			14:30			249		266		
02:45			8	57	12	58	115	14:45			261	1074	269	1073	2147
03:00			13		14			15:00			311		297		
03:15			13		25			15:15			326		263		
03:30			15		28			15:30			303		261		
03:45			8	49	35	102	151	15:45			322	1262	270	1091	2353
04:00			11		13			16:00			310		284		
04:15			16		39			16:15			296		284		
04:30			29		51			16:30			287		294		
04:45			40	96	60	163	259	16:45			331	1224	281	1143	2367
05:00			47		41			17:00			367		295		
05:15			46		96			17:15			359		323		
05:30			87		131			17:30			352		286		
05:45			90	270	142	410	680	17:45			316	1394	301	1205	2599
06:00			108		139			18:00			298		268		
06:15			135		151			18:15			312		236		
06:30			134		201			18:30			260		255		
06:45			180	557	234	725	1282	18:45			261	1131	212	971	2102
07:00			186		250			19:00			275		213		
07:15			212		357			19:15			238		223		
07:30			250		345			19:30			200		170		
07:45			309	957	306	1258	2215	19:45			162	875	174	780	1655
08:00			276		339			20:00			227		164		
08:15			247		346			20:15			231		158		
08:30			241		315			20:30			189		165		
08:45			215	979	332	1332	2311	20:45			191	838	144	631	1469
09:00			224		234			21:00			208		114		
09:15			204		248			21:15			225		124		
09:30			202		255			21:30			195		132		
09:45			215	845	282	1019	1864	21:45			153	781	119	489	1270
10:00			182		251			22:00			147		87		
10:15			204		200			22:15			113		91		
10:30			205		251			22:30			108		88		
10:45			207	798	234	936	1734	22:45			86	454	64	330	784
11:00			225		261			23:00			75		57		
11:15			221		247			23:15			77		67		
11:30			225		249			23:30			65		52		
11:45			248	919	271	1028	1947	23:45			59	276	53	229	505
Total Vol.				5791		7278	**13069**					11315		9877	**21192**

Daily Totals

NB	SB	EB	WB	Combined
		17106	17155	**34261**

			AM					PM		
Split %			44.3%	55.7%	**38.1%**			53.4%	46.6%	**61.9%**
Peak Hour	00:30	00:30	07:30	07:15	**07:30**			16:45	17:00	**17:00**
Volume			1082	1347	**2418**			1409	1205	**2599**
P.H.F.			0.88	0.94	**0.98**			0.96	0.93	**0.95**

pacific@aimtd.com Tell. 714 753 7888

Tuesday, May 24, 2016 Location: Carson PROJECT: SC0964

ADT5 Normandie north of Carson. **Prepared by AimTD tel. 714 753 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	15		10					12:00	148		111				
00:15	18		10					12:15	156		123				
00:30	11		12					12:30	144		122				
00:45	10	54	7	39			93	12:45	151	599	108	464			1063
01:00	10		7					13:00	156		125				
01:15	8		8					13:15	146		129				
01:30	14		4					13:30	133		127				
01:45	10	42	10	29			71	13:45	179	614	133	514			1128
02:00	6		3					14:00	148		124				
02:15	10		7					14:15	136		135				
02:30	7		4					14:30	174		137				
02:45	6	29	3	17			46	14:45	162	620	169	565			1185
03:00	5		4					15:00	173		155				
03:15	3		5					15:15	197		144				
03:30	5		9					15:30	221		156				
03:45	7	20	4	22			42	15:45	209	800	159	614			1414
04:00	2		12					16:00	173		165				
04:15	7		5					16:15	173		188				
04:30	13		13					16:30	197		194				
04:45	19	41	10	40			81	16:45	215	758	183	730			1488
05:00	9		17					17:00	190		201				
05:15	27		19					17:15	218		215				
05:30	51		29					17:30	174		225				
05:45	69	156	35	100			256	17:45	172	754	234	875			1629
06:00	76		31					18:00	178		179				
06:15	71		42					18:15	151		155				
06:30	94		66					18:30	114		154				
06:45	114	355	95	234			589	18:45	131	574	139	627			1201
07:00	153		92					19:00	130		111				
07:15	177		127					19:15	100		122				
07:30	202		157					19:30	106		85				
07:45	259	791	152	528			1319	19:45	105	441	88	406			847
08:00	212		160					20:00	115		81				
08:15	235		145					20:15	105		81				
08:30	181		115					20:30	80		75				
08:45	199	827	116	536			1363	20:45	76	376	61	298			674
09:00	135		97					21:00	76		59				
09:15	121		88					21:15	63		59				
09:30	127		103					21:30	60		50				
09:45	142	525	90	378			903	21:45	52	251	36	204			455
10:00	114		102					22:00	68		32				
10:15	129		81					22:15	54		30				
10:30	122		91					22:30	50		38				
10:45	137	502	103	377			879	22:45	27	199	40	140			339
11:00	121		82					23:00	30		24				
11:15	136		115					23:15	26		30				
11:30	111		110					23:30	19		25				
11:45	151	519	96	403			922	23:45	16	91	16	95			186
Total Vol.		3861		2703			**6564**			6077		5532			**11609**

Daily Totals

NB	SB	EB	WB	Combined
9938	8235			**18173**

	AM			PM		
Split %	58.8%	41.2%	**36.1%**	52.3%	47.7%	**63.9%**
Peak Hour	07:30	07:30	**07:30**	16:30	17:00	**17:00**
Volume	908	614	**1522**	820	875	**1629**
P.H.F.	0.88	0.96	**0.93**	0.92	0.93	**0.94**

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Tuesday, May 24, 2016 Location: Carson PROJECT: SC0964

ADT6 Normandie south of Carson. **Prepared by AimTD tel. 714 753 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	15		10					12:00	176		155				
00:15	10		14					12:15	167		163				
00:30	8		11					12:30	130		161				
00:45	8	41	14	49			90	12:45	170	643	142	621			1264
01:00	11		5					13:00	149		190				
01:15	9		9					13:15	116		151				
01:30	11		5					13:30	136		155				
01:45	3	34	5	24			58	13:45	160	561	181	677			1238
02:00	7		4					14:00	150		173				
02:15	6		8					14:15	149		173				
02:30	5		7					14:30	153		164				
02:45	4	22	4	23			45	14:45	182	634	179	689			1323
03:00	4		3					15:00	170		237				
03:15	7		5					15:15	198		183				
03:30	4		8					15:30	241		209				
03:45	6	21	2	18			39	15:45	180	789	209	838			1627
04:00	5		16					16:00	172		185				
04:15	4		6					16:15	140		215				
04:30	15		9					16:30	200		204				
04:45	11	35	12	43			78	16:45	203	715	202	806			1521
05:00	11		14					17:00	206		263				
05:15	26		16					17:15	172		230				
05:30	48		37					17:30	161		273				
05:45	68	153	48	115			268	17:45	155	694	249	1015			1709
06:00	78		39					18:00	154		215				
06:15	80		71					18:15	116		187				
06:30	111		88					18:30	120		183				
06:45	123	392	98	296			688	18:45	105	495	145	730			1225
07:00	142		108					19:00	105		127				
07:15	179		167					19:15	89		136				
07:30	246		175					19:30	87		105				
07:45	235	802	196	646			1448	19:45	101	382	95	463			845
08:00	225		200					20:00	84		89				
08:15	257		164					20:15	81		91				
08:30	199		150					20:30	77		72				
08:45	166	847	102	616			1463	20:45	79	321	89	341			662
09:00	152		123					21:00	53		81				
09:15	113		143					21:15	40		60				
09:30	126		110					21:30	43		78				
09:45	140	531	100	476			1007	21:45	49	185	52	271			456
10:00	141		106					22:00	47		47				
10:15	107		126					22:15	43		42				
10:30	143		101					22:30	48		41				
10:45	127	518	138	471			989	22:45	21	159	39	169			328
11:00	140		95					23:00	33		29				
11:15	115		139					23:15	29		29				
11:30	135		117					23:30	23		26				
11:45	165	555	135	486			1041	23:45	18	103	17	101			204
Total Vol.		3951		3263			**7214**			5681		6721			**12402**

Daily Totals

NB	SB	EB	WB	**Combined**
9632	9984			**19616**

	AM			**PM**		
Split %	54.8%	45.2%	**36.8%**	45.8%	54.2%	**63.2%**
Peak Hour	07:30	07:15	**07:30**	14:45	17:00	**16:45**
Volume	963	738	**1698**	791	1015	**1710**
P.H.F.	0.94	0.92	**0.98**	0.94	0.93	**0.91**

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Tuesday, May 24, 2016 Location: Carson PROJECT: SC0964

ADT7 Vermont south of Javelin. **Prepared by AimTD tel. 714 753 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	8		15					12:00	135		125				
00:15	17		5					12:15	107		103				
00:30	12		6					12:30	125		130				
00:45	10	47	12	38			85	12:45	129	496	124	482			978
01:00	5		6					13:00	126		122				
01:15	4		6					13:15	111		115				
01:30	4		2					13:30	120		130				
01:45	4	17	5	19			36	13:45	128	485	119	486			971
02:00	5		5					14:00	138		124				
02:15	6		5					14:15	138		143				
02:30	6		3					14:30	152		152				
02:45	5	22	6	19			41	14:45	135	563	173	592			1155
03:00	5		11					15:00	185		158				
03:15	6		10					15:15	137		135				
03:30	8		14					15:30	205		147				
03:45	7	26	3	38			64	15:45	162	689	187	627			1316
04:00	6		5					16:00	174		187				
04:15	8		8					16:15	153		215				
04:30	13		11					16:30	173		209				
04:45	31	58	7	31			89	16:45	149	649	207	818			1467
05:00	24		19					17:00	197		248				
05:15	37		30					17:15	157		262				
05:30	61		32					17:30	177		269				
05:45	54	176	41	122			298	17:45	159	690	299	1078			1768
06:00	60		48					18:00	141		198				
06:15	79		61					18:15	110		184				
06:30	107		104					18:30	90		156				
06:45	133	379	127	340			719	18:45	101	442	139	677			1119
07:00	170		114					19:00	92		125				
07:15	185		138					19:15	79		96				
07:30	246		213					19:30	69		72				
07:45	247	848	188	653			1501	19:45	56	296	70	363			659
08:00	260		198					20:00	88		84				
08:15	183		133					20:15	58		57				
08:30	172		101					20:30	53		64				
08:45	147	762	89	521			1283	20:45	54	253	49	254			507
09:00	122		108					21:00	55		43				
09:15	105		97					21:15	42		51				
09:30	112		80					21:30	58		44				
09:45	112	451	72	357			808	21:45	36	191	41	179			370
10:00	95		78					22:00	37		48				
10:15	106		82					22:15	41		43				
10:30	107		95					22:30	29		48				
10:45	100	408	94	349			757	22:45	39	146	38	177			323
11:00	85		116					23:00	27		29				
11:15	88		101					23:15	20		30				
11:30	111		125					23:30	25		18				
11:45	104	388	103	445			833	23:45	19	91	15	92			183
Total Vol.		3582		2932			**6514**			4991		5825			**10816**

Daily Totals

NB	SB	EB	WB	**Combined**
8573	8757			**17330**

	AM			PM		
Split %	55.0%	45.0%	**37.6%**	46.1%	53.9%	**62.4%**
Peak Hour	07:15	07:15	**07:15**	15:30	17:00	**17:00**
Volume	938	737	**1675**	694	1078	**1768**
P.H.F.	0.90	0.87	**0.91**	0.87	0.90	**0.97**

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Tuesday, May 24, 2016 Location: Carson PROJECT: SC0964

ADT8 Vermont south of Carson. **Prepared by AimTD tel. 714 753 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	18		21					12:00	155		136				
00:15	24		16					12:15	137		140				
00:30	21		16					12:30	147		131				
00:45	18	81	20	73			154	12:45	139	578	126	533			1111
01:00	11		18					13:00	143		140				
01:15	8		11					13:15	133		118				
01:30	8		9					13:30	167		121				
01:45	4	31	3	41			72	13:45	138	581	149	528			1109
02:00	8		4					14:00	173		144				
02:15	8		12					14:15	170		164				
02:30	11		6					14:30	168		189				
02:45	6	33	6	28			61	14:45	174	685	237	734			1419
03:00	9		10					15:00	214		191				
03:15	6		12					15:15	162		170				
03:30	11		13					15:30	254		135				
03:45	14	40	9	44			84	15:45	177	807	193	689			1496
04:00	14		11					16:00	201		218				
04:15	11		8					16:15	191		238				
04:30	24		17					16:30	217		206				
04:45	31	80	35	71			151	16:45	195	804	238	900			1704
05:00	27		23					17:00	198		259				
05:15	42		40					17:15	201		309				
05:30	64		55					17:30	205		284				
05:45	64	197	79	197			394	17:45	189	793	285	1137			1930
06:00	73		85					18:00	170		195				
06:15	89		101					18:15	129		174				
06:30	118		151					18:30	115		176				
06:45	145	425	215	552			977	18:45	120	534	167	712			1246
07:00	195		167					19:00	103		148				
07:15	217		162					19:15	110		126				
07:30	276		238					19:30	116		99				
07:45	302	990	279	846			1836	19:45	96	425	118	491			916
08:00	259		188					20:00	105		107				
08:15	241		198					20:15	110		96				
08:30	178		138					20:30	74		90				
08:45	165	843	125	649			1492	20:45	74	363	76	369			732
09:00	139		129					21:00	80		58				
09:15	121		130					21:15	67		70				
09:30	138		113					21:30	64		63				
09:45	136	534	112	484			1018	21:45	41	252	63	254			506
10:00	129		142					22:00	36		57				
10:15	142		111					22:15	35		55				
10:30	138		112					22:30	47		65				
10:45	116	525	115	480			1005	22:45	46	164	77	254			418
11:00	117		96					23:00	43		62				
11:15	118		112					23:15	53		38				
11:30	140		123					23:30	62		31				
11:45	129	504	128	459			963	23:45	41	199	27	158			357
Total Vol.		4283		3924			**8207**			6185		6759			**12944**

Daily Totals

NB	SB	EB	WB	Combined
10468	10683			**21151**

	AM			PM		
Split %	52.2%	47.8%	**38.8%**	47.8%	52.2%	**61.2%**
Peak Hour	07:30	07:30	**07:30**	15:30	17:00	**17:00**
Volume	1078	903	**1981**	823	1137	**1930**
P.H.F.	0.89	0.81	**0.85**	0.82	0.92	**0.95**

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Tuesday, May 24, 2016 Location: Carson PROJECT: SC0964

ADT9 Vermont south of 223rd. **Prepared by AimTD tel. 714 753 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	21		25					12:00	142		141				
00:15	21		21					12:15	139		157				
00:30	18		15					12:30	141		148				
00:45	13	73	13	74			147	12:45	177	599	149	595			1194
01:00	9		13					13:00	159		157				
01:15	8		7					13:15	151		122				
01:30	11		20					13:30	144		145				
01:45	8	36	8	48			84	13:45	147	601	139	563			1164
02:00	9		5					14:00	172		170				
02:15	3		11					14:15	166		182				
02:30	11		7					14:30	171		200				
02:45	4	27	7	30			57	14:45	207	716	171	723			1439
03:00	5		12					15:00	187		216				
03:15	6		9					15:15	181		198				
03:30	4		10					15:30	184		232				
03:45	10	25	12	43			68	15:45	195	747	212	858			1605
04:00	13		12					16:00	166		274				
04:15	9		10					16:15	197		261				
04:30	25		13					16:30	192		280				
04:45	28	75	18	53			128	16:45	179	734	288	1103			1837
05:00	29		16					17:00	164		313				
05:15	40		28					17:15	211		323				
05:30	55		39					17:30	194		325				
05:45	75	199	54	137			336	17:45	197	766	304	1265			2031
06:00	62		56					18:00	185		258				
06:15	100		71					18:15	142		202				
06:30	136		88					18:30	111		226				
06:45	155	453	135	350			803	18:45	129	567	182	868			1435
07:00	214		129					19:00	139		186				
07:15	240		119					19:15	128		158				
07:30	335		135					19:30	113		136				
07:45	294	1083	161	544			1627	19:45	111	491	138	618			1109
08:00	283		153					20:00	98		130				
08:15	279		129					20:15	99		103				
08:30	215		128					20:30	94		119				
08:45	205	982	153	563			1545	20:45	82	373	95	447			820
09:00	168		118					21:00	74		83				
09:15	120		125					21:15	72		88				
09:30	144		123					21:30	65		64				
09:45	149	581	101	467			1048	21:45	48	259	77	312			571
10:00	134		124					22:00	51		69				
10:15	139		116					22:15	55		54				
10:30	131		126					22:30	43		54				
10:45	117	521	118	484			1005	22:45	43	192	50	227			419
11:00	121		106					23:00	57		46				
11:15	138		111					23:15	27		35				
11:30	118		153					23:30	30		41				
11:45	150	527	132	502			1029	23:45	37	151	29	151			302
Total Vol.		4582		3295			**7877**			6196		7730			**13926**

Daily Totals

NB	SB	EB	WB	Combined
10778	11025			**21803**

	AM			PM		
Split %	58.2%	41.8%	**36.1%**	44.5%	55.5%	**63.9%**
Peak Hour	07:30	11:30	**07:30**	17:15	17:00	**17:00**
Volume	1191	583	**1769**	787	1265	**2031**
P.H.F.	0.89	0.93	**0.94**	0.95	0.97	**0.95**

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Tuesday, May 24, 2016 Location: Carson PROJECT: SC0964

ADT10 Figueroa south of Carson. **Prepared by AimTD tel. 714 753 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	20		57					12:00	123		183				
00:15	18		49					12:15	126		160				
00:30	13		42					12:30	115		155				
00:45	7	58	29	177			235	12:45	123	487	152	650			1137
01:00	7		32					13:00	116		185				
01:15	6		20					13:15	115		188				
01:30	8		23					13:30	111		190				
01:45	5	26	20	95			121	13:45	121	463	175	738			1201
02:00	6		24					14:00	120		196				
02:15	4		27					14:15	148		209				
02:30	9		17					14:30	121		237				
02:45	9	28	19	87			115	14:45	150	539	252	894			1433
03:00	17		14					15:00	235		227				
03:15	13		14					15:15	183		214				
03:30	10		23					15:30	135		239				
03:45	7	47	17	68			115	15:45	128	681	206	886			1567
04:00	10		19					16:00	122		243				
04:15	11		21					16:15	133		262				
04:30	20		26					16:30	134		250				
04:45	32	73	23	89			162	16:45	148	537	241	996			1533
05:00	17		38					17:00	138		275				
05:15	27		50					17:15	139		275				
05:30	59		56					17:30	129		276				
05:45	58	161	81	225			386	17:45	129	535	261	1087			1622
06:00	54		90					18:00	110		205				
06:15	67		92					18:15	120		190				
06:30	95		96					18:30	120		201				
06:45	116	332	110	388			720	18:45	99	449	180	776			1225
07:00	140		132					19:00	90		190				
07:15	182		202					19:15	85		191				
07:30	245		272					19:30	74		165				
07:45	293	860	205	811			1671	19:45	84	333	134	680			1013
08:00	239		181					20:00	74		128				
08:15	179		153					20:15	81		153				
08:30	161		135					20:30	57		139				
08:45	146	725	150	619			1344	20:45	56	268	132	552			820
09:00	99		166					21:00	65		153				
09:15	107		134					21:15	61		126				
09:30	104		131					21:30	51		134				
09:45	110	420	159	590			1010	21:45	48	225	124	537			762
10:00	87		125					22:00	55		124				
10:15	107		156					22:15	40		87				
10:30	105		161					22:30	35		96				
10:45	124	423	151	593			1016	22:45	26	156	90	397			553
11:00	99		154					23:00	21		86				
11:15	103		175					23:15	32		81				
11:30	118		147					23:30	26		88				
11:45	118	438	183	659			1097	23:45	24	103	59	314			417
Total Vol.		3591		4401			**7992**			4776		8507			**13283**

Daily Totals

NB	SB	EB	WB	Combined
8367	12908			**21275**

	AM			PM		
Split %	44.9%	55.1%	**37.6%**	36.0%	64.0%	**62.4%**
Peak Hour	07:15	07:15	**07:15**	14:45	17:00	**14:45**
Volume	959	860	**1819**	703	1087	**1635**
P.H.F.	0.82	0.79	**0.88**	0.80	0.98	**0.88**

pacific@aimtd.com Tell. 714 753 7888

Turning Movement Counts

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Normandie
EAST & WEST: Torrance

PROJECT #: SC0964
LOCATION #: 1
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
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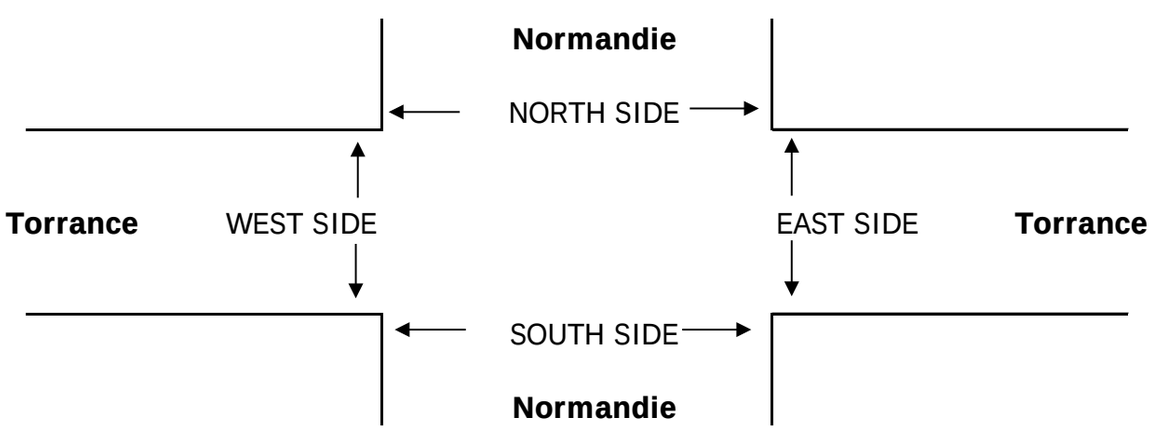
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Normandie			SOUTHBOUND Normandie			EASTBOUND Torrance			WESTBOUND Torrance				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	19	140	19	6	47	7	24	132	9	19	260	17	699	0	0	0	0	0
	7:15 AM	21	133	24	5	73	35	21	179	12	20	348	12	883	0	0	0	0	0
	7:30 AM	37	165	29	5	79	20	16	257	22	22	340	13	1,005	0	0	0	0	0
	7:45 AM	37	186	32	7	90	32	26	262	24	23	392	23	1,134	0	0	0	0	0
	8:00 AM	25	178	25	3	111	23	27	228	17	32	380	17	1,066	0	0	0	0	0
	8:15 AM	33	140	20	10	93	27	25	201	20	28	404	18	1,019	0	0	0	0	0
	8:30 AM	32	119	35	6	65	27	27	189	12	18	357	29	916	0	0	0	0	0
	8:45 AM	52	147	28	12	80	22	17	151	18	14	344	12	897	0	0	0	0	0
	VOLUMES	256	1,208	212	54	638	193	183	1,599	134	176	2,825	141	7,619	0	0	0	0	0
	APPROACH %	15%	72%	13%	6%	72%	22%	10%	83%	7%	6%	90%	4%						
	APP/DEPART	1,676	/	1,532	885	/	948	1,916	/	1,865	3,142	/	3,274	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	132	669	106	25	373	102	94	948	83	105	1,516	71	4,224					
	APPROACH %	15%	74%	12%	5%	75%	20%	8%	84%	7%	6%	90%	4%						
	PEAK HR FACTOR		0.889			0.912			0.901			0.940		0.931					
	APP/DEPART	907	/	834	500	/	561	1,125	/	1,079	1,692	/	1,750	0					
PM	4:00 PM	19	123	50	34	112	16	34	323	21	17	209	12	970	0	0	0	0	0
	4:15 PM	24	101	30	28	144	37	18	298	31	26	222	17	976	0	0	0	0	0
	4:30 PM	25	131	32	37	155	39	21	321	26	21	237	15	1,060	0	0	0	0	0
	4:45 PM	29	121	27	29	148	28	32	355	24	14	245	8	1,060	0	0	0	0	0
	5:00 PM	25	142	25	32	166	36	31	353	33	18	225	11	1,097	0	0	0	0	0
	5:15 PM	19	132	21	34	193	44	32	328	44	15	230	12	1,104	0	0	0	0	0
	5:30 PM	24	114	30	35	202	39	24	327	35	15	232	14	1,091	0	0	0	0	0
	5:45 PM	27	120	21	26	194	34	22	329	42	17	265	10	1,107	0	0	0	0	0
	VOLUMES	192	984	236	255	1,314	273	214	2,634	256	143	1,865	99	8,465	0	0	0	0	0
	APPROACH %	14%	70%	17%	14%	71%	15%	7%	85%	8%	7%	89%	5%						
	APP/DEPART	1,412	/	1,297	1,842	/	1,713	3,104	/	3,125	2,107	/	2,330	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	95	508	97	127	755	153	109	1,337	154	65	952	47	4,399					
	APPROACH %	14%	73%	14%	12%	73%	15%	7%	84%	10%	6%	89%	4%						
	PEAK HR FACTOR		0.911			0.938			0.959			0.911		0.993					
	APP/DEPART	700	/	664	1,035	/	974	1,600	/	1,561	1,064	/	1,200	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Vermont
EAST & WEST: Torrance

PROJECT #: SC0964
LOCATION #: 2
CONTROL: SIGNAL

NOTES: PM - WB queue

AM
PM
MD
OTHER
OTHER

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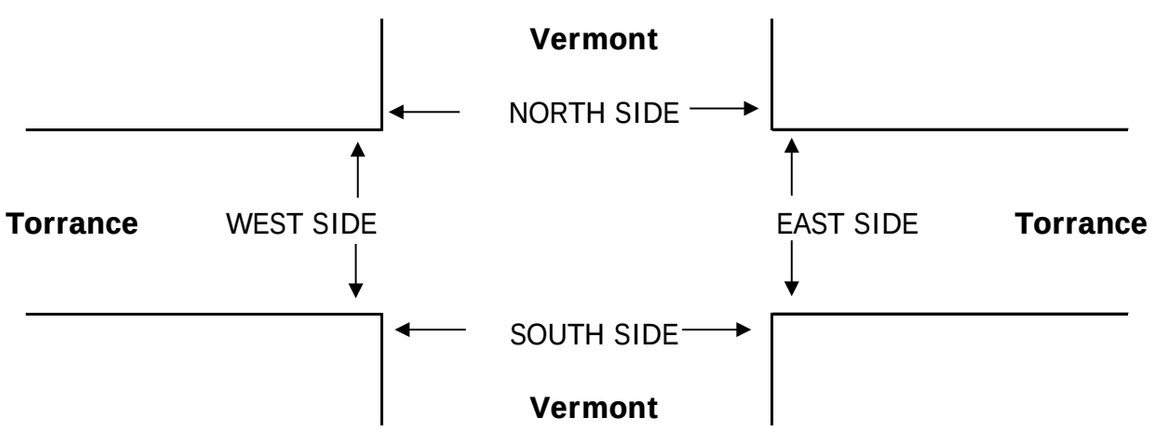
☑ Add U-Turns to Left Turns

		NORTHBOUND Vermont			SOUTHBOUND Vermont			EASTBOUND Torrance			WESTBOUND Torrance				U-TURNS				
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	9	159	37	2	96	41	23	134	14	10	234	8	767	0	0	0	0	0
	7:15 AM	12	168	19	9	110	42	48	193	20	15	261	14	911	0	0	0	0	0
	7:30 AM	21	196	40	8	185	48	39	269	25	18	262	12	1,123	0	0	0	0	0
	7:45 AM	25	197	28	8	146	46	42	268	43	28	342	16	1,189	0	0	0	0	0
	8:00 AM	37	244	46	4	146	54	46	190	47	26	282	19	1,141	0	0	0	0	0
	8:15 AM	22	158	32	7	101	46	60	197	13	17	318	27	998	0	0	0	0	0
	8:30 AM	20	154	31	5	83	50	45	182	4	11	285	13	883	0	0	0	0	0
	8:45 AM	17	97	28	4	58	35	36	178	15	19	309	20	816	0	0	0	0	0
	VOLUMES	163	1,373	261	47	925	362	339	1,611	181	144	2,293	129	7,828	0	0	0	0	0
	APPROACH %	9%	76%	15%	4%	69%	27%	16%	76%	8%	6%	89%	5%						
	APP/DEPART	1,797	/	1,841	1,334	/	1,250	2,131	/	1,919	2,566	/	2,818	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	105	795	146	27	578	194	187	924	128	89	1,204	74	4,451					
	APPROACH %	10%	76%	14%	3%	72%	24%	15%	75%	10%	7%	88%	5%						
	PEAK HR FACTOR		0.800			0.829			0.877			0.885		0.936					
	APP/DEPART	1,046	/	1,056	799	/	795	1,239	/	1,097	1,367	/	1,503	0					
PM	4:00 PM	19	149	40	18	175	36	45	312	27	16	166	12	1,015	1	0	0	0	1
	4:15 PM	18	125	34	15	161	34	47	291	20	35	183	18	981	0	1	0	0	1
	4:30 PM	13	144	43	22	195	41	52	299	23	30	183	17	1,062	0	0	0	0	0
	4:45 PM	19	125	35	23	179	46	45	268	24	20	181	22	987	0	1	0	0	1
	5:00 PM	24	137	42	20	231	47	59	326	35	9	153	7	1,090	0	0	0	0	0
	5:15 PM	22	117	37	23	224	45	31	330	25	16	175	10	1,055	1	0	0	0	1
	5:30 PM	20	110	36	27	223	54	30	270	23	26	154	8	981	3	0	0	0	3
	5:45 PM	20	101	27	23	200	54	50	320	48	19	168	9	1,039	0	0	0	0	0
	VOLUMES	155	1,008	294	171	1,588	357	359	2,416	225	171	1,363	103	8,210	5	2	0	0	7
	APPROACH %	11%	69%	20%	8%	75%	17%	12%	81%	8%	10%	83%	6%						
	APP/DEPART	1,457	/	1,472	2,116	/	1,989	3,000	/	2,879	1,637	/	1,870	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	78	523	157	88	829	179	187	1,223	107	75	692	56	4,194					
	APPROACH %	10%	69%	21%	8%	76%	16%	12%	81%	7%	9%	84%	7%						
	PEAK HR FACTOR		0.933			0.919			0.903			0.895		0.962					
	APP/DEPART	758	/	767	1,096	/	1,012	1,517	/	1,467	823	/	948	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Figueroa
EAST & WEST: Torrance

PROJECT #: SC0964
LOCATION #: 3
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER

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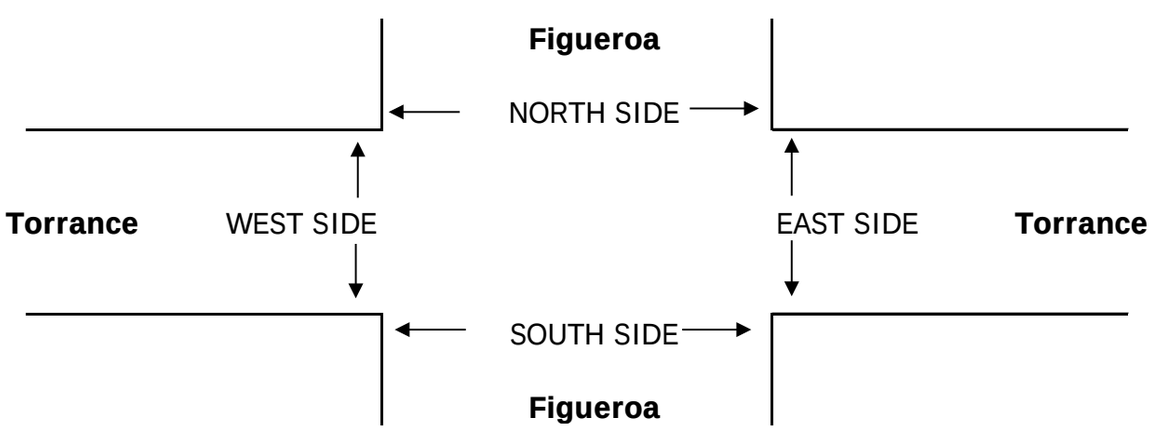
☑ Add U-Turns to Left Turns

		NORTHBOUND Figueroa			SOUTHBOUND Figueroa			EASTBOUND Torrance			WESTBOUND Torrance				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1.5	ET 1	ER 0.5	WL 1	WT 2	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	30	78	5	11	31	69	124	53	19	2	62	29	513	0	0	0	0	0
	7:15 AM	35	113	5	9	64	77	115	52	46	7	79	36	638	0	0	0	0	0
	7:30 AM	40	113	13	13	73	97	176	89	73	14	80	36	817	0	0	0	0	0
	7:45 AM	53	139	11	22	67	98	148	86	55	6	96	42	823	0	0	0	0	0
	8:00 AM	29	115	7	19	55	77	171	100	25	6	85	25	714	0	0	0	0	0
	8:15 AM	26	102	11	13	49	87	140	70	31	6	96	28	659	0	0	0	0	0
	8:30 AM	24	89	8	13	37	96	144	85	20	5	56	18	595	0	1	0	0	1
	8:45 AM	33	85	2	14	42	74	107	70	26	10	84	26	573	0	0	0	0	0
	VOLUMES	270	834	62	114	418	675	1,125	605	295	56	638	240	5,332	0	1	0	0	1
	APPROACH %	23%	72%	5%	9%	35%	56%	56%	30%	15%	6%	68%	26%						
	APP/DEPART	1,166	/	2,200	1,207	/	769	2,025	/	780	934	/	1,583	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	148	469	42	67	244	359	635	345	184	32	357	131	3,013					
	APPROACH %	22%	71%	6%	10%	36%	54%	55%	30%	16%	6%	69%	25%						
	PEAK HR FACTOR		0.812			0.896			0.861			0.903		0.915					
	APP/DEPART	659	/	1,235	670	/	460	1,164	/	454	520	/	864	0					
PM	4:00 PM	18	85	17	25	68	58	141	136	38	9	58	24	677	0	0	0	0	0
	4:15 PM	21	61	9	25	90	54	162	156	61	7	64	23	733	0	0	0	0	0
	4:30 PM	24	81	12	24	100	56	137	159	65	11	71	23	763	0	0	0	0	0
	4:45 PM	28	62	11	35	128	78	156	157	44	12	61	28	800	1	0	0	0	1
	5:00 PM	22	87	15	35	126	98	159	187	37	12	91	35	904	0	0	0	0	0
	5:15 PM	19	69	10	36	126	98	161	154	36	12	91	36	848	0	0	0	0	0
	5:30 PM	25	84	14	35	107	68	139	168	39	10	63	23	775	0	0	0	0	0
	5:45 PM	20	56	20	33	78	67	158	172	51	14	73	25	767	1	0	0	0	1
	VOLUMES	177	585	108	248	823	577	1,213	1,289	371	87	572	217	6,267	2	0	0	0	2
	APPROACH %	20%	67%	12%	15%	50%	35%	42%	45%	13%	10%	65%	25%						
	APP/DEPART	870	/	2,015	1,648	/	1,283	2,873	/	1,645	876	/	1,324	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	94	302	50	141	487	342	615	666	156	46	306	122	3,327					
	APPROACH %	21%	68%	11%	15%	50%	35%	43%	46%	11%	10%	65%	26%						
	PEAK HR FACTOR		0.899			0.933			0.938			0.853		0.920					
	APP/DEPART	446	/	1,039	970	/	690	1,437	/	857	474	/	741	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Vermont
EAST & WEST: Javelin

PROJECT #: SC0964
LOCATION #: 4
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

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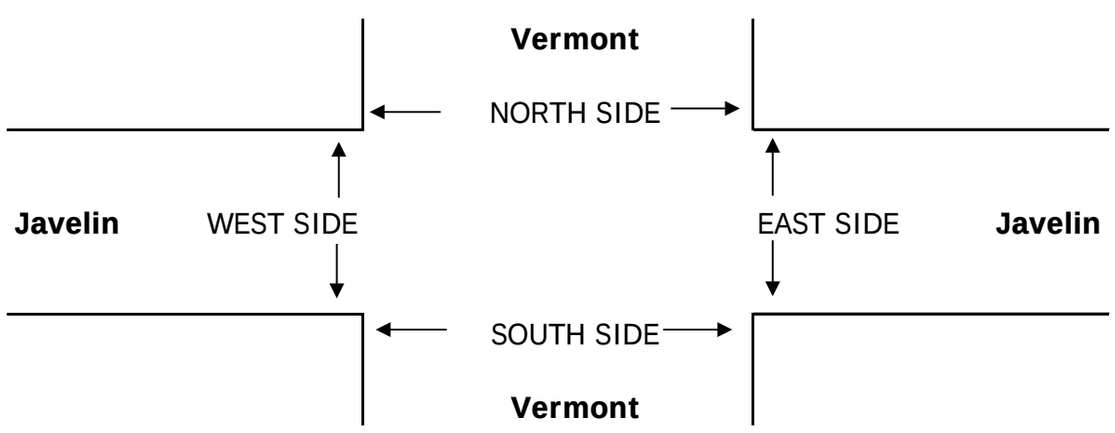
☑ Add U-Turns to Left Turns

		NORTHBOUND Vermont			SOUTHBOUND Vermont			EASTBOUND Javelin			WESTBOUND Javelin				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	1	175	4	5	101	3	9	0	0	4	0	12	314	0	0	0	0	0
	7:15 AM	1	178	4	8	142	6	13	2	4	0	2	9	369	0	0	0	0	0
	7:30 AM	1	248	8	20	208	0	11	2	1	8	0	20	527	1	0	0	0	1
	7:45 AM	0	238	22	51	198	0	14	8	0	8	2	29	570	0	1	0	0	1
	8:00 AM	3	245	15	41	164	4	9	10	2	19	0	68	580	0	1	0	0	1
	8:15 AM	1	188	1	5	130	5	12	3	2	13	1	21	382	0	0	0	0	0
	8:30 AM	4	169	3	1	95	1	10	0	2	3	0	7	295	1	0	0	0	1
	8:45 AM	1	131	2	4	90	2	5	1	2	1	0	11	250	0	0	0	0	0
	VOLUMES	12	1,572	59	135	1,128	21	83	26	13	56	5	177	3,287	2	2	0	0	4
	APPROACH %	1%	96%	4%	11%	88%	2%	68%	21%	11%	24%	2%	74%						
	APP/DEPART	1,643	/	1,834	1,284	/	1,199	122	/	218	238	/	36	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	5	919	46	117	700	9	46	23	5	48	3	138	2,059					
	APPROACH %	1%	95%	5%	14%	85%	1%	62%	31%	7%	25%	2%	73%						
	PEAK HR FACTOR		0.922			0.829			0.841			0.543		0.888					
	APP/DEPART	970	/	1,105	826	/	754	74	/	184	189	/	16	0					
PM	4:00 PM	1	165	5	10	225	11	18	2	5	4	0	10	456	1	1	0	0	2
	4:15 PM	0	176	6	7	211	1	6	0	1	7	1	3	419	0	0	0	0	0
	4:30 PM	2	173	5	10	236	7	6	5	0	4	0	11	459	0	0	0	0	0
	4:45 PM	1	180	2	5	210	9	7	1	1	2	0	8	426	0	0	0	0	0
	5:00 PM	1	179	4	10	249	10	8	2	2	0	0	13	478	0	0	0	0	0
	5:15 PM	1	157	6	16	248	7	7	1	4	2	1	15	465	0	0	0	0	0
	5:30 PM	0	154	5	13	262	3	8	1	2	1	0	10	459	0	0	0	0	0
	5:45 PM	2	137	7	20	234	8	9	3	1	10	1	11	443	0	0	0	0	0
	VOLUMES	8	1,321	40	91	1,875	56	69	15	16	30	3	81	3,605	1	1	0	0	2
	APPROACH %	1%	96%	3%	5%	93%	3%	69%	15%	16%	26%	3%	71%						
	APP/DEPART	1,369	/	1,472	2,022	/	1,922	100	/	145	114	/	66	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	4	627	22	59	993	28	32	7	9	13	2	49	1,845					
	APPROACH %	1%	96%	3%	5%	92%	3%	67%	15%	19%	20%	3%	77%						
	PEAK HR FACTOR		0.887			0.971			0.923			0.727		0.965					
	APP/DEPART	653	/	708	1,080	/	1,015	48	/	88	64	/	34	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Cabrillo
EAST & WEST: Carson

PROJECT #: SC0964
LOCATION #: 5
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

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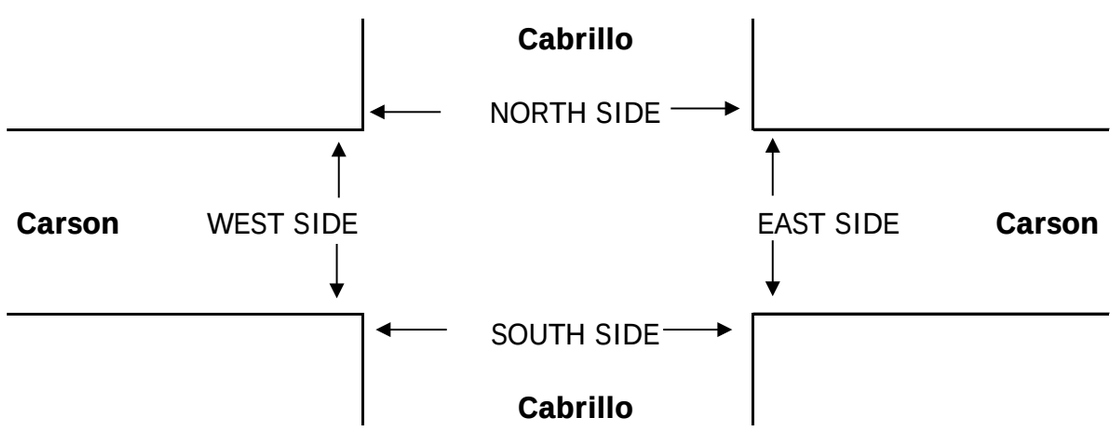
☑ Add U-Turns to Left Turns

		NORTHBOUND Cabrillo			SOUTHBOUND Cabrillo			EASTBOUND Carson			WESTBOUND Carson				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	6	59	1	18	15	5	15	143	2	4	182	18	468	0	0	0	0	0
	7:15 AM	6	58	7	17	29	1	11	117	0	6	268	28	548	0	0	0	0	0
	7:30 AM	16	81	5	11	55	13	18	175	5	6	307	21	713	0	0	0	0	0
	7:45 AM	21	115	14	22	39	15	30	246	16	8	295	30	851	0	0	0	0	0
	8:00 AM	12	117	9	22	41	8	22	216	6	5	219	25	702	1	0	0	0	1
	8:15 AM	7	105	6	24	38	9	19	187	4	4	266	26	695	0	0	0	0	0
	8:30 AM	16	120	6	24	42	16	23	196	5	6	270	26	750	0	0	0	0	0
	8:45 AM	8	98	7	28	53	9	25	191	6	4	292	31	752	1	0	0	0	1
	VOLUMES	92	753	55	166	312	76	163	1,471	44	43	2,099	205	5,479	2	0	0	0	2
	APPROACH %	10%	84%	6%	30%	56%	14%	10%	88%	3%	2%	89%	9%						
	APP/DEPART	900	/	1,121	554	/	401	1,678	/	1,692	2,347	/	2,265	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	56	457	35	92	160	48	94	845	31	23	1,050	107	2,998					
	APPROACH %	10%	83%	6%	31%	53%	16%	10%	87%	3%	2%	89%	9%						
	PEAK HR FACTOR		0.913			0.915			0.830			0.886		0.881					
	APP/DEPART	548	/	658	300	/	215	970	/	972	1,180	/	1,153	0					
PM	4:00 PM	12	56	5	43	113	14	15	277	6	9	214	30	794	0	0	0	0	0
	4:15 PM	9	49	3	44	99	15	17	271	4	14	230	18	773	0	0	0	0	0
	4:30 PM	7	39	9	52	107	8	16	244	12	5	276	28	803	0	0	0	0	0
	4:45 PM	7	48	8	34	86	15	10	253	9	11	289	23	793	0	0	0	0	0
	5:00 PM	16	63	3	48	146	16	23	287	5	9	234	22	872	0	0	0	0	0
	5:15 PM	10	50	5	45	129	18	12	336	20	16	273	21	935	0	0	0	0	0
	5:30 PM	12	47	12	46	160	20	21	257	10	12	291	34	922	0	0	0	0	0
	5:45 PM	5	36	5	34	110	14	10	207	9	7	291	30	758	0	1	0	0	1
	VOLUMES	78	388	50	346	950	120	124	2,132	75	83	2,098	206	6,650	0	1	0	0	1
	APPROACH %	15%	75%	10%	24%	67%	8%	5%	91%	3%	3%	88%	9%						
	APP/DEPART	516	/	719	1,416	/	1,108	2,331	/	2,527	2,387	/	2,296	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	45	208	28	173	521	69	66	1,133	44	48	1,087	100	3,522					
	APPROACH %	16%	74%	10%	23%	68%	9%	5%	91%	4%	4%	88%	8%						
	PEAK HR FACTOR		0.857			0.844			0.844			0.916		0.942					
	APP/DEPART	281	/	374	763	/	613	1,243	/	1,334	1,235	/	1,201	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Cravens
EAST & WEST: Carson

PROJECT #: SC0964
LOCATION #: 5
CONTROL: SIGNAL

NOTES:

PM - EB queue, SB is SR from Cabrilo to Cravens

AM
PM
MD
OTHER
OTHER

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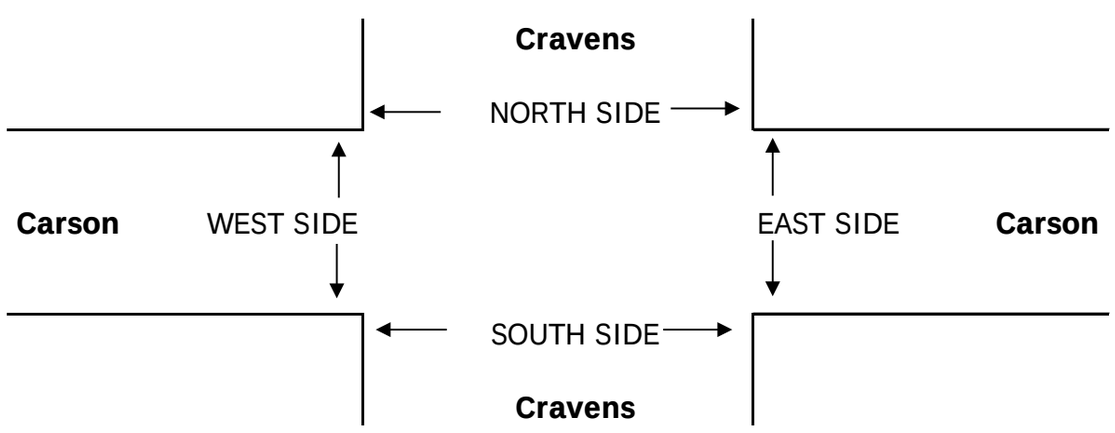
S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND Cravens			SOUTHBOUND Cravens			EASTBOUND Carson			WESTBOUND Carson				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL X	ST X	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	4	0	0	0	1	0	0	0	0	0	6	11	0	0	0	0	0
	7:15 AM	0	2	0	0	0	0	0	0	0	0	0	2	4	0	0	0	0	0
	7:30 AM	0	5	0	0	0	3	0	0	0	0	0	7	15	0	1	0	0	1
	7:45 AM	0	3	0	0	0	0	0	0	0	0	0	6	9	0	0	0	0	0
	8:00 AM	0	5	0	0	0	0	0	0	0	0	0	4	9	0	0	0	0	0
	8:15 AM	0	3	0	0	0	1	0	0	0	0	0	8	12	0	1	0	0	1
	8:30 AM	0	5	0	0	0	3	0	0	0	0	0	18	26	0	0	0	0	0
	8:45 AM	0	2	0	0	0	1	0	0	0	0	0	13	16	0	5	0	0	5
	VOLUMES	0	29	0	0	0	9	0	0	0	0	0	64	109	0	7	0	0	7
	APPROACH %	0%	100%	0%	0%	0%	56%	0%	0%	0%	0%	0%	100%						
	APP/DEPART	29	/	100	16	/	0	0	/	0	64	/	9	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	15	0	0	0	5	0	0	0	0	0	43	69					
	APPROACH %	0%	100%	0%	0%	0%	45%	0%	0%	0%	0%	0%	100%						
	PEAK HR FACTOR		0.750			0.458			0.000			0.597		0.663					
	APP/DEPART	15	/	64	11	/	0	0	/	0	43	/	5	0					
PM	4:00 PM	0	10	0	0	0	9	1	0	0	0	0	13	33	0	1	0	0	1
	4:15 PM	0	6	0	0	0	14	0	0	0	0	0	11	31	0	0	0	0	0
	4:30 PM	0	8	0	0	0	12	0	0	0	0	0	7	27	0	3	0	0	3
	4:45 PM	0	7	0	0	0	13	0	0	0	0	0	8	28	0	1	0	0	1
	5:00 PM	0	6	0	0	0	11	0	0	0	0	0	14	31	0	2	0	0	2
	5:15 PM	0	4	0	0	0	11	0	0	0	0	0	8	23	0	2	0	0	2
	5:30 PM	0	5	0	0	0	14	0	0	0	0	0	8	27	0	2	0	0	2
	5:45 PM	0	3	0	0	0	1	0	0	0	0	0	12	16	0	2	0	0	2
	VOLUMES	0	49	0	0	0	85	1	0	0	0	0	81	229	0	13	0	0	13
	APPROACH %	0%	100%	0%	0%	0%	87%	100%	0%	0%	0%	0%	100%						
	APP/DEPART	49	/	144	98	/	0	1	/	0	81	/	85	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	31	0	0	0	48	1	0	0	0	0	39	124					
	APPROACH %	0%	100%	0%	0%	0%	91%	100%	0%	0%	0%	0%	100%						
	PEAK HR FACTOR		0.775			0.883			0.250			0.750		0.912					
	APP/DEPART	31	/	76	53	/	0	1	/	0	39	/	48	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Western
EAST & WEST: Carson

PROJECT #: SC0964
LOCATION #: 6
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

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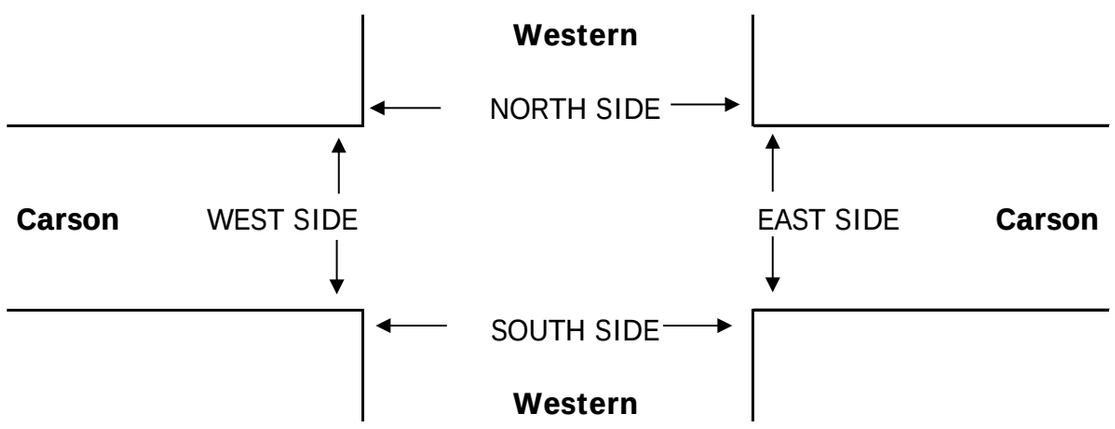
☑ Add U-Turns to Left Turns

		NORTHBOUND Western			SOUTHBOUND Western			EASTBOUND Carson			WESTBOUND Carson				U-TURNS				
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	23	254	14	10	150	17	13	114	13	27	188	38	861	0	0	0	0	0
	7:15 AM	28	279	19	15	153	27	14	128	18	27	261	29	998	0	0	0	0	0
	7:30 AM	37	256	30	11	216	37	11	157	20	23	314	26	1,138	0	0	0	0	0
	7:45 AM	40	261	32	19	214	44	18	198	27	15	244	28	1,140	0	0	0	0	0
	8:00 AM	28	251	35	15	177	35	14	192	18	14	245	44	1,068	0	0	0	0	0
	8:15 AM	37	327	21	16	130	32	16	161	27	18	265	31	1,081	0	0	0	0	0
	8:30 AM	33	279	17	22	155	26	9	182	27	16	281	42	1,089	0	0	0	0	0
	8:45 AM	52	269	21	13	126	43	14	140	24	22	256	33	1,013	0	0	0	0	0
	VOLUMES	278	2,176	189	121	1,321	261	109	1,272	174	162	2,054	271	8,388	0	0	0	0	0
	APPROACH %	11%	82%	7%	7%	78%	15%	7%	82%	11%	7%	83%	11%						
	APP/DEPART	2,643	/	2,556	1,703	/	1,657	1,555	/	1,582	2,487	/	2,593	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	142	1,095	118	61	737	148	59	708	92	70	1,068	129	4,427					
	APPROACH %	10%	81%	9%	6%	78%	16%	7%	82%	11%	6%	84%	10%						
	PEAK HR FACTOR		0.880			0.854			0.884			0.873		0.971					
	APP/DEPART	1,355	/	1,283	946	/	899	859	/	887	1,267	/	1,358	0					
PM	4:00 PM	31	222	50	33	309	36	21	210	52	15	183	28	1,190	0	0	0	0	0
	4:15 PM	32	171	28	32	303	40	21	271	39	19	233	18	1,207	0	0	0	0	0
	4:30 PM	33	229	29	34	327	47	16	223	42	18	214	26	1,238	0	0	0	0	0
	4:45 PM	42	180	28	38	332	39	17	234	52	21	247	29	1,259	0	0	0	0	0
	5:00 PM	34	284	41	37	348	55	14	246	36	14	165	30	1,304	0	0	0	0	0
	5:15 PM	32	186	23	47	335	58	19	270	44	11	217	30	1,272	0	0	0	0	0
	5:30 PM	34	203	38	51	363	54	10	243	33	14	237	24	1,304	0	0	0	0	0
	5:45 PM	37	188	40	67	307	52	12	249	36	16	267	33	1,304	0	0	0	0	0
	VOLUMES	275	1,663	277	339	2,624	381	130	1,946	334	128	1,763	218	10,078	0	0	0	0	0
	APPROACH %	12%	75%	13%	10%	78%	11%	5%	81%	14%	6%	84%	10%						
	APP/DEPART	2,215	/	2,011	3,344	/	3,086	2,410	/	2,562	2,109	/	2,419	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	137	861	142	202	1,353	219	55	1,008	149	55	886	117	5,184					
	APPROACH %	12%	76%	12%	11%	76%	12%	5%	83%	12%	5%	84%	11%						
	PEAK HR FACTOR		0.794			0.948			0.910			0.837		0.994					
	APP/DEPART	1,140	/	1,033	1,774	/	1,557	1,212	/	1,352	1,058	/	1,242	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Normandie
EAST & WEST: Carson

PROJECT #: SC0964
LOCATION #: 7
CONTROL: SIGNAL

NOTES:

AM
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MD
OTHER
OTHER

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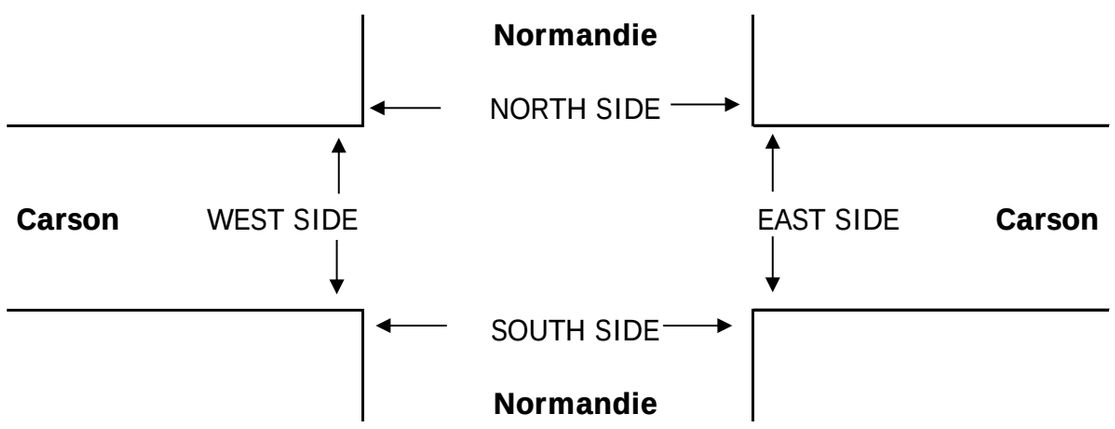
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Normandie			SOUTHBOUND Normandie			EASTBOUND Carson			WESTBOUND Carson				U-TURNS				
	LANES:	NL 1	NT 3	NR 0	SL 1	ST 2	SR 0	EL 0.5	ET 3.5	ER 0	WL 1	WT 3	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	18	93	9	3	52	21	39	122	30	19	225	12	643	0	0	0	0	0
	7:15 AM	32	132	11	6	74	35	41	136	52	36	263	17	835	0	0	0	1	1
	7:30 AM	40	160	19	10	98	47	41	150	41	43	276	18	943	0	0	0	0	0
	7:45 AM	31	176	20	11	94	42	50	178	45	47	304	23	1,021	0	0	0	0	0
	8:00 AM	62	173	20	12	120	36	51	181	53	35	244	19	1,006	0	0	0	0	0
	8:15 AM	41	157	25	8	93	26	54	170	33	30	271	20	928	0	0	0	1	1
	8:30 AM	43	142	16	7	80	22	45	149	43	42	242	17	848	0	0	0	1	1
	8:45 AM	30	127	15	11	57	37	41	149	35	22	260	16	800	0	0	0	0	0
	VOLUMES	297	1,160	135	68	668	266	362	1,235	332	274	2,085	142	7,024	0	0	0	3	3
	APPROACH %	19%	73%	8%	7%	67%	27%	19%	64%	17%	11%	83%	6%						
	APP/DEPART	1,592	/	1,664	1,002	/	1,271	1,929	/	1,441	2,501	/	2,648	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	174	666	84	41	405	151	196	679	172	155	1,095	80	3,898					
	APPROACH %	19%	72%	9%	7%	68%	25%	19%	65%	16%	12%	82%	6%						
	PEAK HR FACTOR		0.906			0.888			0.918			0.889		0.954					
	APP/DEPART	924	/	942	597	/	731	1,047	/	805	1,330	/	1,420	0					
PM	4:00 PM	44	143	20	19	118	34	53	202	40	31	202	21	927	0	0	0	0	0
	4:15 PM	37	104	20	17	146	33	50	250	39	49	229	19	993	0	0	0	1	1
	4:30 PM	30	104	18	17	122	37	47	246	46	47	245	31	990	0	0	0	0	0
	4:45 PM	45	122	22	16	156	23	45	189	38	47	215	16	934	0	0	0	1	1
	5:00 PM	46	139	31	22	145	34	61	235	52	34	179	22	1,000	0	0	0	0	0
	5:15 PM	29	86	30	24	144	39	65	257	47	39	257	19	1,036	0	0	0	1	1
	5:30 PM	39	110	21	21	182	48	57	246	45	36	241	16	1,062	0	0	0	1	1
	5:45 PM	31	99	18	22	165	29	44	271	59	28	266	21	1,053	0	0	0	0	0
	VOLUMES	301	907	180	158	1,178	277	422	1,896	366	311	1,834	165	7,995	0	0	0	4	4
	APPROACH %	22%	65%	13%	10%	73%	17%	16%	71%	14%	13%	79%	7%						
	APP/DEPART	1,388	/	1,494	1,613	/	1,851	2,684	/	2,238	2,310	/	2,412	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	145	434	100	89	636	150	227	1,009	203	137	943	78	4,151					
	APPROACH %	21%	64%	15%	10%	73%	17%	16%	70%	14%	12%	81%	7%						
	PEAK HR FACTOR		0.786			0.872			0.962			0.919		0.977					
	APP/DEPART	679	/	739	875	/	974	1,439	/	1,200	1,158	/	1,238	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Budlong
EAST & WEST: Carson

PROJECT #: SC0964
LOCATION #: 8
CONTROL: SIGNAL

NOTES:

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OTHER

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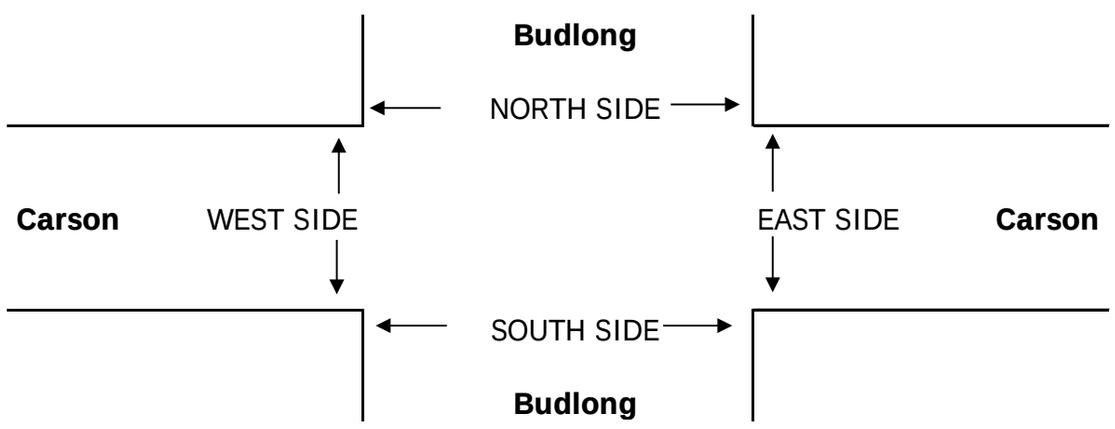
☑ Add U-Turns to Left Turns

		NORTHBOUND Budlong			SOUTHBOUND Budlong			EASTBOUND Carson			WESTBOUND Carson				U-TURNS				
	LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	0	0	2	0	7	0	125	0	0	243	1	378	0	0	0	0	0
	7:15 AM	0	0	0	7	0	8	2	151	0	0	339	2	509	0	0	0	0	0
	7:30 AM	0	0	0	6	0	4	1	175	0	0	342	2	530	0	0	0	0	0
	7:45 AM	0	0	0	4	0	4	6	199	0	1	371	3	588	0	0	1	1	2
	8:00 AM	0	0	0	2	0	9	3	204	0	0	313	5	536	0	0	0	0	0
	8:15 AM	0	0	0	1	0	6	1	198	0	1	319	2	528	0	0	0	1	1
	8:30 AM	0	0	0	6	0	1	1	178	0	1	282	2	471	0	0	0	1	1
	8:45 AM	0	0	0	3	0	5	1	166	0	0	302	2	479	0	0	0	0	0
	VOLUMES	0	0	0	31	0	44	15	1,396	0	3	2,511	19	4,019	0	0	1	3	4
	APPROACH %	0%	0%	0%	41%	0%	59%	1%	99%	0%	0%	99%	1%						
	APP/DEPART	0	/	33	75	/	0	1,411	/	1,430	2,533	/	2,556	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	0	0	0	13	0	23	11	776	0	2	1,345	12	2,182					
	APPROACH %	0%	0%	0%	36%	0%	64%	1%	99%	0%	0%	99%	1%						
	PEAK HR FACTOR		0.000			0.818			0.950			0.906		0.928					
	APP/DEPART	0	/	22	36	/	0	787	/	791	1,359	/	1,369	0					
PM	4:00 PM	0	0	0	3	0	1	4	236	0	0	252	4	500	0	0	0	0	0
	4:15 PM	0	0	0	2	0	2	4	281	0	0	285	8	582	0	0	0	0	0
	4:30 PM	0	0	0	7	0	6	7	270	0	0	290	4	584	0	0	0	0	0
	4:45 PM	0	0	0	3	0	6	5	228	0	0	273	5	520	0	0	0	0	0
	5:00 PM	0	0	0	2	0	5	4	282	0	0	224	4	521	0	0	1	0	1
	5:15 PM	0	0	0	2	0	5	6	305	0	0	308	6	632	0	0	1	0	1
	5:30 PM	0	0	0	5	0	6	2	305	0	0	299	5	622	0	0	0	0	0
	5:45 PM	0	0	0	2	0	4	5	286	0	1	278	5	581	0	0	1	1	2
	VOLUMES	0	0	0	26	0	35	37	2,193	0	1	2,209	41	4,542	0	0	3	1	4
	APPROACH %	0%	0%	0%	43%	0%	57%	2%	98%	0%	0%	98%	2%						
	APP/DEPART	0	/	75	61	/	0	2,230	/	2,220	2,251	/	2,247	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	0	0	0	11	0	20	17	1,178	0	1	1,109	20	2,356					
	APPROACH %	0%	0%	0%	35%	0%	65%	1%	99%	0%	0%	98%	2%						
	PEAK HR FACTOR		0.000			0.705			0.961			0.900		0.932					
	APP/DEPART	0	/	34	31	/	0	1,195	/	1,190	1,130	/	1,132	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Berendo
EAST & WEST: Carson

PROJECT #: SC0964
LOCATION #: 9
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

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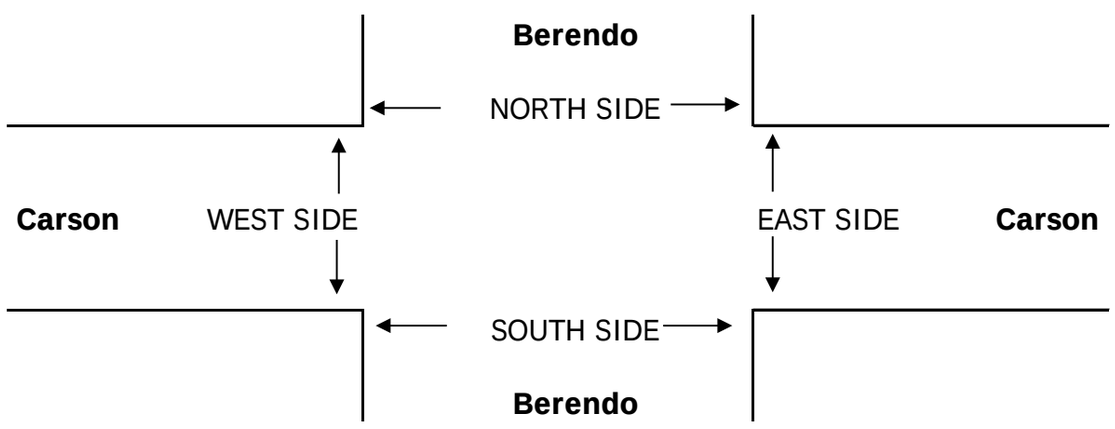
☑ Add U-Turns to Left Turns

		NORTHBOUND Berendo			SOUTHBOUND Berendo			EASTBOUND Carson			WESTBOUND Carson				U-TURNS				
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	1	1	2	1	0	5	0	128	4	25	235	3	405	0	0	0	2	2
	7:15 AM	7	0	5	2	1	15	2	151	6	29	324	2	544	0	0	0	0	0
	7:30 AM	9	0	12	2	0	9	4	164	12	39	315	5	571	0	0	1	2	3
	7:45 AM	4	0	6	1	0	11	9	184	9	27	367	1	619	0	0	0	2	2
	8:00 AM	6	0	5	1	0	6	8	186	7	33	298	9	559	0	0	0	1	1
	8:15 AM	2	1	14	5	0	6	7	188	7	27	318	10	585	0	0	1	0	1
	8:30 AM	6	1	8	0	0	8	1	162	13	20	268	11	498	0	0	0	1	1
	8:45 AM	5	0	14	6	0	10	4	166	4	13	299	9	530	0	0	2	1	3
	VOLUMES	40	3	66	18	1	70	35	1,329	62	213	2,424	50	4,311	0	0	4	9	13
	APPROACH %	37%	3%	61%	20%	1%	79%	2%	93%	4%	8%	90%	2%						
	APP/DEPART	109	/	84	89	/	267	1,426	/	1,422	2,687	/	2,538	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	21	1	37	9	0	32	28	722	35	126	1,298	25	2,334					
	APPROACH %	36%	2%	63%	22%	0%	78%	4%	92%	4%	9%	90%	2%						
	PEAK HR FACTOR		0.702			0.854			0.972			0.917		0.943					
	APP/DEPART	59	/	52	41	/	156	785	/	773	1,449	/	1,353	0					
PM	4:00 PM	2	3	23	6	1	2	4	227	12	7	250	6	543	0	0	0	1	1
	4:15 PM	6	2	18	5	0	11	4	269	13	9	277	10	624	0	0	0	0	0
	4:30 PM	10	2	37	3	0	8	2	257	5	5	279	6	614	0	0	0	1	1
	4:45 PM	4	0	22	2	0	7	5	231	5	6	272	8	562	0	0	0	2	2
	5:00 PM	4	2	15	8	1	1	7	280	8	5	227	5	563	0	0	0	1	1
	5:15 PM	5	1	15	2	2	2	5	307	2	6	301	5	653	0	0	0	3	3
	5:30 PM	3	0	13	5	1	8	8	291	7	9	289	8	642	0	0	0	3	3
	5:45 PM	4	0	12	4	0	9	3	281	2	10	290	3	618	0	0	0	4	4
	VOLUMES	38	10	155	35	5	48	38	2,143	54	57	2,185	51	4,819	0	0	0	15	15
	APPROACH %	19%	5%	76%	40%	6%	55%	2%	96%	2%	2%	95%	2%						
	APP/DEPART	203	/	99	88	/	101	2,235	/	2,348	2,293	/	2,271	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	16	3	55	19	4	20	23	1,159	19	30	1,107	21	2,476					
	APPROACH %	22%	4%	74%	44%	9%	47%	2%	97%	2%	3%	96%	2%						
	PEAK HR FACTOR		0.881			0.768			0.956			0.928		0.948					
	APP/DEPART	74	/	47	43	/	42	1,201	/	1,244	1,158	/	1,143	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Vermont
EAST & WEST: Carson

PROJECT #: SC0964
LOCATION #: 10
CONTROL: SIGNAL

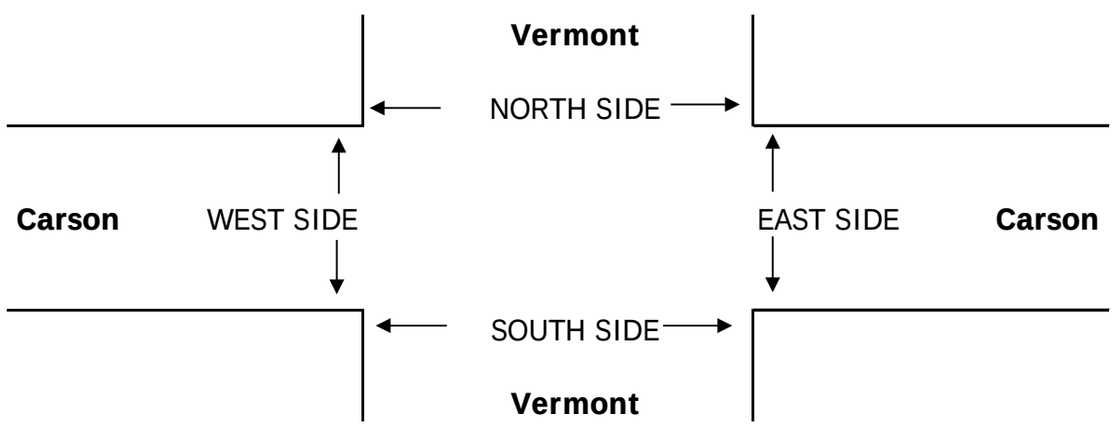
NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Vermont			SOUTHBOUND Vermont			EASTBOUND Carson			WESTBOUND Carson				U-TURNS				
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	25	143	28	14	83	34	30	106	12	77	240	26	818	0	0	0	0	0
	7:15 AM	30	148	23	29	90	41	27	142	18	52	304	22	926	0	0	0	0	0
	7:30 AM	40	192	58	22	150	62	42	172	22	87	289	25	1,161	0	0	0	0	0
	7:45 AM	45	198	41	26	152	45	35	157	26	78	332	38	1,173	0	0	0	0	0
	8:00 AM	39	227	30	17	133	51	29	165	16	61	301	33	1,102	0	0	0	0	0
	8:15 AM	39	153	21	19	111	43	23	164	21	54	306	33	987	0	0	0	0	0
	8:30 AM	25	140	18	16	77	27	29	145	19	49	272	21	838	0	0	0	0	0
	8:45 AM	30	108	21	20	54	33	22	147	20	40	290	31	816	0	0	0	0	0
	VOLUMES	273	1,309	240	163	850	336	237	1,198	154	498	2,334	229	7,821	0	0	0	0	0
	APPROACH %	15%	72%	13%	12%	63%	25%	15%	75%	10%	16%	76%	7%						
	APP/DEPART	1,822	/	1,775	1,349	/	1,502	1,589	/	1,601	3,061	/	2,943	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	163	770	150	84	546	201	129	658	85	280	1,228	129	4,423					
	APPROACH %	15%	71%	14%	10%	66%	24%	15%	75%	10%	17%	75%	8%						
	PEAK HR FACTOR		0.915			0.888			0.924			0.914		0.943					
	APP/DEPART	1,083	/	1,028	831	/	911	872	/	892	1,637	/	1,592	0					
PM	4:00 PM	34	112	57	38	145	45	38	205	39	48	212	21	994	0	0	0	1	1
	4:15 PM	32	108	37	27	168	33	46	230	34	78	248	33	1,074	0	0	0	0	0
	4:30 PM	30	145	61	35	179	37	46	240	41	50	235	18	1,117	0	0	0	2	2
	4:45 PM	26	117	52	37	177	39	54	214	35	43	220	26	1,040	0	0	0	0	0
	5:00 PM	21	132	44	43	192	32	34	262	45	32	192	31	1,060	0	0	0	0	0
	5:15 PM	35	105	49	36	196	47	36	253	38	23	261	25	1,104	0	0	0	0	0
	5:30 PM	26	118	44	34	192	54	39	254	39	33	240	32	1,105	0	0	0	0	0
	5:45 PM	33	99	45	37	176	52	28	243	61	36	249	26	1,085	0	0	0	2	2
	VOLUMES	237	936	389	287	1,425	339	321	1,901	332	343	1,857	212	8,579	0	0	0	5	5
	APPROACH %	15%	60%	25%	14%	69%	17%	13%	74%	13%	14%	77%	9%						
	APP/DEPART	1,562	/	1,469	2,051	/	2,095	2,554	/	2,582	2,412	/	2,433	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	115	454	182	150	756	185	137	1,012	183	124	942	114	4,354					
	APPROACH %	15%	60%	24%	14%	69%	17%	10%	76%	14%	11%	80%	10%						
	PEAK HR FACTOR		0.953			0.974			0.977			0.949		0.985					
	APP/DEPART	751	/	705	1,091	/	1,061	1,332	/	1,346	1,180	/	1,242	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: I-110 SB Ramps
EAST & WEST: Carson

PROJECT #: SC0964
LOCATION #: 11
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

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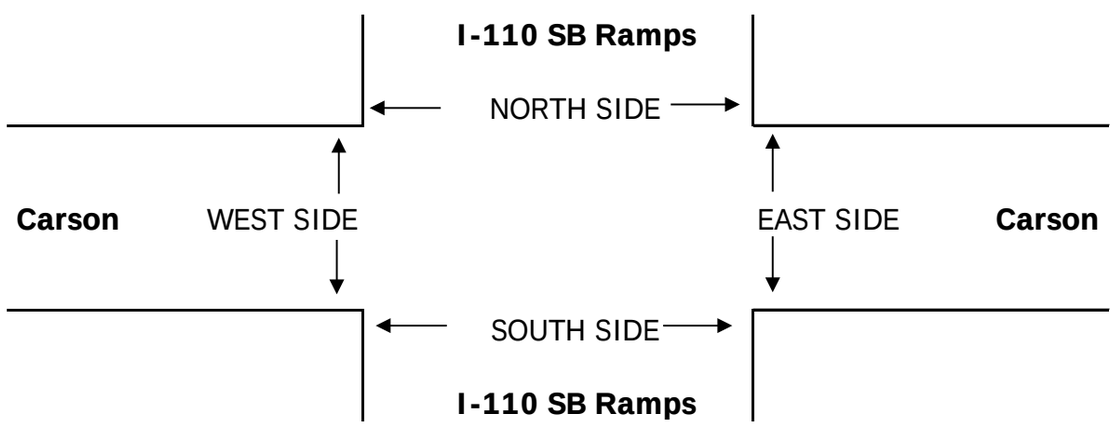
E ►
S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND I-110 SB Ramps			SOUTHBOUND I-110 SB Ramps			EASTBOUND Carson			WESTBOUND Carson				U-TURNS				
	LANES:	NL X	NT X	NR X	SL 1	ST 0	SR 1	EL X	ET 3	ER 0	WL 1	WT 2	WR X	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	0	0	20	0	184	0	145	20	23	181	0	573	0	0	0	0	0
	7:15 AM	0	0	0	31	0	170	0	147	27	27	209	0	611	0	0	0	0	0
	7:30 AM	0	0	0	31	1	163	0	221	46	52	249	0	763	0	0	0	0	0
	7:45 AM	0	0	0	30	0	161	0	203	28	34	293	0	749	0	0	0	0	0
	8:00 AM	0	0	0	26	0	155	0	199	16	21	247	0	664	0	0	0	0	0
	8:15 AM	0	0	0	27	0	181	0	175	25	26	209	0	643	0	0	0	0	0
	8:30 AM	0	0	0	23	0	173	0	158	21	19	173	0	567	0	0	0	0	0
	8:45 AM	0	0	0	24	0	171	0	164	22	17	199	0	597	0	0	0	0	0
	VOLUMES	0	0	0	212	1	1,358	0	1,412	205	219	1,760	0	5,167	0	0	0	0	0
	APPROACH %	0%	0%	0%	13%	0%	86%	0%	87%	13%	11%	89%	0%						
	APP/DEPART	0	/	0	1,571	/	425	1,617	/	1,624	1,979	/	3,118	0					
	BEGIN PEAK HR	7:30 AM																	
	VOLUMES	0	0	0	114	1	660	0	798	115	133	998	0	2,819					
	APPROACH %	0%	0%	0%	15%	0%	85%	0%	87%	13%	12%	88%	0%						
	PEAK HR FACTOR	0.000			0.931			0.855			0.865			0.924					
	APP/DEPART	0	/	0	775	/	249	913	/	912	1,131	/	1,658	0					
PM	4:00 PM	0	0	0	35	0	120	0	245	57	20	152	0	629	0	0	0	0	0
	4:15 PM	0	0	0	64	0	168	0	267	51	18	191	0	759	0	0	0	0	0
	4:30 PM	0	0	0	57	1	144	0	266	59	24	179	0	730	0	0	0	0	0
	4:45 PM	0	0	0	49	1	119	0	252	59	26	180	0	686	0	0	0	0	0
	5:00 PM	0	0	0	28	1	98	0	263	83	33	174	0	680	0	0	0	0	0
	5:15 PM	0	0	0	46	0	100	0	255	82	29	197	0	709	0	0	0	0	0
	5:30 PM	0	0	0	32	0	111	0	257	96	31	208	0	735	0	0	0	0	0
	5:45 PM	0	0	0	33	1	122	0	261	81	34	195	0	727	0	0	0	0	0
	VOLUMES	0	0	0	344	4	982	0	2,066	568	215	1,476	0	5,655	0	0	0	0	0
	APPROACH %	0%	0%	0%	26%	0%	74%	0%	78%	22%	13%	87%	0%						
	APP/DEPART	0	/	0	1,330	/	787	2,634	/	2,410	1,691	/	2,458	0					
	BEGIN PEAK HR	4:15 PM																	
	VOLUMES	0	0	0	198	3	529	0	1,048	252	101	724	0	2,855					
	APPROACH %	0%	0%	0%	27%	0%	72%	0%	81%	19%	12%	88%	0%						
	PEAK HR FACTOR	0.000			0.787			0.939			0.987			0.940					
	APP/DEPART	0	/	0	730	/	356	1,300	/	1,246	825	/	1,253	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Figueroa
EAST & WEST: Carson

PROJECT #: SC0964
LOCATION #: 12
CONTROL: SIGNAL

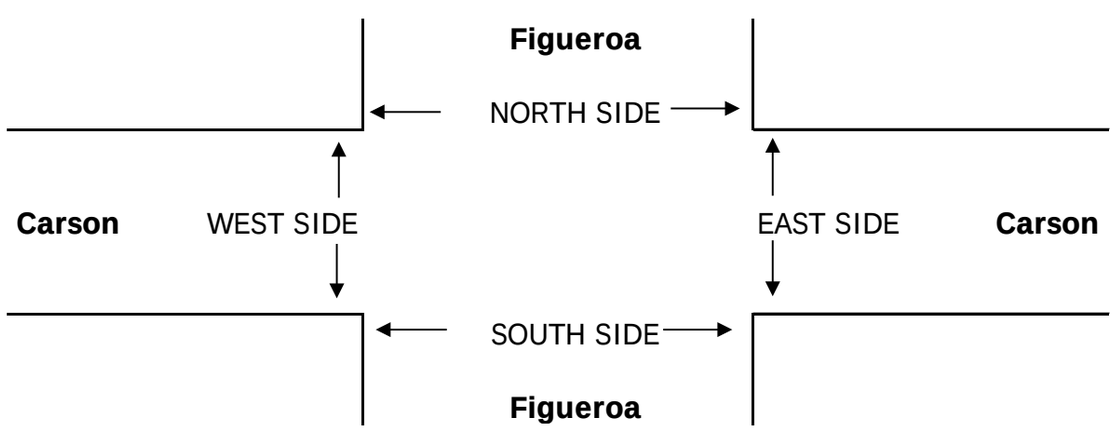
NOTES:

AM / PM / MD / OTHER / OTHER

▲ N
◄ W E ►
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Figueroa			SOUTHBOUND Figueroa			EASTBOUND Carson			WESTBOUND Carson				U-TURNS				
	LANES:	NL 2	NT 2	NR 0	SL 2	ST 2	SR 0	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	45	85	13	2	48	37	24	48	81	8	125	16	532	0	0	0	1	1
	7:15 AM	59	98	30	8	85	46	25	87	93	14	152	11	708	0	2	0	2	4
	7:30 AM	101	90	56	11	126	53	34	94	118	16	157	21	877	0	0	1	1	2
	7:45 AM	90	149	69	10	101	69	26	83	99	23	149	14	882	0	0	0	0	0
	8:00 AM	71	118	21	6	43	38	26	89	115	22	155	15	719	0	0	1	1	2
	8:15 AM	73	74	21	3	41	42	31	85	95	17	113	16	611	0	0	0	2	2
	8:30 AM	56	88	27	10	52	35	19	78	78	12	111	11	577	0	4	0	1	5
	8:45 AM	65	59	14	6	47	32	23	83	84	15	95	12	535	0	1	0	1	2
	VOLUMES	560	761	251	56	543	352	208	647	763	127	1,057	116	5,441	0	7	2	9	18
	APPROACH %	36%	48%	16%	6%	57%	37%	13%	40%	47%	10%	81%	9%						
	APP/DEPART	1,572	/	1,090	951	/	1,424	1,618	/	956	1,300	/	1,971	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	321	455	176	35	355	206	111	353	425	75	613	61	3,186					
	APPROACH %	34%	48%	18%	6%	60%	35%	12%	40%	48%	10%	82%	8%						
	PEAK HR FACTOR		0.773			0.784			0.903			0.965		0.903					
	APP/DEPART	952	/	627	596	/	851	889	/	566	749	/	1,142	0					
PM	4:00 PM	47	63	30	22	73	30	43	128	151	22	111	13	733	0	3	0	0	3
	4:15 PM	52	61	25	16	129	40	35	129	148	20	106	11	772	0	2	1	3	6
	4:30 PM	50	47	22	26	117	41	40	138	144	15	131	12	783	0	2	0	4	6
	4:45 PM	58	55	33	20	102	38	26	136	135	25	100	12	740	1	1	0	3	5
	5:00 PM	54	74	27	21	124	41	35	124	133	19	108	19	779	0	5	1	1	7
	5:15 PM	45	55	24	19	128	48	29	131	125	19	129	18	770	0	4	0	0	4
	5:30 PM	57	44	23	21	110	40	40	140	106	19	152	16	768	0	2	0	1	3
	5:45 PM	55	58	23	23	118	44	31	126	137	23	123	10	771	1	4	1	1	7
	VOLUMES	418	457	207	168	901	322	279	1,052	1,079	162	960	111	6,116	2	23	3	13	41
	APPROACH %	39%	42%	19%	12%	65%	23%	12%	44%	45%	13%	78%	9%						
	APP/DEPART	1,082	/	867	1,391	/	2,131	2,410	/	1,417	1,233	/	1,701	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	211	231	97	84	480	173	135	521	501	80	512	63	3,088					
	APPROACH %	39%	43%	18%	11%	65%	23%	12%	45%	43%	12%	78%	10%						
	PEAK HR FACTOR		0.869			0.945			0.984			0.876		0.991					
	APP/DEPART	539	/	442	737	/	1,059	1,157	/	690	655	/	897	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Moneta
EAST & WEST: Carson

PROJECT #: SC0964
LOCATION #: 13
CONTROL: SIGNAL

NOTES:

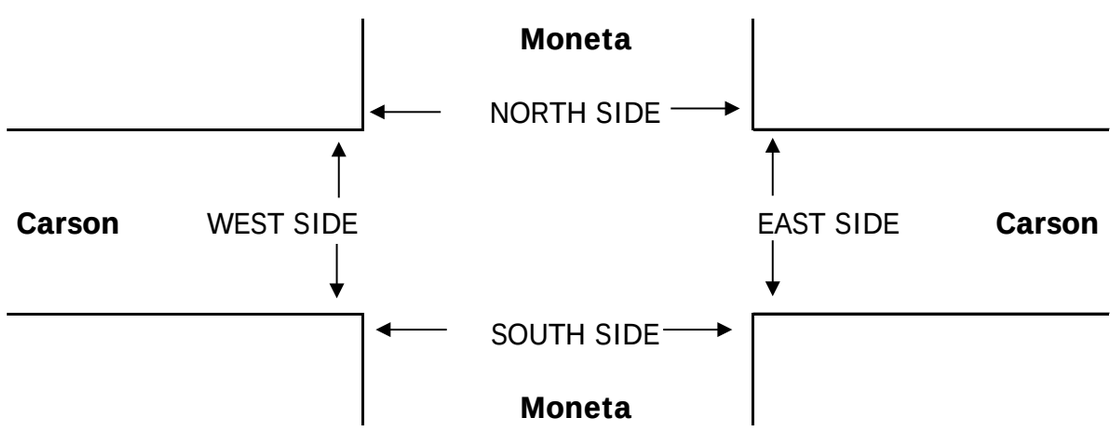
EB - AM construction after intersection, right lane.

AM / PM / MD / OTHER / OTHER

▲ N
◄ W E ►
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Moneta			SOUTHBOUND Moneta			EASTBOUND Carson			WESTBOUND Carson				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	8	10	12	1	10	10	4	61	8	7	129	1	261	0	0	2	0	2
	7:15 AM	15	6	11	0	10	10	2	94	17	6	120	2	293	0	0	0	1	1
	7:30 AM	20	12	16	2	40	26	4	126	18	22	150	4	440	0	0	1	2	3
	7:45 AM	13	20	10	4	51	13	10	156	20	10	163	5	475	0	0	2	3	5
	8:00 AM	31	12	17	1	10	12	9	107	5	5	143	4	356	0	0	0	0	0
	8:15 AM	11	8	11	2	6	9	2	95	14	1	131	2	292	0	0	1	0	1
	8:30 AM	12	3	16	2	1	3	3	83	8	8	114	5	258	0	0	0	0	0
	8:45 AM	11	5	10	0	11	2	1	80	8	9	118	0	255	0	0	0	0	0
	VOLUMES	121	76	103	12	139	85	35	802	98	68	1,068	23	2,630	0	0	6	6	12
	APPROACH %	40%	25%	34%	5%	59%	36%	4%	86%	10%	6%	92%	2%						
	APP/DEPART	300	/	128	236	/	299	935	/	923	1,159	/	1,280	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	79	50	54	7	111	61	25	483	60	43	576	15	1,564					
	APPROACH %	43%	27%	30%	4%	62%	34%	4%	85%	11%	7%	91%	2%						
	PEAK HR FACTOR		0.763			0.658			0.763			0.890		0.823					
	APP/DEPART	183	/	87	179	/	208	568	/	550	634	/	719	0					
PM	4:00 PM	10	12	12	5	6	9	3	151	20	13	132	3	376	0	0	1	3	4
	4:15 PM	12	10	18	5	8	10	9	151	17	9	118	3	370	0	0	4	2	6
	4:30 PM	5	16	7	4	20	9	7	132	20	12	121	5	358	0	0	0	0	0
	4:45 PM	10	11	10	1	15	7	10	170	25	9	128	6	402	0	0	1	0	1
	5:00 PM	13	7	12	7	20	12	5	130	19	9	110	5	349	0	0	1	0	1
	5:15 PM	7	9	8	1	12	7	5	164	15	10	170	5	413	0	0	1	0	1
	5:30 PM	15	14	13	2	14	11	6	151	25	13	143	5	412	0	0	1	0	1
	5:45 PM	7	11	18	1	13	4	12	142	22	4	147	3	384	0	0	1	0	1
	VOLUMES	79	90	98	26	108	69	57	1,191	163	79	1,069	35	3,064	0	0	10	5	15
	APPROACH %	30%	34%	37%	13%	53%	34%	4%	84%	12%	7%	90%	3%						
	APP/DEPART	267	/	172	203	/	345	1,411	/	1,320	1,183	/	1,227	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	45	41	43	11	61	37	26	615	84	41	551	21	1,576					
	APPROACH %	35%	32%	33%	10%	56%	34%	4%	85%	12%	7%	90%	3%						
	PEAK HR FACTOR		0.768			0.699			0.884			0.828		0.954					
	APP/DEPART	129	/	84	109	/	186	725	/	669	613	/	637	0					



		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
	TOTAL	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Main
EAST & WEST: Carson

PROJECT #: SC0964
LOCATION #: 14
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

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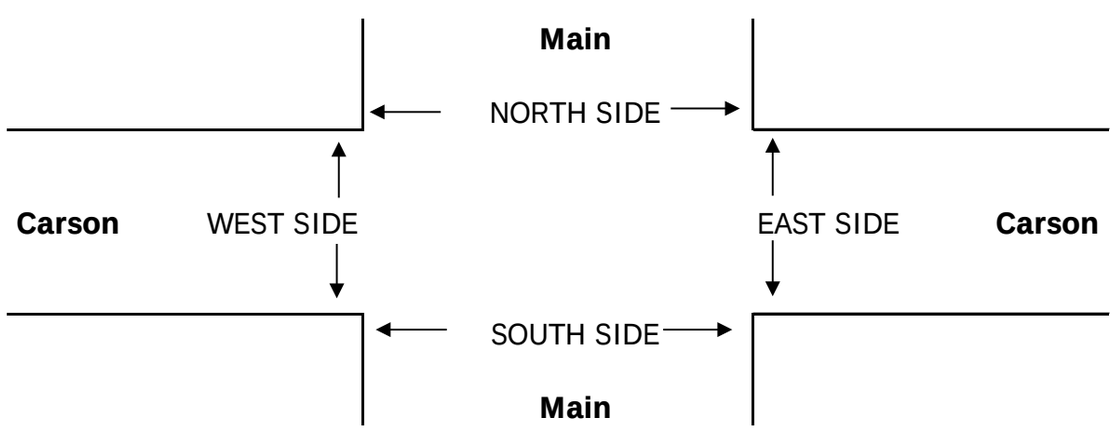
☑ Add U-Turns to Left Turns

		NORTHBOUND Main			SOUTHBOUND Main			EASTBOUND Carson			WESTBOUND Carson				U-TURNS				
	LANES:	NL 1	NT 3	NR 0	SL 1	ST 3	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	29	71	19	9	60	14	11	61	6	4	103	5	392	4	1	0	0	5
	7:15 AM	20	113	17	11	106	24	17	56	10	12	83	6	475	3	2	0	0	5
	7:30 AM	50	167	28	15	147	24	28	90	18	18	116	7	708	8	1	0	0	9
	7:45 AM	52	238	54	14	188	22	36	84	22	29	88	12	839	6	2	0	4	12
	8:00 AM	37	152	21	20	91	22	14	84	13	35	106	15	610	4	0	0	1	5
	8:15 AM	28	111	24	20	90	27	15	55	10	22	72	8	482	8	2	1	3	14
	8:30 AM	37	78	20	30	57	26	12	70	5	13	93	7	448	9	5	1	0	15
	8:45 AM	29	96	18	19	70	20	6	46	4	14	56	4	382	6	8	1	1	16
	VOLUMES	282	1,026	201	138	809	179	139	546	88	147	717	64	4,336	48	21	3	9	81
	APPROACH %	19%	68%	13%	12%	72%	16%	18%	71%	11%	16%	77%	7%						
	APP/DEPART	1,509	/	1,247	1,126	/	1,083	773	/	873	928	/	1,133	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	167	668	127	69	516	95	93	313	63	104	382	42	2,639					
	APPROACH %	17%	69%	13%	10%	76%	14%	20%	67%	13%	20%	72%	8%						
	PEAK HR FACTOR		0.699			0.759			0.826			0.846		0.786					
	APP/DEPART	962	/	807	680	/	701	469	/	512	528	/	619	0					
PM	4:00 PM	42	125	26	39	162	16	23	108	6	27	76	8	658	12	8	1	0	21
	4:15 PM	35	141	14	36	180	26	24	105	9	27	76	11	684	11	3	0	4	18
	4:30 PM	41	113	15	38	167	33	14	115	18	20	93	16	683	15	3	0	3	21
	4:45 PM	40	140	23	34	232	29	29	105	15	40	81	16	784	15	4	0	4	23
	5:00 PM	43	123	21	48	199	24	15	109	12	36	89	16	735	19	3	1	5	28
	5:15 PM	46	108	25	47	248	32	18	111	10	33	95	15	788	14	4	1	6	25
	5:30 PM	40	115	26	42	184	32	21	124	5	33	108	11	741	15	1	0	3	19
	5:45 PM	41	131	19	33	199	28	35	99	13	22	94	13	727	20	6	2	1	29
	VOLUMES	328	996	169	317	1,571	220	179	876	88	238	712	106	5,800	121	32	5	26	184
	APPROACH %	22%	67%	11%	15%	75%	10%	16%	77%	8%	23%	67%	10%						
	APP/DEPART	1,493	/	1,308	2,108	/	1,992	1,143	/	1,356	1,056	/	1,144	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	169	486	95	171	863	117	83	449	42	142	373	58	3,048					
	APPROACH %	23%	65%	13%	15%	75%	10%	14%	78%	7%	25%	65%	10%						
	PEAK HR FACTOR		0.924			0.880			0.957			0.942		0.967					
	APP/DEPART	750	/	637	1,151	/	1,092	574	/	721	573	/	598	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Dolores
EAST & WEST: Carson

PROJECT #: SC0964
LOCATION #: 15
CONTROL: SIGNAL

NOTES:

AM - WB queue and construction 8-9:00.

AM / PM / MD / OTHER / OTHER

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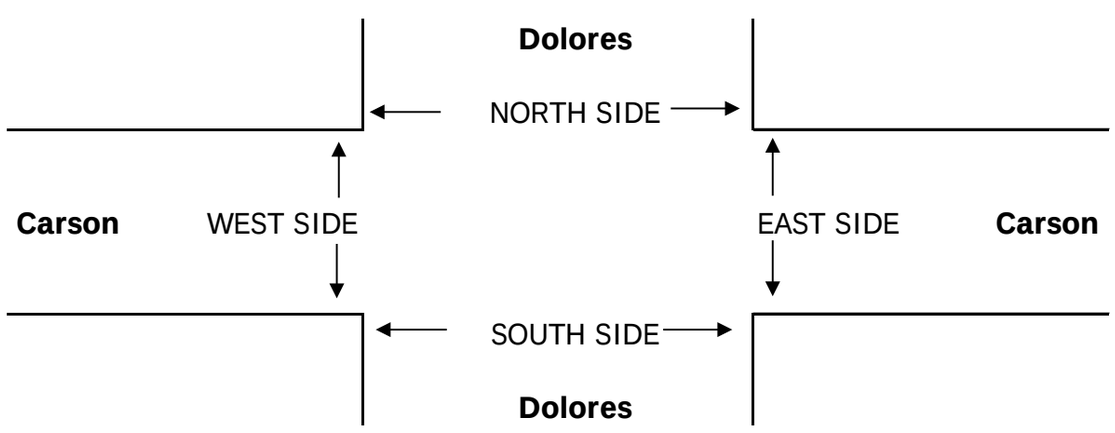
☑ Add U-Turns to Left Turns

		NORTHBOUND Dolores			SOUTHBOUND Dolores			EASTBOUND Carson			WESTBOUND Carson				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	9	20	8	2	25	4	1	70	9	5	87	2	242	0	0	0	0	0
	7:15 AM	8	27	3	3	20	8	2	84	11	13	93	7	279	0	0	1	1	2
	7:30 AM	8	33	21	1	69	9	8	84	14	14	111	12	384	0	0	0	0	0
	7:45 AM	18	47	9	3	48	12	6	136	14	14	119	9	435	0	0	0	0	0
	8:00 AM	7	50	10	8	30	7	12	107	18	2	93	6	350	0	0	1	0	1
	8:15 AM	7	20	5	5	16	4	14	92	11	4	90	2	270	0	0	2	2	4
	8:30 AM	8	17	7	5	17	6	8	86	4	1	104	7	270	0	0	3	0	3
	8:45 AM	7	7	4	4	15	12	4	77	11	0	84	4	229	0	0	0	0	0
	VOLUMES	72	221	67	31	240	62	55	736	92	53	781	49	2,459	0	0	7	3	10
	APPROACH %	20%	61%	19%	9%	72%	19%	6%	83%	10%	6%	88%	6%						
	APP/DEPART	360	/	318	333	/	382	883	/	837	883	/	922	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	41	157	43	15	167	36	28	411	57	43	416	34	1,448					
	APPROACH %	17%	65%	18%	7%	77%	17%	6%	83%	11%	9%	84%	7%						
	PEAK HR FACTOR		0.814			0.690			0.795			0.868		0.832					
	APP/DEPART	241	/	217	218	/	266	496	/	470	493	/	495	0					
PM	4:00 PM	13	38	12	6	32	10	8	146	15	9	89	12	390	0	0	0	3	3
	4:15 PM	7	26	6	5	27	3	11	154	17	11	120	3	390	0	0	3	1	4
	4:30 PM	13	27	8	6	26	10	6	130	14	9	101	2	352	0	0	1	1	2
	4:45 PM	11	32	6	5	17	5	8	173	13	14	126	2	412	0	0	1	1	2
	5:00 PM	6	31	7	7	26	11	14	133	15	11	116	5	382	0	0	0	0	0
	5:15 PM	8	24	6	5	34	8	12	177	10	19	123	5	431	0	0	3	2	5
	5:30 PM	13	28	14	7	31	8	7	141	15	9	120	2	395	0	0	0	1	1
	5:45 PM	10	25	13	7	18	10	7	146	13	7	140	7	403	0	0	1	0	1
	VOLUMES	81	231	72	48	211	65	73	1,200	112	89	935	38	3,155	0	0	9	9	18
	APPROACH %	21%	60%	19%	15%	65%	20%	5%	87%	8%	8%	88%	4%						
	APP/DEPART	384	/	333	324	/	403	1,385	/	1,329	1,062	/	1,090	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	38	115	33	24	108	32	41	624	53	53	485	14	1,620					
	APPROACH %	20%	62%	18%	15%	66%	20%	6%	87%	7%	10%	88%	3%						
	PEAK HR FACTOR		0.845			0.872			0.902			0.939		0.940					
	APP/DEPART	186	/	166	164	/	210	718	/	685	552	/	559	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Grace
EAST & WEST: Carson

PROJECT #: SC0964
LOCATION #: 16
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

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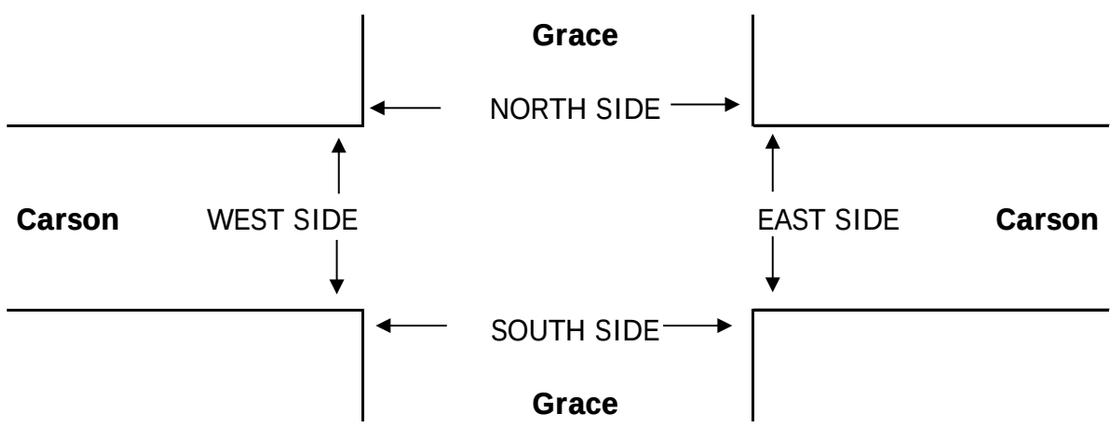
☑ Add U-Turns to Left Turns

		NORTHBOUND Grace			SOUTHBOUND Grace			EASTBOUND Carson			WESTBOUND Carson				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	3	6	4	5	8	4	3	78	2	2	89	1	205	0	0	0	0	0
	7:15 AM	1	10	6	7	7	4	5	94	4	4	112	7	261	0	0	1	0	1
	7:30 AM	3	19	15	11	16	8	7	101	2	10	125	5	322	0	0	0	0	0
	7:45 AM	9	42	23	8	17	4	12	123	6	11	117	9	381	0	0	0	1	1
	8:00 AM	1	21	10	6	3	7	10	110	3	5	93	8	277	0	0	0	0	0
	8:15 AM	6	10	5	4	7	9	4	100	5	7	96	7	260	0	0	0	1	1
	8:30 AM	4	7	5	4	3	4	5	90	7	4	96	11	240	0	0	1	0	1
	8:45 AM	4	6	8	4	6	4	3	71	2	4	96	2	210	0	0	0	0	0
	VOLUMES	31	121	76	49	67	44	49	767	31	47	824	50	2,156	0	0	2	2	4
	APPROACH %	14%	53%	33%	31%	42%	28%	6%	91%	4%	5%	89%	5%						
	APP/DEPART	228	/	218	160	/	143	847	/	894	921	/	901	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	14	92	54	32	43	23	34	428	15	30	447	29	1,241					
	APPROACH %	9%	58%	34%	33%	44%	23%	7%	90%	3%	6%	88%	6%						
	PEAK HR FACTOR		0.541			0.700			0.846			0.904		0.814					
	APP/DEPART	160	/	154	98	/	87	477	/	515	506	/	485	0					
PM	4:00 PM	3	10	19	8	10	7	9	154	5	13	101	13	352	0	0	1	1	2
	4:15 PM	6	13	12	8	11	3	9	150	2	7	107	12	340	0	0	0	1	1
	4:30 PM	5	14	6	12	11	4	10	128	8	13	116	9	336	0	0	1	2	3
	4:45 PM	5	16	12	9	7	9	6	170	6	9	120	12	381	0	0	0	2	2
	5:00 PM	6	17	11	4	18	3	10	150	3	16	131	13	382	0	0	0	1	1
	5:15 PM	7	25	16	10	15	12	9	166	3	16	118	8	405	0	0	1	0	1
	5:30 PM	7	21	12	13	12	5	7	154	10	16	129	9	395	0	0	0	0	0
	5:45 PM	6	17	9	13	17	12	11	138	5	8	138	17	391	0	0	1	0	1
	VOLUMES	45	133	97	77	101	55	71	1,210	42	98	960	93	2,982	0	0	4	7	11
	APPROACH %	16%	48%	35%	33%	43%	24%	5%	91%	3%	9%	83%	8%						
	APP/DEPART	275	/	293	233	/	234	1,323	/	1,391	1,151	/	1,064	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	26	80	48	40	62	32	37	608	21	56	516	47	1,573					
	APPROACH %	17%	52%	31%	30%	46%	24%	6%	91%	3%	9%	83%	8%						
	PEAK HR FACTOR		0.802			0.798			0.935			0.949		0.971					
	APP/DEPART	154	/	162	134	/	138	666	/	697	619	/	576	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Avalon
EAST & WEST: Carson

PROJECT #: SC0964
LOCATION #: 17
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

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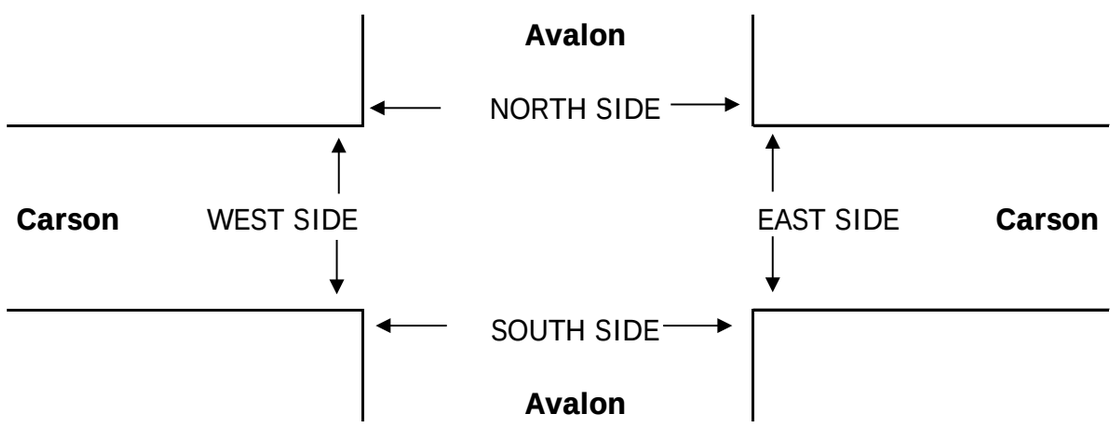
☑ Add U-Turns to Left Turns

		NORTHBOUND Avalon			SOUTHBOUND Avalon			EASTBOUND Carson			WESTBOUND Carson				U-TURNS				
	LANES:	NL 1	NT 3	NR 0	SL 1	ST 3	SR 0	EL 2	ET 2	ER 0	WL 2	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	16	130	90	20	103	12	18	62	9	68	73	10	611	1	0	2	0	3
	7:15 AM	19	132	100	24	131	9	16	75	13	96	93	26	734	1	0	3	3	7
	7:30 AM	13	184	115	32	201	15	17	92	7	110	101	26	913	1	0	0	0	1
	7:45 AM	21	175	133	36	194	16	26	129	16	130	117	34	1,027	1	0	0	0	1
	8:00 AM	15	180	119	41	158	16	24	88	24	98	83	28	874	0	2	0	2	4
	8:15 AM	15	124	86	39	137	11	29	75	10	63	84	18	691	0	0	4	5	9
	8:30 AM	23	142	101	33	138	20	21	52	16	64	81	22	713	1	0	1	1	3
	8:45 AM	5	119	77	21	115	25	32	72	16	58	79	27	646	0	3	1	3	7
	VOLUMES	127	1,186	821	246	1,177	124	183	645	111	687	711	191	6,209	5	5	11	14	35
	APPROACH %	6%	56%	38%	16%	76%	8%	19%	69%	12%	43%	45%	12%						
	APP/DEPART	2,134	/	1,554	1,547	/	1,966	939	/	1,721	1,589	/	968	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	68	671	467	133	684	56	83	384	60	434	394	114	3,548					
	APPROACH %	6%	56%	39%	15%	78%	6%	16%	73%	11%	46%	42%	12%						
	PEAK HR FACTOR		0.916			0.880			0.770			0.838		0.864					
	APP/DEPART	1,206	/	867	873	/	1,176	527	/	987	942	/	518	0					
PM	4:00 PM	24	178	107	46	177	28	31	110	21	95	73	29	919	0	2	2	2	6
	4:15 PM	18	174	108	50	167	24	33	133	30	96	83	31	947	0	1	1	1	3
	4:30 PM	19	186	116	46	198	29	27	109	12	99	86	31	958	2	0	2	0	4
	4:45 PM	17	167	117	45	200	35	33	138	18	110	94	33	1,007	0	1	2	3	6
	5:00 PM	25	211	100	50	219	23	35	131	21	97	109	21	1,042	1	3	2	0	6
	5:15 PM	22	177	102	44	221	36	42	126	20	121	94	32	1,037	1	0	3	1	5
	5:30 PM	28	190	99	51	220	33	36	133	16	90	91	35	1,022	2	0	1	0	3
	5:45 PM	17	159	115	47	184	36	37	112	18	100	105	49	979	0	1	2	2	5
	VOLUMES	170	1,442	864	379	1,586	244	274	992	156	808	735	261	7,911	6	8	15	9	38
	APPROACH %	7%	58%	35%	17%	72%	11%	19%	70%	11%	45%	41%	14%						
	APP/DEPART	2,476	/	1,970	2,209	/	2,547	1,422	/	2,236	1,804	/	1,158	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	92	745	418	190	860	127	146	528	75	418	388	121	4,108					
	APPROACH %	7%	59%	33%	16%	73%	11%	19%	70%	10%	45%	42%	13%						
	PEAK HR FACTOR		0.934			0.968			0.991			0.938		0.986					
	APP/DEPART	1,255	/	1,008	1,177	/	1,353	749	/	1,136	927	/	611	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Bonita
EAST & WEST: Carson

PROJECT #: SC0964
LOCATION #: 18
CONTROL: SIGNAL

NOTES:

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OTHER

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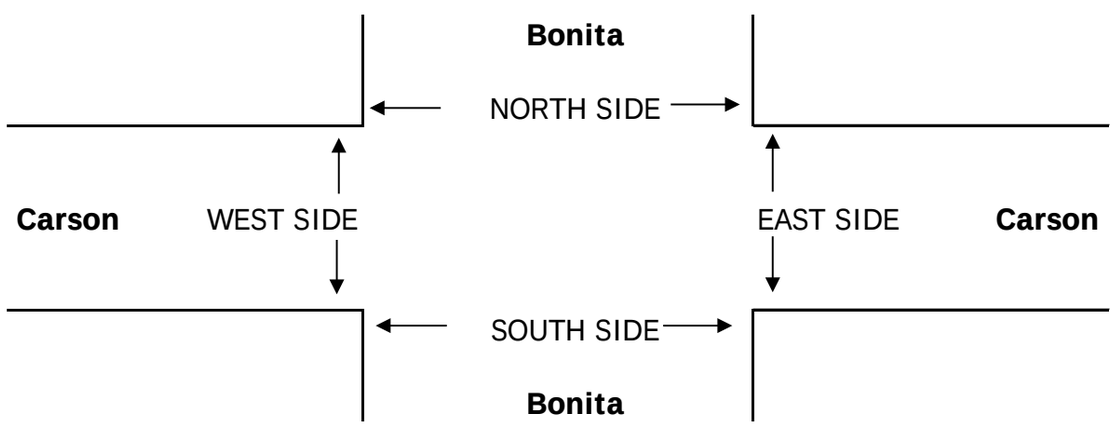
☑ Add U-Turns to Left Turns

		NORTHBOUND Bonita			SOUTHBOUND Bonita			EASTBOUND Carson			WESTBOUND Carson				U-TURNS				
	LANES:	NL 0	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 2	ER 0	WL 1	WT 3	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	10	9	42	7	7	4	1	155	9	54	161	12	471	0	0	0	4	4
	7:15 AM	18	11	38	10	13	7	6	176	22	43	178	20	542	0	0	1	2	3
	7:30 AM	31	9	64	15	44	13	7	207	34	67	228	34	753	0	0	1	8	9
	7:45 AM	39	14	64	14	51	17	12	239	49	55	204	39	797	0	0	5	1	6
	8:00 AM	27	15	49	9	14	13	9	223	10	47	157	24	597	0	0	3	8	11
	8:15 AM	12	5	30	11	9	14	7	171	7	38	145	9	458	0	0	3	5	8
	8:30 AM	5	9	46	9	7	4	11	163	5	37	143	11	450	0	0	4	5	9
	8:45 AM	7	10	35	16	5	6	11	145	4	36	142	17	434	0	0	4	3	7
	VOLUMES	149	82	368	91	150	78	64	1,479	140	377	1,358	166	4,502	0	0	21	36	57
	APPROACH %	25%	14%	61%	29%	47%	24%	4%	88%	8%	20%	71%	9%						
	APP/DEPART	599	/	291	319	/	631	1,683	/	1,974	1,901	/	1,606	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	115	49	215	48	122	50	34	845	115	212	767	117	2,689					
	APPROACH %	30%	13%	57%	22%	55%	23%	3%	85%	12%	19%	70%	11%						
	PEAK HR FACTOR		0.810			0.671			0.828			0.833		0.843					
	APP/DEPART	379	/	190	220	/	430	994	/	1,127	1,096	/	942	0					
PM	4:00 PM	17	11	71	11	11	13	10	243	11	40	174	12	624	0	0	4	3	7
	4:15 PM	15	10	90	15	14	6	15	249	18	27	174	8	641	0	0	6	3	9
	4:30 PM	12	7	107	12	6	6	15	261	11	38	205	12	692	0	0	8	3	11
	4:45 PM	18	15	81	17	13	7	12	266	20	40	179	12	680	0	0	9	3	12
	5:00 PM	14	10	95	17	17	5	13	268	27	48	214	8	736	0	0	10	6	16
	5:15 PM	8	8	107	16	24	5	14	258	9	51	205	12	717	0	0	7	7	14
	5:30 PM	12	11	91	26	6	9	10	266	14	49	204	8	706	0	0	1	2	3
	5:45 PM	18	15	73	15	13	5	5	262	12	41	204	15	678	0	0	0	2	2
	VOLUMES	114	87	715	129	104	56	94	2,073	122	334	1,559	87	5,474	0	0	45	29	74
	APPROACH %	12%	9%	78%	45%	36%	19%	4%	91%	5%	17%	79%	4%						
	APP/DEPART	916	/	223	289	/	531	2,289	/	2,946	1,980	/	1,774	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	52	44	374	76	60	26	49	1,058	70	188	802	40	2,839					
	APPROACH %	11%	9%	80%	47%	37%	16%	4%	90%	6%	18%	78%	4%						
	PEAK HR FACTOR		0.955			0.900			0.955			0.954		0.964					
	APP/DEPART	470	/	106	162	/	300	1,177	/	1,526	1,030	/	907	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: I-405 SB Ramps
EAST & WEST: Carson

PROJECT #: SC0964
LOCATION #: 19
CONTROL: SIGNAL

NOTES: PM - NB queue

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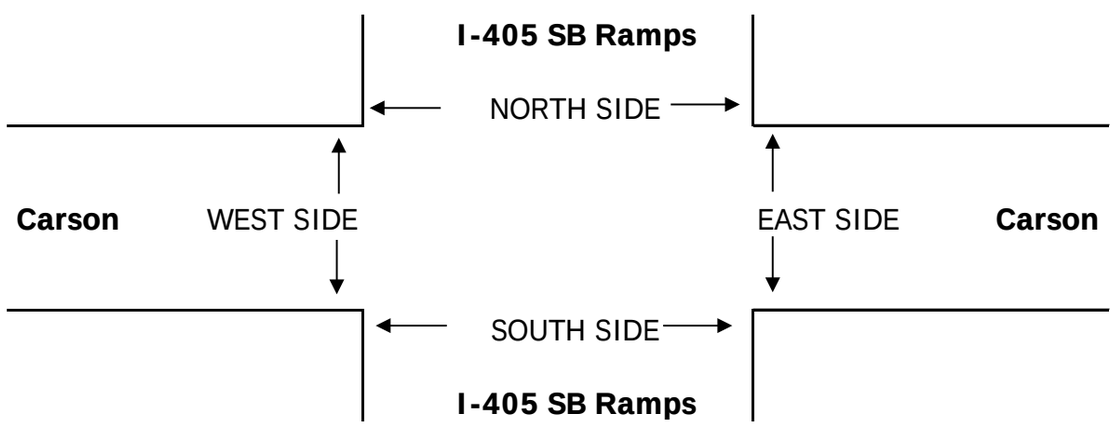
☑ Add U-Turns to Left Turns

		NORTHBOUND I-405 SB Ramps			SOUTHBOUND I-405 SB Ramps			EASTBOUND Carson			WESTBOUND Carson				U-TURNS				
	LANES:	NL 1	NT 0	NR 1	SL X	ST X	SR 1	EL 1	ET 2	ER 1	WL 1	WT 3	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	13	0	45	0	0	0	1	96	118	19	225	7	524	0	0	0	0	0
	7:15 AM	19	2	41	0	0	0	3	100	112	25	239	6	547	0	0	0	0	0
	7:30 AM	16	1	45	0	0	2	1	153	137	28	306	6	695	0	0	0	0	0
	7:45 AM	12	2	73	0	0	0	2	195	129	25	302	3	743	0	0	0	0	0
	8:00 AM	10	2	44	0	0	1	1	182	116	12	203	5	576	0	0	1	0	1
	8:15 AM	7	1	55	0	0	1	1	127	89	24	182	1	488	0	0	0	0	0
	8:30 AM	9	1	47	0	0	2	1	107	100	25	186	6	484	0	0	0	0	0
	8:45 AM	16	2	60	0	0	0	3	103	100	17	173	4	478	0	0	0	0	0
	VOLUMES	102	11	410	0	0	6	13	1,063	901	175	1,816	38	4,535	0	0	1	0	1
	APPROACH %	20%	2%	78%	0%	0%	100%	1%	54%	46%	9%	90%	2%						
	APP/DEPART	523	/	61	6	/	1,076	1,977	/	1,473	2,029	/	1,925	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	57	7	203	0	0	3	7	630	494	90	1,050	20	2,561					
	APPROACH %	21%	3%	76%	0%	0%	100%	1%	56%	44%	8%	91%	2%						
	PEAK HR FACTOR		0.767			0.375			0.867			0.853		0.862					
	APP/DEPART	267	/	33	3	/	584	1,131	/	833	1,160	/	1,111	0					
PM	4:00 PM	6	0	21	0	0	1	3	168	163	19	207	2	590	0	0	1	0	1
	4:15 PM	10	1	23	0	0	3	1	179	174	23	216	3	633	0	0	1	0	1
	4:30 PM	5	1	27	0	0	2	3	151	211	18	239	5	662	0	0	1	0	1
	4:45 PM	3	1	16	0	0	2	0	212	181	21	232	4	672	0	0	0	0	0
	5:00 PM	7	4	25	0	0	3	1	180	199	36	251	8	714	0	0	0	0	0
	5:15 PM	4	4	18	0	0	2	0	194	188	38	259	4	711	0	0	0	0	0
	5:30 PM	4	2	13	0	0	0	1	223	171	26	254	4	698	0	0	0	0	0
	5:45 PM	5	3	17	0	0	1	4	186	168	32	260	1	677	0	0	1	0	1
	VOLUMES	44	16	160	0	0	14	13	1,493	1,455	213	1,918	31	5,357	0	0	4	0	4
	APPROACH %	20%	7%	73%	0%	0%	100%	0%	50%	49%	10%	89%	1%						
	APP/DEPART	220	/	56	14	/	1,668	2,961	/	1,653	2,162	/	1,980	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	20	13	73	0	0	6	6	783	726	132	1,024	17	2,800					
	APPROACH %	19%	12%	69%	0%	0%	100%	0%	52%	48%	11%	87%	1%						
	PEAK HR FACTOR		0.736			0.500			0.959			0.974		0.980					
	APP/DEPART	106	/	35	6	/	858	1,515	/	856	1,173	/	1,051	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: I-405 NB Ramps
EAST & WEST: Carson

PROJECT #: SC0964
LOCATION #: 20
CONTROL: SIGNAL

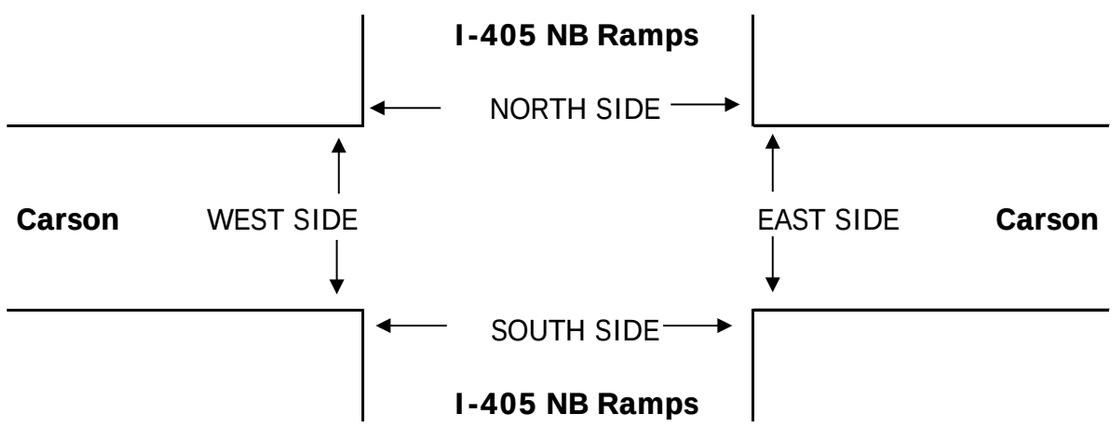
NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND I-405 NB Ramps			SOUTHBOUND I-405 NB Ramps			EASTBOUND Carson			WESTBOUND Carson				U-TURNS				
	LANES:	NL 0	NT 1	NR 1	SL 0.5	ST 0.5	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	1	1	0	9	7	111	13	119	8	0	137	71	477	0	2	0	0	2
	7:15 AM	2	0	0	7	5	99	16	117	7	3	169	65	490	0	0	0	0	0
	7:30 AM	1	0	0	3	4	111	32	164	1	3	227	64	610	0	0	1	0	1
	7:45 AM	1	1	0	8	2	116	21	237	9	0	216	62	673	0	0	0	0	0
	8:00 AM	2	5	2	5	4	87	26	194	8	3	130	62	528	0	0	0	0	0
	8:15 AM	5	4	4	6	7	86	21	144	18	6	116	67	484	0	1	0	0	1
	8:30 AM	3	2	4	8	6	77	22	121	13	8	137	48	449	0	0	0	0	0
	8:45 AM	2	6	3	3	8	87	19	134	11	9	103	57	442	0	0	0	0	0
	VOLUMES	17	19	13	49	43	774	170	1,230	75	32	1,235	496	4,153	0	3	1	0	4
	APPROACH %	35%	39%	27%	6%	5%	89%	12%	83%	5%	2%	70%	28%						
	APP/DEPART	49	/	687	866	/	150	1,475	/	1,289	1,763	/	2,027	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	6	6	2	23	15	413	95	712	25	9	742	253	2,301					
	APPROACH %	43%	43%	14%	5%	3%	92%	11%	86%	3%	1%	74%	25%						
	PEAK HR FACTOR		0.389			0.895			0.779			0.854		0.855					
	APP/DEPART	14	/	353	451	/	49	832	/	737	1,004	/	1,162	0					
PM	4:00 PM	13	11	7	11	1	83	15	163	9	5	133	88	539	0	0	0	0	0
	4:15 PM	17	6	5	10	3	97	35	161	4	2	129	70	539	0	0	1	1	2
	4:30 PM	14	8	5	8	1	103	21	148	12	9	146	89	564	0	0	0	0	0
	4:45 PM	15	4	6	4	0	105	33	186	12	2	138	78	583	0	0	0	0	0
	5:00 PM	13	5	4	14	2	120	25	171	10	4	165	106	639	0	0	0	0	0
	5:15 PM	11	3	3	16	0	115	29	178	5	7	178	77	622	0	0	0	0	0
	5:30 PM	13	6	1	8	1	101	21	207	8	2	169	61	598	0	1	0	0	1
	5:45 PM	12	4	5	5	1	100	16	177	9	4	181	57	571	0	1	1	0	2
	VOLUMES	108	47	36	76	9	824	195	1,391	69	35	1,239	626	4,655	0	2	2	1	5
	APPROACH %	57%	25%	19%	8%	1%	91%	12%	84%	4%	2%	65%	33%						
	APP/DEPART	191	/	868	909	/	112	1,655	/	1,502	1,900	/	2,173	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	52	18	14	42	3	441	108	742	35	15	650	322	2,442					
	APPROACH %	62%	21%	17%	9%	1%	91%	12%	84%	4%	2%	66%	33%						
	PEAK HR FACTOR		0.840			0.893			0.938			0.897		0.955					
	APP/DEPART	84	/	449	486	/	53	885	/	797	987	/	1,143	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Normandie
EAST & WEST: 220th

PROJECT #: SC0964
LOCATION #: 21
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

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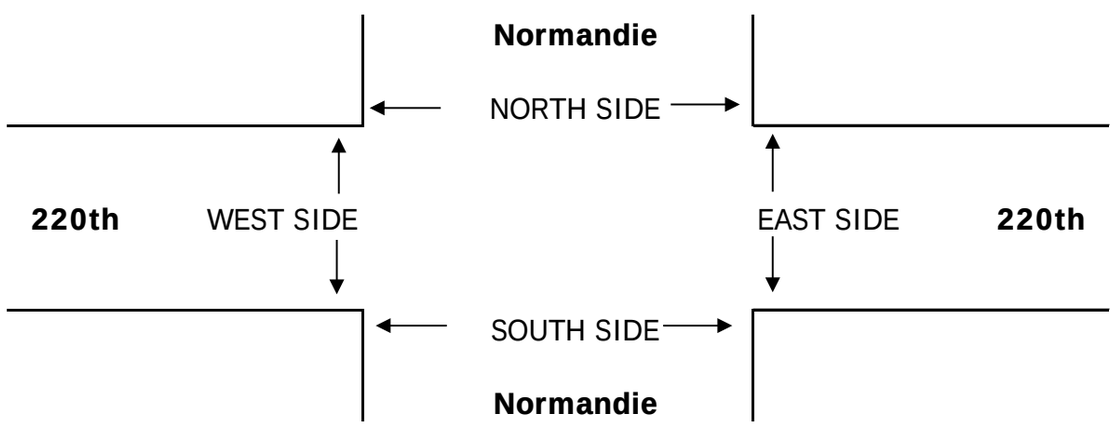
E ►
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Normandie			SOUTHBOUND Normandie			EASTBOUND 220th			WESTBOUND 220th				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	1	122	10	10	68	3	1	1	7	3	1	13	240	0	0	0	0	0
	7:15 AM	3	158	11	22	109	6	2	8	8	4	8	17	356	0	0	0	0	0
	7:30 AM	8	207	26	18	129	8	8	17	20	13	21	25	500	0	0	0	0	0
	7:45 AM	5	205	63	15	121	9	11	33	7	25	34	23	551	0	0	0	0	0
	8:00 AM	11	180	27	11	105	3	12	28	12	26	31	34	480	0	0	0	0	0
	8:15 AM	5	218	13	11	104	3	5	7	6	8	5	17	402	0	0	0	0	0
	8:30 AM	5	169	8	8	110	4	6	4	4	4	5	24	351	0	0	0	0	0
	8:45 AM	1	121	11	14	76	3	3	4	7	4	5	14	263	0	0	0	0	0
	VOLUMES	39	1,380	169	109	822	39	48	102	71	87	110	167	3,143	0	0	0	0	0
	APPROACH %	2%	87%	11%	11%	85%	4%	22%	46%	32%	24%	30%	46%						
	APP/DEPART	1,588	/	1,595	970	/	980	221	/	380	364	/	188	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	29	810	129	55	459	23	36	85	45	72	91	99	1,933					
	APPROACH %	3%	84%	13%	10%	85%	4%	22%	51%	27%	27%	35%	38%						
	PEAK HR FACTOR		0.886			0.866			0.798			0.720		0.877					
	APP/DEPART	968	/	945	537	/	576	166	/	269	262	/	143	0					
PM	4:00 PM	2	132	6	23	132	7	3	8	6	11	7	28	365	0	0	0	0	0
	4:15 PM	6	99	7	15	198	10	2	10	10	16	4	27	404	0	0	0	0	0
	4:30 PM	11	101	13	24	178	9	1	9	18	23	9	19	415	0	0	0	0	0
	4:45 PM	6	126	10	22	198	4	4	17	8	18	7	20	440	0	0	0	0	0
	5:00 PM	3	148	12	25	198	8	6	37	5	21	10	25	498	0	0	0	0	0
	5:15 PM	5	116	24	25	213	8	2	28	13	18	7	21	480	0	0	0	0	0
	5:30 PM	6	131	27	31	210	7	3	22	13	21	10	28	509	0	0	0	0	0
	5:45 PM	4	119	6	30	226	8	7	25	15	16	7	22	485	0	0	0	0	0
	VOLUMES	43	972	105	195	1,553	61	28	156	88	144	61	190	3,596	0	0	0	0	0
	APPROACH %	4%	87%	9%	11%	86%	3%	10%	57%	32%	36%	15%	48%						
	APP/DEPART	1,120	/	1,190	1,809	/	1,785	272	/	456	395	/	165	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	18	514	69	111	847	31	18	112	46	76	34	96	1,972					
	APPROACH %	3%	86%	11%	11%	86%	3%	10%	64%	26%	37%	17%	47%						
	PEAK HR FACTOR		0.916			0.937			0.917			0.873		0.969					
	APP/DEPART	601	/	628	989	/	969	176	/	292	206	/	83	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Meyler
EAST & WEST: 220th

PROJECT #: SC0964
LOCATION #: 22
CONTROL: STOP ALL

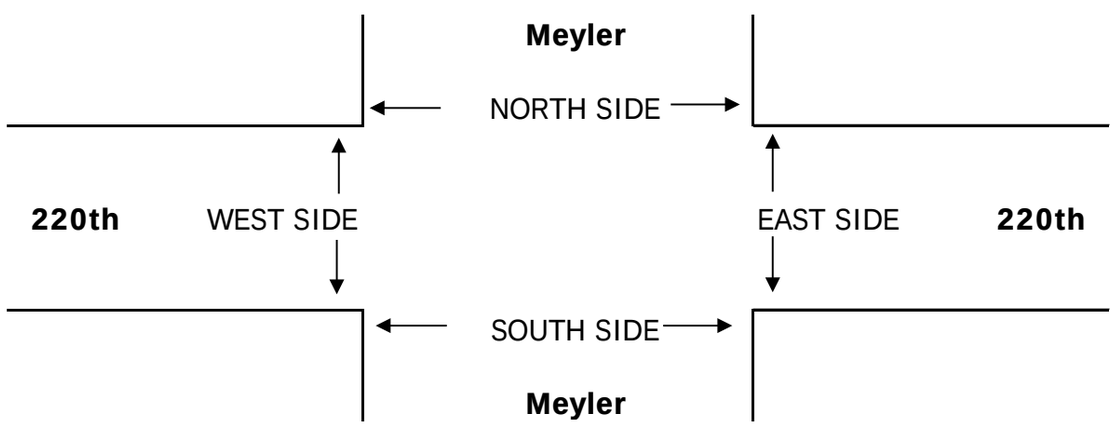
NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Meyler			SOUTHBOUND Meyler			EASTBOUND 220th			WESTBOUND 220th				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	1	4	4	1	0	2	3	15	1	5	9	4	49	0	0	0	0	0
	7:15 AM	8	1	10	1	0	0	1	30	2	7	15	3	78	0	0	0	0	0
	7:30 AM	12	1	14	3	0	0	3	27	16	22	44	8	150	0	0	0	0	0
	7:45 AM	40	0	28	2	0	2	1	33	36	29	40	8	219	0	0	0	0	0
	8:00 AM	30	2	27	4	1	4	1	26	15	6	40	9	165	0	0	0	0	0
	8:15 AM	4	1	6	1	0	0	1	17	3	3	24	14	74	0	0	0	0	0
	8:30 AM	8	2	9	1	0	2	0	15	0	6	28	3	74	0	0	0	0	0
	8:45 AM	10	3	2	2	1	0	2	16	4	2	20	6	68	0	0	0	0	0
	VOLUMES	113	14	100	15	2	10	12	179	77	80	220	55	877	0	0	0	0	0
	APPROACH %	50%	6%	44%	56%	7%	37%	4%	67%	29%	23%	62%	15%						
	APP/DEPART	227	/	81	27	/	159	268	/	294	355	/	343	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	90	4	79	10	1	6	6	116	69	64	139	28	612					
	APPROACH %	52%	2%	46%	59%	6%	35%	3%	61%	36%	28%	60%	12%						
	PEAK HR FACTOR		0.636			0.472			0.682			0.750		0.699					
	APP/DEPART	173	/	38	17	/	134	191	/	205	231	/	235	0					
PM	4:00 PM	7	1	6	6	1	4	1	29	13	5	36	1	110	0	0	0	0	0
	4:15 PM	5	0	4	3	2	4	1	30	5	6	30	4	94	0	0	0	1	1
	4:30 PM	3	1	5	17	7	7	2	39	15	8	24	0	128	0	0	0	0	0
	4:45 PM	8	1	5	14	3	2	0	40	9	8	25	1	116	0	0	0	0	0
	5:00 PM	7	0	9	19	2	4	0	60	12	3	31	2	149	0	0	0	0	0
	5:15 PM	5	0	16	8	0	4	1	56	15	9	27	1	142	0	0	0	0	0
	5:30 PM	10	0	21	7	4	1	0	57	10	4	26	1	141	0	0	0	0	0
	5:45 PM	8	0	13	6	1	0	0	50	12	4	23	0	117	0	0	0	0	0
	VOLUMES	53	3	79	80	20	26	5	361	91	47	222	10	997	0	0	0	1	1
	APPROACH %	39%	2%	59%	63%	16%	21%	1%	79%	20%	17%	80%	4%						
	APP/DEPART	135	/	18	126	/	157	457	/	521	279	/	301	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	30	0	59	40	7	9	1	223	49	20	107	4	549					
	APPROACH %	34%	0%	66%	71%	13%	16%	0%	82%	18%	15%	82%	3%						
	PEAK HR FACTOR		0.718			0.560			0.948			0.885		0.921					
	APP/DEPART	89	/	5	56	/	76	273	/	322	131	/	146	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Vermont
EAST & WEST: 220th

PROJECT #: SC0964
LOCATION #: 23
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

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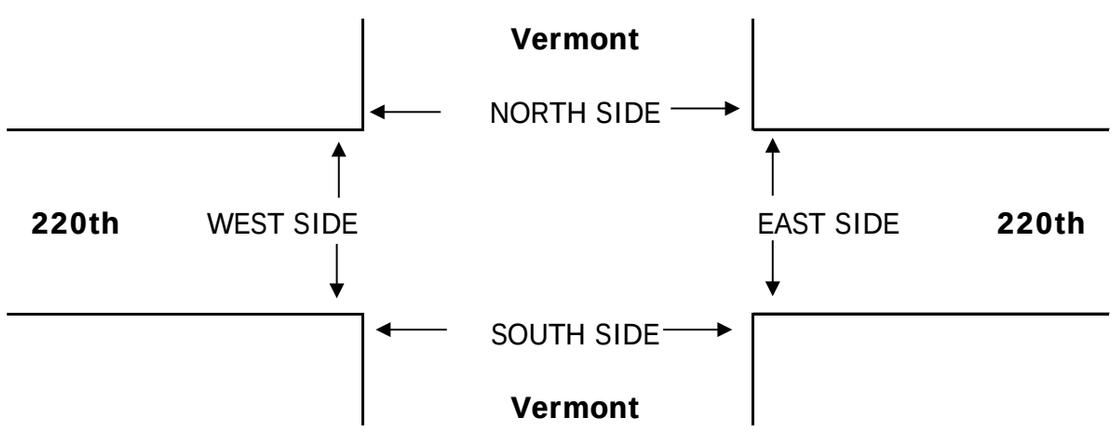
☑ Add U-Turns to Left Turns

		NORTHBOUND Vermont			SOUTHBOUND Vermont			EASTBOUND 220th			WESTBOUND 220th				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	52	169	11	10	79	53	15	2	10	7	1	11	420	0	1	0	0	1
	7:15 AM	39	160	1	5	103	48	22	5	15	2	1	5	406	0	0	0	0	0
	7:30 AM	49	236	9	17	150	63	39	7	31	10	14	11	636	0	0	0	0	0
	7:45 AM	62	246	8	10	154	83	40	6	27	10	8	9	663	0	0	0	0	0
	8:00 AM	54	224	11	7	124	63	37	6	20	2	2	4	554	0	1	0	0	1
	8:15 AM	24	199	18	14	119	46	21	3	9	3	0	3	459	0	0	0	0	0
	8:30 AM	31	161	10	12	92	24	10	5	11	3	3	7	369	0	0	0	0	0
	8:45 AM	27	132	10	11	90	20	15	1	9	5	0	4	324	0	1	0	0	1
	VOLUMES	338	1,527	78	86	911	400	199	35	132	42	29	54	3,831	0	3	0	0	3
	APPROACH %	17%	79%	4%	6%	65%	29%	54%	10%	36%	34%	23%	43%						
	APP/DEPART	1,943	/	1,783	1,397	/	1,085	366	/	196	125	/	767	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	189	905	46	48	547	255	137	22	87	25	24	27	2,312					
	APPROACH %	17%	79%	4%	6%	64%	30%	56%	9%	35%	33%	32%	36%						
	PEAK HR FACTOR		0.902			0.860			0.799			0.543		0.872					
	APP/DEPART	1,140	/	1,070	850	/	659	246	/	115	76	/	468	0					
PM	4:00 PM	14	141	6	6	208	23	44	2	41	6	4	5	500	1	0	0	0	1
	4:15 PM	20	122	5	3	274	22	33	4	37	5	5	9	539	1	0	0	0	1
	4:30 PM	5	155	4	6	245	18	59	2	56	9	3	13	575	0	0	0	0	0
	4:45 PM	8	126	1	4	244	19	42	3	50	9	5	12	523	0	0	0	0	0
	5:00 PM	11	133	3	5	226	18	41	2	73	9	2	11	534	0	0	0	0	0
	5:15 PM	12	118	1	7	252	16	57	4	63	8	2	9	549	1	0	1	0	2
	5:30 PM	11	126	4	5	221	18	48	2	51	8	6	10	510	0	0	0	0	0
	5:45 PM	8	117	1	3	260	19	32	1	61	2	1	5	510	0	0	0	0	0
	VOLUMES	89	1,038	25	39	1,930	153	356	20	432	56	28	74	4,240	3	0	1	0	4
	APPROACH %	8%	90%	2%	2%	91%	7%	44%	2%	53%	35%	18%	47%						
	APP/DEPART	1,152	/	1,467	2,122	/	2,421	808	/	84	158	/	268	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	36	532	9	22	967	71	199	11	242	35	12	45	2,181					
	APPROACH %	6%	92%	2%	2%	91%	7%	44%	2%	54%	38%	13%	49%						
	PEAK HR FACTOR		0.880			0.964			0.911			0.885		0.948					
	APP/DEPART	577	/	775	1,060	/	1,245	452	/	42	92	/	119	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Figueroa
EAST & WEST: 220th

PROJECT #: SC0964
LOCATION #: 24
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER

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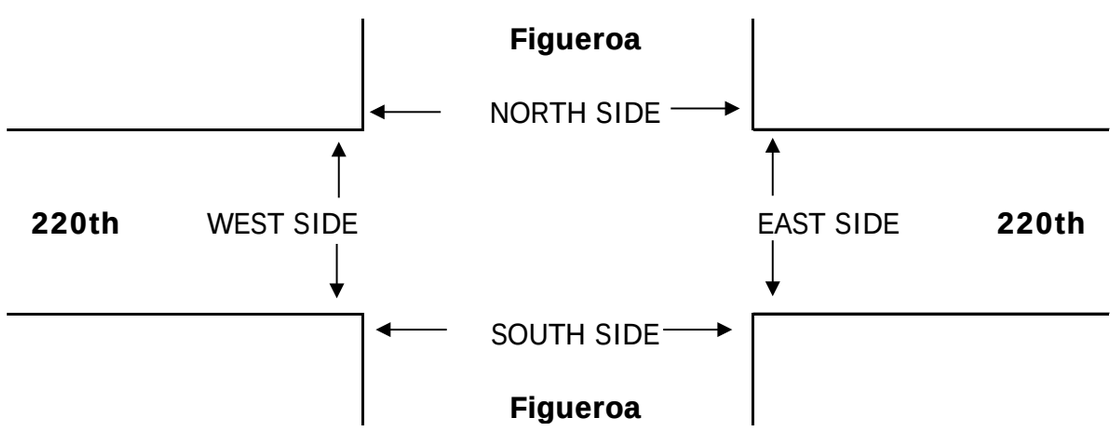
☑ Add U-Turns to Left Turns

		NORTHBOUND Figueroa			SOUTHBOUND Figueroa			EASTBOUND 220th			WESTBOUND 220th				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0.5	ET 0.5	ER 1	WL 0.5	WT 0.5	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	127	72	14	13	54	76	47	8	33	9	57	18	528	2	1	0	0	3
	7:15 AM	134	106	31	30	88	66	63	12	25	17	49	21	642	1	1	0	0	2
	7:30 AM	102	147	58	52	109	92	61	14	22	24	41	40	762	6	1	0	0	7
	7:45 AM	102	179	55	41	126	98	55	14	11	34	45	56	816	9	5	0	0	14
	8:00 AM	109	128	19	8	80	105	77	15	19	12	53	28	653	1	0	0	0	1
	8:15 AM	144	90	10	12	48	83	63	13	21	5	39	24	552	2	3	0	0	5
	8:30 AM	121	77	4	7	58	79	57	4	20	9	47	19	502	0	3	0	0	3
	8:45 AM	98	55	5	12	59	75	54	7	23	11	27	14	440	2	0	0	0	2
	VOLUMES	937	854	196	175	622	674	477	87	174	121	358	220	4,895	23	14	0	0	37
	APPROACH %	47%	43%	10%	12%	42%	46%	65%	12%	24%	17%	51%	31%						
	APP/DEPART	1,987	/	1,565	1,471	/	940	738	/	444	699	/	1,946	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	447	560	163	131	403	361	256	55	77	87	188	145	2,873					
	APPROACH %	38%	48%	14%	15%	45%	40%	66%	14%	20%	21%	45%	35%						
	PEAK HR FACTOR		0.871			0.844			0.874			0.778		0.880					
	APP/DEPART	1,170	/	968	895	/	584	388	/	342	420	/	979	0					
PM	4:00 PM	131	77	8	20	100	115	36	21	21	7	20	18	574	1	1	0	0	2
	4:15 PM	106	78	10	29	169	102	43	27	19	9	22	19	633	2	4	0	0	6
	4:30 PM	89	57	6	23	143	91	48	29	24	9	26	18	563	0	0	0	0	0
	4:45 PM	106	57	9	30	129	108	64	35	28	7	15	18	606	0	4	0	0	4
	5:00 PM	99	69	9	31	120	99	52	25	28	11	35	21	599	5	2	0	0	7
	5:15 PM	89	78	8	33	143	98	44	27	30	10	15	14	589	4	2	0	0	6
	5:30 PM	111	65	15	36	112	71	43	18	20	10	24	20	545	0	2	0	0	2
	5:45 PM	98	65	14	33	117	122	53	24	19	11	37	15	608	2	4	0	0	6
	VOLUMES	829	546	79	235	1,033	806	383	206	189	74	194	143	4,717	14	19	0	0	33
	APPROACH %	57%	38%	5%	11%	50%	39%	49%	26%	24%	18%	47%	35%						
	APP/DEPART	1,454	/	1,091	2,074	/	1,310	778	/	501	411	/	1,815	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	400	261	34	113	561	400	207	116	99	36	98	76	2,401					
	APPROACH %	58%	38%	5%	11%	52%	37%	49%	27%	23%	17%	47%	36%						
	PEAK HR FACTOR		0.896			0.895			0.831			0.784		0.948					
	APP/DEPART	695	/	554	1,074	/	703	422	/	253	210	/	891	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Western
EAST & WEST: 223rd

PROJECT #: SC0964
LOCATION #: 25
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER

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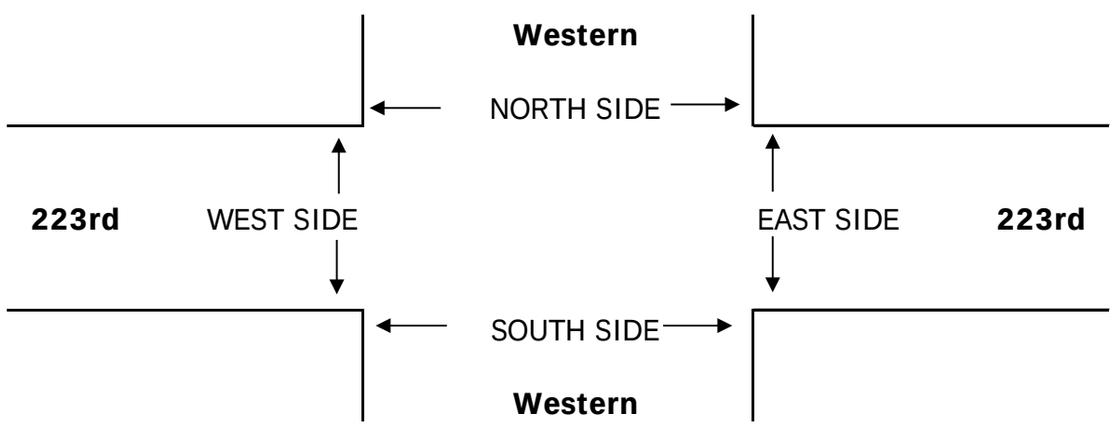
☑ Add U-Turns to Left Turns

		NORTHBOUND Western			SOUTHBOUND Western			EASTBOUND 223rd			WESTBOUND 223rd				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	15	220	22	8	136	8	10	63	11	45	129	36	703	0	0	0	0	0
	7:15 AM	30	292	29	16	192	5	10	69	14	54	172	35	918	0	0	0	0	0
	7:30 AM	28	253	45	15	228	11	11	79	15	76	246	42	1,049	0	0	0	0	0
	7:45 AM	29	319	42	15	278	17	8	87	24	57	209	43	1,128	0	0	0	0	0
	8:00 AM	28	249	40	18	163	4	7	120	23	57	211	55	975	0	0	0	0	0
	8:15 AM	32	322	34	14	164	13	11	80	22	56	220	53	1,021	0	0	0	0	0
	8:30 AM	24	241	21	20	151	10	14	75	20	69	233	48	926	0	0	1	0	1
	8:45 AM	32	281	25	14	166	12	9	103	32	44	184	26	928	0	0	0	0	0
	VOLUMES	218	2,177	258	120	1,478	80	80	676	161	458	1,604	338	7,648	0	0	1	0	1
	APPROACH %	8%	82%	10%	7%	88%	5%	9%	74%	18%	19%	67%	14%						
	APP/DEPART	2,653	/	2,594	1,678	/	2,097	917	/	1,054	2,400	/	1,903	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	117	1,143	161	62	833	45	37	366	84	246	886	193	4,173					
	APPROACH %	8%	80%	11%	7%	89%	5%	8%	75%	17%	19%	67%	15%						
	PEAK HR FACTOR		0.911			0.758			0.812			0.910		0.925					
	APP/DEPART	1,421	/	1,373	940	/	1,163	487	/	589	1,325	/	1,048	0					
PM	4:00 PM	14	246	48	54	314	14	15	152	34	25	124	19	1,059	0	0	0	0	0
	4:15 PM	27	200	45	56	344	11	16	224	59	22	164	18	1,186	0	0	0	0	0
	4:30 PM	15	254	52	58	342	12	13	170	57	21	134	26	1,154	0	2	0	0	2
	4:45 PM	18	209	47	52	328	5	15	171	36	22	128	23	1,054	2	0	0	0	2
	5:00 PM	17	259	51	49	354	16	13	187	53	21	142	22	1,184	0	1	0	0	1
	5:15 PM	26	207	46	58	345	10	19	227	60	22	164	17	1,201	0	0	0	0	0
	5:30 PM	21	236	42	53	386	8	18	183	57	21	134	26	1,185	1	0	0	0	1
	5:45 PM	29	232	40	43	317	8	16	185	59	30	156	29	1,144	0	0	0	0	0
	VOLUMES	167	1,843	371	423	2,730	84	125	1,499	415	184	1,146	180	9,167	3	3	0	0	6
	APPROACH %	7%	77%	16%	13%	84%	3%	6%	74%	20%	12%	76%	12%						
	APP/DEPART	2,381	/	2,151	3,237	/	3,332	2,039	/	2,290	1,510	/	1,394	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	93	934	179	203	1,402	42	66	782	229	94	596	94	4,714					
	APPROACH %	8%	77%	15%	12%	85%	3%	6%	73%	21%	12%	76%	12%						
	PEAK HR FACTOR		0.922			0.921			0.880			0.912		0.981					
	APP/DEPART	1,206	/	1,095	1,647	/	1,726	1,077	/	1,163	784	/	730	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Normandie
EAST & WEST: 223rd

PROJECT #: SC0964
LOCATION #: 26
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER

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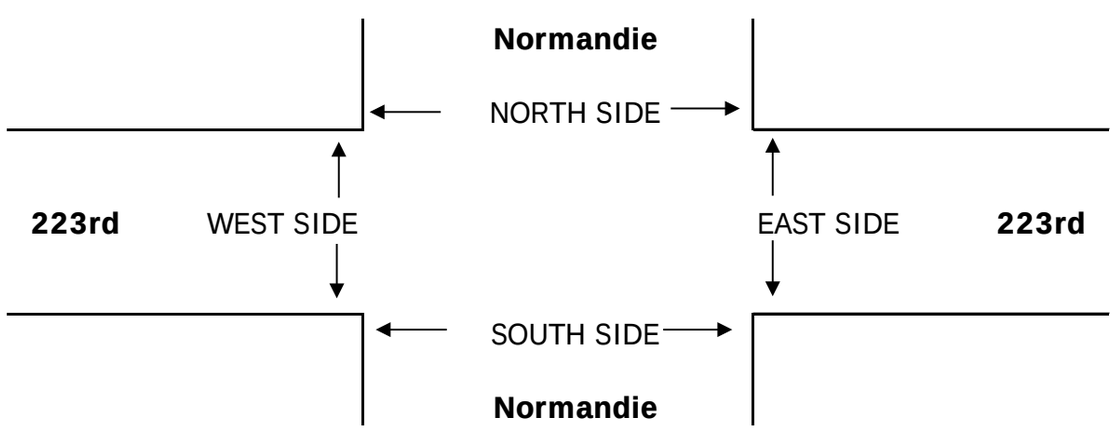
☑ Add U-Turns to Left Turns

		NORTHBOUND Normandie			SOUTHBOUND Normandie			EASTBOUND 223rd			WESTBOUND 223rd				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0.5	ET 2.5	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	18	112	21	11	69	9	17	90	11	44	168	13	583	0	0	0	0	0
	7:15 AM	15	118	11	18	75	16	23	146	7	35	264	28	756	0	0	0	0	0
	7:30 AM	23	205	41	20	115	27	9	150	14	23	299	23	949	0	0	0	0	0
	7:45 AM	26	218	42	18	112	21	20	197	16	36	280	26	1,012	0	0	0	0	0
	8:00 AM	21	188	36	13	107	18	22	150	9	55	279	29	927	0	0	0	0	0
	8:15 AM	16	138	24	18	76	20	15	129	10	31	310	21	808	0	0	0	0	0
	8:30 AM	18	144	24	12	84	18	12	112	11	25	252	23	735	0	0	0	0	0
	8:45 AM	12	122	26	15	71	11	19	129	6	27	226	25	689	0	0	0	0	0
	VOLUMES	149	1,245	225	125	709	140	137	1,103	84	276	2,078	188	6,459	0	0	0	0	0
	APPROACH %	9%	77%	14%	13%	73%	14%	10%	83%	6%	11%	82%	7%						
	APP/DEPART	1,619	/	1,570	974	/	1,069	1,324	/	1,453	2,542	/	2,367	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	86	749	143	69	410	86	66	626	49	145	1,168	99	3,696					
	APPROACH %	9%	77%	15%	12%	73%	15%	9%	84%	7%	10%	83%	7%						
	PEAK HR FACTOR		0.855			0.872			0.795			0.972		0.913					
	APP/DEPART	978	/	914	565	/	604	741	/	838	1,412	/	1,340	0					
PM	4:00 PM	12	111	41	23	148	10	15	221	25	23	160	17	806	0	0	0	0	0
	4:15 PM	13	103	26	25	151	16	21	257	27	31	172	12	854	0	0	0	0	0
	4:30 PM	14	116	22	29	179	18	22	270	28	20	166	19	903	0	0	0	0	0
	4:45 PM	6	83	42	27	173	24	20	257	40	19	188	16	895	0	0	0	0	0
	5:00 PM	10	114	36	31	192	19	22	208	42	22	177	18	891	0	0	0	0	0
	5:15 PM	10	88	32	24	196	22	24	261	52	28	190	18	945	0	0	0	0	0
	5:30 PM	13	95	26	20	194	17	24	246	64	36	188	16	939	0	0	0	0	0
	5:45 PM	18	119	30	22	183	21	19	207	41	34	170	19	883	0	0	0	0	0
	VOLUMES	96	829	255	201	1,416	147	167	1,927	319	213	1,411	135	7,116	0	0	0	0	0
	APPROACH %	8%	70%	22%	11%	80%	8%	7%	80%	13%	12%	80%	8%						
	APP/DEPART	1,180	/	1,131	1,764	/	1,948	2,413	/	2,383	1,759	/	1,654	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	39	380	136	102	755	82	90	972	198	105	743	68	3,670					
	APPROACH %	7%	68%	25%	11%	80%	9%	7%	77%	16%	11%	81%	7%						
	PEAK HR FACTOR		0.867			0.970			0.935			0.954		0.971					
	APP/DEPART	555	/	538	939	/	1,058	1,260	/	1,210	916	/	864	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Meyler
EAST & WEST: 223rd

PROJECT #: SC0964
LOCATION #: 27
CONTROL: SIGNAL

NOTES:

PM- EB queue

AM
PM
MD
OTHER
OTHER

▲ N
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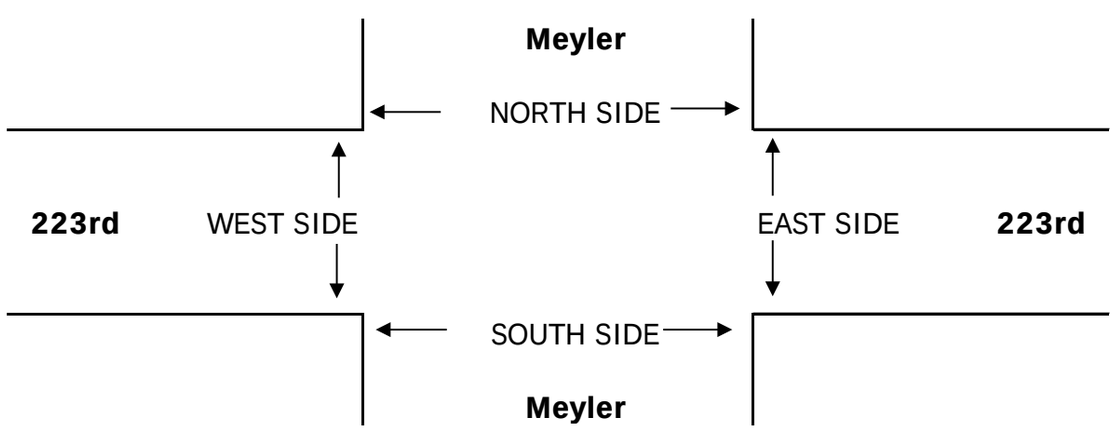
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Meyler			SOUTHBOUND Meyler			EASTBOUND 223rd			WESTBOUND 223rd				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	10	0	8	2	1	5	3	131	4	26	212	10	412	0	0	0	0	0
	7:15 AM	6	1	13	7	1	4	5	156	6	18	306	16	539	0	0	0	0	0
	7:30 AM	16	3	16	12	4	15	15	184	6	20	321	21	633	0	0	0	0	0
	7:45 AM	12	2	14	23	19	22	30	176	26	24	301	32	681	0	0	0	0	0
	8:00 AM	14	1	9	13	17	29	12	174	14	24	321	13	641	0	0	0	0	0
	8:15 AM	3	0	13	3	1	7	9	164	6	37	329	9	581	0	0	0	0	0
	8:30 AM	14	1	9	6	0	6	4	135	6	18	326	7	532	0	0	0	0	0
	8:45 AM	5	1	11	5	0	8	3	152	9	26	279	5	504	0	0	0	0	0
	VOLUMES	80	9	93	71	43	96	81	1,272	77	193	2,395	113	4,523	0	0	0	0	0
	APPROACH %	44%	5%	51%	34%	20%	46%	6%	89%	5%	7%	89%	4%						
	APP/DEPART	182	/	203	210	/	313	1,430	/	1,436	2,701	/	2,571	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	45	6	52	51	41	73	66	698	52	105	1,272	75	2,536					
	APPROACH %	44%	6%	50%	31%	25%	44%	8%	86%	6%	7%	88%	5%						
	PEAK HR FACTOR		0.736			0.645			0.879			0.968		0.931					
	APP/DEPART	103	/	147	165	/	198	816	/	801	1,452	/	1,390	0					
PM	4:00 PM	5	1	7	8	5	7	9	245	14	24	208	10	543	0	0	0	0	0
	4:15 PM	4	1	6	1	3	2	7	285	25	28	219	4	585	0	0	1	0	1
	4:30 PM	6	2	3	10	6	5	11	254	15	29	213	8	562	0	0	0	0	0
	4:45 PM	4	1	8	5	5	5	21	265	22	35	216	21	608	0	0	0	0	0
	5:00 PM	7	3	9	7	3	11	16	251	24	31	219	15	596	0	0	0	0	0
	5:15 PM	8	4	2	2	8	15	26	263	29	24	227	13	621	0	0	1	0	1
	5:30 PM	4	2	12	12	15	14	16	222	37	39	201	15	589	0	0	0	0	0
	5:45 PM	5	4	8	5	16	16	13	277	30	28	221	15	638	0	0	0	0	0
	VOLUMES	43	18	55	50	61	75	119	2,062	196	238	1,724	101	4,742	0	0	2	0	2
	APPROACH %	37%	16%	47%	27%	33%	40%	5%	87%	8%	12%	84%	5%						
	APP/DEPART	116	/	236	186	/	495	2,377	/	2,167	2,063	/	1,844	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	24	13	31	26	42	56	71	1,013	120	122	868	58	2,444					
	APPROACH %	35%	19%	46%	21%	34%	45%	6%	84%	10%	12%	83%	6%						
	PEAK HR FACTOR		0.895			0.756			0.941			0.989		0.958					
	APP/DEPART	68	/	141	124	/	284	1,204	/	1,070	1,048	/	949	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Vermont
EAST & WEST: 223rd

PROJECT #: SC0964
LOCATION #: 28
CONTROL: SIGNAL

NOTES: PM - EB queue

AM PM MD OTHER OTHER

▲ N
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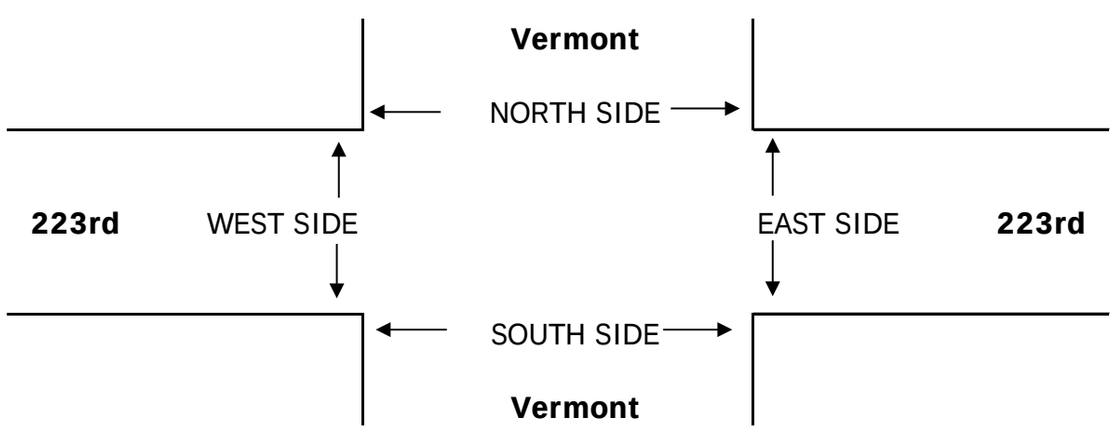
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Vermont			SOUTHBOUND Vermont			EASTBOUND 223rd			WESTBOUND 223rd				U-TURNS				
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1	ET 2	ER 1	WL 2	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	30	137	42	22	68	9	14	102	8	52	193	66	743	0	0	0	1	1
	7:15 AM	56	142	41	35	80	15	14	172	7	39	311	39	951	0	0	0	3	3
	7:30 AM	74	210	66	57	83	33	25	167	11	43	251	52	1,072	2	0	0	2	4
	7:45 AM	74	210	41	55	104	31	28	172	20	31	261	82	1,109	1	1	0	1	3
	8:00 AM	61	193	36	32	90	26	23	147	20	45	263	71	1,007	2	0	0	1	3
	8:15 AM	77	179	35	29	82	26	14	173	17	40	321	84	1,077	1	0	0	2	3
	8:30 AM	47	139	34	25	76	17	11	128	12	37	270	56	852	0	1	0	1	2
	8:45 AM	44	108	39	23	60	21	10	136	15	65	253	60	834	2	1	1	2	6
	VOLUMES	463	1,318	334	278	643	178	139	1,197	110	352	2,123	510	7,645	8	3	1	13	25
	APPROACH %	22%	62%	16%	25%	59%	16%	10%	83%	8%	12%	71%	17%						
	APP/DEPART	2,115	/	1,969	1,099	/	1,100	1,446	/	1,819	2,985	/	2,757	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	286	792	178	173	359	116	90	659	68	159	1,096	289	4,265					
	APPROACH %	23%	63%	14%	27%	55%	18%	11%	81%	8%	10%	71%	19%						
	PEAK HR FACTOR		0.897			0.853			0.928			0.867		0.961					
	APP/DEPART	1,256	/	1,172	648	/	586	817	/	1,015	1,544	/	1,492	0					
PM	4:00 PM	36	110	62	79	150	30	14	220	31	111	189	30	1,062	0	0	0	2	2
	4:15 PM	43	88	38	79	189	22	18	245	27	110	209	32	1,100	0	2	0	1	3
	4:30 PM	42	116	63	83	196	30	12	200	25	116	155	35	1,073	3	0	0	1	4
	4:45 PM	43	87	52	103	162	30	13	237	32	86	215	27	1,087	1	1	0	1	3
	5:00 PM	27	97	83	77	195	26	11	204	28	64	195	31	1,038	1	1	0	5	7
	5:15 PM	43	95	65	106	195	25	5	237	35	76	195	28	1,105	1	2	0	3	6
	5:30 PM	38	101	67	92	177	26	8	214	30	75	175	34	1,037	1	2	0	4	7
	5:45 PM	26	77	47	118	189	23	8	242	31	66	219	40	1,086	0	3	0	4	7
	VOLUMES	298	771	477	737	1,453	212	89	1,799	239	704	1,552	257	8,588	7	11	0	21	39
	APPROACH %	19%	50%	31%	31%	60%	9%	4%	85%	11%	28%	62%	10%						
	APP/DEPART	1,546	/	1,128	2,402	/	2,382	2,127	/	3,023	2,513	/	2,055	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	164	401	215	344	697	112	57	902	115	423	768	124	4,322					
	APPROACH %	21%	51%	28%	30%	60%	10%	5%	84%	11%	32%	58%	9%						
	PEAK HR FACTOR		0.882			0.933			0.926			0.937		0.982					
	APP/DEPART	780	/	585	1,153	/	1,234	1,074	/	1,463	1,315	/	1,040	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: I-110 SB Ramps
EAST & WEST: 223rd

PROJECT #: SC0964
LOCATION #: 29
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
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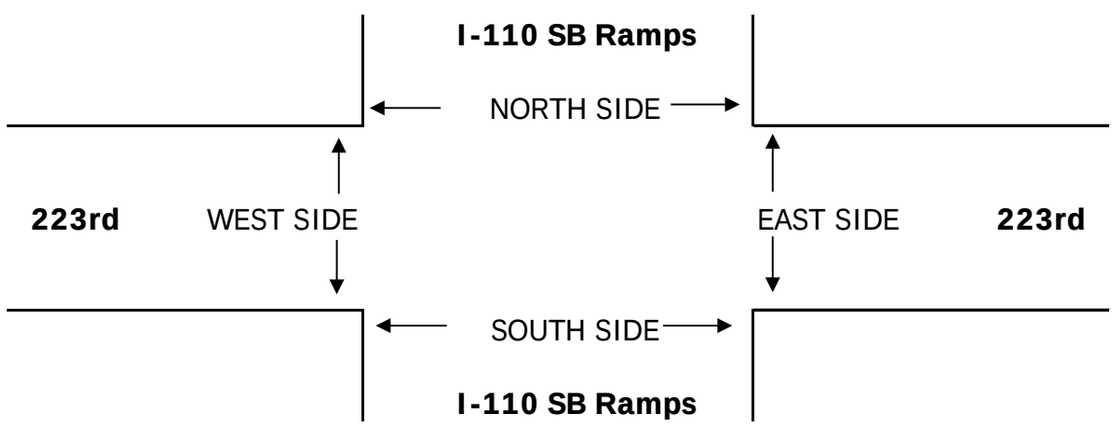
E ►
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND I-110 SB Ramps			SOUTHBOUND I-110 SB Ramps			EASTBOUND 223rd			WESTBOUND 223rd				U-TURNS				
	LANES:	NL X	NT X	NR X	SL 0.5	ST 1	SR 0.5	EL X	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	0	0	34	0	122	0	152	21	45	194	0	568	0	0	0	0	0
	7:15 AM	0	0	0	74	1	152	0	221	33	71	246	0	798	0	0	0	1	1
	7:30 AM	0	0	0	103	0	124	0	260	30	47	246	1	811	0	0	0	0	0
	7:45 AM	0	0	0	70	0	117	0	255	38	49	263	0	792	0	0	0	3	3
	8:00 AM	0	0	0	63	0	133	0	190	25	41	257	0	709	0	0	0	2	2
	8:15 AM	0	0	0	31	0	132	0	204	18	33	265	0	683	0	0	0	1	1
	8:30 AM	0	0	0	36	1	167	0	177	20	23	209	0	633	0	0	0	0	0
	8:45 AM	0	0	0	39	0	154	1	182	20	30	199	0	625	0	0	1	2	3
	VOLUMES	0	0	0	450	2	1,101	1	1,641	205	339	1,879	1	5,619	0	0	1	9	10
	APPROACH %	0%	0%	0%	29%	0%	71%	0%	89%	11%	15%	85%	0%						
	APP/DEPART	0	/	1	1,553	/	537	1,847	/	2,100	2,219	/	2,981	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	0	0	0	310	1	526	0	926	126	208	1,012	1	3,110					
	APPROACH %	0%	0%	0%	37%	0%	63%	0%	88%	12%	17%	83%	0%						
	PEAK HR FACTOR		0.000			0.922			0.898			0.963		0.959					
	APP/DEPART	0	/	1	837	/	329	1,052	/	1,242	1,221	/	1,538	0					
PM	4:00 PM	0	0	0	119	1	160	0	328	38	19	186	0	851	0	0	0	3	3
	4:15 PM	0	0	0	112	4	154	0	332	38	27	192	0	859	0	0	0	0	0
	4:30 PM	0	0	0	117	2	145	0	318	38	26	162	0	808	0	0	0	0	0
	4:45 PM	0	0	0	112	4	137	0	343	48	32	197	0	873	0	0	0	1	1
	5:00 PM	0	0	0	134	0	119	0	319	43	34	182	0	831	0	0	0	3	3
	5:15 PM	0	0	0	110	2	111	0	380	46	32	206	0	887	0	0	0	1	1
	5:30 PM	0	0	0	129	1	101	0	325	46	43	188	0	833	0	0	0	1	1
	5:45 PM	0	0	0	117	0	109	0	355	49	25	203	0	858	0	0	0	0	0
	VOLUMES	0	0	0	950	14	1,036	0	2,700	346	238	1,516	0	6,800	0	0	0	9	9
	APPROACH %	0%	0%	0%	48%	1%	52%	0%	89%	11%	14%	86%	0%						
	APP/DEPART	0	/	0	2,000	/	589	3,046	/	3,659	1,754	/	2,552	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	0	0	0	485	7	468	0	1,367	183	141	773	0	3,424					
	APPROACH %	0%	0%	0%	51%	1%	49%	0%	88%	12%	15%	85%	0%						
	PEAK HR FACTOR		0.000			0.949			0.910			0.960		0.965					
	APP/DEPART	0	/	0	960	/	325	1,550	/	1,858	914	/	1,241	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Figueroa
EAST & WEST: 223rd

PROJECT #: SC0964
LOCATION #: 30
CONTROL: SIGNAL

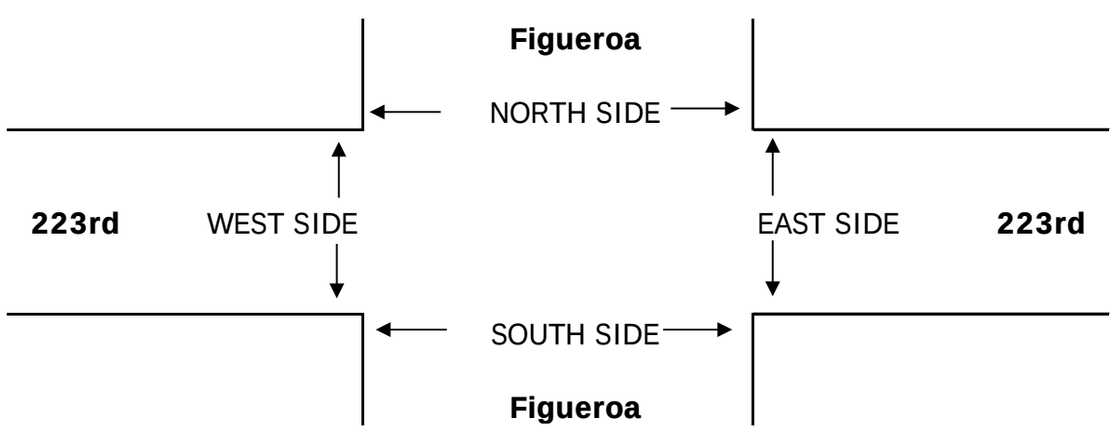
NOTES:

AM / PM / MD / OTHER / OTHER

▲ N
◄ W E ►
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Figueroa			SOUTHBOUND Figueroa			EASTBOUND 223rd			WESTBOUND 223rd				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	26	107	20	17	34	39	71	91	27	10	189	45	676	0	5	5	0	10
	7:15 AM	33	129	31	23	68	52	83	159	56	20	232	76	962	2	7	5	0	14
	7:30 AM	33	155	47	19	85	49	75	225	50	10	212	107	1,067	0	4	2	0	6
	7:45 AM	41	150	55	22	82	51	74	216	42	19	211	80	1,043	1	4	2	0	7
	8:00 AM	38	109	19	20	55	33	70	156	24	11	238	44	817	0	7	6	0	13
	8:15 AM	26	97	19	24	35	32	86	127	20	7	229	40	742	0	5	6	0	11
	8:30 AM	22	74	10	24	47	23	69	119	22	10	196	32	648	0	11	5	0	16
	8:45 AM	21	64	10	24	45	30	66	135	30	20	175	24	644	0	8	5	0	13
	VOLUMES	240	885	211	173	451	309	594	1,228	271	107	1,682	448	6,599	3	51	36	0	90
	APPROACH %	18%	66%	16%	19%	48%	33%	28%	59%	13%	5%	75%	20%						
	APP/DEPART	1,336	/	1,942	933	/	832	2,093	/	1,561	2,237	/	2,264	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	145	543	152	84	290	185	302	756	172	60	893	307	3,889					
	APPROACH %	17%	65%	18%	15%	52%	33%	25%	61%	14%	5%	71%	24%						
	PEAK HR FACTOR		0.854			0.902			0.879			0.957		0.911					
	APP/DEPART	840	/	1,159	559	/	525	1,230	/	970	1,260	/	1,235	0					
PM	4:00 PM	15	93	25	23	76	41	82	304	63	8	160	39	929	2	4	4	1	11
	4:15 PM	21	76	24	39	114	41	76	287	66	5	148	32	929	0	3	8	0	11
	4:30 PM	9	79	33	34	116	33	79	300	68	22	164	14	951	1	3	8	0	12
	4:45 PM	12	57	25	35	92	33	75	307	54	30	163	31	914	0	7	8	0	15
	5:00 PM	7	75	33	43	89	36	68	354	40	9	180	22	956	0	7	5	0	12
	5:15 PM	17	80	22	41	97	52	72	338	58	17	166	36	996	0	6	5	0	11
	5:30 PM	12	87	19	36	87	32	63	348	59	14	190	32	979	0	4	3	0	7
	5:45 PM	24	74	28	37	85	36	68	328	52	23	171	37	963	0	8	9	2	19
	VOLUMES	117	621	209	288	756	304	583	2,566	460	128	1,342	243	7,617	3	42	50	3	98
	APPROACH %	12%	66%	22%	21%	56%	23%	16%	71%	13%	7%	78%	14%						
	APP/DEPART	947	/	1,439	1,348	/	1,344	3,609	/	3,024	1,713	/	1,810	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	60	316	102	157	358	156	271	1,368	209	63	707	127	3,894					
	APPROACH %	13%	66%	21%	23%	53%	23%	15%	74%	11%	7%	79%	14%						
	PEAK HR FACTOR		0.948			0.883			0.983			0.950		0.977					
	APP/DEPART	478	/	717	671	/	628	1,848	/	1,604	897	/	945	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Main
EAST & WEST: 223rd

PROJECT #: SC0964
LOCATION #: 31
CONTROL: SIGNAL

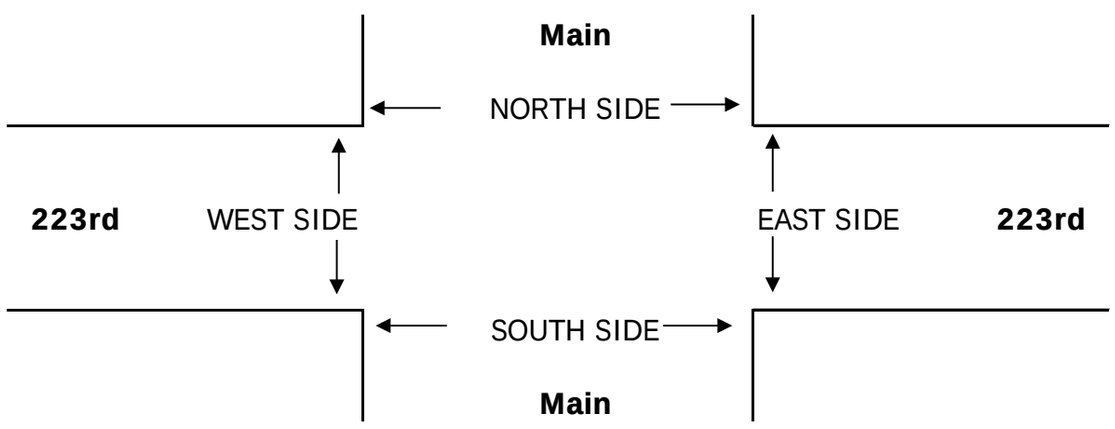
NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Main			SOUTHBOUND Main			EASTBOUND 223rd			WESTBOUND 223rd				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	16	62	29	16	56	26	11	89	14	13	180	18	530	0	0	0	0	0
	7:15 AM	27	96	31	29	53	56	27	133	17	17	228	17	731	0	0	0	0	0
	7:30 AM	24	128	40	36	98	58	42	226	29	25	244	23	973	0	0	0	1	1
	7:45 AM	26	197	53	69	198	49	37	232	43	44	207	39	1,194	2	0	0	0	2
	8:00 AM	31	122	61	23	109	27	49	181	14	29	218	25	889	2	0	0	0	2
	8:15 AM	13	96	33	11	85	39	26	121	12	20	197	24	677	0	1	0	0	1
	8:30 AM	20	75	30	21	62	31	16	117	14	13	182	13	594	0	0	0	0	0
	8:45 AM	11	77	40	14	55	29	27	124	15	20	170	23	605	0	0	0	0	0
	VOLUMES	168	853	317	219	716	315	235	1,223	158	181	1,626	182	6,193	4	1	0	1	6
	APPROACH %	13%	64%	24%	18%	57%	25%	15%	76%	10%	9%	82%	9%						
	APP/DEPART	1,338	/	1,271	1,250	/	1,058	1,616	/	1,759	1,989	/	2,105	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	108	543	185	157	458	190	155	772	103	115	897	104	3,787					
	APPROACH %	13%	65%	22%	20%	57%	24%	15%	75%	10%	10%	80%	9%						
	PEAK HR FACTOR		0.757			0.637			0.825			0.955		0.793					
	APP/DEPART	836	/	802	805	/	679	1,030	/	1,115	1,116	/	1,191	0					
PM	4:00 PM	22	104	39	32	122	32	49	303	19	35	176	23	956	1	1	0	1	3
	4:15 PM	17	137	32	45	143	36	39	233	33	22	148	21	906	1	0	0	0	1
	4:30 PM	22	97	25	37	121	35	34	281	29	21	143	28	873	3	0	0	1	4
	4:45 PM	30	111	47	43	168	34	41	272	24	32	158	29	989	2	0	0	0	2
	5:00 PM	29	110	49	55	159	42	39	303	33	36	158	30	1,043	0	0	0	1	1
	5:15 PM	21	117	37	48	166	43	47	325	26	31	157	26	1,044	0	0	0	0	0
	5:30 PM	32	108	44	40	143	45	44	309	26	37	200	23	1,051	4	1	0	0	5
	5:45 PM	23	117	36	45	147	33	50	246	35	41	171	27	971	1	0	0	2	3
	VOLUMES	196	901	309	345	1,169	300	343	2,272	225	255	1,311	207	7,833	12	2	0	5	19
	APPROACH %	14%	64%	22%	19%	64%	17%	12%	80%	8%	14%	74%	12%						
	APP/DEPART	1,406	/	1,453	1,814	/	1,656	2,840	/	2,929	1,773	/	1,795	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	112	446	177	186	636	164	171	1,209	109	136	673	108	4,127					
	APPROACH %	15%	61%	24%	19%	65%	17%	11%	81%	7%	15%	73%	12%						
	PEAK HR FACTOR		0.977			0.959			0.935			0.882		0.982					
	APP/DEPART	735	/	726	986	/	886	1,489	/	1,572	917	/	943	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Feb 22, 17

LOCATION: Carson
NORTH & SOUTH: Hamilton
EAST & WEST: I-110 SB Ramp

PROJECT #: SC1230
LOCATION #: 1
CONTROL: STOP ALL

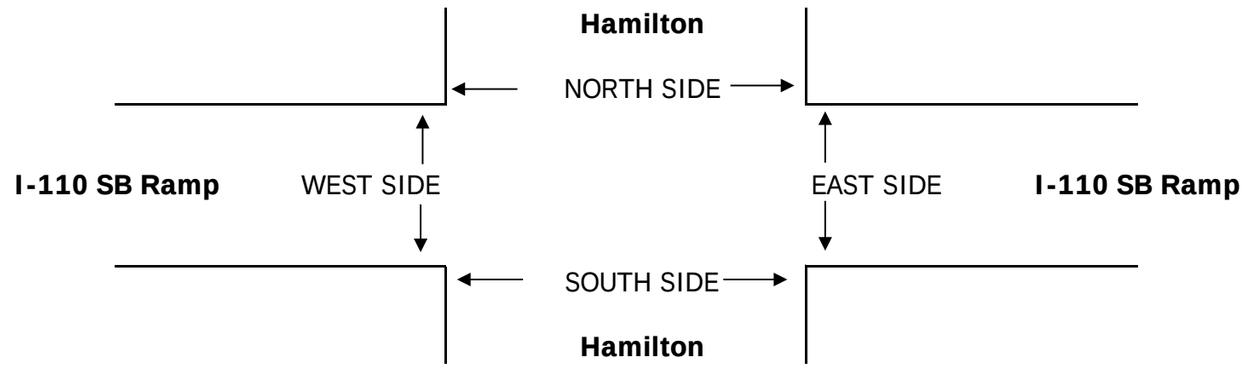
NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Hamilton			SOUTHBOUND Hamilton			EASTBOUND I-110 SB Ramp			WESTBOUND I-110 SB Ramp				U-TURNS				
	LANES:	NL X	NT 1	NR 1	SL 0	ST 2	SR X	EL X	ET X	ER X	WL 1.5	WT X	WR 0.5	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	8	18	90	17	0	0	0	0	203	0	54	390	0	0	0	0	0
	7:15 AM	0	19	46	96	27	0	0	0	0	158	0	39	385	0	0	0	0	0
	7:30 AM	0	17	39	124	19	0	0	0	0	182	0	33	414	0	0	0	0	0
	7:45 AM	0	29	38	96	22	0	0	0	0	198	0	46	429	0	0	0	0	0
	8:00 AM	0	20	27	62	42	0	0	0	0	206	0	69	426	0	0	0	0	0
	8:15 AM	0	29	21	82	22	0	0	0	0	212	0	51	417	0	0	0	0	0
	8:30 AM	0	23	32	92	32	0	0	0	0	220	0	60	459	0	0	0	0	0
	8:45 AM	0	19	26	81	35	0	0	0	0	225	0	68	454	0	0	0	0	0
	VOLUMES	0	164	247	723	216	0	0	0	0	1,604	0	420	3,374	0	0	0	0	0
	APPROACH %	0%	40%	60%	77%	23%	0%	0%	0%	0%	79%	0%	21%						
	APP/DEPART	411	/	584	939	/	1,820	0	/	970	2,024	/	0	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	91	106	317	131	0	0	0	0	863	0	248	1,756					
	APPROACH %	0%	46%	54%	71%	29%	0%	0%	0%	0%	78%	0%	22%						
	PEAK HR FACTOR		0.895			0.903			0.000			0.948		0.956					
	APP/DEPART	197	/	339	448	/	994	0	/	423	1,111	/	0	0					
PM	4:00 PM	0	17	65	141	26	0	0	0	0	99	0	37	385	0	0	0	0	0
	4:15 PM	0	19	71	122	24	0	0	0	0	80	0	39	355	0	0	0	0	0
	4:30 PM	0	22	68	136	16	0	0	0	0	103	0	31	376	0	0	0	0	0
	4:45 PM	0	15	82	133	18	0	0	0	0	94	0	44	386	0	0	0	0	0
	5:00 PM	0	18	91	136	35	0	0	0	0	94	0	28	402	0	0	0	0	0
	5:15 PM	0	8	117	160	28	0	0	0	0	100	0	34	447	0	0	0	0	0
	5:30 PM	0	17	81	150	29	0	0	0	0	115	0	38	430	0	0	0	0	0
	5:45 PM	0	7	79	150	23	0	0	0	0	101	0	35	395	0	0	0	0	0
	VOLUMES	0	123	654	1,128	199	0	0	0	0	786	0	286	3,176	0	0	0	0	0
	APPROACH %	0%	16%	84%	85%	15%	0%	0%	0%	0%	73%	0%	27%						
	APP/DEPART	777	/	409	1,327	/	985	0	/	1,782	1,072	/	0	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	0	50	368	596	115	0	0	0	0	410	0	135	1,674					
	APPROACH %	0%	12%	88%	84%	16%	0%	0%	0%	0%	75%	0%	25%						
	PEAK HR FACTOR		0.836			0.945			0.000			0.891		0.936					
	APP/DEPART	418	/	185	711	/	525	0	/	964	545	/	0	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Figueroa
EAST & WEST: I-110 NB Ramps

PROJECT #: SC0964
LOCATION #: 32
CONTROL: SIGNAL

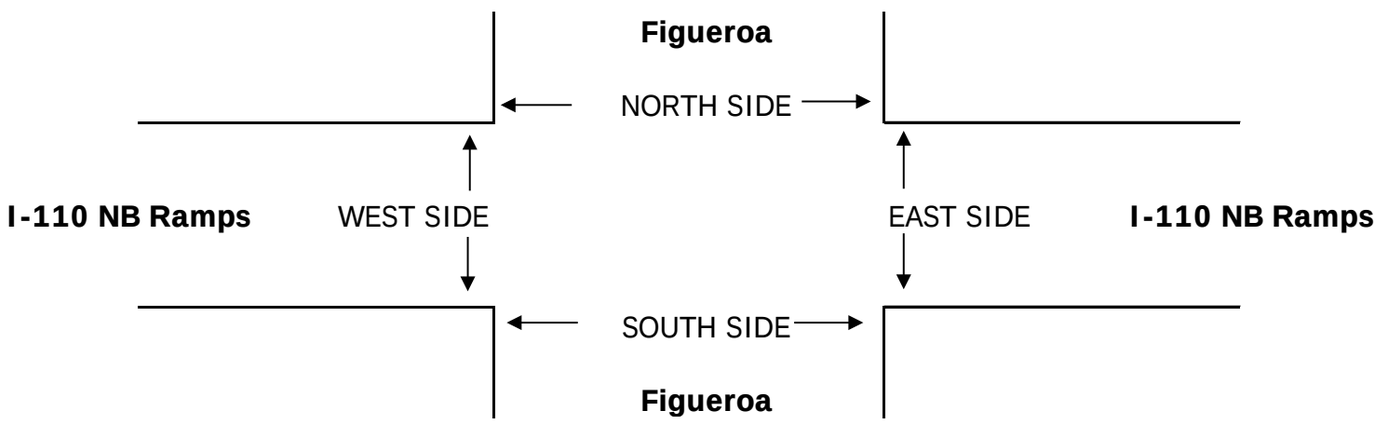
NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Figueroa			SOUTHBOUND Figueroa			EASTBOUND I-110 NB Ramps			WESTBOUND I-110 NB Ramps				U-TURNS				
	LANES:	NL 2	NT 2	NR X	SL X	ST 2	SR 1	EL 1.5	ET X	ER 0.5	WL X	WT X	WR X	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	134	108	0	0	56	27	111	0	57	0	0	0	493	0	0	1	0	1
	7:15 AM	146	136	0	0	102	32	86	0	51	0	0	0	553	0	0	0	0	0
	7:30 AM	154	162	0	0	101	19	123	0	70	0	0	0	629	0	0	0	0	0
	7:45 AM	144	183	0	0	100	35	165	0	88	0	0	0	715	0	0	0	0	0
	8:00 AM	152	153	0	0	72	25	143	0	79	0	0	0	624	0	0	0	0	0
	8:15 AM	148	128	0	0	82	23	131	0	74	0	0	0	586	0	0	0	0	0
	8:30 AM	118	129	0	0	75	30	126	0	79	0	0	0	557	0	0	0	0	0
	8:45 AM	121	92	0	1	56	30	113	0	69	0	0	0	482	0	1	0	0	1
	VOLUMES	1,117	1,091	0	1	644	221	998	0	567	0	0	0	4,639	0	1	1	0	2
	APPROACH %	51%	49%	0%	0%	74%	26%	64%	0%	36%	0%	0%	0%						
	APP/DEPART	2,208	/	2,089	866	/	1,211	1,565	/	0	0	/	1,339	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	598	626	0	0	355	102	562	0	311	0	0	0	2,554					
	APPROACH %	49%	51%	0%	0%	78%	22%	64%	0%	36%	0%	0%	0%						
	PEAK HR FACTOR		0.936			0.846			0.863			0.000		0.893					
	APP/DEPART	1,224	/	1,188	457	/	666	873	/	0	0	/	700	0					
PM	4:00 PM	140	96	0	0	109	46	56	0	33	0	0	0	480	0	0	0	0	0
	4:15 PM	145	111	0	0	143	45	88	0	46	0	0	0	578	0	0	0	0	0
	4:30 PM	138	102	0	0	136	46	77	0	41	0	0	0	540	0	0	0	0	0
	4:45 PM	128	100	0	0	158	47	68	0	35	0	0	0	536	0	0	0	0	0
	5:00 PM	167	118	0	0	189	71	68	0	32	0	0	0	645	0	0	0	0	0
	5:15 PM	161	124	0	0	227	45	61	0	52	0	0	0	670	0	0	0	0	0
	5:30 PM	133	102	0	0	183	50	82	0	39	0	0	0	589	0	0	1	0	1
	5:45 PM	148	89	0	0	165	52	76	0	34	0	0	0	564	0	0	0	0	0
	VOLUMES	1,160	842	0	0	1,310	402	576	0	312	0	0	0	4,602	0	0	1	0	1
	APPROACH %	58%	42%	0%	0%	77%	23%	65%	0%	35%	0%	0%	0%						
	APP/DEPART	2,002	/	1,417	1,712	/	1,622	888	/	0	0	/	1,563	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	609	433	0	0	764	218	287	0	157	0	0	0	2,468					
	APPROACH %	58%	42%	0%	0%	78%	22%	65%	0%	35%	0%	0%	0%						
	PEAK HR FACTOR		0.914			0.903			0.917			0.000		0.921					
	APP/DEPART	1,042	/	719	982	/	921	444	/	0	0	/	828	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Avalon
EAST & WEST: I-405 WB Ramps

PROJECT #: SC0964
LOCATION #: 33
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

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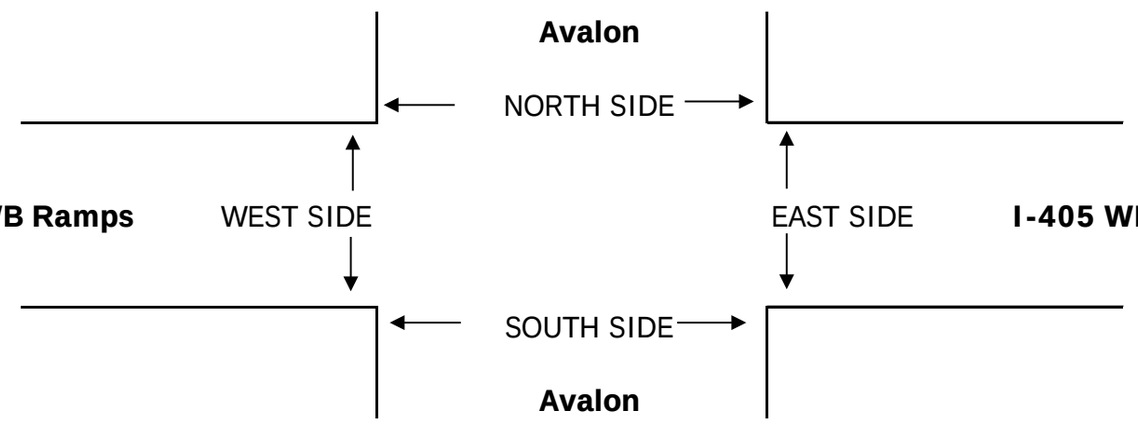
S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND Avalon			SOUTHBOUND Avalon			EASTBOUND I-405 WB Ramps			WESTBOUND I-405 WB Ramps				U-TURNS				
	LANES:	NL 2	NT 2	NR X	SL X	ST 3	SR 1	EL X	ET X	ER X	WL 1.5	WT 0.5	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	76	160	0	0	126	27	0	0	0	15	1	68	473	0	0	0	0	0
	7:15 AM	73	184	0	0	147	41	0	0	0	9	1	67	522	0	0	0	0	0
	7:30 AM	77	194	0	0	237	43	0	0	0	15	0	97	663	0	0	0	0	0
	7:45 AM	105	271	0	0	194	48	0	0	0	22	0	99	739	0	0	0	0	0
	8:00 AM	85	253	0	0	157	44	0	0	0	11	1	90	641	0	0	0	0	0
	8:15 AM	55	219	0	0	160	56	0	0	0	14	0	92	596	0	0	0	0	0
	8:30 AM	71	199	0	0	149	53	0	0	0	9	0	70	551	0	0	0	0	0
	8:45 AM	67	205	0	0	167	47	0	0	0	18	0	66	570	0	0	0	0	0
	VOLUMES	609	1,685	0	0	1,337	359	0	0	0	113	3	649	4,755	0	0	0	0	0
	APPROACH %	27%	73%	0%	0%	79%	21%	0%	0%	0%	15%	0%	85%						
	APP/DEPART	2,294	/	2,334	1,696	/	1,450	0	/	0	765	/	971	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	322	937	0	0	748	191	0	0	0	62	1	378	2,639					
	APPROACH %	26%	74%	0%	0%	80%	20%	0%	0%	0%	14%	0%	86%						
	PEAK HR FACTOR		0.837			0.838			0.000			0.911		0.893					
	APP/DEPART	1,259	/	1,315	939	/	810	0	/	0	441	/	514	0					
PM	4:00 PM	77	213	0	0	299	104	0	0	0	29	0	78	800	0	0	0	0	0
	4:15 PM	60	202	0	0	277	104	0	0	0	22	0	72	737	1	0	0	0	1
	4:30 PM	84	175	0	0	322	100	0	0	0	28	0	68	777	0	0	0	0	0
	4:45 PM	67	222	0	0	294	93	0	0	0	32	0	81	789	0	0	0	0	0
	5:00 PM	77	215	0	0	295	99	0	0	0	32	0	86	804	0	0	0	0	0
	5:15 PM	91	179	0	0	293	91	0	0	0	17	0	80	751	0	0	0	0	0
	5:30 PM	74	195	0	0	306	73	0	0	0	30	0	75	753	0	0	0	0	0
	5:45 PM	66	225	0	0	304	77	0	0	0	14	0	74	760	0	0	0	0	0
	VOLUMES	596	1,626	0	0	2,390	741	0	0	0	204	0	614	6,172	1	0	0	0	1
	APPROACH %	27%	73%	0%	0%	76%	24%	0%	0%	0%	25%	0%	75%						
	APP/DEPART	2,223	/	2,240	3,131	/	2,595	0	/	0	818	/	1,337	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	319	791	0	0	1,204	383	0	0	0	109	0	315	3,121					
	APPROACH %	29%	71%	0%	0%	76%	24%	0%	0%	0%	26%	0%	74%						
	PEAK HR FACTOR		0.950			0.940			0.000			0.898		0.970					
	APP/DEPART	1,110	/	1,106	1,587	/	1,313	0	/	0	424	/	702	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 24, 16

LOCATION: Carson
NORTH & SOUTH: Avalon
EAST & WEST: I-405 EB Ramps

PROJECT #: SC0964
LOCATION #: 34
CONTROL: SIGNAL

NOTES: AM PM - SB queue

AM / PM / MD / OTHER / OTHER

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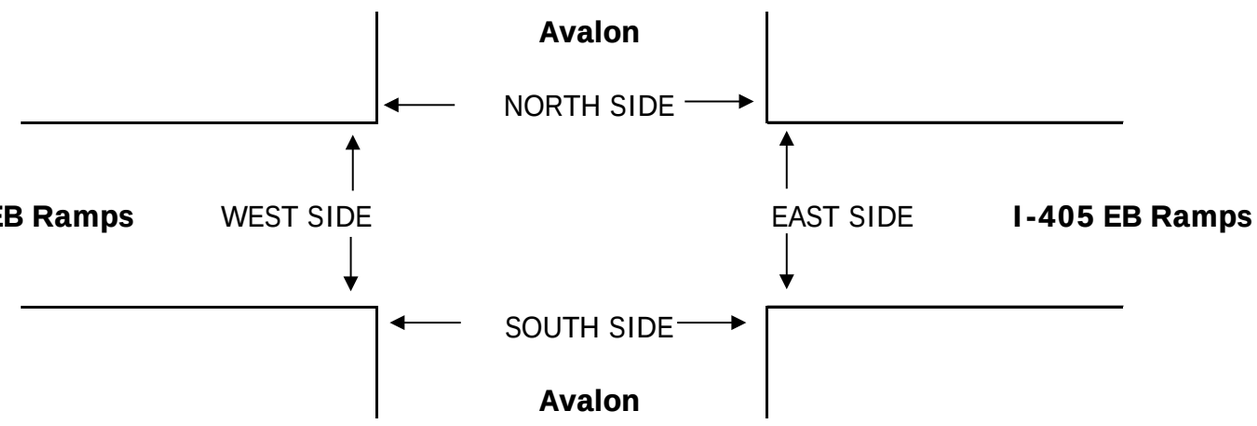
◄ W E ►
S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND Avalon			SOUTHBOUND Avalon			EASTBOUND I-405 EB Ramps			WESTBOUND I-405 EB Ramps				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL X	ST 2	SR 1	EL 2	ET 2	ER 1	WL X	WT X	WR X	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	158	22	0	87	56	81	0	70	0	0	0	474	0	0	0	0	0
	7:15 AM	0	156	39	0	90	68	100	1	87	0	0	0	541	0	0	0	0	0
	7:30 AM	0	188	25	0	183	69	82	0	115	0	0	0	662	0	0	0	0	0
	7:45 AM	0	245	28	0	157	62	132	1	140	0	0	0	765	0	0	0	0	0
	8:00 AM	0	238	33	0	116	52	102	0	115	0	0	0	656	0	0	0	0	0
	8:15 AM	0	164	17	0	130	46	112	5	102	0	0	0	576	0	0	0	0	0
	8:30 AM	0	181	21	0	101	56	87	3	103	0	0	0	552	0	0	0	0	0
	8:45 AM	0	165	12	0	137	50	107	0	91	0	0	0	562	0	0	0	0	0
	VOLUMES	0	1,495	197	0	1,001	459	803	10	823	0	0	0	4,788	0	0	0	0	0
	APPROACH %	0%	88%	12%	0%	69%	31%	49%	1%	50%	0%	0%	0%						
	APP/DEPART	1,692	/	2,298	1,460	/	1,824	1,636	/	207	0	/	459	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	0	835	103	0	586	229	428	6	472	0	0	0	2,659					
	APPROACH %	0%	89%	11%	0%	72%	28%	47%	1%	52%	0%	0%	0%						
	PEAK HR FACTOR		0.859			0.809			0.830			0.000		0.869					
	APP/DEPART	938	/	1,263	815	/	1,058	906	/	109	0	/	229	0					
PM	4:00 PM	0	220	28	0	235	94	73	8	66	0	0	0	724	0	0	0	0	0
	4:15 PM	0	209	44	0	222	77	57	21	61	0	0	0	691	0	0	0	0	0
	4:30 PM	0	211	28	0	248	104	49	29	69	0	0	0	738	0	0	0	0	0
	4:45 PM	0	225	38	0	238	90	64	23	80	0	0	0	758	0	0	0	0	0
	5:00 PM	0	230	34	0	236	92	61	19	79	0	0	0	751	0	0	0	0	0
	5:15 PM	0	225	41	0	232	79	45	27	80	0	0	0	729	0	0	0	0	0
	5:30 PM	0	209	34	0	264	72	63	20	65	0	0	0	727	0	0	0	0	0
	5:45 PM	0	229	34	0	236	83	62	16	79	0	0	0	739	0	0	0	0	0
	VOLUMES	0	1,758	281	0	1,911	691	474	163	579	0	0	0	5,857	0	0	0	0	0
	APPROACH %	0%	86%	14%	0%	73%	27%	39%	13%	48%	0%	0%	0%						
	APP/DEPART	2,039	/	2,232	2,602	/	2,490	1,216	/	444	0	/	691	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	0	891	141	0	954	365	219	98	308	0	0	0	2,976					
	APPROACH %	0%	86%	14%	0%	72%	28%	35%	16%	49%	0%	0%	0%						
	PEAK HR FACTOR		0.970			0.937			0.936			0.000		0.982					
	APP/DEPART	1,032	/	1,110	1,319	/	1,262	625	/	239	0	/	365	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Feb 22, 17

LOCATION: Carson
NORTH & SOUTH: Western
EAST & WEST: Torrance

PROJECT #: SC1230
LOCATION #: 2
CONTROL: SIGNAL

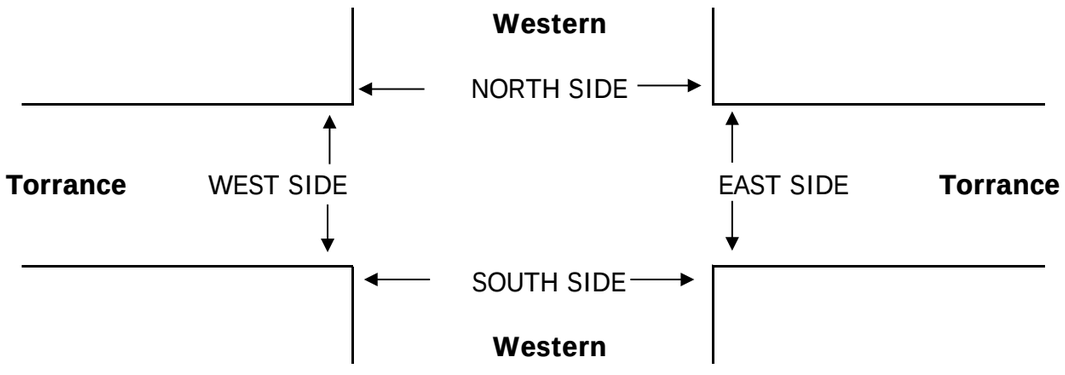
NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ▼ S ◄ W E ►

☑ Add U-Turns to Left Turns

		NORTHBOUND Western			SOUTHBOUND Western			EASTBOUND Torrance			WESTBOUND Torrance				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 3	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	22	241	12	12	163	18	31	114	8	38	250	28	937	0	0	1	1	2
	7:15 AM	28	299	12	9	186	43	22	113	18	30	268	30	1,058	0	0	1	0	1
	7:30 AM	28	252	21	8	204	80	42	189	16	41	313	33	1,227	0	0	1	0	1
	7:45 AM	34	270	20	16	288	73	45	195	23	28	335	40	1,367	0	0	3	0	3
	8:00 AM	32	274	30	15	182	63	58	207	19	48	310	44	1,282	0	0	1	1	2
	8:15 AM	31	268	23	16	208	63	67	176	13	23	275	27	1,190	0	0	1	0	1
	8:30 AM	26	256	15	15	214	50	45	158	14	36	328	41	1,198	0	0	0	0	0
	8:45 AM	31	272	20	12	268	56	37	154	29	46	295	49	1,269	0	0	2	0	2
	VOLUMES	232	2,132	153	103	1,713	446	347	1,306	140	290	2,374	292	9,528	0	0	10	2	12
	APPROACH %	9%	85%	6%	5%	76%	20%	19%	73%	8%	10%	80%	10%						
	APP/DEPART	2,517	/	2,761	2,262	/	2,141	1,793	/	1,564	2,956	/	3,062	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	125	1,064	94	55	882	279	212	767	71	140	1,233	144	5,066					
	APPROACH %	10%	83%	7%	5%	73%	23%	20%	73%	7%	9%	81%	9%						
	PEAK HR FACTOR		0.955			0.806			0.924			0.941		0.926					
	APP/DEPART	1,283	/	1,414	1,216	/	1,092	1,050	/	917	1,517	/	1,643	0					
PM	4:00 PM	15	226	35	40	320	63	49	246	38	37	169	22	1,260	1	0	1	5	7
	4:15 PM	27	176	20	34	266	79	46	243	31	31	175	21	1,149	0	0	2	0	2
	4:30 PM	28	273	29	38	374	55	32	242	34	32	184	21	1,342	0	0	0	0	0
	4:45 PM	26	191	25	43	282	56	37	293	38	28	185	19	1,223	0	0	0	0	0
	5:00 PM	16	252	44	52	391	80	30	238	59	33	195	22	1,412	0	0	0	1	1
	5:15 PM	18	219	33	42	318	82	54	278	45	42	224	19	1,374	0	0	2	1	3
	5:30 PM	25	244	29	30	362	82	47	208	42	25	220	19	1,333	0	0	0	0	0
	5:45 PM	21	197	29	35	355	73	41	216	51	38	241	24	1,321	0	0	3	1	4
	VOLUMES	176	1,778	244	314	2,668	570	336	1,964	338	266	1,593	167	10,414	1	0	8	8	17
	APPROACH %	8%	81%	11%	9%	75%	16%	13%	74%	13%	13%	79%	8%						
	APP/DEPART	2,198	/	2,273	3,552	/	3,265	2,638	/	2,530	2,026	/	2,346	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	80	912	135	159	1,426	317	172	940	197	138	880	84	5,440					
	APPROACH %	7%	81%	12%	8%	75%	17%	13%	72%	15%	13%	80%	8%						
	PEAK HR FACTOR		0.903			0.909			0.868			0.909		0.963					
	APP/DEPART	1,127	/	1,163	1,902	/	1,758	1,309	/	1,237	1,102	/	1,282	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Feb 22, 17

LOCATION: Carson
NORTH & SOUTH: Western
EAST & WEST: 220th

PROJECT #: SC1230
LOCATION #: 3
CONTROL: SIGNAL

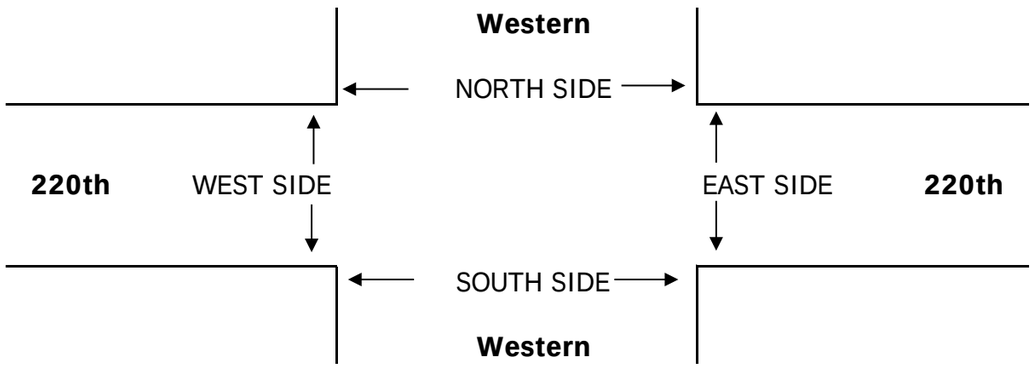
NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ▼ S ◄ W E ►

☑ Add U-Turns to Left Turns

		NORTHBOUND Western			SOUTHBOUND Western			EASTBOUND 220th			WESTBOUND 220th				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	17	342	1	1	193	10	4	0	5	11	3	8	595	2	0	0	0	2
	7:15 AM	24	328	4	1	187	13	3	2	4	17	8	5	596	0	0	0	0	0
	7:30 AM	26	365	7	3	267	9	5	5	6	27	30	9	759	0	0	0	0	0
	7:45 AM	20	352	9	3	226	14	10	8	19	19	35	12	727	0	0	0	0	0
	8:00 AM	28	311	9	2	206	13	7	8	17	9	18	8	636	1	1	0	0	2
	8:15 AM	21	339	6	2	199	10	6	3	10	14	13	3	626	0	0	0	0	0
	8:30 AM	20	338	0	3	205	17	2	4	6	11	6	7	619	1	1	0	0	2
	8:45 AM	28	313	4	2	182	20	10	3	3	12	15	5	597	1	0	0	0	1
	VOLUMES	184	2,688	40	17	1,665	106	47	33	70	120	128	57	5,155	5	2	0	0	7
	APPROACH %	6%	92%	1%	1%	93%	6%	31%	22%	47%	39%	42%	19%						
	APP/DEPART	2,912	/	2,794	1,788	/	1,860	150	/	88	305	/	413	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	95	1,367	31	10	898	46	28	24	52	69	96	32	2,748					
	APPROACH %	6%	92%	2%	1%	94%	5%	27%	23%	50%	35%	49%	16%						
	PEAK HR FACTOR		0.938			0.855			0.703			0.746		0.905					
	APP/DEPART	1,493	/	1,428	954	/	1,020	104	/	64	197	/	236	0					
PM	4:00 PM	21	227	6	3	282	16	19	12	32	11	10	4	643	1	2	0	0	3
	4:15 PM	16	221	4	6	346	18	14	14	37	11	9	7	703	1	0	0	0	1
	4:30 PM	10	288	3	10	317	13	15	16	44	8	7	5	736	2	0	0	0	2
	4:45 PM	17	252	8	4	338	7	18	15	29	14	10	4	716	0	1	0	0	1
	5:00 PM	13	246	8	6	357	6	35	41	51	9	16	5	793	0	0	0	0	0
	5:15 PM	16	272	7	9	385	1	23	31	40	7	13	2	806	0	2	0	0	2
	5:30 PM	16	246	3	5	352	3	9	35	38	7	8	8	730	0	1	0	0	1
	5:45 PM	23	252	8	9	364	9	17	24	37	9	17	11	780	0	0	0	0	0
	VOLUMES	132	2,004	47	52	2,741	73	150	188	308	76	90	46	5,907	4	6	0	0	10
	APPROACH %	6%	92%	2%	2%	96%	3%	23%	29%	48%	36%	42%	22%						
	APP/DEPART	2,183	/	2,206	2,866	/	3,129	646	/	281	212	/	291	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	68	1,016	26	29	1,458	19	84	131	166	32	54	26	3,109					
	APPROACH %	6%	92%	2%	2%	97%	1%	22%	34%	44%	29%	48%	23%						
	PEAK HR FACTOR		0.941			0.953			0.750			0.757		0.964					
	APP/DEPART	1,110	/	1,129	1,506	/	1,656	381	/	183	112	/	141	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Appendix B
LOS Analysis (ICU Methodology)

County of Los Angeles
Existing Year (2016) No Project

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Normandie/Torrance	C	xxxxx	0.786	C	xxxxx	0.786	+ 0.000 V/C
# 2 Vermont/Torrance	C	xxxxx	0.782	C	xxxxx	0.782	+ 0.000 V/C
# 4 Vermont/Javelin	A	xxxxx	0.507	A	xxxxx	0.507	+ 0.000 V/C
# 7 Normandie/Carson	C	xxxxx	0.747	C	xxxxx	0.747	+ 0.000 V/C
# 8 Budlong/Carson	A	xxxxx	0.450	A	xxxxx	0.450	+ 0.000 V/C
# 9 Berendo/Carson	A	xxxxx	0.456	A	xxxxx	0.456	+ 0.000 V/C
# 10 Vermont/Carson	C	xxxxx	0.758	C	xxxxx	0.758	+ 0.000 V/C
# 11 SB I-110 Ramps/Carson	C	xxxxx	0.724	C	xxxxx	0.724	+ 0.000 V/C
# 21 Normandie/220th	A	xxxxx	0.412	A	xxxxx	0.412	+ 0.000 V/C
# 22 Meyler/220th	A	9.2	0.307	A	9.2	0.307	+ 0.000 V/C
# 23 Vermont/220th	A	xxxxx	0.428	A	xxxxx	0.428	+ 0.000 V/C
# 26 Normandie/223rd	B	xxxxx	0.683	B	xxxxx	0.683	+ 0.000 V/C
# 27 Meyler/223rd	A	xxxxx	0.593	A	xxxxx	0.593	+ 0.000 V/C
# 28 Vermont/223rd	D	xxxxx	0.845	D	xxxxx	0.845	+ 0.000 V/C
# 29 SB I-110 Ramps/223rd	C	xxxxx	0.748	C	xxxxx	0.748	+ 0.000 V/C
# 32 Hamilton/SB I-110 Ramps	F	56.2	1.032	F	56.2	1.032	+ 0.000 V/C

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Normandie/Torrance

Cycle (sec):	100	Critical Vol./Cap.(X):	0.786
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	106	Level Of Service:	C

Street Name:	Normandie						Torrance					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Prot+Permit			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	132	669	106	25	373	102	94	948	83	105	1516	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	132	669	106	25	373	102	94	948	83	105	1516	71
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	132	669	106	25	373	102	94	948	83	105	1516	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	132	669	106	25	373	102	94	948	83	105	1516	71
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	132	669	106	25	373	102	94	948	83	105	1516	71
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.57	0.43	1.00	1.84	0.16	1.00	1.91	0.09
Final Sat.:	1600	3200	1600	1600	2513	687	1600	2942	258	1600	3057	143
Capacity Analysis Module:												
Vol/Sat:	0.08	0.21	0.07	0.02	0.15	0.15	0.06	0.32	0.32	0.07	0.50	0.50
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Vermont/Torrance

Cycle (sec):	100	Critical Vol./Cap.(X):	0.782
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	104	Level Of Service:	C

Street Name:	Vermont						Torrance					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	105	795	146	27	578	194	187	924	128	89	1204	74
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	105	795	146	27	578	194	187	924	128	89	1204	74
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	105	795	146	27	578	194	187	924	128	89	1204	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	105	795	146	27	578	194	187	924	128	89	1204	74
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	105	795	146	27	578	194	187	924	128	89	1204	74
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.76	0.24	1.00	1.88	0.12
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	2811	389	1600	3015	185
Capacity Analysis Module:												
Vol/Sat:	0.07	0.25	0.09	0.02	0.18	0.12	0.12	0.33	0.33	0.06	0.40	0.40
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Vermont/Javelin

Cycle (sec):	100	Critical Vol./Cap.(X):	0.507
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	A

Street Name:	Vermont						Javelin					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	5	919	46	117	700	9	46	23	5	48	3	138
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	919	46	117	700	9	46	23	5	48	3	138
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	919	46	117	700	9	46	23	5	48	3	138
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	919	46	117	700	9	46	23	5	48	3	138
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	919	46	117	700	9	46	23	5	48	3	138
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	0.62	0.31	0.07	0.25	0.02	0.73
Final Sat.:	1600	3200	1600	1600	3200	1600	995	497	108	406	25	1168
Capacity Analysis Module:												
Vol/Sat:	0.00	0.29	0.03	0.07	0.22	0.01	0.03	0.05	0.05	0.03	0.12	0.12
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Normandie/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.747
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	90	Level Of Service:	C

Street Name:	Normandie						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	174	666	84	41	405	151	196	679	172	155	1095	80
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	174	666	84	41	405	151	196	679	172	155	1095	80
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	174	666	84	41	405	151	196	679	172	155	1095	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	174	666	84	41	405	151	196	679	172	155	1095	80
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	174	666	84	41	405	151	196	679	172	155	1095	80
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.46	0.54	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	2331	869	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.11	0.21	0.05	0.03	0.17	0.17	0.12	0.21	0.11	0.10	0.34	0.05
Crit Moves:	****				****		****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Budlong/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.450
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	26	Level Of Service:	A

Street Name:	Budlong						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	0	1 0	2	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	13	0	23	11	776	0	0	1345	12
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	0	0	0	13	0	23	11	776	0	0	1345	12
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Volume:	0	0	0	13	0	23	11	776	0	0	1345	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	13	0	23	11	776	0	0	1345	12
PCE Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
FinalVolume:	0	0	0	13	0	23	11	776	0	0	1345	12
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600		1600 1600	1600		1600 1600	1600		1600 1600	1600	
Adjustment:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Lanes:	0.00 0.00	0.00		0.36 0.00	0.64		1.00 2.00	0.00		0.00 2.00	1.00	
Final Sat.:	0	0	0	578	0	1022	1600 3200		0	0 3200		1600
Capacity Analysis Module:												
Vol/Sat:	0.00 0.00	0.00		0.01 0.00	0.02		0.01 0.24	0.00		0.00 0.42	0.01	
Crit Moves:					****		****				****	

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Berendo/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.456
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Street Name:	Berendo						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	21	1	37	9	0	32	28	722	35	126	1298	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	21	1	37	9	0	32	28	722	35	126	1298	25
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	21	1	37	9	0	32	28	722	35	126	1298	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	1	37	9	0	32	28	722	35	126	1298	25
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	21	1	37	9	0	32	28	722	35	126	1298	25
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	0	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.02	0.01	0.00	0.02	0.02	0.23	0.02	0.08	0.41	0.02
Crit Moves:	****					****	****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 Vermont/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.758
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	94	Level Of Service:	C

Street Name:	Vermont						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	163	770	150	84	546	201	129	658	85	280	1228	129
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	163	770	150	84	546	201	129	658	85	280	1228	129
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	163	770	150	84	546	201	129	658	85	280	1228	129
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	163	770	150	84	546	201	129	658	85	280	1228	129
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	163	770	150	84	546	201	129	658	85	280	1228	129
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.10	0.24	0.09	0.05	0.17	0.13	0.08	0.21	0.05	0.17	0.38	0.08
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 SB I-110 Ramps/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.724
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Street Name:	SB I-110 Ramps						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	1 0	0	0 1	0 0	2	1 0	1 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	114	0	660	0	798	115	133	998	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	114	0	660	0	798	115	133	998	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	114	0	660	0	798	115	133	998	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	114	0	660	0	798	115	133	998	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	114	0	660	0	798	115	133	998	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.62	0.38	1.00	2.00	0.00
Final Sat.:	0	0	0	1600	0	1600	0	4195	605	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.07	0.00	0.41	0.00	0.19	0.19	0.08	0.31	0.00
Crit Moves:						****	****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #21 Normandie/220th

Cycle (sec):	100	Critical Vol./Cap.(X):	0.412
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	24	Level Of Service:	A

Street Name:	Normandie						220th					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	29	810	129	55	459	23	36	85	45	72	91	99
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	29	810	129	55	459	23	36	85	45	72	91	99
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	29	810	129	55	459	23	36	85	45	72	91	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	810	129	55	459	23	36	85	45	72	91	99
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	29	810	129	55	459	23	36	85	45	72	91	99
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.90	0.10	0.30	0.70	1.00	0.44	0.56	1.00
Final Sat.:	1600	3200	1600	1600	3047	153	476	1124	1600	707	893	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.25	0.08	0.03	0.15	0.15	0.02	0.08	0.03	0.05	0.10	0.06
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #22 Meyler/220th

Cycle (sec):	100	Critical Vol./Cap.(X):	0.307
Loss Time (sec):	0	Average Delay (sec/veh):	9.2
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Meyler						220th					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1!	0	0 0	1!	0	0 0	1	0	0 1	0	1
Volume Module:												
Base Vol:	90	4	79	10	1	6	6	116	69	64	139	28
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	90	4	79	10	1	6	6	116	69	64	139	28
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	90	4	79	10	1	6	6	116	69	64	139	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	4	79	10	1	6	6	116	69	64	139	28
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	90	4	79	10	1	6	6	116	69	64	139	28
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.52	0.02	0.46	0.59	0.06	0.35	0.05	0.95	1.00	0.32	0.68	1.00
Final Sat.:	372	17	326	386	39	232	33	637	774	209	453	784
Capacity Analysis Module:												
Vol/Sat:	0.24	0.24	0.24	0.03	0.03	0.03	0.18	0.18	0.09	0.31	0.31	0.04
Crit Moves:		****		****				****			****	
Delay/Veh:	9.1	9.1	9.1	8.2	8.2	8.2	9.0	9.0	7.6	10.2	10.2	7.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.1	9.1	9.1	8.2	8.2	8.2	9.0	9.0	7.6	10.2	10.2	7.3
LOS by Move:	A	A	A	A	A	A	A	A	A	B	B	A
ApproachDel:	9.1			8.2			8.5			9.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.1			8.2			8.5			9.9		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.3	0.3	0.3	0.0	0.0	0.0	0.2	0.2	0.1	0.4	0.4	0.0

Note: Queue reported is the number of cars per lane.

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Level Of Service Detailed Computation Report
2000 HCM 4-Way Stop Method
Base Volume Alternative

Intersection #22 Meyler/220th

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Time Period: 0.25 hour												
HevVeh:	0%			0%			0%			0%		
Alpha Value: 0.01												
GroupType:	2			2			5			5		
P[C1]:	0.50			0.39			0.51			0.57		
P[C2]:	0.01			0.12			0.24			0.19		
P[C3]:	0.40			0.32			0.16			0.18		
P[C4]:	0.09			0.15			0.08			0.06		
P[C5]:	0.00			0.02			0.00			0.00		
Padj[C1]:	0.011			0.013			0.008			0.007		
Padj[C2]:	0.006			0.006			0.001			0.001		
Padj[C3]:	-0.011			-0.008			-0.004			-0.005		
Padj[C4]:	-0.005			-0.009			-0.005			-0.004		
Padj[C5]:	-0.000			-0.002			-0.000			-0.000		
Lanes:	L1	L2		L1	L2		L1	L2		L1	L2	
LaneType:	LTR	NOLANE		LTR	NOLANE		RITE	LTTHRU		RITE	LTTHRU	
HeadwayAdj:	-0.170	xx.xxx		-0.094	xx.xxx		-0.700	0.025		-0.700	0.158	
Volume:	173	xxxxxx		17	xxxxxx		69	122		28	203	
Capacity:	715	xxxxx		656	xxxxx		774	670		784	662	
DegOfUtil:	0.23	x.xx		0.02	x.xx		0.09	0.18		0.03	0.30	
DepHeadway:	4.75	xx.xx		5.04	xx.xx		4.48	5.20		4.44	5.29	
ServiceTime:	2.7	xx.x		3.0	xx.x		2.2	2.9		2.1	3.0	
Delay:	9.1	xxx.x		8.2	xxx.x		7.6	9.0		7.3	10.2	
Queue:	0.3	xxx.x		0.0	xxx.x		0.1	0.2		0.0	0.4	

Approach:	North Bound	South Bound	East Bound	West Bound
ApproachDel:	9.1	8.2	8.5	9.9
Delay Adj:	1.00	1.00	1.00	1.00
ApprAdjDel:	9.1	8.2	8.5	9.9
LOS by Appr:	A	A	A	A

OverallDel: 9.2
OverallLOS: A

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #23 Vermont/220th

Cycle (sec):	100	Critical Vol./Cap.(X):	0.428
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	25	Level Of Service:	A

Street Name:	Vermont						220th					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	189	905	46	48	547	255	137	22	87	25	24	27
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	189	905	46	48	547	255	137	22	87	25	24	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	189	905	46	48	547	255	137	22	87	25	24	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	189	905	46	48	547	255	137	22	87	25	24	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	189	905	46	48	547	255	137	22	87	25	24	27
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	0.86	0.14	1.00	0.51	0.49	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	1379	221	1600	816	784	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.28	0.03	0.03	0.17	0.16	0.09	0.10	0.05	0.02	0.03	0.02
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #26 Normandie/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.683
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	B

Street Name:	Normandie						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	86	749	143	69	410	86	66	626	49	145	1168	99
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	86	749	143	69	410	86	66	626	49	145	1168	99
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	86	749	143	69	410	86	66	626	49	145	1168	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	86	749	143	69	410	86	66	626	49	145	1168	99
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	86	749	143	69	410	86	66	626	49	145	1168	99
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.65	0.35	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	2645	555	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.05	0.23	0.09	0.04	0.16	0.15	0.04	0.20	0.03	0.09	0.37	0.06
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #27 Meyler/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.593
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Street Name:	Meyler							223rd							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	0	1! 0	0	1	0	1	1 0	1	0	1	1 0
Volume Module:																
Base Vol:	45	6	52		51	41	73		66	698	52		105	1272	75	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	45	6	52		51	41	73		66	698	52		105	1272	75	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	45	6	52		51	41	73		66	698	52		105	1272	75	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	45	6	52		51	41	73		66	698	52		105	1272	75	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	45	6	52		51	41	73		66	698	52		105	1272	75	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	0.44	0.06	0.50		0.31	0.25	0.44		1.00	1.86	0.14		1.00	1.89	0.11	
Final Sat.:	699	93	808		495	398	708		1600	2978	222		1600	3022	178	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.06	0.06		0.03	0.10	0.10		0.04	0.23	0.23		0.07	0.42	0.42	
Crit Moves:	****					****				****					****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #28 Vermont/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.845
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	147	Level Of Service:	D

Street Name:	Vermont						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	2 0	1 1	0
Volume Module:												
Base Vol:	286	792	178	173	359	116	90	659	68	159	1096	289
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	286	792	178	173	359	116	90	659	68	159	1096	289
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	286	792	178	173	359	116	90	659	68	159	1096	289
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	286	792	178	173	359	116	90	659	68	159	1096	289
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	286	792	178	173	359	116	90	659	68	159	1096	289
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.58	0.42
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	2880	2532	668
Capacity Analysis Module:												
Vol/Sat:	0.18	0.25	0.11	0.11	0.11	0.07	0.06	0.21	0.04	0.06	0.43	0.43
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #29 SB I-110 Ramps/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.748
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	74	Level Of Service:	C

Street Name:	SB I-110 Ramps						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Protected			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 1	0	1 0	0 0	2	0 1	1 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	310	1	526	0	926	126	208	1012	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	310	1	526	0	926	126	208	1012	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	310	1	526	0	926	126	208	1012	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	310	1	526	0	926	126	208	1012	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	310	1	526	0	926	126	208	1012	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.74	0.26	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1185	415	1600	0	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.19	0.00	0.33	0.00	0.29	0.08	0.13	0.32	0.00
Crit Moves:						****		****		****		

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #32 Hamilton/SB I-110 Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	1.032
Loss Time (sec):	0	Average Delay (sec/veh):	56.2
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Hamilton							SB I-110 Ramps							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Rights:	Ignore				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Lanes:	0	0	1	0 1	0	1	1	0 0	0	0	0	0 0	1	0	1!	0 0
Volume Module:																
Base Vol:	0	91	106		317	131	0		0	0	0		863	0	248	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	91	106		317	131	0		0	0	0		863	0	248	
User Adj:	1.00	1.00	0.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	0.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	0	91	0		317	131	0		0	0	0		863	0	248	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	91	0		317	131	0		0	0	0		863	0	248	
PCE Adj:	1.00	1.00	0.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	0.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	0	91	0		317	131	0		0	0	0		863	0	248	
Saturation Flow Module:																
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	0.00	1.00	1.00		1.00	1.00	0.00		0.00	0.00	0.00		1.55	0.00	0.45	
Final Sat.:	0	463	507		465	496	0		0	0	0		1371	-538	240	
Capacity Analysis Module:																
Vol/Sat:	xxxx	0.20	0.00		0.68	0.26	xxxx		xxxx	xxxx	xxxx		0.63	0.00	1.03	
Crit Moves:		****			****										****	
Delay/Veh:	0.0	12.3	0.0		25.4	12.5	0.0		0.0	0.0	0.0		73.6	72.9	72.9	
Delay Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	0.0	12.3	0.0		25.4	12.5	0.0		0.0	0.0	0.0		73.6	72.9	72.9	
LOS by Move:	*	B	*		D	B	*		*	*	*		F	F	F	
ApproachDel:		12.3			21.7				xxxxxx				73.8			
Delay Adj:		1.00			1.00				xxxxx				1.00			
ApprAdjDel:		12.3			21.7				xxxxxx				73.8			
LOS by Appr:		B			C				*				F			
AllWayAvgQ:	0.0	0.2	0.0		1.9	0.4	0.0		0.0	0.0	0.0		9.5	9.5	9.5	

Note: Queue reported is the number of cars per lane.

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Level Of Service Detailed Computation Report
2000 HCM 4-Way Stop Method
Base Volume Alternative

Intersection #32 Hamilton/SB I-110 Ramps

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Time Period: 0.25 hour												
HevVeh:	0%			0%			0%			0%		
Alpha Value: 0.01												
GroupType:	5			5			X			5		
P[C1]:	0.0000			0.0000			x.xxxx			0.1886		
P[C2]:	0.0000			0.0000			x.xxxx			0.0000		
P[C3]:	0.2345			0.8044			x.xxxx			0.6616		
P[C4]:	0.7655			0.1956			x.xxxx			0.1497		
P[C5]:	0.0000			0.0000			x.xxxx			0.0000		
Padj[C1]:	0.02765			0.02196			xx.xxxxx			0.01772		
Padj[C2]:	0.01765			0.01196			xx.xxxxx			0.00961		
Padj[C3]:	0.00062			-0.02218			xx.xxxxx			-0.01835		
Padj[C4]:	-0.04593			-0.01174			xx.xxxxx			-0.00898		
Padj[C5]:	-0.00000			-0.00000			xx.xxxxx			-0.00000		
Lanes:	L1	L2		L1	L2		L1	L2		L1	L2	
LaneType:	RITE	THRU		LTTHRU	THRU		NOLANE	NOLANE		LEFT	LTR	
HeadwayAdj:	-0.700	0.000		0.500	0.000		xx.xxx	xx.xxx		0.500	0.464	
Volume:	0	91		317	131		xxxxxx	xxxxxx		556	556	
Capacity:	507	463		465	496		xxxxx	xxxxx		535	538	
DegOfUtil:	0.00	0.20		0.68	0.26		x.xx	x.xx		1.04	1.03	
DepHeadway:	7.04	7.74		7.74	7.24		xx.xx	xx.xx		6.73	6.69	
ServiceTime:	4.7	5.4		5.4	4.9		xx.x	xx.x		4.4	4.4	
Delay:	9.7	12.3		25.4	12.5		xxx.x	xxx.x		74.6	72.9	
Queue:	-0.0	0.2		1.9	0.4		xxx.x	xxx.x		9.7	9.5	
Approach:	North Bound			South Bound			East Bound			West Bound		
ApproachDel:	12.3			21.7			xxx.x			73.8		
Delay Adj:	1.00			1.00			x.xx			1.00		
ApprAdjDel:	12.3			21.7			xxx.x			73.8		
LOS by Appr:	B			C			*			F		
OverallDel:	56.2											
OverallLOS:	F											

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Normandie/Torrance	D	xxxxx	0.850	D	xxxxx	0.850	+ 0.000 V/C
# 2 Vermont/Torrance	C	xxxxx	0.770	C	xxxxx	0.770	+ 0.000 V/C
# 4 Vermont/Javelin	A	xxxxx	0.373	A	xxxxx	0.373	+ 0.000 V/C
# 7 Normandie/Carson	C	xxxxx	0.773	C	xxxxx	0.773	+ 0.000 V/C
# 8 Budlong/Carson	A	xxxxx	0.388	A	xxxxx	0.388	+ 0.000 V/C
# 9 Berendo/Carson	A	xxxxx	0.427	A	xxxxx	0.427	+ 0.000 V/C
# 10 Vermont/Carson	C	xxxxx	0.702	C	xxxxx	0.702	+ 0.000 V/C
# 11 SB I-110 Ramps/Carson	B	xxxxx	0.665	B	xxxxx	0.665	+ 0.000 V/C
# 21 Normandie/220th	A	xxxxx	0.414	A	xxxxx	0.414	+ 0.000 V/C
# 22 Meyler/220th	A	9.0	0.315	A	9.0	0.315	+ 0.000 V/C
# 23 Vermont/220th	A	xxxxx	0.498	A	xxxxx	0.498	+ 0.000 V/C
# 26 Normandie/223rd	B	xxxxx	0.655	B	xxxxx	0.655	+ 0.000 V/C
# 27 Meyler/223rd	A	xxxxx	0.523	A	xxxxx	0.523	+ 0.000 V/C
# 28 Vermont/223rd	C	xxxxx	0.769	C	xxxxx	0.769	+ 0.000 V/C
# 29 SB I-110 Ramps/223rd	D	xxxxx	0.818	D	xxxxx	0.818	+ 0.000 V/C
# 32 Hamilton/SB I-110 Ramps	F	53.7	1.115	F	53.7	1.115	+ 0.000 V/C

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Normandie/Torrance

Cycle (sec):	100	Critical Vol./Cap.(X):	0.850
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	152	Level Of Service:	D

Street Name:	Normandie						Torrance					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Prot+Permit			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	0 1	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	95	508	97	127	755	153	109	1337	154	65	952	47
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	95	508	97	127	755	153	109	1337	154	65	952	47
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	95	508	97	127	755	153	109	1337	154	65	952	47
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	95	508	97	127	755	153	109	1337	154	65	952	47
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	95	508	97	127	755	153	109	1337	154	65	952	47
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.66	0.34	1.00	1.79	0.21	1.00	1.91	0.09
Final Sat.:	1600	3200	1600	1600	2661	539	1600	2869	331	1600	3049	151
Capacity Analysis Module:												
Vol/Sat:	0.06	0.16	0.06	0.08	0.28	0.28	0.07	0.47	0.47	0.04	0.31	0.31
Crit Moves:	****				****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Vermont/Torrance

Cycle (sec):	100	Critical Vol./Cap.(X):	0.770
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	99	Level Of Service:	C

Street Name:	Vermont						Torrance					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	78	523	157	88	829	179	187	1223	107	75	692	56
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	78	523	157	88	829	179	187	1223	107	75	692	56
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	78	523	157	88	829	179	187	1223	107	75	692	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	523	157	88	829	179	187	1223	107	75	692	56
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	78	523	157	88	829	179	187	1223	107	75	692	56
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.84	0.16	1.00	1.85	0.15
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	2943	257	1600	2960	240
Capacity Analysis Module:												
Vol/Sat:	0.05	0.16	0.10	0.06	0.26	0.11	0.12	0.42	0.42	0.05	0.23	0.23
Crit Moves:	****				****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Vermont/Javelin

Cycle (sec):	100	Critical Vol./Cap.(X):	0.373
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	23	Level Of Service:	A

Street Name:	Vermont						Javelin					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	4	627	22	59	993	28	32	7	9	13	2	49
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	4	627	22	59	993	28	32	7	9	13	2	49
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	4	627	22	59	993	28	32	7	9	13	2	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	627	22	59	993	28	32	7	9	13	2	49
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	4	627	22	59	993	28	32	7	9	13	2	49
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	0.67	0.14	0.19	0.20	0.03	0.77
Final Sat.:	1600	3200	1600	1600	3200	1600	1067	233	300	325	50	1225
Capacity Analysis Module:												
Vol/Sat:	0.00	0.20	0.01	0.04	0.31	0.02	0.02	0.03	0.03	0.01	0.04	0.04
Crit Moves:	****			****			****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Normandie/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.773
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Street Name:	Normandie						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	0 1	1 0	1	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	145	434	100	89	636	150	227	1009	203	137	943	78
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	145	434	100	89	636	150	227	1009	203	137	943	78
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	145	434	100	89	636	150	227	1009	203	137	943	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	145	434	100	89	636	150	227	1009	203	137	943	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	145	434	100	89	636	150	227	1009	203	137	943	78
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.62	0.38	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	2589	611	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.09	0.14	0.06	0.06	0.25	0.25	0.14	0.32	0.13	0.09	0.29	0.05
Crit Moves:	****				****			****				****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Budlong/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.388
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	24	Level Of Service:	A

Street Name:	Budlong						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	0	1 0	2	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	11	0	20	17 1178		0	0 1109		20
Growth Adj:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
Initial Bse:	0	0	0	11	0	20	17 1178		0	0 1109		20
User Adj:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
PHF Adj:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
PHF Volume:	0	0	0	11	0	20	17 1178		0	0 1109		20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	11	0	20	17 1178		0	0 1109		20
PCE Adj:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
MLF Adj:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
FinalVolume:	0	0	0	11	0	20	17 1178		0	0 1109		20
Saturation Flow Module:												
Sat/Lane:	1600 1600		1600	1600 1600		1600	1600 1600		1600	1600 1600		1600
Adjustment:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
Lanes:	0.00 0.00		0.00	0.35 0.00		0.65	1.00 2.00		0.00	0.00 2.00		1.00
Final Sat.:	0	0	0	568	0	1032	1600 3200		0	0 3200		1600
Capacity Analysis Module:												
Vol/Sat:	0.00 0.00		0.00	0.01 0.00		0.02	0.01 0.37		0.00	0.00 0.35		0.01
Crit Moves:						****		****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Berendo/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.427
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	A

Street Name:	Berendo						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	16	3	55	19	4	20	23	1159	19	30	1107	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	3	55	19	4	20	23	1159	19	30	1107	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	3	55	19	4	20	23	1159	19	30	1107	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	3	55	19	4	20	23	1159	19	30	1107	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	16	3	55	19	4	20	23	1159	19	30	1107	21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.17	0.83	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	267	1333	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.03	0.01	0.01	0.02	0.01	0.36	0.01	0.02	0.35	0.01
Crit Moves:			****	****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 Vermont/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.702
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	76	Level Of Service:	C

Street Name:	Vermont						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	115	454	182	150	756	185	137	1012	183	124	942	114
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	115	454	182	150	756	185	137	1012	183	124	942	114
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	115	454	182	150	756	185	137	1012	183	124	942	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	115	454	182	150	756	185	137	1012	183	124	942	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	115	454	182	150	756	185	137	1012	183	124	942	114
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.07	0.14	0.11	0.09	0.24	0.12	0.09	0.32	0.11	0.08	0.29	0.07
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 SB I-110 Ramps/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.665
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	43	Level Of Service:	B

Street Name:	SB I-110 Ramps						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	1 0	0	0 1	0 0	2	1 0	1 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	198	0	529	0	1048	252	101	724	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	198	0	529	0	1048	252	101	724	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	198	0	529	0	1048	252	101	724	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	198	0	529	0	1048	252	101	724	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	198	0	529	0	1048	252	101	724	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.42	0.58	1.00	2.00	0.00
Final Sat.:	0	0	0	1600	0	1600	0	3870	930	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.12	0.00	0.33	0.00	0.27	0.27	0.06	0.23	0.00
Crit Moves:						****		****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #21 Normandie/220th

Cycle (sec):	100	Critical Vol./Cap.(X):	0.414
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	25	Level Of Service:	A

Street Name:	Normandie						220th					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	18	514	69	111	847	31	18	112	46	76	34	96
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	514	69	111	847	31	18	112	46	76	34	96
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	514	69	111	847	31	18	112	46	76	34	96
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	514	69	111	847	31	18	112	46	76	34	96
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	18	514	69	111	847	31	18	112	46	76	34	96
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.93	0.07	0.14	0.86	1.00	0.69	0.31	1.00
Final Sat.:	1600	3200	1600	1600	3087	113	222	1378	1600	1105	495	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.16	0.04	0.07	0.27	0.27	0.01	0.08	0.03	0.05	0.07	0.06
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #22 Meyler/220th

Cycle (sec):	100	Critical Vol./Cap.(X):	0.315
Loss Time (sec):	0	Average Delay (sec/veh):	9.0
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Meyler						220th					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	30	0	59	40	7	9	1	223	49	20	107	4
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	0	59	40	7	9	1	223	49	20	107	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	30	0	59	40	7	9	1	223	49	20	107	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	30	0	59	40	7	9	1	223	49	20	107	4
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	30	0	59	40	7	9	1	223	49	20	107	4
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.34	0.00	0.66	0.71	0.13	0.16	0.01	0.99	1.00	0.16	0.84	1.00
Final Sat.:	246	0	484	479	84	108	3	707	823	107	572	794
Capacity Analysis Module:												
Vol/Sat:	0.12	xxxx	0.12	0.08	0.08	0.08	0.32	0.32	0.06	0.19	0.19	0.01
Crit Moves:			****		****			****			****	
Delay/Veh:	8.2	0.0	8.2	8.4	8.4	8.4	9.9	9.9	7.2	9.0	9.0	7.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.2	0.0	8.2	8.4	8.4	8.4	9.9	9.9	7.2	9.0	9.0	7.1
LOS by Move:	A	*	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.2			8.4			9.4			8.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.2			8.4			9.4			8.9		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.4	0.1	0.2	0.2	0.0

Note: Queue reported is the number of cars per lane.

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Level Of Service Detailed Computation Report
2000 HCM 4-Way Stop Method
Base Volume Alternative

Intersection #22 Meyler/220th

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Time Period: 0.25 hour												
HevVeh:	0%			0%			0%			0%		
Alpha Value: 0.01												
GroupType:	2			2			5			5		
P[C1]:	0.49			0.47			0.67			0.53		
P[C2]:	0.04			0.06			0.15			0.29		
P[C3]:	0.37			0.36			0.14			0.11		
P[C4]:	0.09			0.10			0.04			0.07		
P[C5]:	0.01			0.01			0.00			0.00		
Padj[C1]:	0.011			0.011			0.006			0.007		
Padj[C2]:	0.005			0.005			0.001			-0.000		
Padj[C3]:	-0.010			-0.010			-0.004			-0.003		
Padj[C4]:	-0.005			-0.006			-0.002			-0.004		
Padj[C5]:	-0.001			-0.001			-0.000			-0.000		
Lanes:	L1	L2		L1	L2		L1	L2		L1	L2	
LaneType:	LTR	NOLANE		LTR	NOLANE		RITE	LTTHRU		RITE	LTTHRU	
HeadwayAdj:	-0.330	xx.xxx		0.046	xx.xxx		-0.700	0.002		-0.700	0.079	
Volume:	89	xxxxxx		56	xxxxxx		49	224		4	127	
Capacity:	730	xxxxx		671	xxxxx		823	711		794	679	
DegOfUtil:	0.11	x.xx		0.08	x.xx		0.06	0.31		0.00	0.18	
DepHeadway:	4.59	xx.xx		5.00	xx.xx		4.26	4.96		4.38	5.16	
ServiceTime:	2.6	xx.x		3.0	xx.x		2.0	2.7		2.1	2.9	
Delay:	8.2	xxx.x		8.4	xxx.x		7.2	9.9		7.1	9.0	
Queue:	0.1	xxx.x		0.1	xxx.x		0.1	0.4		0.0	0.2	

Approach:	North Bound	South Bound	East Bound	West Bound
ApproachDel:	8.2	8.4	9.4	8.9
Delay Adj:	1.00	1.00	1.00	1.00
ApprAdjDel:	8.2	8.4	9.4	8.9
LOS by Appr:	A	A	A	A

OverallDel: 9.0
OverallLOS: A

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #23 Vermont/220th

Cycle (sec):	100	Critical Vol./Cap.(X):	0.498
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	A

Street Name:	Vermont						220th					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	36	532	9	22	967	71	199	11	242	35	12	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	36	532	9	22	967	71	199	11	242	35	12	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	36	532	9	22	967	71	199	11	242	35	12	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	532	9	22	967	71	199	11	242	35	12	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	532	9	22	967	71	199	11	242	35	12	45
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	0.95	0.05	1.00	0.74	0.26	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	1516	84	1600	1191	409	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.17	0.01	0.01	0.30	0.04	0.12	0.13	0.15	0.02	0.03	0.03
Crit Moves:	****			****					****	****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #26 Normandie/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.655
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	B

Street Name:	Normandie						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	39	380	136	102	755	82	90	972	198	105	743	68
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	39	380	136	102	755	82	90	972	198	105	743	68
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	39	380	136	102	755	82	90	972	198	105	743	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	39	380	136	102	755	82	90	972	198	105	743	68
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	39	380	136	102	755	82	90	972	198	105	743	68
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.80	0.20	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	2886	314	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.12	0.09	0.06	0.26	0.26	0.06	0.30	0.12	0.07	0.23	0.04
Crit Moves:	****				****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #27 Meyler/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.523
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	A

Street Name:	Meyler						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	1	0	1 1	0	1	0 1 0
Volume Module:												
Base Vol:	24	13	31	26	42	56	71	1013	120	122	868	58
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	24	13	31	26	42	56	71	1013	120	122	868	58
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	24	13	31	26	42	56	71	1013	120	122	868	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	13	31	26	42	56	71	1013	120	122	868	58
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	24	13	31	26	42	56	71	1013	120	122	868	58
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.35	0.19	0.46	0.21	0.34	0.45	1.00	1.79	0.21	1.00	1.87	0.13
Final Sat.:	565	306	729	335	542	723	1600	2861	339	1600	3000	200
Capacity Analysis Module:												
Vol/Sat:	0.02	0.04	0.04	0.02	0.08	0.08	0.04	0.35	0.35	0.08	0.29	0.29
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #28 Vermont/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.769
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	99	Level Of Service:	C

Street Name:	Vermont						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	2 0	1 1	0
Volume Module:												
Base Vol:	164	401	215	344	697	112	57	902	115	423	768	124
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	164	401	215	344	697	112	57	902	115	423	768	124
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	164	401	215	344	697	112	57	902	115	423	768	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	164	401	215	344	697	112	57	902	115	423	768	124
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	164	401	215	344	697	112	57	902	115	423	768	124
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.72	0.28
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	2880	2755	445
Capacity Analysis Module:												
Vol/Sat:	0.10	0.13	0.13	0.22	0.22	0.07	0.04	0.28	0.07	0.15	0.28	0.28
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #29 SB I-110 Ramps/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.818
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	102	Level Of Service:	D

Street Name:	SB I-110 Ramps						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Protected			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	1	0	1	0	0	0	2	0	1	1	0	2	0	0
Volume Module:												
Base Vol:	0	0	0	485	7	468	0	1367	183	141	773	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	485	7	468	0	1367	183	141	773	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	485	7	468	0	1367	183	141	773	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	485	7	468	0	1367	183	141	773	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	485	7	468	0	1367	183	141	773	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.03	0.97	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1600	40	1560	0	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.30	0.17	0.30	0.00	0.43	0.11	0.09	0.24	0.00
Crit Moves:				****				****		****		

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #32 Hamilton/SB I-110 Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	1.115
Loss Time (sec):	0	Average Delay (sec/veh):	53.7
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Hamilton							SB I-110 Ramps							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Rights:	Ignore				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Lanes:	0	0	1	0 1	0	1	1	0 0	0	0	0	0 0	1	0	1!	0 0
Volume Module:																
Base Vol:	0	50	368		596	115	0		0	0	0		410	0	135	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	50	368		596	115	0		0	0	0		410	0	135	
User Adj:	1.00	1.00	0.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	0.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	0	50	0		596	115	0		0	0	0		410	0	135	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	50	0		596	115	0		0	0	0		410	0	135	
PCE Adj:	1.00	1.00	0.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	0.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	0	50	0		596	115	0		0	0	0		410	0	135	
Saturation Flow Module:																
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	0.00	1.00	1.00		1.00	1.00	0.00		0.00	0.00	0.00		1.50	0.00	0.50	
Final Sat.:	0	496	548		534	566	0		0	0	0		1287	-516	256	
Capacity Analysis Module:																
Vol/Sat:	xxxx	0.10	0.00		1.12	0.20	xxxx		xxxx	xxxx	xxxx		0.32	0.00	0.53	
Crit Moves:		****			****										****	
Delay/Veh:	0.0	10.6	0.0		99.0	10.5	0.0		0.0	0.0	0.0		17.2	17.1	17.1	
Delay Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	0.0	10.6	0.0		99.0	10.5	0.0		0.0	0.0	0.0		17.2	17.1	17.1	
LOS by Move:	*	B	*		F	B	*		*	*	*		C	C	C	
ApproachDel:		10.6				84.7				xxxxxx				17.3		
Delay Adj:		1.00				1.00				xxxxx				1.00		
ApprAdjDel:		10.6				84.7				xxxxxx				17.3		
LOS by Appr:		B				F				*				C		
AllWayAvgQ:	0.0	0.1	0.0		13.3	0.2	0.0		0.0	0.0	0.0		1.1	1.1	1.1	

Note: Queue reported is the number of cars per lane.

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Level Of Service Detailed Computation Report
2000 HCM 4-Way Stop Method
Base Volume Alternative

****

Intersection #32 Hamilton/SB I-110 Ramps

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Time Period: 0.25 hour												
HevVeh:	0%			0%			0%			0%		
Alpha Value: 0.01												
GroupType:	5			5			X			5		
P[C1]:	0.0000			0.2001			x.xxxx			0.0000		
P[C2]:	0.2219			0.0219			x.xxxx			0.0000		
P[C3]:	0.0000			0.7015			x.xxxx			0.9015		
P[C4]:	0.7781			0.0766			x.xxxx			0.0985		
P[C5]:	0.0000			0.0000			x.xxxx			0.0000		
Padj[C1]:	0.02556			0.01655			xx.xxxxx			0.02098		
Padj[C2]:	0.01334			0.00833			xx.xxxxx			0.01098		
Padj[C3]:	0.00778			-0.02028			xx.xxxxx			-0.02606		
Padj[C4]:	-0.04668			-0.00460			xx.xxxxx			-0.00591		
Padj[C5]:	-0.00000			-0.00000			xx.xxxxx			-0.00000		
Lanes:	L1	L2		L1	L2		L1	L2		L1	L2	
LaneType:	RITE	THRU		LTTHRU	THRU		NOLANE	NOLANE		LEFT	LTR	
HeadwayAdj:	-0.700	0.000		0.500	0.000		xx.xxx	xx.xxx		0.500	0.406	
Volume:	0	50		596	115		xxxxxx	xxxxxx		273	273	
Capacity:	548	496		534	566		xxxxx	xxxxx		510	517	
DegOfUtil:	0.00	0.10		1.12	0.20		x.xx	x.xx		0.53	0.53	
DepHeadway:	6.39	7.09		6.74	6.24		xx.xx	xx.xx		7.03	6.94	
ServiceTime:	4.1	4.8		4.4	3.9		xx.x	xx.x		4.7	4.6	
Delay:	9.1	10.6		99.0	10.5		xxx.x	xxx.x		17.5	17.1	
Queue:	0.0	0.1		13.3	0.2		xxx.x	xxx.x		1.1	1.1	

Approach:	North Bound	South Bound	East Bound	West Bound
ApproachDel:	10.6	84.7	xxx.x	17.3
Delay Adj:	1.00	1.00	x.xx	1.00
ApprAdjDel:	10.6	84.7	xxx.x	17.3
LOS by Appr:	B	F	*	C

OverallDel: 53.7
OverallLOS: F

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City of Carson
Existing Year (2016) No Project

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 3 Figueroa/Torrance	B	xxxxx	0.671	B	xxxxx	0.671	+ 0.000 V/C
# 8 Budlong/Carson	A	xxxxx	0.450	A	xxxxx	0.450	+ 0.000 V/C
# 12 Figueroa/Carson	B	xxxxx	0.613	B	xxxxx	0.613	+ 0.000 V/C
# 13 Moneta/Carson	A	xxxxx	0.319	A	xxxxx	0.319	+ 0.000 V/C
# 14 Main/Carson	A	xxxxx	0.378	A	xxxxx	0.378	+ 0.000 V/C
# 15 Dolores/Carson	A	xxxxx	0.295	A	xxxxx	0.295	+ 0.000 V/C
# 16 Grace/Carson	A	xxxxx	0.281	A	xxxxx	0.281	+ 0.000 V/C
# 17 Avalon/Carson	B	xxxxx	0.683	B	xxxxx	0.683	+ 0.000 V/C
# 18 Bonita/Carson	A	xxxxx	0.575	A	xxxxx	0.575	+ 0.000 V/C
# 19 SB I-405 Ramps/Carson	A	xxxxx	0.492	A	xxxxx	0.492	+ 0.000 V/C
# 20 NB I-405 Ramps/Carson	A	xxxxx	0.553	A	xxxxx	0.553	+ 0.000 V/C
# 24 Figueroa/220th and I-110 NB Ra	D	xxxxx	0.871	D	xxxxx	0.871	+ 0.000 V/C
# 30 Figueroa/223rd	B	xxxxx	0.690	B	xxxxx	0.690	+ 0.000 V/C
# 31 Main/223rd	B	xxxxx	0.645	B	xxxxx	0.645	+ 0.000 V/C
# 33 Figueroa/NB I-110 Ramps	B	xxxxx	0.617	B	xxxxx	0.617	+ 0.000 V/C
# 34 Avalon/NB I-405	A	xxxxx	0.301	A	xxxxx	0.301	+ 0.000 V/C
# 35 Avalon/SB I-405	A	xxxxx	0.460	A	xxxxx	0.460	+ 0.000 V/C

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Figueroa/Torrance

Cycle (sec):	100	Critical Vol./Cap.(X):	0.671
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	B

Street Name:	Figueroa						Torrance					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 1	0 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	148	469	42	67	244	359	635	345	184	32	357	131
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	148	469	42	67	244	359	635	345	184	32	357	131
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	148	469	42	67	244	359	635	345	184	32	357	131
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	148	469	42	67	244	359	635	345	184	32	357	131
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	148	469	42	67	244	359	635	345	184	32	357	131
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.64	0.89	0.47	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	2617	1423	760	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.09	0.15	0.03	0.04	0.08	0.22	0.24	0.24	0.24	0.02	0.11	0.08
Crit Moves:	****					****	****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Budlong/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.450
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	26	Level Of Service:	A

Street Name:	Budlong						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	0	1 0	2	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	13	0	23	11	776	0	0	1345	12
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	0	0	0	13	0	23	11	776	0	0	1345	12
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Volume:	0	0	0	13	0	23	11	776	0	0	1345	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	13	0	23	11	776	0	0	1345	12
PCE Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
FinalVolume:	0	0	0	13	0	23	11	776	0	0	1345	12
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600		1600 1600	1600		1600 1600	1600		1600 1600	1600	
Adjustment:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Lanes:	0.00 0.00	0.00		0.36 0.00	0.64		1.00 2.00	0.00		0.00 2.00	1.00	
Final Sat.:	0	0	0	578	0	1022	1600 3200		0	0 3200		1600
Capacity Analysis Module:												
Vol/Sat:	0.00 0.00	0.00		0.01 0.00	0.02		0.01 0.24	0.00		0.00 0.42	0.01	
Crit Moves:					****		****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Figueroa/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.613
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	59	Level Of Service:	B

Street Name:	Figueroa						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	1	1 0	2 0	1	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	321	455	176	35	355	206	111	353	425	75	613	61
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	321	455	176	35	355	206	111	353	425	75	613	61
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	321	455	176	35	355	206	111	353	425	75	613	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	321	455	176	35	355	206	111	353	425	75	613	61
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	321	455	176	35	355	206	111	353	425	75	613	61
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.80	1.00	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.44	0.56	2.00	1.27	0.73	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	2560	2307	893	2560	2025	1175	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.13	0.20	0.20	0.01	0.18	0.18	0.07	0.11	0.27	0.05	0.19	0.04
Crit Moves:	****			****					****	****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Moneta/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.319
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Street Name:	Moneta						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	79	50	54	7	111	61	25	483	60	43	576	15
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	79	50	54	7	111	61	25	483	60	43	576	15
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Volume:	79	50	54	7	111	61	25	483	60	43	576	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	79	50	54	7	111	61	25	483	60	43	576	15
PCE Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
FinalVolume:	79	50	54	7	111	61	25	483	60	43	576	15
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600		1600 1600	1600		1600 1600	1600		1600 1600	1600	
Adjustment:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Lanes:	0.61 0.39	1.00		0.06 0.94	1.00		1.00 2.00	1.00		1.00 2.00	1.00	
Final Sat.:	980	620	1600	95	1505	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.05 0.08	0.03		0.00 0.07	0.04		0.02 0.15	0.04		0.03 0.18	0.01	
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Main/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.378
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Street Name:	Main						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	167	668	127	69	516	95	93	313	63	104	382	42
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	167	668	127	69	516	95	93	313	63	104	382	42
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	167	668	127	69	516	95	93	313	63	104	382	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	167	668	127	69	516	95	93	313	63	104	382	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	167	668	127	69	516	95	93	313	63	104	382	42
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.52	0.48	1.00	2.53	0.47	1.00	2.50	0.50	1.00	2.70	0.30
Final Sat.:	1600	4033	767	1600	4054	746	1600	3996	804	1600	4325	475
Capacity Analysis Module:												
Vol/Sat:	0.10	0.17	0.17	0.04	0.13	0.13	0.06	0.08	0.08	0.07	0.09	0.09
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #15 Dolores/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.295
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	20	Level Of Service:	A

Street Name:	Dolores						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	41	157	43	15	167	36	28	411	57	43	416	34
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	157	43	15	167	36	28	411	57	43	416	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	41	157	43	15	167	36	28	411	57	43	416	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	157	43	15	167	36	28	411	57	43	416	34
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	41	157	43	15	167	36	28	411	57	43	416	34
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.21	0.79	1.00	0.08	0.92	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	331	1269	1600	132	1468	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.12	0.03	0.01	0.11	0.02	0.02	0.13	0.04	0.03	0.13	0.02
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #16 Grace/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.281
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	26	Level Of Service:	A

Street Name:	Grace						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1 0	0 1	1	0	2 0	1	1 0	2	0 1
Volume Module:												
Base Vol:	14	92	54	32	43	23	34	428	15	30	447	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	14	92	54	32	43	23	34	428	15	30	447	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	14	92	54	32	43	23	34	428	15	30	447	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	92	54	32	43	23	34	428	15	30	447	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	14	92	54	32	43	23	34	428	15	30	447	29
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.09	0.57	0.34	0.43	0.57	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	140	920	540	683	917	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.10	0.10	0.02	0.05	0.01	0.02	0.13	0.01	0.02	0.14	0.02
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #17 Avalon/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.683
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	72	Level Of Service:	B

Street Name:	Avalon						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	2 0	1	1 0	2 0	1	1 0
Volume Module:												
Base Vol:	68	671	467	133	684	56	83	384	60	434	394	114
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	68	671	467	133	684	56	83	384	60	434	394	114
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	68	671	467	133	684	56	83	384	60	434	394	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	671	467	133	684	56	83	384	60	434	394	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	68	671	467	133	684	56	83	384	60	434	394	114
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.80	1.00	1.00	0.80	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.77	0.23	2.00	1.73	0.27	2.00	1.55	0.45
Final Sat.:	1600	3200	1600	1600	4437	363	2560	2768	432	2560	2482	718
Capacity Analysis Module:												
Vol/Sat:	0.04	0.21	0.29	0.08	0.15	0.15	0.03	0.14	0.14	0.17	0.16	0.16
Crit Moves:			****	****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #18 Bonita/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.575
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	54	Level Of Service:	A

Street Name:	Bonita						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Prot+Permit			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	1	0 1	0 1	1	0	2 0 1	1	0	2 1 0
Volume Module:												
Base Vol:	115	49	215	48	122	50	34	845	115	212	767	117
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	115	49	215	48	122	50	34	845	115	212	767	117
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Volume:	115	49	215	48	122	50	34	845	115	212	767	117
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	115	49	215	48	122	50	34	845	115	212	767	117
PCE Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
FinalVolume:	115	49	215	48	122	50	34	845	115	212	767	117
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600		1600 1600	1600		1600 1600	1600		1600 1600	1600	
Adjustment:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Lanes:	0.70 0.30	1.00		1.00 1.00	1.00		1.00 2.00	1.00		1.00 2.60	0.40	
Final Sat.:	1122 478	1600		1600 1600	1600		1600 3200	1600		1600 4165	635	
Capacity Analysis Module:												
Vol/Sat:	0.10 0.10	0.13		0.03 0.08	0.03		0.02 0.26	0.07		0.13 0.18	0.18	
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #19 SB I-405 Ramps/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.492
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Street Name:	SB I-405 Ramps						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	0 0	0	0 0	1 0	2	0 1	1 0	3	0 0
Volume Module:												
Base Vol:	64	0	203	0	0	0	7	630	494	90	1050	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	64	0	203	0	0	0	7	630	494	90	1050	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	64	0	203	0	0	0	7	630	494	90	1050	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	64	0	203	0	0	0	7	630	494	90	1050	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	64	0	203	0	0	0	7	630	494	90	1050	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	1.00	1.00	3.00	0.00
Final Sat.:	1600	0	1600	0	0	0	1600	3200	1600	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.13	0.00	0.00	0.00	0.00	0.20	0.31	0.06	0.22	0.00
Crit Moves:			****						****	****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #20 NB I-405 Ramps/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.553
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	A

Street Name:	NB I-405 Ramps						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	6	6	2	23	15	413	95	712	25	9	742	253
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	6	2	23	15	413	95	712	25	9	742	253
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	6	2	23	15	413	95	712	25	9	742	253
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	6	2	23	15	413	95	712	25	9	742	253
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	6	6	2	23	15	413	95	712	25	9	742	253
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.50	0.50	1.00	0.61	0.39	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	800	800	1600	968	632	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.01	0.00	0.01	0.02	0.26	0.06	0.22	0.02	0.01	0.23	0.16
Crit Moves:	****					****	****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #24 Figueroa/220th and I-110 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.871
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	177	Level Of Service:	D

Street Name:	Figueroa						220th/I-110 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	447	560	163	131	403	361	256	55	77	87	188	145
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	447	560	163	131	403	361	256	55	77	87	188	145
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	447	560	163	131	403	361	256	55	77	87	188	145
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	447	560	163	131	403	361	256	55	77	87	188	145
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	447	560	163	131	403	361	256	55	77	87	188	145
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	0.82	0.18	1.00	0.32	0.68	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	1317	283	1600	506	1094	1600
Capacity Analysis Module:												
Vol/Sat:	0.28	0.17	0.10	0.08	0.13	0.23	0.19	0.19	0.05	0.17	0.17	0.09
Crit Moves:	****					****	****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #30 Figueroa/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.690
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Figueroa							223rd							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1
Volume Module:																
Base Vol:	145	543	152		84	290	185		302	756	172		60	893	307	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	145	543	152		84	290	185		302	756	172		60	893	307	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	145	543	152		84	290	185		302	756	172		60	893	307	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	145	543	152		84	290	185		302	756	172		60	893	307	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	145	543	152		84	290	185		302	756	172		60	893	307	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00	
Final Sat.:	1600	3200	1600		1600	3200	1600		1600	3200	1600		1600	3200	1600	
Capacity Analysis Module:																
Vol/Sat:	0.09	0.17	0.10		0.05	0.09	0.12		0.19	0.24	0.11		0.04	0.28	0.19	
Crit Moves:		****				****				****				****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #31 Main/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.645
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	64	Level Of Service:	B

Street Name:	Main							223rd							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1
Volume Module:																
Base Vol:	108	543	185		157	458	190		155	772	103		115	897	104	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	108	543	185		157	458	190		155	772	103		115	897	104	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	108	543	185		157	458	190		155	772	103		115	897	104	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	108	543	185		157	458	190		155	772	103		115	897	104	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	108	543	185		157	458	190		155	772	103		115	897	104	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00	
Final Sat.:	1600	3200	1600		1600	3200	1600		1600	3200	1600		1600	3200	1600	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.17	0.12		0.10	0.14	0.12		0.10	0.24	0.06		0.07	0.28	0.07	
Crit Moves:		****				****				****				****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #33 Figueroa/NB I-110 Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.617
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

Street Name:	Figueroa							NB I-110 Ramps							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	2	0 0	0	0	2	0 1	1	0	1!	0 0	0	0	0	0 0
Volume Module:																
Base Vol:	598	626		0 0	355		102		562		0		311		0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	598	626		0 0	355		102		562		0		311		0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	598	626		0 0	355		102		562		0		311		0	0
Reduct Vol:	0	0		0 0	0		0		0		0		0		0	0
Reduced Vol:	598	626		0 0	355		102		562		0		311		0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	598	626		0 0	355		102		562		0		311		0	0
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	0.80	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	2.00	0.00	0.00	2.00	1.00	1.29		0.00	0.71	0.00		0.00	0.00	0.00	
Final Sat.:	2560	3200		0 0	3200		1600		2060		0		1140		0	0
Capacity Analysis Module:																
Vol/Sat:	0.23	0.20	0.00	0.00	0.11	0.06	0.27		0.00	0.27	0.00		0.00	0.00	0.00	
Crit Moves:	****				****		****									

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #34 Avalon/NB I-405

Cycle (sec):	100	Critical Vol./Cap.(X):	0.301
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Street Name:	Avalon							NB I-405							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected					Permitted					Split Phase					Split Phase				
Rights:	Include					Include					Include					Ignore				
Min. Green:	0	0	0			0	0	0			0	0	0			0	0	0		
Y+R:	4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0		
Lanes:	2	0	2	0	0	0	0	3	0	1	0	0	0	0	0	1	1	0	0	1
Volume Module:																				
Base Vol:	322	937	0			0	748	191			0	0	0			62	1	378		
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	322	937	0			0	748	191			0	0	0			62	1	378		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	0.00		
PHF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	0.00		
PHF Volume:	322	937	0			0	748	191			0	0	0			62	1	0		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Reduced Vol:	322	937	0			0	748	191			0	0	0			62	1	0		
PCE Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	0.00		
MLF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	0.00		
FinalVolume:	322	937	0			0	748	191			0	0	0			62	1	0		
Saturation Flow Module:																				
Sat/Lane:	1600	1600	1600			1600	1600	1600			1600	1600	1600			1600	1600	1600		
Adjustment:	0.80	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Lanes:	2.00	2.00	0.00			0.00	3.00	1.00			0.00	0.00	0.00			1.97	0.03	1.00		
Final Sat.:	2560	3200	0			0	4800	1600			0	0	0			3149	51	1600		
Capacity Analysis Module:																				
Vol/Sat:	0.13	0.29	0.00			0.00	0.16	0.12			0.00	0.00	0.00			0.02	0.02	0.00		
Crit Moves:	****						****										****			

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #35 Avalon/SB I-405

Cycle (sec):	100	Critical Vol./Cap.(X):	0.460
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Street Name:	Avalon						SB I-405					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1	1 0	0 0	2	0 1	2 0	2	0 1	0 0	0	0 0
Volume Module:												
Base Vol:	0	835	103	0	586	229	428	6	472	0	0	0
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	0	835	103	0	586	229	428	6	472	0	0	0
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	0.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	0.00		1.00 1.00	1.00	
PHF Volume:	0	835	103	0	586	229	428	6	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	835	103	0	586	229	428	6	0	0	0	0
PCE Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	0.00		1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	0.00		1.00 1.00	1.00	
FinalVolume:	0	835	103	0	586	229	428	6	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600		1600 1600	1600		1600 1600	1600		1600 1600	1600	
Adjustment:	1.00 1.00	1.00		1.00 1.00	1.00		0.80 1.00	1.00		1.00 1.00	1.00	
Lanes:	0.00 1.78	0.22		0.00 2.00	1.00		2.00 2.00	1.00		0.00 0.00	0.00	
Final Sat.:	0 2849	351		0 3200	1600		2560 3200	1600		0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00 0.29	0.29		0.00 0.18	0.14		0.17 0.00	0.00		0.00 0.00	0.00	
Crit Moves:	****			****			****					

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 3 Figueroa/Torrance	B	xxxxx	0.669	B	xxxxx	0.669	+ 0.000 V/C
# 8 Budlong/Carson	A	xxxxx	0.388	A	xxxxx	0.388	+ 0.000 V/C
# 12 Figueroa/Carson	B	xxxxx	0.650	B	xxxxx	0.650	+ 0.000 V/C
# 13 Moneta/Carson	A	xxxxx	0.291	A	xxxxx	0.291	+ 0.000 V/C
# 14 Main/Carson	A	xxxxx	0.501	A	xxxxx	0.501	+ 0.000 V/C
# 15 Dolores/Carson	A	xxxxx	0.339	A	xxxxx	0.339	+ 0.000 V/C
# 16 Grace/Carson	A	xxxxx	0.346	A	xxxxx	0.346	+ 0.000 V/C
# 17 Avalon/Carson	C	xxxxx	0.732	C	xxxxx	0.732	+ 0.000 V/C
# 18 Bonita/Carson	C	xxxxx	0.729	C	xxxxx	0.729	+ 0.000 V/C
# 19 SB I-405 Ramps/Carson	A	xxxxx	0.582	A	xxxxx	0.582	+ 0.000 V/C
# 20 NB I-405 Ramps/Carson	A	xxxxx	0.579	A	xxxxx	0.579	+ 0.000 V/C
# 24 Figueroa/220th and I-110 NB Ra	C	xxxxx	0.786	C	xxxxx	0.786	+ 0.000 V/C
# 30 Figueroa/223rd	B	xxxxx	0.664	B	xxxxx	0.664	+ 0.000 V/C
# 31 Main/223rd	C	xxxxx	0.732	C	xxxxx	0.732	+ 0.000 V/C
# 33 Figueroa/NB I-110 Ramps	B	xxxxx	0.615	B	xxxxx	0.615	+ 0.000 V/C
# 34 Avalon/NB I-405	A	xxxxx	0.410	A	xxxxx	0.410	+ 0.000 V/C
# 35 Avalon/SB I-405	A	xxxxx	0.408	A	xxxxx	0.408	+ 0.000 V/C

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Figueroa/Torrance

Cycle (sec):	100	Critical Vol./Cap.(X):	0.669
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	B

Street Name:	Figueroa						Torrance					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 1	0 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	94	302	50	141	487	342	615	666	156	46	306	122
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	94	302	50	141	487	342	615	666	156	46	306	122
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	94	302	50	141	487	342	615	666	156	46	306	122
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	94	302	50	141	487	342	615	666	156	46	306	122
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	94	302	50	141	487	342	615	666	156	46	306	122
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.29	1.39	0.32	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	2060	2222	518	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.09	0.03	0.09	0.15	0.21	0.30	0.30	0.30	0.03	0.10	0.08
Crit Moves:	****					****			****		****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Budlong/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.388
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	24	Level Of Service:	A

Street Name:	Budlong						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	0	1 0	2	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	11	0	20	17	1178	0	0	1109	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	11	0	20	17	1178	0	0	1109	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	11	0	20	17	1178	0	0	1109	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	11	0	20	17	1178	0	0	1109	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	11	0	20	17	1178	0	0	1109	20
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.35	0.00	0.65	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	568	0	1032	1600	3200	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.01	0.00	0.02	0.01	0.37	0.00	0.00	0.35	0.01
Crit Moves:						****		****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Figueroa/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.650
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	B

Street Name:	Figueroa						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	1	1 0	2 0	1	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	211	231	97	84	480	173	135	521	501	80	512	63
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	211	231	97	84	480	173	135	521	501	80	512	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	211	231	97	84	480	173	135	521	501	80	512	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	211	231	97	84	480	173	135	521	501	80	512	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	211	231	97	84	480	173	135	521	501	80	512	63
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.80	1.00	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.41	0.59	2.00	1.47	0.53	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	2560	2254	946	2560	2352	848	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.08	0.10	0.10	0.03	0.20	0.20	0.08	0.16	0.31	0.05	0.16	0.04
Crit Moves:	****			****					****	****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Moneta/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.291
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	20	Level Of Service:	A

Street Name:	Moneta						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	45	41	43	11	61	37	26	615	84	41	551	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	41	43	11	61	37	26	615	84	41	551	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	45	41	43	11	61	37	26	615	84	41	551	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	41	43	11	61	37	26	615	84	41	551	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	41	43	11	61	37	26	615	84	41	551	21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.52	0.48	1.00	0.15	0.85	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	837	763	1600	244	1356	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.05	0.03	0.01	0.04	0.02	0.02	0.19	0.05	0.03	0.17	0.01
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Main/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.501
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	46	Level Of Service:	A

Street Name:	Main						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	169	486	95	171	863	117	83	449	42	142	373	58
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	169	486	95	171	863	117	83	449	42	142	373	58
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	169	486	95	171	863	117	83	449	42	142	373	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	169	486	95	171	863	117	83	449	42	142	373	58
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	169	486	95	171	863	117	83	449	42	142	373	58
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.51	0.49	1.00	2.64	0.36	1.00	2.74	0.26	1.00	2.60	0.40
Final Sat.:	1600	4015	785	1600	4227	573	1600	4389	411	1600	4154	646
Capacity Analysis Module:												
Vol/Sat:	0.11	0.12	0.12	0.11	0.20	0.20	0.05	0.10	0.10	0.09	0.09	0.09
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #15 Dolores/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.339
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	22	Level Of Service:	A

Street Name:	Dolores						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	38	115	33	24	108	32	41	624	53	53	485	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	38	115	33	24	108	32	41	624	53	53	485	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	38	115	33	24	108	32	41	624	53	53	485	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	115	33	24	108	32	41	624	53	53	485	14
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	38	115	33	24	108	32	41	624	53	53	485	14
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.25	0.75	1.00	0.18	0.82	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	397	1203	1600	291	1309	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.10	0.02	0.02	0.08	0.02	0.03	0.20	0.03	0.03	0.15	0.01
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #16 Grace/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.346
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	28	Level Of Service:	A

Street Name:	Grace						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1	0	0	1	1	0	2	0	1	1	0	2	0	1
Volume Module:																			
Base Vol:	26	80	48	40	62	32	37	608	21	56	516	47
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	80	48	40	62	32	37	608	21	56	516	47
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	26	80	48	40	62	32	37	608	21	56	516	47
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	80	48	40	62	32	37	608	21	56	516	47
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	26	80	48	40	62	32	37	608	21	56	516	47
Saturation Flow Module:																			
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.17	0.52	0.31	0.39	0.61	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	270	831	499	627	973	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:																			
Vol/Sat:	0.02	0.10	0.10	0.03	0.06	0.02	0.02	0.19	0.01	0.04	0.16	0.03
Crit Moves:		****			****				****		****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #17 Avalon/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.732
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	85	Level Of Service:	C

Street Name:	Avalon						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	2 0	1	1 0	2 0	1	1 0
Volume Module:												
Base Vol:	92	745	418	190	860	127	146	528	75	418	388	121
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	92	745	418	190	860	127	146	528	75	418	388	121
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	92	745	418	190	860	127	146	528	75	418	388	121
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	745	418	190	860	127	146	528	75	418	388	121
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	92	745	418	190	860	127	146	528	75	418	388	121
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.80	1.00	1.00	0.80	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.61	0.39	2.00	1.75	0.25	2.00	1.52	0.48
Final Sat.:	1600	3200	1600	1600	4182	618	2560	2802	398	2560	2439	761
Capacity Analysis Module:												
Vol/Sat:	0.06	0.23	0.26	0.12	0.21	0.21	0.06	0.19	0.19	0.16	0.16	0.16
Crit Moves:			****	****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #18 Bonita/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.729
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	84	Level Of Service:	C

Street Name:	Bonita						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Prot+Permit			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	1	0 1	0 1	1	0	2 0 1	1	0	2 1 0
Volume Module:												
Base Vol:	52	44	374	76	60	26	49	1058	70	188	802	40
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	52	44	374	76	60	26	49	1058	70	188	802	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	52	44	374	76	60	26	49	1058	70	188	802	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	44	374	76	60	26	49	1058	70	188	802	40
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	52	44	374	76	60	26	49	1058	70	188	802	40
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.54	0.46	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.86	0.14
Final Sat.:	867	733	1600	1600	1600	1600	1600	3200	1600	1600	4572	228
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.23	0.05	0.04	0.02	0.03	0.33	0.04	0.12	0.18	0.18
Crit Moves:			****	****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #19 SB I-405 Ramps/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.582
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	A

Street Name:	SB I-405 Ramps						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	0 0	0	0 0	1 0	2	0 1	1 0	3	0 0
Volume Module:												
Base Vol:	33	0	73	0	0	0	6	783	726	132	1024	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	33	0	73	0	0	0	6	783	726	132	1024	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	33	0	73	0	0	0	6	783	726	132	1024	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	0	73	0	0	0	6	783	726	132	1024	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	33	0	73	0	0	0	6	783	726	132	1024	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	1.00	1.00	3.00	0.00
Final Sat.:	1600	0	1600	0	0	0	1600	3200	1600	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.02	0.00	0.05	0.00	0.00	0.00	0.00	0.24	0.45	0.08	0.21	0.00
Crit Moves:			****						****	****		

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #20 NB I-405 Ramps/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.579
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	A

Street Name:	NB I-405 Ramps						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	52	18	14	42	3	441	108	742	35	15	650	322
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	52	18	14	42	3	441	108	742	35	15	650	322
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Volume:	52	18	14	42	3	441	108	742	35	15	650	322
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	18	14	42	3	441	108	742	35	15	650	322
PCE Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
FinalVolume:	52	18	14	42	3	441	108	742	35	15	650	322
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600		1600 1600	1600		1600 1600	1600		1600 1600	1600	
Adjustment:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Lanes:	0.74 0.26	1.00		0.93 0.07	1.00		1.00 2.00	1.00		1.00 2.00	1.00	
Final Sat.:	1189 411	1600		1493 107	1600		1600 3200	1600		1600 3200	1600	
Capacity Analysis Module:												
Vol/Sat:	0.03 0.04	0.01		0.03 0.03	0.28		0.07 0.23	0.02		0.01 0.20	0.20	
Crit Moves:	****				****		****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #24 Figueroa/220th and I-110 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.786
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	106	Level Of Service:	C

Street Name:	Figueroa							220th/I-110 NB Ramps							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected					Protected					Split Phase					Split Phase				
Rights:	Include					Include					Include					Include				
Min. Green:	0	0	0			0	0	0			0	0	0			0	0	0		
Y+R:	4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0		
Lanes:	1	0	2	0	1	1	0	2	0	1	0	1	0	0	1	0	1	0	0	1
Volume Module:																				
Base Vol:	400	261		34		113	561		400		207	116		99		36	98		76	
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
Initial Bse:	400	261		34		113	561		400		207	116		99		36	98		76	
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
PHF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
PHF Volume:	400	261		34		113	561		400		207	116		99		36	98		76	
Reduct Vol:	0	0		0		0	0		0		0	0		0		0	0		0	
Reduced Vol:	400	261		34		113	561		400		207	116		99		36	98		76	
PCE Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
MLF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
FinalVolume:	400	261		34		113	561		400		207	116		99		36	98		76	
Saturation Flow Module:																				
Sat/Lane:	1600	1600		1600		1600	1600		1600		1600	1600		1600		1600	1600		1600	
Adjustment:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
Lanes:	1.00	2.00		1.00		1.00	2.00		1.00		0.64	0.36		1.00		0.27	0.73		1.00	
Final Sat.:	1600	3200		1600		1600	3200		1600		1025	575		1600		430	1170		1600	
Capacity Analysis Module:																				
Vol/Sat:	0.25	0.08		0.02		0.07	0.18		0.25		0.20	0.20		0.06		0.08	0.08		0.05	
Crit Moves:	****								****			****					****			

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #30 Figueroa/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.664
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	B

Street Name:	Figueroa							223rd							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0	2	0	1	1	0	2	0	1
Volume Module:																
Base Vol:	60	316	102		157	358	156		271	1368	209		63	707	127	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	60	316	102		157	358	156		271	1368	209		63	707	127	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	60	316	102		157	358	156		271	1368	209		63	707	127	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	60	316	102		157	358	156		271	1368	209		63	707	127	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	60	316	102		157	358	156		271	1368	209		63	707	127	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00	
Final Sat.:	1600	3200	1600		1600	3200	1600		1600	3200	1600		1600	3200	1600	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.10	0.06		0.10	0.11	0.10		0.17	0.43	0.13		0.04	0.22	0.08	
Crit Moves:		****				****				****				****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #31 Main/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.732
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	85	Level Of Service:	C

Street Name:	Main							223rd							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected					Protected					Protected					Protected				
Rights:	Include					Include					Include					Include				
Min. Green:	0	0	0			0	0	0			0	0	0			0	0	0		
Y+R:	4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0		
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0	2	0	1	1	0	2	0	1
Volume Module:																				
Base Vol:	112	446	177			186	636	164			171	1209	109			136	673	108		
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	112	446	177			186	636	164			171	1209	109			136	673	108		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Volume:	112	446	177			186	636	164			171	1209	109			136	673	108		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Reduced Vol:	112	446	177			186	636	164			171	1209	109			136	673	108		
PCE Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
FinalVolume:	112	446	177			186	636	164			171	1209	109			136	673	108		
Saturation Flow Module:																				
Sat/Lane:	1600	1600	1600			1600	1600	1600			1600	1600	1600			1600	1600	1600		
Adjustment:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Lanes:	1.00	2.00	1.00			1.00	2.00	1.00			1.00	2.00	1.00			1.00	2.00	1.00		
Final Sat.:	1600	3200	1600			1600	3200	1600			1600	3200	1600			1600	3200	1600		
Capacity Analysis Module:																				
Vol/Sat:	0.07	0.14	0.11			0.12	0.20	0.10			0.11	0.38	0.07			0.09	0.21	0.07		
Crit Moves:	****					****					****					****				

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #33 Figueroa/NB I-110 Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.615
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	B

Street Name:	Figueroa							NB I-110 Ramps							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected					Permitted					Permitted					Permitted				
Rights:	Include					Include					Include					Include				
Min. Green:	0	0	0			0	0	0			0	0	0			0	0	0		
Y+R:	4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0		
Lanes:	2	0	2	0	0	0	0	2	0	1	1	0	1!	0	0	0	0	0	0	0
Volume Module:																				
Base Vol:	609	433			0	0	764			218	287			0	157	0	0			0
Growth Adj:	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00
Initial Bse:	609	433			0	0	764			218	287			0	157	0	0			0
User Adj:	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00
PHF Adj:	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00
PHF Volume:	609	433			0	0	764			218	287			0	157	0	0			0
Reduct Vol:	0	0			0	0	0			0	0			0	0	0	0			0
Reduced Vol:	609	433			0	0	764			218	287			0	157	0	0			0
PCE Adj:	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00
MLF Adj:	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00
FinalVolume:	609	433			0	0	764			218	287			0	157	0	0			0
Saturation Flow Module:																				
Sat/Lane:	1600	1600			1600	1600	1600			1600	1600	1600			1600	1600	1600			1600
Adjustment:	0.80	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00
Lanes:	2.00	2.00			0.00	0.00	2.00			1.00	1.29	0.00			0.71	0.00	0.00			0.00
Final Sat.:	2560	3200			0	0	3200			1600	2068			0	1132	0	0			0
Capacity Analysis Module:																				
Vol/Sat:	0.24	0.14			0.00	0.00	0.24			0.14	0.14	0.00			0.14	0.00	0.00			0.00
Crit Moves:	****						****				****									

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #34 Avalon/NB I-405

Cycle (sec):	100	Critical Vol./Cap.(X):	0.410
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	31	Level Of Service:	A

Street Name:	Avalon							NB I-405							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected					Permitted					Split Phase					Split Phase				
Rights:	Include					Include					Include					Ignore				
Min. Green:	0	0	0			0	0	0			0	0	0			0	0	0		
Y+R:	4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0		
Lanes:	2	0	2	0	0	0	0	3	0	1	0	0	0	0	0	1	1	0	0	1
Volume Module:																				
Base Vol:	319	791	0			0	1204	383			0	0	0			109	0	315		
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	319	791	0			0	1204	383			0	0	0			109	0	315		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	0.00		
PHF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	0.00		
PHF Volume:	319	791	0			0	1204	383			0	0	0			109	0	0		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Reduced Vol:	319	791	0			0	1204	383			0	0	0			109	0	0		
PCE Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	0.00		
MLF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	0.00		
FinalVolume:	319	791	0			0	1204	383			0	0	0			109	0	0		
Saturation Flow Module:																				
Sat/Lane:	1600	1600	1600			1600	1600	1600			1600	1600	1600			1600	1600	1600		
Adjustment:	0.80	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Lanes:	2.00	2.00	0.00			0.00	3.00	1.00			0.00	0.00	0.00			2.00	0.00	1.00		
Final Sat.:	2560	3200	0			0	4800	1600			0	0	0			3200	0	1600		
Capacity Analysis Module:																				
Vol/Sat:	0.12	0.25	0.00			0.00	0.25	0.24			0.00	0.00	0.00			0.03	0.00	0.00		
Crit Moves:	****						****									****				

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #35 Avalon/SB I-405

Cycle (sec):	100	Critical Vol./Cap.(X):	0.408
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	31	Level Of Service:	A

Street Name:	Avalon						SB I-405					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1	1 0	0 0	2	0 1	2 0	2	0 1	0 0	0	0 0
Volume Module:												
Base Vol:	0	891	141	0	954	365	219	98	308	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	891	141	0	954	365	219	98	308	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	0	891	141	0	954	365	219	98	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	891	141	0	954	365	219	98	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	0	891	141	0	954	365	219	98	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.80	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.73	0.27	0.00	2.00	1.00	2.00	2.00	1.00	0.00	0.00	0.00
Final Sat.:	0	2763	437	0	3200	1600	2560	3200	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.32	0.32	0.00	0.30	0.23	0.09	0.03	0.00	0.00	0.00	0.00
Crit Moves:		****			****			****				

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City of Carson
Future Year (2035) No Project

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 3 Figueroa/Torrance	C	xxxxx	0.756	C	xxxxx	0.756	+ 0.000 V/C
# 8 Budlong/Carson	A	xxxxx	0.507	A	xxxxx	0.507	+ 0.000 V/C
# 12 Figueroa/Carson	B	xxxxx	0.691	B	xxxxx	0.691	+ 0.000 V/C
# 13 Moneta/Carson	A	xxxxx	0.359	A	xxxxx	0.359	+ 0.000 V/C
# 14 Main/Carson	A	xxxxx	0.426	A	xxxxx	0.426	+ 0.000 V/C
# 15 Dolores/Carson	A	xxxxx	0.332	A	xxxxx	0.332	+ 0.000 V/C
# 16 Grace/Carson	A	xxxxx	0.317	A	xxxxx	0.317	+ 0.000 V/C
# 17 Avalon/Carson	C	xxxxx	0.770	C	xxxxx	0.770	+ 0.000 V/C
# 18 Bonita/Carson	B	xxxxx	0.648	B	xxxxx	0.648	+ 0.000 V/C
# 19 SB I-405 Ramps/Carson	A	xxxxx	0.554	A	xxxxx	0.554	+ 0.000 V/C
# 20 NB I-405 Ramps/Carson	B	xxxxx	0.623	B	xxxxx	0.623	+ 0.000 V/C
# 24 Figueroa/220th and I-110 NB Ra	E	xxxxx	0.981	E	xxxxx	0.981	+ 0.000 V/C
# 30 Figueroa/223rd	C	xxxxx	0.778	C	xxxxx	0.778	+ 0.000 V/C
# 31 Main/223rd	C	xxxxx	0.727	C	xxxxx	0.727	+ 0.000 V/C
# 33 Figueroa/NB I-110 Ramps	B	xxxxx	0.695	B	xxxxx	0.695	+ 0.000 V/C
# 34 Avalon/NB I-405	A	xxxxx	0.352	A	xxxxx	0.352	+ 0.000 V/C
# 35 Avalon/SB I-405	A	xxxxx	0.519	A	xxxxx	0.519	+ 0.000 V/C

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Figueroa/Torrance

Cycle (sec):	100	Critical Vol./Cap.(X):	0.756
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	93	Level Of Service:	C

Street Name:	Figueroa						Torrance					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 1	0 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	167	528	47	75	275	404	715	389	207	36	402	148
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	167	528	47	75	275	404	715	389	207	36	402	148
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	167	528	47	75	275	404	715	389	207	36	402	148
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	167	528	47	75	275	404	715	389	207	36	402	148
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	167	528	47	75	275	404	715	389	207	36	402	148
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.64	0.89	0.47	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	2616	1425	759	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.10	0.17	0.03	0.05	0.09	0.25	0.27	0.27	0.27	0.02	0.13	0.09
Crit Moves:	****					****	****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Budlong/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.507
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	A

Street Name:	Budlong						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	0	1 0	2	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	15	0	26	12	874	0	0	1515	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	15	0	26	12	874	0	0	1515	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	15	0	26	12	874	0	0	1515	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	15	0	26	12	874	0	0	1515	14
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	15	0	26	12	874	0	0	1515	14
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.37	0.00	0.63	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	585	0	1015	1600	3200	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.01	0.00	0.03	0.01	0.27	0.00	0.00	0.47	0.01
Crit Moves:						****	****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Figueroa/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.691
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	74	Level Of Service:	B

Street Name:	Figueroa						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	1	1 0	2 0	1	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	362	513	198	39	400	232	125	398	479	84	690	69
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	362	513	198	39	400	232	125	398	479	84	690	69
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	362	513	198	39	400	232	125	398	479	84	690	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	362	513	198	39	400	232	125	398	479	84	690	69
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	362	513	198	39	400	232	125	398	479	84	690	69
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.80	1.00	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.44	0.56	2.00	1.27	0.73	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	2560	2309	891	2560	2025	1175	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.14	0.22	0.22	0.02	0.20	0.20	0.08	0.12	0.30	0.05	0.22	0.04
Crit Moves:	****				****				****	****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Moneta/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.359
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	22	Level Of Service:	A

Street Name:	Moneta						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	89	56	61	8	125	69	28	544	68	48	649	17
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	89	56	61	8	125	69	28	544	68	48	649	17
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Volume:	89	56	61	8	125	69	28	544	68	48	649	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	56	61	8	125	69	28	544	68	48	649	17
PCE Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
FinalVolume:	89	56	61	8	125	69	28	544	68	48	649	17
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600		1600 1600	1600		1600 1600	1600		1600 1600	1600	
Adjustment:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Lanes:	0.61 0.39	1.00		0.06 0.94	1.00		1.00 2.00	1.00		1.00 2.00	1.00	
Final Sat.:	982	618	1600	96	1504	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.06 0.09	0.04		0.01 0.08	0.04		0.02 0.17	0.04		0.03 0.20	0.01	
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Main/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.426
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	A

Street Name:	Main						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	188	752	143	78	581	107	105	353	71	117	430	47
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	188	752	143	78	581	107	105	353	71	117	430	47
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	188	752	143	78	581	107	105	353	71	117	430	47
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	188	752	143	78	581	107	105	353	71	117	430	47
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	188	752	143	78	581	107	105	353	71	117	430	47
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.52	0.48	1.00	2.53	0.47	1.00	2.50	0.50	1.00	2.70	0.30
Final Sat.:	1600	4033	767	1600	4053	747	1600	3996	804	1600	4327	473
Capacity Analysis Module:												
Vol/Sat:	0.12	0.19	0.19	0.05	0.14	0.14	0.07	0.09	0.09	0.07	0.10	0.10
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #15 Dolores/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.332
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	22	Level Of Service:	A

Street Name:	Dolores						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	46	177	48	17	188	41	32	463	64	48	469	38
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	46	177	48	17	188	41	32	463	64	48	469	38
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	46	177	48	17	188	41	32	463	64	48	469	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	177	48	17	188	41	32	463	64	48	469	38
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	46	177	48	17	188	41	32	463	64	48	469	38
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.21	0.79	1.00	0.08	0.92	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	330	1270	1600	133	1467	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.14	0.03	0.01	0.13	0.03	0.02	0.14	0.04	0.03	0.15	0.02
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #16 Grace/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.317
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Street Name:	Grace						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1	0	0	1	1	0	2	0	1	1	0	2	0	1
Volume Module:																			
Base Vol:	16	104	61	36	48	26	38	482	17	34	503	33
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	104	61	36	48	26	38	482	17	34	503	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	104	61	36	48	26	38	482	17	34	503	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	104	61	36	48	26	38	482	17	34	503	33
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	16	104	61	36	48	26	38	482	17	34	503	33
Saturation Flow Module:																			
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.09	0.57	0.34	0.43	0.57	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	141	919	539	686	914	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:																			
Vol/Sat:	0.01	0.11	0.11	0.02	0.05	0.02	0.02	0.15	0.01	0.02	0.16	0.02
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #17 Avalon/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.770
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	99	Level Of Service:	C

Street Name:	Avalon						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	2 0	1	1 0	2 0	1	1 0
Volume Module:												
Base Vol:	77	756	526	150	770	63	93	433	68	489	444	128
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	77	756	526	150	770	63	93	433	68	489	444	128
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	77	756	526	150	770	63	93	433	68	489	444	128
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	756	526	150	770	63	93	433	68	489	444	128
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	77	756	526	150	770	63	93	433	68	489	444	128
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.80	1.00	1.00	0.80	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.77	0.23	2.00	1.73	0.27	2.00	1.55	0.45
Final Sat.:	1600	3200	1600	1600	4437	363	2560	2766	434	2560	2484	716
Capacity Analysis Module:												
Vol/Sat:	0.05	0.24	0.33	0.09	0.17	0.17	0.04	0.16	0.16	0.19	0.18	0.18
Crit Moves:			****	****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #18 Bonita/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.648
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	B

Street Name:	Bonita						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Prot+Permit			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1 0	0 1		1 0 1	0 1		1 0 2	0 1		1 0 2	1 0	
Volume Module:												
Base Vol:	130	55	242	54	137	56	38	952	130	239	864	132
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	130	55	242	54	137	56	38	952	130	239	864	132
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	130	55	242	54	137	56	38	952	130	239	864	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	130	55	242	54	137	56	38	952	130	239	864	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	130	55	242	54	137	56	38	952	130	239	864	132
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.70	0.30	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.60	0.40
Final Sat.:	1124	476	1600	1600	1600	1600	1600	3200	1600	1600	4164	636
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.15	0.03	0.09	0.04	0.02	0.30	0.08	0.15	0.21	0.21
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #19 SB I-405 Ramps/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.554
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	A

Street Name:	SB I-405 Ramps						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	0 0	0	0 0	1 0	2	0 1	1 0	3	0 0
Volume Module:												
Base Vol:	72	0	229	0	0	0	8	710	556	101	1183	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	72	0	229	0	0	0	8	710	556	101	1183	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	72	0	229	0	0	0	8	710	556	101	1183	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	0	229	0	0	0	8	710	556	101	1183	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	72	0	229	0	0	0	8	710	556	101	1183	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	1.00	1.00	3.00	0.00
Final Sat.:	1600	0	1600	0	0	0	1600	3200	1600	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.00	0.14	0.00	0.00	0.00	0.01	0.22	0.35	0.06	0.25	0.00
Crit Moves:			****						****	****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #20 NB I-405 Ramps/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.623
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

Street Name:	NB I-405 Ramps						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	7	7	2	26	17	465	107	802	28	10	836	285
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	7	7	2	26	17	465	107	802	28	10	836	285
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	7	7	2	26	17	465	107	802	28	10	836	285
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	7	2	26	17	465	107	802	28	10	836	285
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	7	7	2	26	17	465	107	802	28	10	836	285
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.50	0.50	1.00	0.60	0.40	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	800	800	1600	967	633	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.01	0.00	0.02	0.03	0.29	0.07	0.25	0.02	0.01	0.26	0.18
Crit Moves:	****					****	****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #24 Figueroa/220th and I-110 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.981
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Street Name:	Figueroa							220th/I-110 NB Ramps							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected					Protected					Split Phase					Split Phase				
Rights:	Include					Include					Include					Include				
Min. Green:	0	0	0			0	0	0			0	0	0			0	0	0		
Y+R:	4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0		
Lanes:	1	0	2	0	1	1	0	2	0	1	0	1	0	0	1	0	1	0	0	1
Volume Module:																				
Base Vol:	503	631	184			148	454	407			288	62	87			98	212	163		
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	503	631	184			148	454	407			288	62	87			98	212	163		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Volume:	503	631	184			148	454	407			288	62	87			98	212	163		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Reduced Vol:	503	631	184			148	454	407			288	62	87			98	212	163		
PCE Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
FinalVolume:	503	631	184			148	454	407			288	62	87			98	212	163		
Saturation Flow Module:																				
Sat/Lane:	1600	1600	1600			1600	1600	1600			1600	1600	1600			1600	1600	1600		
Adjustment:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Lanes:	1.00	2.00	1.00			1.00	2.00	1.00			0.82	0.18	1.00			0.32	0.68	1.00		
Final Sat.:	1600	3200	1600			1600	3200	1600			1317	283	1600			506	1094	1600		
Capacity Analysis Module:																				
Vol/Sat:	0.31	0.20	0.12			0.09	0.14	0.25			0.22	0.22	0.05			0.19	0.19	0.10		
Crit Moves:	****							****				****				****				

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #30 Figueroa/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.778
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	84	Level Of Service:	C

Street Name:	Figueroa						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	163	612	171	95	327	208	340	852	194	68	1006	346
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	163	612	171	95	327	208	340	852	194	68	1006	346
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	163	612	171	95	327	208	340	852	194	68	1006	346
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	163	612	171	95	327	208	340	852	194	68	1006	346
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	163	612	171	95	327	208	340	852	194	68	1006	346
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.10	0.19	0.11	0.06	0.10	0.13	0.21	0.27	0.12	0.04	0.31	0.22
Crit Moves:	****			****			****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #31 Main/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.727
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	83	Level Of Service:	C

Street Name:	Main							223rd							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1
Volume Module:																
Base Vol:	122	612	208		177	516	214		175	870	116		130	1010	117	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	122	612	208		177	516	214		175	870	116		130	1010	117	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	122	612	208		177	516	214		175	870	116		130	1010	117	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	122	612	208		177	516	214		175	870	116		130	1010	117	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	122	612	208		177	516	214		175	870	116		130	1010	117	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00	
Final Sat.:	1600	3200	1600		1600	3200	1600		1600	3200	1600		1600	3200	1600	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.19	0.13		0.11	0.16	0.13		0.11	0.27	0.07		0.08	0.32	0.07	
Crit Moves:		****				****				****				****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #33 Figueroa/NB I-110 Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.695
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	61	Level Of Service:	B

Street Name:	Figueroa							NB I-110 Ramps							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	2	0 0	0	0	2	0 1	1	0	1!	0 0	0	0	0	0 0
Volume Module:																
Base Vol:	674	705		0 0	400		115	633		0	350		0		0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	674	705		0 0	400		115	633		0	350		0		0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	674	705		0 0	400		115	633		0	350		0		0	0
Reduct Vol:	0	0		0 0	0		0	0		0	0		0		0	0
Reduced Vol:	674	705		0 0	400		115	633		0	350		0		0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	674	705		0 0	400		115	633		0	350		0		0	0
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	2.00	1.00	1.29	0.00	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	2560	3200		0 0	3200		1600	2061		0	1139		0		0	0
Capacity Analysis Module:																
Vol/Sat:	0.26	0.22	0.00	0.00	0.13	0.07	0.31	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****				****			****								

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #34 Avalon/NB I-405

Cycle (sec):	100	Critical Vol./Cap.(X):	0.352
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	A

Street Name:	Avalon						NB I-405					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	2 0	0	0 0	3 0	1	0 0	0 0	0	1 1	0 0	1
Volume Module:												
Base Vol:	363	1055	0	0	843	215	0	0	0	70	1	426
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	363	1055	0	0	843	215	0	0	0	70	1	426
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	363	1055	0	0	843	215	0	0	0	70	1	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	363	1055	0	0	843	215	0	0	0	70	1	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	363	1055	0	0	843	215	0	0	0	70	1	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.97	0.03	1.00
Final Sat.:	2560	3200	0	0	4800	1600	0	0	0	3155	45	1600
Capacity Analysis Module:												
Vol/Sat:	0.14	0.33	0.00	0.00	0.18	0.13	0.00	0.00	0.00	0.02	0.02	0.00
Crit Moves:	****										****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #35 Avalon/SB I-405

Cycle (sec):	100	Critical Vol./Cap.(X):	0.519
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	A

Street Name:	Avalon						SB I-405					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1	1 0	0 0	2	0 1	2 0	2	0 1	0 0	0	0 0
Volume Module:												
Base Vol:	0	941	116	0	660	258	482	7	532	0	0	0
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	0	941	116	0	660	258	482	7	532	0	0	0
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	0.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	0.00		1.00 1.00	1.00	
PHF Volume:	0	941	116	0	660	258	482	7	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	941	116	0	660	258	482	7	0	0	0	0
PCE Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	0.00		1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	0.00		1.00 1.00	1.00	
FinalVolume:	0	941	116	0	660	258	482	7	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600		1600 1600	1600		1600 1600	1600		1600 1600	1600	
Adjustment:	1.00 1.00	1.00		1.00 1.00	1.00		0.80 1.00	1.00		1.00 1.00	1.00	
Lanes:	0.00 1.78	0.22		0.00 2.00	1.00		2.00 2.00	1.00		0.00 0.00	0.00	
Final Sat.:	0 2849	351		0 3200	1600		2560 3200	1600		0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00 0.33	0.33		0.00 0.21	0.16		0.19 0.00	0.00		0.00 0.00	0.00	
Crit Moves:	****			****			****					

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 3 Figueroa/Torrance	C	xxxxx	0.754	C	xxxxx	0.754	+ 0.000 V/C
# 8 Budlong/Carson	A	xxxxx	0.437	A	xxxxx	0.437	+ 0.000 V/C
# 12 Figueroa/Carson	C	xxxxx	0.732	C	xxxxx	0.732	+ 0.000 V/C
# 13 Moneta/Carson	A	xxxxx	0.328	A	xxxxx	0.328	+ 0.000 V/C
# 14 Main/Carson	A	xxxxx	0.564	A	xxxxx	0.564	+ 0.000 V/C
# 15 Dolores/Carson	A	xxxxx	0.382	A	xxxxx	0.382	+ 0.000 V/C
# 16 Grace/Carson	A	xxxxx	0.390	A	xxxxx	0.390	+ 0.000 V/C
# 17 Avalon/Carson	D	xxxxx	0.824	D	xxxxx	0.824	+ 0.000 V/C
# 18 Bonita/Carson	D	xxxxx	0.822	D	xxxxx	0.822	+ 0.000 V/C
# 19 SB I-405 Ramps/Carson	B	xxxxx	0.656	B	xxxxx	0.656	+ 0.000 V/C
# 20 NB I-405 Ramps/Carson	B	xxxxx	0.653	B	xxxxx	0.653	+ 0.000 V/C
# 24 Figueroa/220th and I-110 NB Ra	D	xxxxx	0.886	D	xxxxx	0.886	+ 0.000 V/C
# 30 Figueroa/223rd	C	xxxxx	0.748	C	xxxxx	0.748	+ 0.000 V/C
# 31 Main/223rd	D	xxxxx	0.824	D	xxxxx	0.824	+ 0.000 V/C
# 33 Figueroa/NB I-110 Ramps	B	xxxxx	0.693	B	xxxxx	0.693	+ 0.000 V/C
# 34 Avalon/NB I-405	A	xxxxx	0.461	A	xxxxx	0.461	+ 0.000 V/C
# 35 Avalon/SB I-405	A	xxxxx	0.460	A	xxxxx	0.460	+ 0.000 V/C

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Figueroa/Torrance

Cycle (sec):	100	Critical Vol./Cap.(X):	0.754
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	93	Level Of Service:	C

Street Name:	Figueroa						Torrance					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 1	0 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	106	340	56	159	549	385	693	750	176	52	345	137
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	106	340	56	159	549	385	693	750	176	52	345	137
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	106	340	56	159	549	385	693	750	176	52	345	137
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	106	340	56	159	549	385	693	750	176	52	345	137
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	106	340	56	159	549	385	693	750	176	52	345	137
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.29	1.39	0.32	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	2060	2221	519	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.07	0.11	0.04	0.10	0.17	0.24	0.34	0.34	0.34	0.03	0.11	0.09
Crit Moves:	****					****			****		****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Budlong/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.437
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	26	Level Of Service:	A

Street Name:	Budlong						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	0	1 0	2	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	12	0	23	19	1327	0	0	1249	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	12	0	23	19	1327	0	0	1249	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	12	0	23	19	1327	0	0	1249	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	12	0	23	19	1327	0	0	1249	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	12	0	23	19	1327	0	0	1249	23
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.34	0.00	0.66	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	549	0	1051	1600	3200	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.01	0.00	0.02	0.01	0.41	0.00	0.00	0.39	0.01
Crit Moves:						****		****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Figueroa/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.732
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	85	Level Of Service:	C

Street Name:	Figueroa						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	1	1 0	2 0	1	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	238	260	109	95	541	195	152	587	564	90	577	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	238	260	109	95	541	195	152	587	564	90	577	71
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	238	260	109	95	541	195	152	587	564	90	577	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	238	260	109	95	541	195	152	587	564	90	577	71
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	238	260	109	95	541	195	152	587	564	90	577	71
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.80	1.00	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.41	0.59	2.00	1.47	0.53	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	2560	2255	945	2560	2352	848	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.09	0.12	0.12	0.04	0.23	0.23	0.10	0.18	0.35	0.06	0.18	0.04
Crit Moves:	****			****					****	****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Moneta/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.328
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Street Name:	Moneta						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	51	46	48	12	69	42	29	693	95	46	621	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	51	46	48	12	69	42	29	693	95	46	621	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	51	46	48	12	69	42	29	693	95	46	621	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	46	48	12	69	42	29	693	95	46	621	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	51	46	48	12	69	42	29	693	95	46	621	24
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.53	0.47	1.00	0.15	0.85	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	841	759	1600	237	1363	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.06	0.03	0.01	0.05	0.03	0.02	0.22	0.06	0.03	0.19	0.02
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Main/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.564
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	A

Street Name:	Main						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	190	547	107	193	972	132	93	506	47	160	420	65
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	190	547	107	193	972	132	93	506	47	160	420	65
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	190	547	107	193	972	132	93	506	47	160	420	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	190	547	107	193	972	132	93	506	47	160	420	65
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	190	547	107	193	972	132	93	506	47	160	420	65
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.51	0.49	1.00	2.64	0.36	1.00	2.75	0.25	1.00	2.60	0.40
Final Sat.:	1600	4015	785	1600	4226	574	1600	4392	408	1600	4157	643
Capacity Analysis Module:												
Vol/Sat:	0.12	0.14	0.14	0.12	0.23	0.23	0.06	0.12	0.12	0.10	0.10	0.10
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #15 Dolores/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.382
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	23	Level Of Service:	A

Street Name:	Dolores						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	43	130	37	27	122	36	46	703	60	60	546	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	43	130	37	27	122	36	46	703	60	60	546	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	43	130	37	27	122	36	46	703	60	60	546	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	130	37	27	122	36	46	703	60	60	546	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	43	130	37	27	122	36	46	703	60	60	546	16
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.25	0.75	1.00	0.18	0.82	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	398	1202	1600	290	1310	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.11	0.02	0.02	0.09	0.02	0.03	0.22	0.04	0.04	0.17	0.01
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #16 Grace/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.390
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	A

Street Name:	Grace						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1 0	0 1		1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	29	90	54	45	70	36	42	685	24	63	581	53
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	29	90	54	45	70	36	42	685	24	63	581	53
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	29	90	54	45	70	36	42	685	24	63	581	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	90	54	45	70	36	42	685	24	63	581	53
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	29	90	54	45	70	36	42	685	24	63	581	53
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.17	0.52	0.31	0.39	0.61	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	268	832	499	626	974	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.11	0.11	0.03	0.07	0.02	0.03	0.21	0.02	0.04	0.18	0.03
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #17 Avalon/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.824
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	130	Level Of Service:	D

Street Name:	Avalon						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	2 0	1	1 0	2 0	1	1 0
Volume Module:												
Base Vol:	104	839	471	214	969	143	164	595	84	471	437	136
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	104	839	471	214	969	143	164	595	84	471	437	136
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	104	839	471	214	969	143	164	595	84	471	437	136
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	104	839	471	214	969	143	164	595	84	471	437	136
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	104	839	471	214	969	143	164	595	84	471	437	136
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.80	1.00	1.00	0.80	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.61	0.39	2.00	1.75	0.25	2.00	1.53	0.47
Final Sat.:	1600	3200	1600	1600	4183	617	2560	2804	396	2560	2440	760
Capacity Analysis Module:												
Vol/Sat:	0.07	0.26	0.29	0.13	0.23	0.23	0.06	0.21	0.21	0.18	0.18	0.18
Crit Moves:			****	****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #18 Bonita/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.822
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	128	Level Of Service:	D

Street Name:	Bonita						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Prot+Permit			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	1	0 1	0 1	1	0	2 0 1	1	0	2 1 0
Volume Module:												
Base Vol:	59	50	421	86	68	29	55	1192	79	212	903	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	59	50	421	86	68	29	55	1192	79	212	903	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	59	50	421	86	68	29	55	1192	79	212	903	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	59	50	421	86	68	29	55	1192	79	212	903	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	59	50	421	86	68	29	55	1192	79	212	903	45
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.54	0.46	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.86	0.14
Final Sat.:	866	734	1600	1600	1600	1600	1600	3200	1600	1600	4572	228
Capacity Analysis Module:												
Vol/Sat:	0.07	0.07	0.26	0.05	0.04	0.02	0.03	0.37	0.05	0.13	0.20	0.20
Crit Moves:			****	****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #19 SB I-405 Ramps/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.656
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	54	Level Of Service:	B

Street Name:	SB I-405 Ramps						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	0 0	0	0 0	1 0	2	0 1	1 0	3	0 0
Volume Module:												
Base Vol:	37	0	82	0	0	0	7	882	818	149	1153	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	37	0	82	0	0	0	7	882	818	149	1153	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	37	0	82	0	0	0	7	882	818	149	1153	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	0	82	0	0	0	7	882	818	149	1153	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	37	0	82	0	0	0	7	882	818	149	1153	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	1.00	1.00	3.00	0.00
Final Sat.:	1600	0	1600	0	0	0	1600	3200	1600	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.02	0.00	0.05	0.00	0.00	0.00	0.00	0.28	0.51	0.09	0.24	0.00
Crit Moves:			****						****	****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #20 NB I-405 Ramps/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.653
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	54	Level Of Service:	B

Street Name:	NB I-405 Ramps						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	59	20	16	47	3	497	122	836	39	17	732	363
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	59	20	16	47	3	497	122	836	39	17	732	363
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Volume:	59	20	16	47	3	497	122	836	39	17	732	363
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	59	20	16	47	3	497	122	836	39	17	732	363
PCE Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
FinalVolume:	59	20	16	47	3	497	122	836	39	17	732	363
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600		1600 1600	1600		1600 1600	1600		1600 1600	1600	
Adjustment:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Lanes:	0.75 0.25	1.00		0.94 0.06	1.00		1.00 2.00	1.00		1.00 2.00	1.00	
Final Sat.:	1195 405	1600		1504 96	1600		1600 3200	1600		1600 3200	1600	
Capacity Analysis Module:												
Vol/Sat:	0.04 0.05	0.01		0.03 0.03	0.31		0.08 0.26	0.02		0.01 0.23	0.23	
Crit Moves:	****				****		****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #24 Figueroa/220th and I-110 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.886
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	D

Street Name:	Figueroa							220th/I-110 NB Ramps							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0	2	0 1	1	0	2	0 1	0	1	0	0 1	0	1	0	0 1
Volume Module:																
Base Vol:	451	294		38	127	632		451	233	131		112	41	110		86
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:	451	294		38	127	632		451	233	131		112	41	110		86
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Volume:	451	294		38	127	632		451	233	131		112	41	110		86
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	451	294		38	127	632		451	233	131		112	41	110		86
PCE Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
MLF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
FinalVolume:	451	294		38	127	632		451	233	131		112	41	110		86
Saturation Flow Module:																
Sat/Lane:	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600		1600
Adjustment:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Lanes:	1.00	2.00		1.00	1.00	2.00		1.00	0.64	0.36		1.00	0.27	0.73		1.00
Final Sat.:	1600	3200		1600	1600	3200		1600	1024	576		1600	434	1166		1600
Capacity Analysis Module:																
Vol/Sat:	0.28	0.09		0.02	0.08	0.20		0.28	0.23	0.23		0.07	0.09	0.09		0.05
Crit Moves:	****							****	****					****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #30 Figueroa/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.748
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	74	Level Of Service:	C

Street Name:	Figueroa							223rd							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1
Volume Module:																
Base Vol:	68	356	115		177	403	176		305	1541	235		71	796	143	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	68	356	115		177	403	176		305	1541	235		71	796	143	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	68	356	115		177	403	176		305	1541	235		71	796	143	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	68	356	115		177	403	176		305	1541	235		71	796	143	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	68	356	115		177	403	176		305	1541	235		71	796	143	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00	
Final Sat.:	1600	3200	1600		1600	3200	1600		1600	3200	1600		1600	3200	1600	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.11	0.07		0.11	0.13	0.11		0.19	0.48	0.15		0.04	0.25	0.09	
Crit Moves:		****				****					****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #31 Main/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.824
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	129	Level Of Service:	D

Street Name:	Main							223rd							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1
Volume Module:																
Base Vol:	126	502	199		210	716	185		193	1362	123		153	758	122	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	126	502	199		210	716	185		193	1362	123		153	758	122	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	126	502	199		210	716	185		193	1362	123		153	758	122	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	126	502	199		210	716	185		193	1362	123		153	758	122	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	126	502	199		210	716	185		193	1362	123		153	758	122	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00	
Final Sat.:	1600	3200	1600		1600	3200	1600		1600	3200	1600		1600	3200	1600	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.16	0.12		0.13	0.22	0.12		0.12	0.43	0.08		0.10	0.24	0.08	
Crit Moves:	****				****				****				****			

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #33 Figueroa/NB I-110 Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.693
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	61	Level Of Service:	B

Street Name:	Figueroa							NB I-110 Ramps							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	2	0 0	0	0	2	0 1	1	0	1!	0 0	0	0	0	0 0
Volume Module:																
Base Vol:	686	488		0 0	861		246		323		0		177		0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	686	488		0 0	861		246		323		0		177		0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	686	488		0 0	861		246		323		0		177		0	0
Reduct Vol:	0	0		0 0	0		0		0		0		0		0	0
Reduced Vol:	686	488		0 0	861		246		323		0		177		0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	686	488		0 0	861		246		323		0		177		0	0
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	0.80	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	2.00	0.00	0.00	2.00	1.00	1.29		0.00	0.71	0.00		0.00	0.00	0.00	
Final Sat.:	2560	3200		0 0	3200		1600		2067		0		1133		0	0
Capacity Analysis Module:																
Vol/Sat:	0.27	0.15	0.00	0.00	0.27	0.15	0.16		0.00	0.16	0.00		0.00	0.00	0.00	
Crit Moves:	****				****				****							

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #34 Avalon/NB I-405

Cycle (sec):	100	Critical Vol./Cap.(X):	0.461
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Street Name:	Avalon							NB I-405							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected					Permitted					Split Phase					Split Phase				
Rights:	Include					Include					Include					Ignore				
Min. Green:	0	0	0			0	0	0			0	0	0			0	0	0		
Y+R:	4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0		
Lanes:	2	0	2	0	0	0	0	3	0	1	0	0	0	0	0	1	1	0	0	1
Volume Module:																				
Base Vol:	359	891	0			0	1356	431	0		0	0	0			123	0	355		
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	359	891	0			0	1356	431	0		0	0	0			123	0	355		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00			1.00	1.00	0.00		
PHF Adj:	1.00	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00			1.00	1.00	0.00		
PHF Volume:	359	891	0			0	1356	431	0		0	0	0			123	0	0		
Reduct Vol:	0	0	0			0	0	0	0		0	0	0			0	0	0		
Reduced Vol:	359	891	0			0	1356	431	0		0	0	0			123	0	0		
PCE Adj:	1.00	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00			1.00	1.00	0.00		
MLF Adj:	1.00	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00			1.00	1.00	0.00		
FinalVolume:	359	891	0			0	1356	431	0		0	0	0			123	0	0		
Saturation Flow Module:																				
Sat/Lane:	1600	1600	1600			1600	1600	1600	1600		1600	1600	1600			1600	1600	1600		
Adjustment:	0.80	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00			1.00	1.00	1.00		
Lanes:	2.00	2.00	0.00			0.00	3.00	1.00	0.00		0.00	0.00	0.00			2.00	0.00	1.00		
Final Sat.:	2560	3200	0			0	4800	1600	0		0	0	0			3200	0	1600		
Capacity Analysis Module:																				
Vol/Sat:	0.14	0.28	0.00			0.00	0.28	0.27	0.00		0.00	0.00	0.00			0.04	0.00	0.00		
Crit Moves:	****						****									****				

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #35 Avalon/SB I-405

Cycle (sec):	100	Critical Vol./Cap.(X):	0.460
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Street Name:	Avalon						SB I-405					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1	1 0	0 0	2	0 1	2 0	2	0 1	0 0	0	0 0
Volume Module:												
Base Vol:	0	1004	159	0	1075	411	247	110	347	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1004	159	0	1075	411	247	110	347	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	0	1004	159	0	1075	411	247	110	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1004	159	0	1075	411	247	110	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	0	1004	159	0	1075	411	247	110	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.80	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.73	0.27	0.00	2.00	1.00	2.00	2.00	1.00	0.00	0.00	0.00
Final Sat.:	0	2763	437	0	3200	1600	2560	3200	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.36	0.36	0.00	0.34	0.26	0.10	0.03	0.00	0.00	0.00	0.00
Crit Moves:		****			****			****				

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County of Los Angeles
Existing Year (2016) With Project

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Normandie/Torrance	C	xxxxx	0.796	C	xxxxx	0.796	+ 0.000 V/C
# 2 Vermont/Torrance	D	xxxxx	0.888	D	xxxxx	0.888	+ 0.000 V/C
# 4 Vermont/Javelin	B	xxxxx	0.633	B	xxxxx	0.633	+ 0.000 V/C
# 7 Normandie/Carson	C	xxxxx	0.770	C	xxxxx	0.770	+ 0.000 V/C
# 8 Budlong/Carson	A	xxxxx	0.512	A	xxxxx	0.512	+ 0.000 V/C
# 9 Berendo/Carson	B	xxxxx	0.627	B	xxxxx	0.627	+ 0.000 V/C
# 10 Vermont/Carson	F	xxxxx	1.026	F	xxxxx	1.026	+ 0.000 V/C
# 11 SB I-110 Ramps/Carson	F	xxxxx	1.086	F	xxxxx	1.086	+ 0.000 V/C
# 21 Normandie/220th	A	xxxxx	0.476	A	xxxxx	0.476	+ 0.000 V/C
# 22 Meyler/220th	B	12.2	0.472	B	12.2	0.472	+ 0.000 V/C
# 23 Vermont/220th	A	xxxxx	0.538	A	xxxxx	0.538	+ 0.000 V/C
# 26 Normandie/223rd	B	xxxxx	0.694	B	xxxxx	0.694	+ 0.000 V/C
# 27 Meyler/223rd	D	xxxxx	0.817	D	xxxxx	0.817	+ 0.000 V/C
# 28 Vermont/223rd	F	xxxxx	1.119	F	xxxxx	1.119	+ 0.000 V/C
# 29 SB I-110 Ramps/223rd	F	xxxxx	1.036	F	xxxxx	1.036	+ 0.000 V/C
# 32 Hamilton/SB I-110 Ramps	F	158.1	1.404	F	158.1	1.404	+ 0.000 V/C

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Normandie/Torrance

Cycle (sec):	100	Critical Vol./Cap.(X):	0.796
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	112	Level Of Service:	C

Street Name:	Normandie						Torrance					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Prot+Permit			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	132	669	106	47	373	102	94	948	83	105	1516	80
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	132	669	106	47	373	102	94	948	83	105	1516	80
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	132	669	106	47	373	102	94	948	83	105	1516	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	132	669	106	47	373	102	94	948	83	105	1516	80
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	132	669	106	47	373	102	94	948	83	105	1516	80
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.57	0.43	1.00	1.84	0.16	1.00	1.90	0.10
Final Sat.:	1600	3200	1600	1600	2513	687	1600	2942	258	1600	3040	160
Capacity Analysis Module:												
Vol/Sat:	0.08	0.21	0.07	0.03	0.15	0.15	0.06	0.32	0.32	0.07	0.50	0.50
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Vermont/Torrance

Cycle (sec):	100	Critical Vol./Cap.(X):	0.888
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	D

Street Name:	Vermont						Torrance					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	0 1	1 0	2	0 1	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	114	795	284	27	578	194	187	924	150	460	1204	74
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	114	795	284	27	578	194	187	924	150	460	1204	74
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	114	795	284	27	578	194	187	924	150	460	1204	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	114	795	284	27	578	194	187	924	150	460	1204	74
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	114	795	284	27	578	194	187	924	150	460	1204	74
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.72	0.28	1.00	1.88	0.12
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	2753	447	1600	3015	185
Capacity Analysis Module:												
Vol/Sat:	0.07	0.25	0.18	0.02	0.18	0.12	0.12	0.34	0.34	0.29	0.40	0.40
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Vermont/Javelin

Cycle (sec):	100	Critical Vol./Cap.(X):	0.633
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	B

Street Name:	Vermont						Javelin					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	5	1025	155	183	984	53	63	23	5	89	3	163
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	1025	155	183	984	53	63	23	5	89	3	163
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	1025	155	183	984	53	63	23	5	89	3	163
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	1025	155	183	984	53	63	23	5	89	3	163
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	1025	155	183	984	53	63	23	5	89	3	163
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	0.70	0.25	0.05	0.35	0.01	0.64
Final Sat.:	1600	3200	1600	1600	3200	1600	1108	404	88	558	19	1023
Capacity Analysis Module:												
Vol/Sat:	0.00	0.32	0.10	0.11	0.31	0.03	0.04	0.06	0.06	0.06	0.16	0.16
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Normandie/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.770
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	99	Level Of Service:	C

Street Name:	Normandie						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	174	666	84	50	405	151	196	876	172	155	1168	102
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	174	666	84	50	405	151	196	876	172	155	1168	102
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	174	666	84	50	405	151	196	876	172	155	1168	102
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	174	666	84	50	405	151	196	876	172	155	1168	102
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	174	666	84	50	405	151	196	876	172	155	1168	102
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.46	0.54	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	2331	869	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.11	0.21	0.05	0.03	0.17	0.17	0.12	0.27	0.11	0.10	0.37	0.06
Crit Moves:	****				****		****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Budlong/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.512
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	A

Street Name:	Budlong						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	0	1 0	2	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	38	0	32	33	960	0	0	1432	78
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	38	0	32	33	960	0	0	1432	78
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	38	0	32	33	960	0	0	1432	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	38	0	32	33	960	0	0	1432	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	38	0	32	33	960	0	0	1432	78
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.54	0.00	0.46	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	869	0	731	1600	3200	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.02	0.00	0.04	0.02	0.30	0.00	0.00	0.45	0.05
Crit Moves:						****	****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Berendo/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.627
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	B

Street Name:	Berendo						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	38	1	135	58	0	49	72	843	79	388	1419	156
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	38	1	135	58	0	49	72	843	79	388	1419	156
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	38	1	135	58	0	49	72	843	79	388	1419	156
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	1	135	58	0	49	72	843	79	388	1419	156
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	38	1	135	58	0	49	72	843	79	388	1419	156
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	0	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.00	0.08	0.04	0.00	0.03	0.05	0.26	0.05	0.24	0.44	0.10
Crit Moves:			****	****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 Vermont/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	1.026
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Vermont						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	163	819	215	174	677	343	258	796	85	455	1599	369
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	163	819	215	174	677	343	258	796	85	455	1599	369
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	163	819	215	174	677	343	258	796	85	455	1599	369
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	163	819	215	174	677	343	258	796	85	455	1599	369
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	163	819	215	174	677	343	258	796	85	455	1599	369
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.10	0.26	0.13	0.11	0.21	0.21	0.16	0.25	0.05	0.28	0.50	0.23
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 SB I-110 Ramps/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	1.086
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	SB I-110 Ramps						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	1 0	0	0 1	0 0	2	1 0	1 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	114	0	1031	0	1050	156	133	1412	0
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	0	0	0	114	0	1031	0	1050	156	133	1412	0
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Volume:	0	0	0	114	0	1031	0	1050	156	133	1412	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	114	0	1031	0	1050	156	133	1412	0
PCE Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
FinalVolume:	0	0	0	114	0	1031	0	1050	156	133	1412	0
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600		1600 1600	1600		1600 1600	1600		1600 1600	1600	
Adjustment:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Lanes:	0.00 0.00	0.00		1.00 0.00	1.00		0.00 2.61	0.39		1.00 2.00	0.00	
Final Sat.:	0	0	0	1600	0	1600	0	4179	621	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00 0.00	0.00		0.07 0.00	0.64		0.00 0.25	0.25		0.08 0.44	0.00	
Crit Moves:					****						****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #21 Normandie/220th

Cycle (sec):	100	Critical Vol./Cap.(X):	0.476
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Street Name:	Normandie						220th					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0 2	0	1	1 0 1	1	0	0 1	0	1	0 1	0	1
Volume Module:												
Base Vol:	29	810	129	55	459	23	36	194	45	72	132	99
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	29	810	129	55	459	23	36	194	45	72	132	99
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	29	810	129	55	459	23	36	194	45	72	132	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	810	129	55	459	23	36	194	45	72	132	99
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	29	810	129	55	459	23	36	194	45	72	132	99
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.90	0.10	0.16	0.84	1.00	0.35	0.65	1.00
Final Sat.:	1600	3200	1600	1600	3047	153	250	1350	1600	565	1035	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.25	0.08	0.03	0.15	0.15	0.02	0.14	0.03	0.05	0.13	0.06
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #22 Meyler/220th

Cycle (sec):	100	Critical Vol./Cap.(X):	0.472
Loss Time (sec):	0	Average Delay (sec/veh):	12.2
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Meyler						220th					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1!	0	0 0	1!	0	0 0	1	0	0 1	0	1
Volume Module:												
Base Vol:	90	101	88	59	26	39	94	138	69	86	148	159
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	90	101	88	59	26	39	94	138	69	86	148	159
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	90	101	88	59	26	39	94	138	69	86	148	159
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	101	88	59	26	39	94	138	69	86	148	159
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	90	101	88	59	26	39	94	138	69	86	148	159
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.32	0.36	0.32	0.48	0.21	0.31	0.41	0.59	1.00	0.37	0.63	1.00
Final Sat.:	191	214	186	255	112	169	218	320	619	203	349	637
Capacity Analysis Module:												
Vol/Sat:	0.47	0.47	0.47	0.23	0.23	0.23	0.43	0.43	0.11	0.42	0.42	0.25
Crit Moves:			****	****				****			****	
Delay/Veh:	13.3	13.3	13.3	10.7	10.7	10.7	13.5	13.5	8.8	13.2	13.2	9.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.3	13.3	13.3	10.7	10.7	10.7	13.5	13.5	8.8	13.2	13.2	9.8
LOS by Move:	B	B	B	B	B	B	B	B	A	B	B	A
ApproachDel:	13.3			10.7			12.4			11.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	13.3			10.7			12.4			11.8		
LOS by Appr:	B			B			B			B		
AllWayAvgQ:	0.7	0.7	0.7	0.2	0.2	0.2	0.7	0.7	0.1	0.7	0.7	0.3

Note: Queue reported is the number of cars per lane.

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Level Of Service Detailed Computation Report
2000 HCM 4-Way Stop Method
Base Volume Alternative

Intersection #22 Meyler/220th

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Time Period: 0.25 hour												
HevVeh:	0%			0%			0%			0%		
Alpha Value: 0.01												
GroupType:	2			2			5			5		
P[C1]:	0.19			0.13			0.20			0.23		
P[C2]:	0.05			0.11			0.24			0.21		
P[C3]:	0.40			0.28			0.21			0.25		
P[C4]:	0.31			0.37			0.30			0.27		
P[C5]:	0.05			0.12			0.05			0.04		
Padj[C1]:	0.020			0.022			0.018			0.017		
Padj[C2]:	0.011			0.013			0.007			0.007		
Padj[C3]:	-0.008			-0.002			-0.002			-0.004		
Padj[C4]:	-0.018			-0.021			-0.017			-0.016		
Padj[C5]:	-0.005			-0.012			-0.005			-0.004		
Lanes:	L1	L2		L1	L2		L1	L2		L1	L2	
LaneType:	LTR	NOLANE		LTR	NOLANE		RITE	LTTHRU		RITE	LTTHRU	
HeadwayAdj:	-0.125	xx.xxx		-0.094	xx.xxx		-0.700	0.203		-0.700	0.184	
Volume:	279	xxxxxx		124	xxxxxx		69	232		159	234	
Capacity:	591	xxxxx		536	xxxxx		619	538		637	552	
DegOfUtil:	0.45	x.xx		0.21	x.xx		0.11	0.41		0.24	0.41	
DepHeadway:	5.75	xx.xx		6.10	xx.xx		5.50	6.40		5.40	6.28	
ServiceTime:	3.8	xx.x		4.1	xx.x		3.2	4.1		3.1	4.0	
Delay:	13.3	xxx.x		10.7	xxx.x		8.8	13.5		9.8	13.2	
Queue:	0.7	xxx.x		0.2	xxx.x		0.1	0.7		0.3	0.7	

Approach:	North Bound	South Bound	East Bound	West Bound
ApproachDel:	13.3	10.7	12.4	11.8
Delay Adj:	1.00	1.00	1.00	1.00
ApprAdjDel:	13.3	10.7	12.4	11.8
LOS by Appr:	B	B	B	B

OverallDel: 12.2
OverallLOS: B

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #23 Vermont/220th

Cycle (sec):	100	Critical Vol./Cap.(X):	0.538
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	31	Level Of Service:	A

Street Name:	Vermont						220th					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	233	966	90	136	608	364	178	44	104	42	33	60
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	233	966	90	136	608	364	178	44	104	42	33	60
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	233	966	90	136	608	364	178	44	104	42	33	60
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	233	966	90	136	608	364	178	44	104	42	33	60
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	233	966	90	136	608	364	178	44	104	42	33	60
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	0.80	0.20	1.00	0.56	0.44	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	1283	317	1600	896	704	1600
Capacity Analysis Module:												
Vol/Sat:	0.15	0.30	0.06	0.09	0.19	0.23	0.11	0.14	0.07	0.03	0.05	0.04
Crit Moves:	****					****		****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #26 Normandie/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.694
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	47	Level Of Service:	B

Street Name:	Normandie						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	86	749	165	69	410	86	66	714	49	154	1201	99
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	86	749	165	69	410	86	66	714	49	154	1201	99
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	86	749	165	69	410	86	66	714	49	154	1201	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	86	749	165	69	410	86	66	714	49	154	1201	99
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	86	749	165	69	410	86	66	714	49	154	1201	99
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.65	0.35	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	2645	555	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.05	0.23	0.10	0.04	0.16	0.15	0.04	0.22	0.03	0.10	0.38	0.06
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #27 Meyler/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.817
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	79	Level Of Service:	D

Street Name:	Meyler							223rd							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	0	1! 0	0	1	0	1	1 0	1	0	1	1 0
Volume Module:																
Base Vol:	45	6	52	108	41	106	154	769	52	105	1412	293				
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Initial Bse:	45	6	52	108	41	106	154	769	52	105	1412	293				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Volume:	45	6	52	108	41	106	154	769	52	105	1412	293				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	45	6	52	108	41	106	154	769	52	105	1412	293				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
FinalVolume:	45	6	52	108	41	106	154	769	52	105	1412	293				
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600				
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Lanes:	0.44	0.06	0.50	0.42	0.16	0.42	1.00	1.87	0.13	1.00	1.66	0.34				
Final Sat.:	699	93	808	678	257	665	1600	2997	203	1600	2650	550				
Capacity Analysis Module:																
Vol/Sat:	0.03	0.06	0.06	0.07	0.16	0.16	0.10	0.26	0.26	0.07	0.53	0.53				
Crit Moves:	****				****			****				****				

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #28 Vermont/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.119
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Vermont						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	2 0	1 1	0
Volume Module:												
Base Vol:	286	792	178	279	359	169	129	773	68	159	1401	573
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	286	792	178	279	359	169	129	773	68	159	1401	573
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	286	792	178	279	359	169	129	773	68	159	1401	573
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	286	792	178	279	359	169	129	773	68	159	1401	573
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	286	792	178	279	359	169	129	773	68	159	1401	573
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.42	0.58
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	2880	2271	929
Capacity Analysis Module:												
Vol/Sat:	0.18	0.25	0.11	0.17	0.11	0.11	0.08	0.24	0.04	0.06	0.62	0.62
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #29 SB I-110 Ramps/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.036
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	SB I-110 Ramps						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Protected			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 1	0	1 0	0 0	2	0 1	1 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	310	1	897	0	1105	167	208	1230	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	310	1	897	0	1105	167	208	1230	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	310	1	897	0	1105	167	208	1230	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	310	1	897	0	1105	167	208	1230	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	310	1	897	0	1105	167	208	1230	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.51	0.49	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	821	779	1600	0	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.19	0.00	0.56	0.00	0.35	0.10	0.13	0.38	0.00
Crit Moves:						****		****		****		

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #32 Hamilton/SB I-110 Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	1.404
Loss Time (sec):	0	Average Delay (sec/veh):	158.1
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Hamilton							SB I-110 Ramps							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Rights:	Ignore				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Lanes:	0	0	1	0 1	0	1	1	0 0	0	0	0	0 0	1	0	1!	0 0
Volume Module:																
Base Vol:	0	91	106		317	131	0		0	0	0		1234	0	248	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	91	106		317	131	0		0	0	0		1234	0	248	
User Adj:	1.00	1.00	0.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	0.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	0	91	0		317	131	0		0	0	0		1234	0	248	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	91	0		317	131	0		0	0	0		1234	0	248	
PCE Adj:	1.00	1.00	0.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	0.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	0	91	0		317	131	0		0	0	0		1234	0	248	
Saturation Flow Module:																
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	0.00	1.00	1.00		1.00	1.00	0.00		0.00	0.00	0.00		1.67	0.00	0.33	
Final Sat.:	0	463	507		465	496	0		0	0	0		1414	-527	177	
Capacity Analysis Module:																
Vol/Sat:	xxxx	0.20	0.00		0.68	0.26	xxxx		xxxx	xxxx	xxxx		0.87	0.00	1.40	
Crit Moves:		****			****										****	
Delay/Veh:	0.0	12.3	0.0		25.4	12.5	0.0		0.0	0.0	0.0		209.5	213	212.8	
Delay Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	0.0	12.3	0.0		25.4	12.5	0.0		0.0	0.0	0.0		209.5	213	212.8	
LOS by Move:	*	B	*		D	B	*		*	*	*		F	F	F	
ApproachDel:	12.3				21.7				xxxxxx				208.4			
Delay Adj:	1.00				1.00				xxxxx				1.00			
ApprAdjDel:	12.3				21.7				xxxxxx				208.4			
LOS by Appr:	B				C				*				F			
AllWayAvgQ:	0.0	0.2	0.0		1.9	0.4	0.0		0.0	0.0	0.0		29.8	29.8	29.8	

Note: Queue reported is the number of cars per lane.

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Level Of Service Detailed Computation Report
2000 HCM 4-Way Stop Method
Base Volume Alternative

****

Intersection #32 Hamilton/SB I-110 Ramps

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Time Period: 0.25 hour												
HevVeh:	0%			0%			0%			0%		
Alpha Value: 0.01												
GroupType:	5			5			X			5		
P[C1]:	0.0000			0.0000			x.xxxx			0.1887		
P[C2]:	0.0000			0.0000			x.xxxx			0.0000		
P[C3]:	0.2346			0.8044			x.xxxx			0.6616		
P[C4]:	0.7654			0.1956			x.xxxx			0.1497		
P[C5]:	0.0000			0.0000			x.xxxx			0.0000		
Padj[C1]:	0.02765			0.02196			xx.xxxxx			0.01772		
Padj[C2]:	0.01765			0.01196			xx.xxxxx			0.00961		
Padj[C3]:	0.00062			-0.02218			xx.xxxxx			-0.01835		
Padj[C4]:	-0.04593			-0.01173			xx.xxxxx			-0.00898		
Padj[C5]:	-0.00000			-0.00000			xx.xxxxx			-0.00000		
Lanes:	L1	L2		L1	L2		L1	L2		L1	L2	
LaneType:	RITE	THRU		LTTHRU	THRU		NOLANE	NOLANE		LEFT	LTR	
HeadwayAdj:	-0.700	0.000		0.500	0.000		xx.xxx	xx.xxx		0.500	0.598	
Volume:	0	91		317	131		xxxxxx	xxxxxx		741	741	
Capacity:	507	463		465	496		xxxxx	xxxxx		535	528	
DegOfUtil:	0.00	0.20		0.68	0.26		x.xx	x.xx		1.38	1.40	
DepHeadway:	7.04	7.74		7.74	7.24		xx.xx	xx.xx		6.73	6.82	
ServiceTime:	4.7	5.4		5.4	4.9		xx.x	xx.x		4.4	4.5	
Delay:	9.7	12.3		25.4	12.5		xxx.x	xxx.x		204.0	212.8	
Queue:	0.0	0.2		1.9	0.4		xxx.x	xxx.x		28.9	29.8	

Approach:	North Bound	South Bound	East Bound	West Bound
ApproachDel:	12.3	21.7	xxx.x	208.4
Delay Adj:	1.00	1.00	x.xx	1.00
ApprAdjDel:	12.3	21.7	xxx.x	208.4
LOS by Appr:	B	C	*	F

OverallDel: 158.1
OverallLOS: F

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Normandie/Torrance	D	xxxxx	0.850	D	xxxxx	0.850	+ 0.000 V/C
# 2 Vermont/Torrance	E	xxxxx	0.911	E	xxxxx	0.911	+ 0.000 V/C
# 4 Vermont/Javelin	A	xxxxx	0.527	A	xxxxx	0.527	+ 0.000 V/C
# 7 Normandie/Carson	D	xxxxx	0.827	D	xxxxx	0.827	+ 0.000 V/C
# 8 Budlong/Carson	A	xxxxx	0.482	A	xxxxx	0.482	+ 0.000 V/C
# 9 Berendo/Carson	C	xxxxx	0.741	C	xxxxx	0.741	+ 0.000 V/C
# 10 Vermont/Carson	E	xxxxx	0.974	E	xxxxx	0.974	+ 0.000 V/C
# 11 SB I-110 Ramps/Carson	D	xxxxx	0.897	D	xxxxx	0.897	+ 0.000 V/C
# 21 Normandie/220th	A	xxxxx	0.441	A	xxxxx	0.441	+ 0.000 V/C
# 22 Meyler/220th	B	12.3	0.499	B	12.3	0.499	+ 0.000 V/C
# 23 Vermont/220th	B	xxxxx	0.613	B	xxxxx	0.613	+ 0.000 V/C
# 26 Normandie/223rd	B	xxxxx	0.678	B	xxxxx	0.678	+ 0.000 V/C
# 27 Meyler/223rd	B	xxxxx	0.694	B	xxxxx	0.694	+ 0.000 V/C
# 28 Vermont/223rd	F	xxxxx	1.009	F	xxxxx	1.009	+ 0.000 V/C
# 29 SB I-110 Ramps/223rd	F	xxxxx	1.028	F	xxxxx	1.028	+ 0.000 V/C
# 32 Hamilton/SB I-110 Ramps	F	62.2	1.173	F	62.2	1.173	+ 0.000 V/C

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Normandie/Torrance

Cycle (sec):	100	Critical Vol./Cap.(X):	0.850
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	152	Level Of Service:	D

Street Name:	Normandie						Torrance					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Prot+Permit			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	0 1	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	95	508	97	136	755	153	109	1337	154	65	952	67
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	95	508	97	136	755	153	109	1337	154	65	952	67
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	95	508	97	136	755	153	109	1337	154	65	952	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	95	508	97	136	755	153	109	1337	154	65	952	67
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	95	508	97	136	755	153	109	1337	154	65	952	67
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.66	0.34	1.00	1.79	0.21	1.00	1.87	0.13
Final Sat.:	1600	3200	1600	1600	2661	539	1600	2869	331	1600	2990	210
Capacity Analysis Module:												
Vol/Sat:	0.06	0.16	0.06	0.09	0.28	0.28	0.07	0.47	0.47	0.04	0.32	0.32
Crit Moves:	****				****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Vermont/Torrance

Cycle (sec):	100	Critical Vol./Cap.(X):	0.911
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Street Name:	Vermont						Torrance					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	98	523	484	88	829	179	187	1223	116	216	692	56
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	98	523	484	88	829	179	187	1223	116	216	692	56
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	98	523	484	88	829	179	187	1223	116	216	692	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	98	523	484	88	829	179	187	1223	116	216	692	56
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	98	523	484	88	829	179	187	1223	116	216	692	56
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.83	0.17	1.00	1.85	0.15
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	2923	277	1600	2960	240
Capacity Analysis Module:												
Vol/Sat:	0.06	0.16	0.30	0.06	0.26	0.11	0.12	0.42	0.42	0.14	0.23	0.23
Crit Moves:			****	****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Vermont/Javelin

Cycle (sec):	100	Critical Vol./Cap.(X):	0.527
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	A

Street Name:	Vermont						Javelin					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	4	877	64	84	1101	45	71	7	9	109	2	107
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	4	877	64	84	1101	45	71	7	9	109	2	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	4	877	64	84	1101	45	71	7	9	109	2	107
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	877	64	84	1101	45	71	7	9	109	2	107
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	4	877	64	84	1101	45	71	7	9	109	2	107
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	0.82	0.08	0.10	0.50	0.01	0.49
Final Sat.:	1600	3200	1600	1600	3200	1600	1306	129	166	800	15	785
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.04	0.05	0.34	0.03	0.04	0.05	0.05	0.07	0.14	0.14
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Normandie/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.827
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	132	Level Of Service:	D

Street Name:	Normandie						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	145	434	100	109	636	150	227	1084	203	137	1116	87
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	145	434	100	109	636	150	227	1084	203	137	1116	87
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	145	434	100	109	636	150	227	1084	203	137	1116	87
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	145	434	100	109	636	150	227	1084	203	137	1116	87
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	145	434	100	109	636	150	227	1084	203	137	1116	87
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.62	0.38	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	2589	611	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.09	0.14	0.06	0.07	0.25	0.25	0.14	0.34	0.13	0.09	0.35	0.05
Crit Moves:	****				****			****				****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Budlong/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.482
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	28	Level Of Service:	A

Street Name:	Budlong						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	0	1 0	2	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	69	0	40	26	1265	0	0	1272	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	69	0	40	26	1265	0	0	1272	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	69	0	40	26	1265	0	0	1272	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	69	0	40	26	1265	0	0	1272	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	69	0	40	26	1265	0	0	1272	45
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.63	0.00	0.37	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1013	0	587	1600	3200	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.04	0.00	0.07	0.02	0.40	0.00	0.00	0.40	0.03
Crit Moves:						****	****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Berendo/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.741
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	72	Level Of Service:	C

Street Name:	Berendo						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	55	3	286	135	4	59	40	1270	36	130	1218	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	55	3	286	135	4	59	40	1270	36	130	1218	71
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	55	3	286	135	4	59	40	1270	36	130	1218	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	3	286	135	4	59	40	1270	36	130	1218	71
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	55	3	286	135	4	59	40	1270	36	130	1218	71
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.06	0.94	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	102	1498	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.18	0.08	0.04	0.04	0.03	0.40	0.02	0.08	0.38	0.04
Crit Moves:			****	****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 Vermont/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.974
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Street Name:	Vermont						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	115	570	336	362	806	304	267	1339	183	191	1083	205
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	115	570	336	362	806	304	267	1339	183	191	1083	205
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	115	570	336	362	806	304	267	1339	183	191	1083	205
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	115	570	336	362	806	304	267	1339	183	191	1083	205
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	115	570	336	362	806	304	267	1339	183	191	1083	205
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.07	0.18	0.21	0.23	0.25	0.19	0.17	0.42	0.11	0.12	0.34	0.13
Crit Moves:			****	****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 SB I-110 Ramps/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.897
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	D

Street Name:	SB I-110 Ramps						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	1 0	0	0 1	0 0	2	1 0	1 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	198	0	670	0	1643	348	101	881	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	198	0	670	0	1643	348	101	881	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	198	0	670	0	1643	348	101	881	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	198	0	670	0	1643	348	101	881	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	198	0	670	0	1643	348	101	881	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.48	0.52	1.00	2.00	0.00
Final Sat.:	0	0	0	1600	0	1600	0	3961	839	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.12	0.00	0.42	0.00	0.41	0.41	0.06	0.28	0.00
Crit Moves:						****		****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #21 Normandie/220th

Cycle (sec):	100	Critical Vol./Cap.(X):	0.441
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	26	Level Of Service:	A

Street Name:	Normandie						220th					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	18	514	69	111	847	31	18	154	46	76	130	96
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	514	69	111	847	31	18	154	46	76	130	96
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	514	69	111	847	31	18	154	46	76	130	96
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	514	69	111	847	31	18	154	46	76	130	96
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	18	514	69	111	847	31	18	154	46	76	130	96
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.93	0.07	0.10	0.90	1.00	0.37	0.63	1.00
Final Sat.:	1600	3200	1600	1600	3087	113	167	1433	1600	590	1010	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.16	0.04	0.07	0.27	0.27	0.01	0.11	0.03	0.05	0.13	0.06
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #22 Meyler/220th

Cycle (sec):	100	Critical Vol./Cap.(X):	0.499
Loss Time (sec):	0	Average Delay (sec/veh):	12.3
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Meyler						220th					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	30	54	79	156	65	86	35	232	49	29	127	54
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	54	79	156	65	86	35	232	49	29	127	54
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	30	54	79	156	65	86	35	232	49	29	127	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	30	54	79	156	65	86	35	232	49	29	127	54
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	30	54	79	156	65	86	35	232	49	29	127	54
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.18	0.33	0.49	0.51	0.21	0.28	0.13	0.87	1.00	0.19	0.81	1.00
Final Sat.:	108	194	284	313	130	172	73	486	632	99	432	601
Capacity Analysis Module:												
Vol/Sat:	0.28	0.28	0.28	0.50	0.50	0.50	0.48	0.48	0.08	0.29	0.29	0.09
Crit Moves:	****			****			****			****		
Delay/Veh:	10.5	10.5	10.5	13.4	13.4	13.4	13.9	13.9	8.5	11.4	11.4	8.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.5	10.5	10.5	13.4	13.4	13.4	13.9	13.9	8.5	11.4	11.4	8.7
LOS by Move:	B	B	B	B	B	B	B	B	A	B	B	A
ApproachDel:	10.5			13.4			13.1			10.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.5			13.4			13.1			10.7		
LOS by Appr:	B			B			B			B		
AllWayAvgQ:	0.3	0.3	0.3	0.8	0.8	0.8	0.8	0.8	0.1	0.4	0.4	0.1

Note: Queue reported is the number of cars per lane.

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Level Of Service Detailed Computation Report
2000 HCM 4-Way Stop Method
Base Volume Alternative

Intersection #22 Meyler/220th

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Time Period: 0.25 hour												
HevVeh:	0%			0%			0%			0%		
Alpha Value: 0.01												
GroupType:	2			2			5			5		
P[C1]:	0.18			0.25			0.26			0.20		
P[C2]:	0.16			0.09			0.13			0.19		
P[C3]:	0.26			0.37			0.32			0.25		
P[C4]:	0.32			0.25			0.24			0.30		
P[C5]:	0.08			0.04			0.04			0.06		
Padj[C1]:	0.020			0.017			0.017			0.018		
Padj[C2]:	0.010			0.009			0.008			0.008		
Padj[C3]:	-0.003			-0.008			-0.006			-0.003		
Padj[C4]:	-0.019			-0.015			-0.014			-0.018		
Padj[C5]:	-0.008			-0.004			-0.004			-0.006		
Lanes:	L1	L2		L1	L2		L1	L2		L1	L2	
LaneType:	LTR	NOLANE		LTR	NOLANE		RITE	LTTHRU		RITE	LTTHRU	
HeadwayAdj:	-0.254	xx.xxx		-0.066	xx.xxx		-0.700	0.066		-0.700	0.093	
Volume:	163	xxxxxx		307	xxxxxx		49	267		54	156	
Capacity:	586	xxxxx		615	xxxxx		632	559		601	531	
DegOfUtil:	0.25	x.xx		0.47	x.xx		0.07	0.46		0.08	0.27	
DepHeadway:	5.62	xx.xx		5.55	xx.xx		5.39	6.15		5.54	6.34	
ServiceTime:	3.6	xx.x		3.5	xx.x		3.1	3.9		3.2	4.0	
Delay:	10.5	xxx.x		13.4	xxx.x		8.5	13.9		8.7	11.4	
Queue:	0.3	xxx.x		0.8	xxx.x		0.1	0.8		0.1	0.4	

Approach:	North Bound	South Bound	East Bound	West Bound
ApproachDel:	10.5	13.4	13.1	10.7
Delay Adj:	1.00	1.00	1.00	1.00
ApprAdjDel:	10.5	13.4	13.1	10.7
LOS by Appr:	B	B	B	B

OverallDel: 12.3
OverallLOS: B

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #23 Vermont/220th

Cycle (sec):	100	Critical Vol./Cap.(X):	0.613
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	B

Street Name:	Vermont						220th					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	53	588	26	56	1023	113	295	20	281	74	32	122
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	53	588	26	56	1023	113	295	20	281	74	32	122
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	53	588	26	56	1023	113	295	20	281	74	32	122
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	588	26	56	1023	113	295	20	281	74	32	122
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	53	588	26	56	1023	113	295	20	281	74	32	122
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	0.94	0.06	1.00	0.70	0.30	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	1498	102	1600	1117	483	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.18	0.02	0.04	0.32	0.07	0.18	0.20	0.18	0.05	0.07	0.08
Crit Moves:	****			****			****					****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #26 Normandie/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.678
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	B

Street Name:	Normandie						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	39	380	145	102	755	82	90	1006	198	125	820	68
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	39	380	145	102	755	82	90	1006	198	125	820	68
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	39	380	145	102	755	82	90	1006	198	125	820	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	39	380	145	102	755	82	90	1006	198	125	820	68
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	39	380	145	102	755	82	90	1006	198	125	820	68
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.80	0.20	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	2886	314	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.12	0.09	0.06	0.26	0.26	0.06	0.31	0.12	0.08	0.26	0.04
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #27 Meyler/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.694
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	47	Level Of Service:	B

Street Name:	Meyler						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	1	0	1 1	0	1	0 1 0
Volume Module:												
Base Vol:	24	13	31	161	42	133	105	1138	120	122	938	141
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	24	13	31	161	42	133	105	1138	120	122	938	141
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	24	13	31	161	42	133	105	1138	120	122	938	141
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	13	31	161	42	133	105	1138	120	122	938	141
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	24	13	31	161	42	133	105	1138	120	122	938	141
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.35	0.19	0.46	0.48	0.12	0.40	1.00	1.81	0.19	1.00	1.74	0.26
Final Sat.:	565	306	729	767	200	633	1600	2895	305	1600	2782	418
Capacity Analysis Module:												
Vol/Sat:	0.02	0.04	0.04	0.10	0.21	0.21	0.07	0.39	0.39	0.08	0.34	0.34
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #28 Vermont/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.009
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Vermont						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	2 0	1 1	0
Volume Module:												
Base Vol:	164	401	215	594	697	149	105	1171	115	423	884	232
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	164	401	215	594	697	149	105	1171	115	423	884	232
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	164	401	215	594	697	149	105	1171	115	423	884	232
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	164	401	215	594	697	149	105	1171	115	423	884	232
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	164	401	215	594	697	149	105	1171	115	423	884	232
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.58	0.42
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	2880	2535	665
Capacity Analysis Module:												
Vol/Sat:	0.10	0.13	0.13	0.37	0.22	0.09	0.07	0.37	0.07	0.15	0.35	0.35
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #29 SB I-110 Ramps/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.028
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	SB I-110 Ramps						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Protected			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	1	0	1	0	0	0	2	0	1	1	0	2	0	0
Volume Module:												
Base Vol:	0	0	0	485	7	609	0	1790	279	141	856	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	485	7	609	0	1790	279	141	856	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	485	7	609	0	1790	279	141	856	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	485	7	609	0	1790	279	141	856	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	485	7	609	0	1790	279	141	856	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.88	0.12	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1410	190	1600	0	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.30	0.04	0.38	0.00	0.56	0.17	0.09	0.27	0.00
Crit Moves:						****		****		****		

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #32 Hamilton/SB I-110 Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	1.173
Loss Time (sec):	0	Average Delay (sec/veh):	62.2
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Hamilton						SB I-110 Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 1	0	1	0 1	1	0 0	0 0	0	0 0	1 0	1!	0 0
Volume Module:												
Base Vol:	0	50	368	596	115	0	0	0	0	551	0	135
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	50	368	596	115	0	0	0	0	551	0	135
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	50	0	596	115	0	0	0	0	551	0	135
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	50	0	596	115	0	0	0	0	551	0	135
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	50	0	596	115	0	0	0	0	551	0	135
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.61	0.00	0.39
Final Sat.:	0	474	521	508	536	0	0	0	0	1325	-507	200
Capacity Analysis Module:												
Vol/Sat:	xxxx	0.11	0.00	1.17	0.21	xxxx	xxxx	xxxx	xxxx	0.42	0.00	0.68
Crit Moves:		****		****								****
Delay/Veh:	0.0	11.0	0.0	121.3	11.0	0.0	0.0	0.0	0.0	23.1	23.2	23.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	11.0	0.0	121.3	11.0	0.0	0.0	0.0	0.0	23.1	23.2	23.2
LOS by Move:	*	B	*	F	B	*	*	*	*	C	C	C
ApproachDel:		11.0		103.5			xxxxxx			23.1		
Delay Adj:		1.00		1.00			xxxxx			1.00		
ApprAdjDel:		11.0		103.5			xxxxxx			23.1		
LOS by Appr:		B		F			*			C		
AllWayAvgQ:	0.0	0.1	0.0	15.7	0.3	0.0	0.0	0.0	0.0	1.9	1.9	1.9

Note: Queue reported is the number of cars per lane.

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Level Of Service Detailed Computation Report
2000 HCM 4-Way Stop Method
Base Volume Alternative

****

Intersection #32 Hamilton/SB I-110 Ramps

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Time Period: 0.25 hour												
HevVeh:	0%			0%			0%			0%		
Alpha Value: 0.01												
GroupType:	5			5			X			5		
P[C1]:	0.0000			0.0961			x.xxxx			0.0000		
P[C2]:	0.1071			0.0110			x.xxxx			0.0000		
P[C3]:	0.0000			0.8008			x.xxxx			0.8969		
P[C4]:	0.8929			0.0921			x.xxxx			0.1031		
P[C5]:	0.0000			0.0000			x.xxxx			0.0000		
Padj[C1]:	0.02786			0.01889			xx.xxxxx			0.02103		
Padj[C2]:	0.01679			0.00974			xx.xxxxx			0.01103		
Padj[C3]:	0.00893			-0.02310			xx.xxxxx			-0.02587		
Padj[C4]:	-0.05357			-0.00552			xx.xxxxx			-0.00619		
Padj[C5]:	-0.00000			-0.00000			xx.xxxxx			-0.00000		
Lanes:	L1	L2		L1	L2		L1	L2		L1	L2	
LaneType:	RITE	THRU		LTTHRU	THRU		NOLANE	NOLANE		LEFT	LTR	
HeadwayAdj:	-0.700	0.000		0.500	0.000		xx.xxx	xx.xxx		0.500	0.528	
Volume:	0	50		596	115		xxxxxx	xxxxxx		343	343	
Capacity:	521	474		508	536		xxxxx	xxxxx		510	508	
DegOfUtil:	0.00	0.10		1.17	0.21		x.xx	x.xx		0.67	0.67	
DepHeadway:	6.73	7.43		7.09	6.59		xx.xx	xx.xx		7.05	7.07	
ServiceTime:	4.4	5.1		4.8	4.3		xx.x	xx.x		4.7	4.8	
Delay:	9.4	11.0		121.3	11.0		xxx.x	xxx.x		23.0	23.2	
Queue:	0.0	0.1		15.7	0.3		xxx.x	xxx.x		1.9	1.9	

Approach:	North Bound	South Bound	East Bound	West Bound
ApproachDel:	11.0	103.5	xxx.x	23.1
Delay Adj:	1.00	1.00	x.xx	1.00
ApprAdjDel:	11.0	103.5	xxx.x	23.1
LOS by Appr:	B	F	*	C

OverallDel: 62.2
OverallLOS: F

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City of Carson
Existing Year (2016) With Project

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 3 Figueroa/Torrance	C	xxxxx	0.701	C	xxxxx	0.701	+ 0.000 V/C
# 8 Budlong/Carson	A	xxxxx	0.512	A	xxxxx	0.512	+ 0.000 V/C
# 12 Figueroa/Carson	C	xxxxx	0.703	C	xxxxx	0.703	+ 0.000 V/C
# 13 Moneta/Carson	A	xxxxx	0.401	A	xxxxx	0.401	+ 0.000 V/C
# 14 Main/Carson	A	xxxxx	0.452	A	xxxxx	0.452	+ 0.000 V/C
# 15 Dolores/Carson	A	xxxxx	0.355	A	xxxxx	0.355	+ 0.000 V/C
# 16 Grace/Carson	A	xxxxx	0.349	A	xxxxx	0.349	+ 0.000 V/C
# 17 Avalon/Carson	C	xxxxx	0.704	C	xxxxx	0.704	+ 0.000 V/C
# 18 Bonita/Carson	A	xxxxx	0.593	A	xxxxx	0.593	+ 0.000 V/C
# 19 SB I-405 Ramps/Carson	A	xxxxx	0.503	A	xxxxx	0.503	+ 0.000 V/C
# 20 NB I-405 Ramps/Carson	B	xxxxx	0.615	B	xxxxx	0.615	+ 0.000 V/C
# 24 Figueroa/220th and I-110 NB Ra	F	xxxxx	1.153	F	xxxxx	1.153	+ 0.000 V/C
# 30 Figueroa/223rd	D	xxxxx	0.875	D	xxxxx	0.875	+ 0.000 V/C
# 31 Main/223rd	B	xxxxx	0.678	B	xxxxx	0.678	+ 0.000 V/C
# 33 Figueroa/NB I-110 Ramps	B	xxxxx	0.671	B	xxxxx	0.671	+ 0.000 V/C
# 34 Avalon/NB I-405	A	xxxxx	0.315	A	xxxxx	0.315	+ 0.000 V/C
# 35 Avalon/SB I-405	A	xxxxx	0.466	A	xxxxx	0.466	+ 0.000 V/C

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Figueroa/Torrance

Cycle (sec):	100	Critical Vol./Cap.(X):	0.701
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	76	Level Of Service:	C

Street Name:	Figueroa						Torrance					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 1	0 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	148	469	42	67	244	359	773	345	184	32	357	131
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	148	469	42	67	244	359	773	345	184	32	357	131
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	148	469	42	67	244	359	773	345	184	32	357	131
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	148	469	42	67	244	359	773	345	184	32	357	131
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	148	469	42	67	244	359	773	345	184	32	357	131
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.79	0.79	0.42	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	2856	1269	675	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.09	0.15	0.03	0.04	0.08	0.22	0.27	0.27	0.27	0.02	0.11	0.08
Crit Moves:	****					****			****		****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Budlong/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.512
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	A

Street Name:	Budlong						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	0	1 0	2	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	38	0	32	33	960	0	0	1432	78
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	38	0	32	33	960	0	0	1432	78
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	38	0	32	33	960	0	0	1432	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	38	0	32	33	960	0	0	1432	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	38	0	32	33	960	0	0	1432	78
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.54	0.00	0.46	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	869	0	731	1600	3200	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.02	0.00	0.04	0.02	0.30	0.00	0.00	0.45	0.05
Crit Moves:						****	****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Figueroa/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.703
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	77	Level Of Service:	C

Street Name:	Figueroa						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	1	1 0	2 0	1	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	474	455	176	35	355	206	111	451	580	75	875	61
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	474	455	176	35	355	206	111	451	580	75	875	61
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	474	455	176	35	355	206	111	451	580	75	875	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	474	455	176	35	355	206	111	451	580	75	875	61
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	474	455	176	35	355	206	111	451	580	75	875	61
OvlAdjVol:									284			
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.80	1.00	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.44	0.56	2.00	1.27	0.73	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	2560	2307	893	2560	2025	1175	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.19	0.20	0.20	0.01	0.18	0.18	0.07	0.14	0.36	0.05	0.27	0.04
OvlAdjV/S:									0.18			
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Moneta/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.401
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	24	Level Of Service:	A

Street Name:	Moneta						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	79	50	54	7	111	61	25	581	60	43	838	15
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	79	50	54	7	111	61	25	581	60	43	838	15
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Volume:	79	50	54	7	111	61	25	581	60	43	838	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	79	50	54	7	111	61	25	581	60	43	838	15
PCE Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
FinalVolume:	79	50	54	7	111	61	25	581	60	43	838	15
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600		1600 1600	1600		1600 1600	1600		1600 1600	1600	
Adjustment:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Lanes:	0.61 0.39	1.00		0.06 0.94	1.00		1.00 2.00	1.00		1.00 2.00	1.00	
Final Sat.:	980	620	1600	95	1505	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.05 0.08	0.03		0.00 0.07	0.04		0.02 0.18	0.04		0.03 0.26	0.01	
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Main/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.452
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	A

Street Name:	Main						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	189	677	127	69	538	117	102	395	72	104	600	42
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	189	677	127	69	538	117	102	395	72	104	600	42
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	189	677	127	69	538	117	102	395	72	104	600	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	189	677	127	69	538	117	102	395	72	104	600	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	189	677	127	69	538	117	102	395	72	104	600	42
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.53	0.47	1.00	2.46	0.54	1.00	2.54	0.46	1.00	2.80	0.20
Final Sat.:	1600	4042	758	1600	3943	857	1600	4060	740	1600	4486	314
Capacity Analysis Module:												
Vol/Sat:	0.12	0.17	0.17	0.04	0.14	0.14	0.06	0.10	0.10	0.07	0.13	0.13
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #15 Dolores/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.355
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	22	Level Of Service:	A

Street Name:	Dolores						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	41	157	43	15	167	36	28	493	57	43	634	34
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	157	43	15	167	36	28	493	57	43	634	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	41	157	43	15	167	36	28	493	57	43	634	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	157	43	15	167	36	28	493	57	43	634	34
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	41	157	43	15	167	36	28	493	57	43	634	34
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.21	0.79	1.00	0.08	0.92	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	331	1269	1600	132	1468	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.12	0.03	0.01	0.11	0.02	0.02	0.15	0.04	0.03	0.20	0.02
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #16 Grace/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.349
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	A

Street Name:	Grace						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1 0	0 1		1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	14	92	54	32	43	23	34	510	15	30	665	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	14	92	54	32	43	23	34	510	15	30	665	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	14	92	54	32	43	23	34	510	15	30	665	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	92	54	32	43	23	34	510	15	30	665	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	14	92	54	32	43	23	34	510	15	30	665	29
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.09	0.57	0.34	0.43	0.57	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	140	920	540	683	917	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.10	0.10	0.02	0.05	0.01	0.02	0.16	0.01	0.02	0.21	0.02
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #17 Avalon/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.704
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	77	Level Of Service:	C

Street Name:	Avalon						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	2 0	1	1 0	2 0	1	1 0
Volume Module:												
Base Vol:	90	671	467	133	684	100	100	441	69	434	547	114
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	90	671	467	133	684	100	100	441	69	434	547	114
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	90	671	467	133	684	100	100	441	69	434	547	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	671	467	133	684	100	100	441	69	434	547	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	90	671	467	133	684	100	100	441	69	434	547	114
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.80	1.00	1.00	0.80	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.62	0.38	2.00	1.73	0.27	2.00	1.66	0.34
Final Sat.:	1600	3200	1600	1600	4188	612	2560	2767	433	2560	2648	552
Capacity Analysis Module:												
Vol/Sat:	0.06	0.21	0.29	0.08	0.16	0.16	0.04	0.16	0.16	0.17	0.21	0.21
Crit Moves:			****	****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #18 Bonita/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.593
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	A

Street Name:	Bonita						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Prot+Permit			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	1	0 1	0 1	1	0	2 0 1	1	0	2 1 0
Volume Module:												
Base Vol:	115	49	215	48	122	50	34	902	115	212	920	117
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	115	49	215	48	122	50	34	902	115	212	920	117
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Volume:	115	49	215	48	122	50	34	902	115	212	920	117
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	115	49	215	48	122	50	34	902	115	212	920	117
PCE Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
FinalVolume:	115	49	215	48	122	50	34	902	115	212	920	117
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600		1600 1600	1600		1600 1600	1600		1600 1600	1600	
Adjustment:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Lanes:	0.70 0.30	1.00		1.00 1.00	1.00		1.00 2.00	1.00		1.00 2.66	0.34	
Final Sat.:	1122 478	1600		1600 1600	1600		1600 3200	1600		1600 4258	542	
Capacity Analysis Module:												
Vol/Sat:	0.10 0.10	0.13		0.03 0.08	0.03		0.02 0.28	0.07		0.13 0.22	0.22	
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #19 SB I-405 Ramps/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.503
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Street Name:	SB I-405 Ramps						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	0 0	0	0 0	1 0	2	0 1	1 0	3	0 0
Volume Module:												
Base Vol:	64	0	203	0	0	0	7	671	511	90	1203	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	64	0	203	0	0	0	7	671	511	90	1203	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	64	0	203	0	0	0	7	671	511	90	1203	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	64	0	203	0	0	0	7	671	511	90	1203	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	64	0	203	0	0	0	7	671	511	90	1203	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	1.00	1.00	3.00	0.00
Final Sat.:	1600	0	1600	0	0	0	1600	3200	1600	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.13	0.00	0.00	0.00	0.00	0.21	0.32	0.06	0.25	0.00
Crit Moves:			****						****	****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #20 NB I-405 Ramps/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.615
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	B

Street Name:	NB I-405 Ramps						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1	0	2 0 1	1	0	2 0 1
Volume Module:												
Base Vol:	6	6	2	23	15	457	95	753	25	9	851	253
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	6	2	23	15	457	95	753	25	9	851	253
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	6	2	23	15	457	95	753	25	9	851	253
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	6	2	23	15	457	95	753	25	9	851	253
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	6	6	2	23	15	457	95	753	25	9	851	253
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.50	0.50	1.00	0.61	0.39	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	800	800	1600	968	632	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.01	0.00	0.01	0.02	0.29	0.06	0.24	0.02	0.01	0.27	0.16
Crit Moves:	****					****	****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #24 Figueroa/220th and I-110 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	1.153
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Figueroa						220th/I-110 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	585	560	172	140	412	499	387	55	186	109	210	167
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	585	560	172	140	412	499	387	55	186	109	210	167
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	585	560	172	140	412	499	387	55	186	109	210	167
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	585	560	172	140	412	499	387	55	186	109	210	167
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	585	560	172	140	412	499	387	55	186	109	210	167
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	0.88	0.12	1.00	0.34	0.66	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	1401	199	1600	547	1053	1600
Capacity Analysis Module:												
Vol/Sat:	0.37	0.17	0.11	0.09	0.13	0.31	0.28	0.28	0.12	0.20	0.20	0.10
Crit Moves:	****					****		****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #30 Figueroa/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.875
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	148	Level Of Service:	D

Street Name:	Figueroa							223rd							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted					Permitted					Protected					Protected				
Rights:	Include					Include					Include					Include				
Min. Green:	0	0	0			0	0	0			0	0	0			0	0	0		
Y+R:	4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0		
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0	2	0	1	1	0	2	0	1
Volume Module:																				
Base Vol:	145	543	152			93	290	316			448	789	172			60	981	329		
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	145	543	152			93	290	316			448	789	172			60	981	329		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Volume:	145	543	152			93	290	316			448	789	172			60	981	329		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Reduced Vol:	145	543	152			93	290	316			448	789	172			60	981	329		
PCE Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
FinalVolume:	145	543	152			93	290	316			448	789	172			60	981	329		
Saturation Flow Module:																				
Sat/Lane:	1600	1600	1600			1600	1600	1600			1600	1600	1600			1600	1600	1600		
Adjustment:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Lanes:	1.00	2.00	1.00			1.00	2.00	1.00			1.00	2.00	1.00			1.00	2.00	1.00		
Final Sat.:	1600	3200	1600			1600	3200	1600			1600	3200	1600			1600	3200	1600		
Capacity Analysis Module:																				
Vol/Sat:	0.09	0.17	0.10			0.06	0.09	0.20			0.28	0.25	0.11			0.04	0.31	0.21		
Crit Moves:	****							****			****							****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #31 Main/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.678
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	71	Level Of Service:	B

Street Name:	Main							223rd							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1
Volume Module:																
Base Vol:	130	565	185		157	467	212		164	797	112		115	963	104	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	130	565	185		157	467	212		164	797	112		115	963	104	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	130	565	185		157	467	212		164	797	112		115	963	104	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	130	565	185		157	467	212		164	797	112		115	963	104	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	130	565	185		157	467	212		164	797	112		115	963	104	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00	
Final Sat.:	1600	3200	1600		1600	3200	1600		1600	3200	1600		1600	3200	1600	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.18	0.12		0.10	0.15	0.13		0.10	0.25	0.07		0.07	0.30	0.07	
Crit Moves:		****				****				****				****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #33 Figueroa/NB I-110 Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.671
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	B

Street Name:	Figueroa							NB I-110 Ramps							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected					Permitted					Permitted					Permitted				
Rights:	Include					Include					Include					Include				
Min. Green:	0	0	0			0	0	0			0	0	0			0	0	0		
Y+R:	4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0		
Lanes:	2	0	2	0	0	0	0	2	0	1	1	0	1!	0	0	0	0	0	0	0
Volume Module:																				
Base Vol:	736	626			0	0	355	102		562	0		311		0	0		0		
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00		1.00	1.00		1.00		1.00	1.00		1.00		
Initial Bse:	736	626			0	0	355	102		562	0		311		0	0		0		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00		1.00	1.00		1.00		1.00	1.00		1.00		
PHF Adj:	1.00	1.00	1.00			1.00	1.00	1.00		1.00	1.00		1.00		1.00	1.00		1.00		
PHF Volume:	736	626			0	0	355	102		562	0		311		0	0		0		
Reduct Vol:	0	0			0	0	0	0		0	0		0		0	0		0		
Reduced Vol:	736	626			0	0	355	102		562	0		311		0	0		0		
PCE Adj:	1.00	1.00	1.00			1.00	1.00	1.00		1.00	1.00		1.00		1.00	1.00		1.00		
MLF Adj:	1.00	1.00	1.00			1.00	1.00	1.00		1.00	1.00		1.00		1.00	1.00		1.00		
FinalVolume:	736	626			0	0	355	102		562	0		311		0	0		0		
Saturation Flow Module:																				
Sat/Lane:	1600	1600	1600			1600	1600	1600		1600	1600		1600		1600	1600		1600		
Adjustment:	0.80	1.00	1.00			1.00	1.00	1.00		1.00	1.00		1.00		1.00	1.00		1.00		
Lanes:	2.00	2.00	0.00			0.00	2.00	1.00		1.29	0.00		0.71		0.00	0.00		0.00		
Final Sat.:	2560	3200			0	0	3200	1600		2060	0		1140		0	0		0		
Capacity Analysis Module:																				
Vol/Sat:	0.29	0.20	0.00			0.00	0.11	0.06		0.27	0.00		0.27		0.00	0.00		0.00		
Crit Moves:	****						****			****										

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #34 Avalon/NB I-405

Cycle (sec):	100	Critical Vol./Cap.(X):	0.315
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Street Name:	Avalon							NB I-405							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected					Permitted					Split Phase					Split Phase				
Rights:	Include					Include					Include					Ignore				
Min. Green:	0	0	0			0	0	0			0	0	0			0	0	0		
Y+R:	4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0		
Lanes:	2	0	2	0	0	0	0	3	0	1	0	0	0	0	0	1	1	0	0	1
Volume Module:																				
Base Vol:	322	937	0			0	748	191			0	0	0			106	1	378		
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	322	937	0			0	748	191			0	0	0			106	1	378		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	0.00		
PHF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	0.00		
PHF Volume:	322	937	0			0	748	191			0	0	0			106	1	0		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Reduced Vol:	322	937	0			0	748	191			0	0	0			106	1	0		
PCE Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	0.00		
MLF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	0.00		
FinalVolume:	322	937	0			0	748	191			0	0	0			106	1	0		
Saturation Flow Module:																				
Sat/Lane:	1600	1600	1600			1600	1600	1600			1600	1600	1600			1600	1600	1600		
Adjustment:	0.80	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Lanes:	2.00	2.00	0.00			0.00	3.00	1.00			0.00	0.00	0.00			1.98	0.02	1.00		
Final Sat.:	2560	3200	0			0	4800	1600			0	0	0			3170	30	1600		
Capacity Analysis Module:																				
Vol/Sat:	0.13	0.29	0.00			0.00	0.16	0.12			0.00	0.00	0.00			0.03	0.03	0.00		
Crit Moves:	****						****										****			

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #35 Avalon/SB I-405

Cycle (sec):	100	Critical Vol./Cap.(X):	0.466
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Street Name:	Avalon						SB I-405					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1	1 0	0 0	2	0 1	2 0	2	0 1	0 0	0	0 0
Volume Module:												
Base Vol:	0	835	120	0	630	229	428	6	472	0	0	0
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	0	835	120	0	630	229	428	6	472	0	0	0
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	0.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	0.00		1.00 1.00	1.00	
PHF Volume:	0	835	120	0	630	229	428	6	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	835	120	0	630	229	428	6	0	0	0	0
PCE Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	0.00		1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	0.00		1.00 1.00	1.00	
FinalVolume:	0	835	120	0	630	229	428	6	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600		1600 1600	1600		1600 1600	1600		1600 1600	1600	
Adjustment:	1.00 1.00	1.00		1.00 1.00	1.00		0.80 1.00	1.00		1.00 1.00	1.00	
Lanes:	0.00 1.75	0.25		0.00 2.00	1.00		2.00 2.00	1.00		0.00 0.00	0.00	
Final Sat.:	0 2798	402		0 3200	1600		2560 3200	1600		0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00 0.30	0.30		0.00 0.20	0.14		0.17 0.00	0.00		0.00 0.00	0.00	
Crit Moves:	****			****			****					

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 3 Figueroa/Torrance	C	xxxxx	0.736	C	xxxxx	0.736	+ 0.000 V/C
# 8 Budlong/Carson	A	xxxxx	0.482	A	xxxxx	0.482	+ 0.000 V/C
# 12 Figueroa/Carson	C	xxxxx	0.795	C	xxxxx	0.795	+ 0.000 V/C
# 13 Moneta/Carson	A	xxxxx	0.363	A	xxxxx	0.363	+ 0.000 V/C
# 14 Main/Carson	A	xxxxx	0.554	A	xxxxx	0.554	+ 0.000 V/C
# 15 Dolores/Carson	A	xxxxx	0.399	A	xxxxx	0.399	+ 0.000 V/C
# 16 Grace/Carson	A	xxxxx	0.406	A	xxxxx	0.406	+ 0.000 V/C
# 17 Avalon/Carson	C	xxxxx	0.780	C	xxxxx	0.780	+ 0.000 V/C
# 18 Bonita/Carson	C	xxxxx	0.772	C	xxxxx	0.772	+ 0.000 V/C
# 19 SB I-405 Ramps/Carson	B	xxxxx	0.606	B	xxxxx	0.606	+ 0.000 V/C
# 20 NB I-405 Ramps/Carson	B	xxxxx	0.603	B	xxxxx	0.603	+ 0.000 V/C
# 24 Figueroa/220th and I-110 NB Ra	F	xxxxx	1.237	F	xxxxx	1.237	+ 0.000 V/C
# 30 Figueroa/223rd	D	xxxxx	0.827	D	xxxxx	0.827	+ 0.000 V/C
# 31 Main/223rd	C	xxxxx	0.762	C	xxxxx	0.762	+ 0.000 V/C
# 33 Figueroa/NB I-110 Ramps	C	xxxxx	0.743	C	xxxxx	0.743	+ 0.000 V/C
# 34 Avalon/NB I-405	A	xxxxx	0.415	A	xxxxx	0.415	+ 0.000 V/C
# 35 Avalon/SB I-405	A	xxxxx	0.420	A	xxxxx	0.420	+ 0.000 V/C

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Figueroa/Torrance

Cycle (sec):	100	Critical Vol./Cap.(X):	0.736
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	86	Level Of Service:	C

Street Name:	Figueroa						Torrance					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 1	0 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	94	302	50	141	487	342	942	666	156	46	306	122
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	94	302	50	141	487	342	942	666	156	46	306	122
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	94	302	50	141	487	342	942	666	156	46	306	122
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	94	302	50	141	487	342	942	666	156	46	306	122
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	94	302	50	141	487	342	942	666	156	46	306	122
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.61	1.13	0.26	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	2565	1811	424	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.09	0.03	0.09	0.15	0.21	0.37	0.37	0.37	0.03	0.10	0.08
Crit Moves:	****					****			****		****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Budlong/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.482
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	28	Level Of Service:	A

Street Name:	Budlong						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	0	1 0	2	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	69	0	40	26	1265	0	0	1272	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	69	0	40	26	1265	0	0	1272	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	69	0	40	26	1265	0	0	1272	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	69	0	40	26	1265	0	0	1272	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	69	0	40	26	1265	0	0	1272	45
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.63	0.00	0.37	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1013	0	587	1600	3200	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.04	0.00	0.07	0.02	0.40	0.00	0.00	0.40	0.03
Crit Moves:						****	****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Figueroa/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.795
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	111	Level Of Service:	C

Street Name:	Figueroa						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	1	1 0	2 0	1	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	269	231	97	84	480	173	135	752	866	80	612	63
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	269	231	97	84	480	173	135	752	866	80	612	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	269	231	97	84	480	173	135	752	866	80	612	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	269	231	97	84	480	173	135	752	866	80	612	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	269	231	97	84	480	173	135	752	866	80	612	63
OvlAdjVol:									698			
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.80	1.00	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.41	0.59	2.00	1.47	0.53	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	2560	2254	946	2560	2352	848	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.11	0.10	0.10	0.03	0.20	0.20	0.08	0.24	0.54	0.05	0.19	0.04
OvlAdjV/S:									0.44			
Crit Moves:	****			****					****	****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Moneta/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.363
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	23	Level Of Service:	A

Street Name:	Moneta						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	45	41	43	11	61	37	26	846	84	41	651	21
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	45	41	43	11	61	37	26	846	84	41	651	21
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Volume:	45	41	43	11	61	37	26	846	84	41	651	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	41	43	11	61	37	26	846	84	41	651	21
PCE Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
FinalVolume:	45	41	43	11	61	37	26	846	84	41	651	21
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600		1600 1600	1600		1600 1600	1600		1600 1600	1600	
Adjustment:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Lanes:	0.52 0.48	1.00		0.15 0.85	1.00		1.00 2.00	1.00		1.00 2.00	1.00	
Final Sat.:	837	763	1600	244	1356	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03 0.05	0.03		0.01 0.04	0.02		0.02 0.26	0.05		0.03 0.20	0.01	
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Main/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.554
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	A

Street Name:	Main						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	178	506	95	171	872	126	103	641	62	142	456	58
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	178	506	95	171	872	126	103	641	62	142	456	58
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	178	506	95	171	872	126	103	641	62	142	456	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	178	506	95	171	872	126	103	641	62	142	456	58
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	178	506	95	171	872	126	103	641	62	142	456	58
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.53	0.47	1.00	2.62	0.38	1.00	2.74	0.26	1.00	2.66	0.34
Final Sat.:	1600	4041	759	1600	4194	606	1600	4377	423	1600	4258	542
Capacity Analysis Module:												
Vol/Sat:	0.11	0.13	0.13	0.11	0.21	0.21	0.06	0.15	0.15	0.09	0.11	0.11
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #15 Dolores/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.399
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	24	Level Of Service:	A

Street Name:	Dolores						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	38	115	33	24	108	32	41	816	53	53	568	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	38	115	33	24	108	32	41	816	53	53	568	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	38	115	33	24	108	32	41	816	53	53	568	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	115	33	24	108	32	41	816	53	53	568	14
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	38	115	33	24	108	32	41	816	53	53	568	14
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.25	0.75	1.00	0.18	0.82	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	397	1203	1600	291	1309	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.10	0.02	0.02	0.08	0.02	0.03	0.26	0.03	0.03	0.18	0.01
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #16 Grace/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.406
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	31	Level Of Service:	A

Street Name:	Grace						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1	0	0	1	1	0	2	0	1	1	0	2	0	1
Volume Module:																			
Base Vol:	26	80	48	40	62	32	37	800	21	56	599	47
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	80	48	40	62	32	37	800	21	56	599	47
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	26	80	48	40	62	32	37	800	21	56	599	47
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	80	48	40	62	32	37	800	21	56	599	47
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	26	80	48	40	62	32	37	800	21	56	599	47
Saturation Flow Module:																			
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.17	0.52	0.31	0.39	0.61	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	270	831	499	627	973	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:																			
Vol/Sat:	0.02	0.10	0.10	0.03	0.06	0.02	0.02	0.25	0.01	0.04	0.19	0.03
Crit Moves:		****			****				****		****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #17 Avalon/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.780
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	104	Level Of Service:	C

Street Name:	Avalon						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	2 0	1	1 0	2 0	1	1 0
Volume Module:												
Base Vol:	101	745	418	190	860	144	185	663	95	418	446	121
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	101	745	418	190	860	144	185	663	95	418	446	121
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	101	745	418	190	860	144	185	663	95	418	446	121
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	101	745	418	190	860	144	185	663	95	418	446	121
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	101	745	418	190	860	144	185	663	95	418	446	121
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.80	1.00	1.00	0.80	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.57	0.43	2.00	1.75	0.25	2.00	1.57	0.43
Final Sat.:	1600	3200	1600	1600	4112	688	2560	2799	401	2560	2517	683
Capacity Analysis Module:												
Vol/Sat:	0.06	0.23	0.26	0.12	0.21	0.21	0.07	0.24	0.24	0.16	0.18	0.18
Crit Moves:			****	****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #18 Bonita/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.772
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Street Name:	Bonita						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Prot+Permit			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	1	0 1	0 1	1	0	2 0 1	1	0	2 1 0
Volume Module:												
Base Vol:	52	44	374	76	60	26	49	1193	70	188	860	40
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	52	44	374	76	60	26	49	1193	70	188	860	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	52	44	374	76	60	26	49	1193	70	188	860	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	44	374	76	60	26	49	1193	70	188	860	40
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	52	44	374	76	60	26	49	1193	70	188	860	40
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.54	0.46	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.87	0.13
Final Sat.:	867	733	1600	1600	1600	1600	1600	3200	1600	1600	4587	213
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.23	0.05	0.04	0.02	0.03	0.37	0.04	0.12	0.19	0.19
Crit Moves:			****	****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #19 SB I-405 Ramps/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.606
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	47	Level Of Service:	B

Street Name:	SB I-405 Ramps						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	0 0	0	0 0	1 0	2	0 1	1 0	3	0 0
Volume Module:												
Base Vol:	33	0	73	0	0	0	6	879	765	132	1082	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	33	0	73	0	0	0	6	879	765	132	1082	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	33	0	73	0	0	0	6	879	765	132	1082	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	0	73	0	0	0	6	879	765	132	1082	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	33	0	73	0	0	0	6	879	765	132	1082	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	1.00	1.00	3.00	0.00
Final Sat.:	1600	0	1600	0	0	0	1600	3200	1600	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.02	0.00	0.05	0.00	0.00	0.00	0.00	0.27	0.48	0.08	0.23	0.00
Crit Moves:			****						****	****		

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #20 NB I-405 Ramps/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.603
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	47	Level Of Service:	B

Street Name:	NB I-405 Ramps						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	52	18	14	42	3	458	108	838	35	15	692	322
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	52	18	14	42	3	458	108	838	35	15	692	322
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Volume:	52	18	14	42	3	458	108	838	35	15	692	322
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	18	14	42	3	458	108	838	35	15	692	322
PCE Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
FinalVolume:	52	18	14	42	3	458	108	838	35	15	692	322
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600		1600 1600	1600		1600 1600	1600		1600 1600	1600	
Adjustment:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Lanes:	0.74 0.26	1.00		0.93 0.07	1.00		1.00 2.00	1.00		1.00 2.00	1.00	
Final Sat.:	1189 411	1600		1493 107	1600		1600 3200	1600		1600 3200	1600	
Capacity Analysis Module:												
Vol/Sat:	0.03 0.04	0.01		0.03 0.03	0.29		0.07 0.26	0.02		0.01 0.22	0.20	
Crit Moves:	****				****		****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #24 Figueroa/220th and I-110 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	1.237
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Figueroa							220th/I-110 NB Ramps							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected					Protected					Split Phase					Split Phase				
Rights:	Include					Include					Include					Include				
Min. Green:	0	0	0			0	0	0			0	0	0			0	0	0		
Y+R:	4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0		
Lanes:	1	0	2	0	1	1	0	2	0	1	0	1	0	0	1	0	1	0	0	1
Volume Module:																				
Base Vol:	727	261		54		133	581		727		257	116		141		45	107		85	
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
Initial Bse:	727	261		54		133	581		727		257	116		141		45	107		85	
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
PHF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
PHF Volume:	727	261		54		133	581		727		257	116		141		45	107		85	
Reduct Vol:	0	0		0		0	0		0		0	0		0		0	0		0	
Reduced Vol:	727	261		54		133	581		727		257	116		141		45	107		85	
PCE Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
MLF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
FinalVolume:	727	261		54		133	581		727		257	116		141		45	107		85	
Saturation Flow Module:																				
Sat/Lane:	1600	1600		1600		1600	1600		1600		1600	1600		1600		1600	1600		1600	
Adjustment:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
Lanes:	1.00	2.00		1.00		1.00	2.00		1.00		0.69	0.31		1.00		0.30	0.70		1.00	
Final Sat.:	1600	3200		1600		1600	3200		1600		1102	498		1600		474	1126		1600	
Capacity Analysis Module:																				
Vol/Sat:	0.45	0.08		0.03		0.08	0.18		0.45		0.23	0.23		0.09		0.10	0.09		0.05	
Crit Moves:	****								****			****				****				

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #30 Figueroa/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.827
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	107	Level Of Service:	D

Street Name:	Figueroa							223rd							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0	2	0	1	1	0	2	0	1
Volume Module:																
Base Vol:	60	316	102		177	358	206		617	1445	209		63	741	136	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	60	316	102		177	358	206		617	1445	209		63	741	136	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	60	316	102		177	358	206		617	1445	209		63	741	136	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	60	316	102		177	358	206		617	1445	209		63	741	136	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	60	316	102		177	358	206		617	1445	209		63	741	136	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00	
Final Sat.:	1600	3200	1600		1600	3200	1600		1600	3200	1600		1600	3200	1600	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.10	0.06		0.11	0.11	0.13		0.39	0.45	0.13		0.04	0.23	0.09	
Crit Moves:		****				****				****					****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #31 Main/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.762
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	96	Level Of Service:	C

Street Name:	Main							223rd							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1
Volume Module:																
Base Vol:	121	455	177		186	656	173		191	1267	129		136	698	108	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	121	455	177		186	656	173		191	1267	129		136	698	108	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	121	455	177		186	656	173		191	1267	129		136	698	108	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	121	455	177		186	656	173		191	1267	129		136	698	108	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	121	455	177		186	656	173		191	1267	129		136	698	108	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00	
Final Sat.:	1600	3200	1600		1600	3200	1600		1600	3200	1600		1600	3200	1600	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.14	0.11		0.12	0.21	0.11		0.12	0.40	0.08		0.09	0.22	0.07	
Crit Moves:	****				****				****				****			

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #33 Figueroa/NB I-110 Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.743
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	72	Level Of Service:	C

Street Name:	Figueroa							NB I-110 Ramps							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	2	0 0	0	0	2	0 1	1	0	1!	0 0	0	0	0	0 0
Volume Module:																
Base Vol:	936	433		0	0	764	218	287	0	157		0	0	0		0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	936	433		0	0	764	218	287	0	157		0	0	0		0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	936	433		0	0	764	218	287	0	157		0	0	0		0
Reduct Vol:	0	0		0	0	0	0	0	0	0		0	0	0		0
Reduced Vol:	936	433		0	0	764	218	287	0	157		0	0	0		0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	936	433		0	0	764	218	287	0	157		0	0	0		0
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	2.00	1.00	1.29	0.00	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	2560	3200		0	0	3200	1600	2068	0	1132		0	0	0		0
Capacity Analysis Module:																
Vol/Sat:	0.37	0.14	0.00	0.00	0.24	0.14	0.14	0.00	0.14	0.00	0.00	0.00				
Crit Moves:	****				****		****									

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #34 Avalon/NB I-405

Cycle (sec):	100	Critical Vol./Cap.(X):	0.415
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	A

Street Name:	Avalon							NB I-405							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected					Permitted					Split Phase					Split Phase				
Rights:	Include					Include					Include					Ignore				
Min. Green:	0	0	0			0	0	0			0	0	0			0	0	0		
Y+R:	4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0		
Lanes:	2	0	2	0	0	0	0	3	0	1	0	0	0	0	0	1	1	0	0	1
Volume Module:																				
Base Vol:	319	791			0	0	1204			383	0	0			0	126		0		315
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	319	791			0	0	1204			383	0	0			0	126		0		315
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	0.00		
PHF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	0.00		
PHF Volume:	319	791			0	0	1204			383	0	0			0	126		0		0
Reduct Vol:	0	0			0	0	0			0	0	0			0	0		0		0
Reduced Vol:	319	791			0	0	1204			383	0	0			0	126		0		0
PCE Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	0.00		
MLF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	0.00		
FinalVolume:	319	791			0	0	1204			383	0	0			0	126		0		0
Saturation Flow Module:																				
Sat/Lane:	1600	1600	1600			1600	1600	1600			1600	1600	1600			1600	1600	1600		
Adjustment:	0.80	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Lanes:	2.00	2.00	0.00			0.00	3.00	1.00			0.00	0.00	0.00			2.00	0.00	1.00		
Final Sat.:	2560	3200			0	0	4800	1600			0	0	0			3200		0		1600
Capacity Analysis Module:																				
Vol/Sat:	0.12	0.25	0.00			0.00	0.25	0.24			0.00	0.00	0.00			0.04	0.00	0.00		
Crit Moves:	****						****									****				

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #35 Avalon/SB I-405

Cycle (sec):	100	Critical Vol./Cap.(X):	0.420
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	A

Street Name:	Avalon						SB I-405					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1	1 0	0 0	2	0 1	2 0	2	0 1	0 0	0	0 0
Volume Module:												
Base Vol:	0	891	180	0	971	365	219	98	308	0	0	0
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	0	891	180	0	971	365	219	98	308	0	0	0
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	0.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	0.00		1.00 1.00	1.00	
PHF Volume:	0	891	180	0	971	365	219	98	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	891	180	0	971	365	219	98	0	0	0	0
PCE Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	0.00		1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	0.00		1.00 1.00	1.00	
FinalVolume:	0	891	180	0	971	365	219	98	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600		1600 1600	1600		1600 1600	1600		1600 1600	1600	
Adjustment:	1.00 1.00	1.00		1.00 1.00	1.00		0.80 1.00	1.00		1.00 1.00	1.00	
Lanes:	0.00 1.66	0.34		0.00 2.00	1.00		2.00 2.00	1.00		0.00 0.00	0.00	
Final Sat.:	0 2662	538		0 3200	1600		2560 3200	1600		0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00 0.33	0.33		0.00 0.30	0.23		0.09 0.03	0.00		0.00 0.00	0.00	
Crit Moves:	****			****			****					

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Appendix C
LOS Analysis W/ Mitigation (ICU Methodology)

County of Los Angeles
Existing Year (2016) With Project + Mitigation

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Normandie/Torrance	C	xxxxx	0.724	C	xxxxx	0.724	+ 0.000 V/C
# 2 Vermont/Torrance	D	xxxxx	0.818	D	xxxxx	0.818	+ 0.000 V/C
# 7 Normandie/Carson	B	xxxxx	0.700	B	xxxxx	0.700	+ 0.000 V/C
# 10 Vermont/Carson	D	xxxxx	0.888	D	xxxxx	0.888	+ 0.000 V/C
# 11 SB I-110 Ramps/Carson	B	xxxxx	0.660	B	xxxxx	0.660	+ 0.000 V/C
# 27 Meyler/223rd	B	xxxxx	0.639	B	xxxxx	0.639	+ 0.000 V/C
# 28 Vermont/223rd	F	xxxxx	1.041	F	xxxxx	1.041	+ 0.000 V/C
# 29 SB I-110 Ramps/223rd	B	xxxxx	0.677	B	xxxxx	0.677	+ 0.000 V/C
# 32 Hamilton/SB I-110 Ramps	C	xxxxx	0.718	C	xxxxx	0.718	+ 0.000 V/C

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Normandie/Torrance

Cycle (sec):	100	Critical Vol./Cap.(X):	0.724
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	82	Level Of Service:	C

Street Name:	Normandie						Torrance					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Prot+Permit			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	0 1	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	132	669	106	47	373	102	94	948	83	105	1516	80
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	132	669	106	47	373	102	94	948	83	105	1516	80
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	132	669	106	47	373	102	94	948	83	105	1516	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	132	669	106	47	373	102	94	948	83	105	1516	80
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	132	669	106	47	373	102	94	948	83	105	1516	80
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Lanes:	1.00	2.00	1.00	1.00	1.57	0.43	1.00	1.84	0.16	1.00	1.90	0.10
Final Sat.:	1760	3520	1760	1760	2764	756	1760	3237	283	1760	3344	176
Capacity Analysis Module:												
Vol/Sat:	0.08	0.19	0.06	0.03	0.13	0.13	0.05	0.29	0.29	0.06	0.45	0.45
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Vermont/Torrance

Cycle (sec):	100	Critical Vol./Cap.(X):	0.818
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	125	Level Of Service:	D

Street Name:	Vermont						Torrance					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	114	795	284	27	578	194	187	924	150	460	1204	74
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	114	795	284	27	578	194	187	924	150	460	1204	74
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	114	795	284	27	578	194	187	924	150	460	1204	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	114	795	284	27	578	194	187	924	150	460	1204	74
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	114	795	284	27	578	194	187	924	150	460	1204	74
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.21	0.79	1.00	2.25	0.75	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3537	1263	1600	3594	1206	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.07	0.22	0.22	0.02	0.16	0.16	0.12	0.29	0.09	0.29	0.38	0.05
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Normandie/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.700
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	76	Level Of Service:	B

Street Name:	Normandie						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	174	666	84	50	405	151	196	876	172	155	1168	102
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	174	666	84	50	405	151	196	876	172	155	1168	102
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	174	666	84	50	405	151	196	876	172	155	1168	102
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	174	666	84	50	405	151	196	876	172	155	1168	102
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	174	666	84	50	405	151	196	876	172	155	1168	102
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Lanes:	1.00	2.00	1.00	1.00	1.46	0.54	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1760	3520	1760	1760	2564	956	1760	3520	1760	1760	3520	1760
Capacity Analysis Module:												
Vol/Sat:	0.10	0.19	0.05	0.03	0.16	0.16	0.11	0.25	0.10	0.09	0.33	0.06
Crit Moves:	****				****			****				****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 Vermont/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.888
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	D

Street Name:	Vermont						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	2 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	163	819	215	174	677	343	258	796	85	455	1599	369
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	163	819	215	174	677	343	258	796	85	455	1599	369
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	163	819	215	174	677	343	258	796	85	455	1599	369
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	163	819	215	174	677	343	258	796	85	455	1599	369
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	163	819	215	174	677	343	258	796	85	455	1599	369
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.71	0.29	1.00	2.44	0.56
Final Sat.:	1600	3200	1600	2880	3200	1600	1600	4337	463	1600	3900	900
Capacity Analysis Module:												
Vol/Sat:	0.10	0.26	0.13	0.06	0.21	0.21	0.16	0.18	0.18	0.28	0.41	0.41
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 SB I-110 Ramps/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.660
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	B

Street Name:	SB I-110 Ramps						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	1	0 0	3	0 1	1 0	3	0 0
Volume Module:												
Base Vol:	0	0	0	114	0	1031	0	1050	156	133	1412	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	114	0	1031	0	1050	156	133	1412	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	114	0	1031	0	1050	156	133	1412	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	114	0	1031	0	1050	156	133	1412	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	114	0	1031	0	1050	156	133	1412	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.20	0.00	1.80	0.00	3.00	1.00	1.00	3.00	0.00
Final Sat.:	0	0	0	319	0	2881	0	4800	1600	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.07	0.00	0.36	0.00	0.22	0.10	0.08	0.29	0.00
Crit Moves:						****		****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #27 Meyler/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.639
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	B

Street Name:	Meyler						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	1	0	1 1	0	1	0 2 1 0
Volume Module:												
Base Vol:	45	6	52	108	41	106	154	769	52	105	1412	293
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	6	52	108	41	106	154	769	52	105	1412	293
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	45	6	52	108	41	106	154	769	52	105	1412	293
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	6	52	108	41	106	154	769	52	105	1412	293
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	6	52	108	41	106	154	769	52	105	1412	293
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.44	0.06	0.50	0.42	0.16	0.42	1.00	1.87	0.13	1.00	2.48	0.52
Final Sat.:	699	93	808	678	257	665	1600	2997	203	1600	3975	825
Capacity Analysis Module:												
Vol/Sat:	0.03	0.06	0.06	0.07	0.16	0.16	0.10	0.26	0.26	0.07	0.36	0.36
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #28 Vermont/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.041
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Vermont						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	2 0	1	1 0	1 0	2 0	1	2 0	1	1 0
Volume Module:												
Base Vol:	286	792	178	279	359	169	129	773	68	159	1401	573
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	286	792	178	279	359	169	129	773	68	159	1401	573
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	286	792	178	279	359	169	129	773	68	159	1401	573
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	286	792	178	279	359	169	129	773	68	159	1401	573
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	286	792	178	279	359	169	129	773	68	159	1401	573
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.36	0.64	1.00	2.00	1.00	2.00	1.42	0.58
Final Sat.:	1600	3200	1600	2880	2176	1024	1600	3200	1600	2880	2271	929
Capacity Analysis Module:												
Vol/Sat:	0.18	0.25	0.11	0.10	0.16	0.17	0.08	0.24	0.04	0.06	0.62	0.62
Crit Moves:	****					****	****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #29 SB I-110 Ramps/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.677
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	B

Street Name:	SB I-110 Ramps						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Protected			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	1 0	1! 0	1	0 0	2	1 0	1 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	310	1	897	0	1105	167	208	1230	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	310	1	897	0	1105	167	208	1230	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	310	1	897	0	1105	167	208	1230	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	310	1	897	0	1105	167	208	1230	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	310	1	897	0	1105	167	208	1230	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.01	1.99	0.00	2.61	0.39	1.00	2.00	0.00
Final Sat.:	0	0	0	1600	16	3184	0	4170	630	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.19	0.06	0.28	0.00	0.27	0.26	0.13	0.38	0.00
Crit Moves:						****		****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #32 Hamilton/SB I-110 Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.718
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	66	Level Of Service:	C

Street Name:	Hamilton						SB I-110 Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0 1	0 1	1	0 1	0 0	0	0 0	0 0	1	0 1!	0 0
Volume Module:												
Base Vol:	0	91	106	317	131	0	0	0	0	1234	0	248
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	91	106	317	131	0	0	0	0	1234	0	248
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	91	0	317	131	0	0	0	0	1234	0	248
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	91	0	317	131	0	0	0	0	1234	0	248
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	91	0	317	131	0	0	0	0	1234	0	248
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.67	0.00	0.33
Final Sat.:	0	1600	1600	1600	1600	0	0	0	0	2665	0	535
Capacity Analysis Module:												
Vol/Sat:	0.00	0.06	0.00	0.20	0.08	0.00	0.00	0.00	0.00	0.46	0.00	0.46
Crit Moves:		****		****						****		

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in V/C
# 1 Normandie/Torrance	C	xxxxx	0.772	C	xxxxx	0.772	+ 0.000
# 2 Vermont/Torrance	D	xxxxx	0.875	D	xxxxx	0.875	+ 0.000
# 7 Normandie/Carson	C	xxxxx	0.752	C	xxxxx	0.752	+ 0.000
# 10 Vermont/Carson	C	xxxxx	0.771	C	xxxxx	0.771	+ 0.000
# 11 SB I-110 Ramps/Carson	B	xxxxx	0.677	B	xxxxx	0.677	+ 0.000
# 27 Meyler/223rd	B	xxxxx	0.694	B	xxxxx	0.694	+ 0.000
# 28 Vermont/223rd	D	xxxxx	0.880	D	xxxxx	0.880	+ 0.000
# 29 SB I-110 Ramps/223rd	C	xxxxx	0.749	C	xxxxx	0.749	+ 0.000
# 32 Hamilton/SB I-110 Ramps	B	xxxxx	0.618	B	xxxxx	0.618	+ 0.000

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Normandie/Torrance

Cycle (sec):	100	Critical Vol./Cap.(X):	0.772
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Street Name:	Normandie						Torrance					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Prot+Permit			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	95	508	97	136	755	153	109	1337	154	65	952	67
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	95	508	97	136	755	153	109	1337	154	65	952	67
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	95	508	97	136	755	153	109	1337	154	65	952	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	95	508	97	136	755	153	109	1337	154	65	952	67
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	95	508	97	136	755	153	109	1337	154	65	952	67
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Lanes:	1.00	2.00	1.00	1.00	1.66	0.34	1.00	1.79	0.21	1.00	1.87	0.13
Final Sat.:	1760	3520	1760	1760	2927	593	1760	3156	364	1760	3289	231
Capacity Analysis Module:												
Vol/Sat:	0.05	0.14	0.06	0.08	0.26	0.26	0.06	0.42	0.42	0.04	0.29	0.29
Crit Moves:	****				****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Vermont/Torrance

Cycle (sec):	100	Critical Vol./Cap.(X):	0.875
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	D

Street Name:	Vermont						Torrance					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	98	523	484	88	829	179	187	1223	116	216	692	56
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	98	523	484	88	829	179	187	1223	116	216	692	56
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	98	523	484	88	829	179	187	1223	116	216	692	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	98	523	484	88	829	179	187	1223	116	216	692	56
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	98	523	484	88	829	179	187	1223	116	216	692	56
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.47	0.53	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	3948	852	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.16	0.30	0.06	0.21	0.21	0.12	0.38	0.07	0.14	0.22	0.04
Crit Moves:			****	****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Normandie/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.752
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	92	Level Of Service:	C

Street Name:	Normandie						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	0 1	1 0	1	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	145	434	100	109	636	150	227	1084	203	137	1116	87
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	145	434	100	109	636	150	227	1084	203	137	1116	87
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	145	434	100	109	636	150	227	1084	203	137	1116	87
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	145	434	100	109	636	150	227	1084	203	137	1116	87
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	145	434	100	109	636	150	227	1084	203	137	1116	87
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Lanes:	1.00	2.00	1.00	1.00	1.62	0.38	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1760	3520	1760	1760	2848	672	1760	3520	1760	1760	3520	1760
Capacity Analysis Module:												
Vol/Sat:	0.08	0.12	0.06	0.06	0.22	0.22	0.13	0.31	0.12	0.08	0.32	0.05
Crit Moves:	****				****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 Vermont/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.771
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Street Name:	Vermont						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	2 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	115	570	336	362	806	304	267	1339	183	191	1083	205
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	115	570	336	362	806	304	267	1339	183	191	1083	205
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	115	570	336	362	806	304	267	1339	183	191	1083	205
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	115	570	336	362	806	304	267	1339	183	191	1083	205
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	115	570	336	362	806	304	267	1339	183	191	1083	205
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.64	0.36	1.00	2.52	0.48
Final Sat.:	1600	3200	1600	2880	3200	1600	1600	4223	577	1600	4036	764
Capacity Analysis Module:												
Vol/Sat:	0.07	0.18	0.21	0.13	0.25	0.19	0.17	0.32	0.32	0.12	0.27	0.27
Crit Moves:			****	****			****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 SB I-110 Ramps/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.677
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	B

Street Name:	SB I-110 Ramps						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	1	0 0	3	0 1	1 0	3	0 0
Volume Module:												
Base Vol:	0	0	0	198	0	670	0	1643	348	101	881	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	198	0	670	0	1643	348	101	881	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	198	0	670	0	1643	348	101	881	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	198	0	670	0	1643	348	101	881	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	198	0	670	0	1643	348	101	881	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.46	0.00	1.54	0.00	3.00	1.00	1.00	3.00	0.00
Final Sat.:	0	0	0	730	0	2470	0	4800	1600	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.12	0.00	0.27	0.00	0.34	0.22	0.06	0.18	0.00
Crit Moves:						****		****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #27 Meyler/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.694
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	47	Level Of Service:	B

Street Name:	Meyler						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	1	0	1 1	0	1	0 2 1 0
Volume Module:												
Base Vol:	24	13	31	161	42	133	105	1138	120	122	938	141
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	24	13	31	161	42	133	105	1138	120	122	938	141
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	24	13	31	161	42	133	105	1138	120	122	938	141
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	13	31	161	42	133	105	1138	120	122	938	141
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	24	13	31	161	42	133	105	1138	120	122	938	141
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.35	0.19	0.46	0.48	0.12	0.40	1.00	1.81	0.19	1.00	2.61	0.39
Final Sat.:	565	306	729	767	200	633	1600	2895	305	1600	4173	627
Capacity Analysis Module:												
Vol/Sat:	0.02	0.04	0.04	0.10	0.21	0.21	0.07	0.39	0.39	0.08	0.22	0.22
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #28 Vermont/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.880
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	D

Street Name:	Vermont						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	0 1	2	0 1	1 0	1 0	2	0 1	2	0 1	1 0
Volume Module:												
Base Vol:	164	401	215	594	697	149	105	1171	115	423	884	232
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	164	401	215	594	697	149	105	1171	115	423	884	232
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	164	401	215	594	697	149	105	1171	115	423	884	232
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	164	401	215	594	697	149	105	1171	115	423	884	232
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	164	401	215	594	697	149	105	1171	115	423	884	232
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.65	0.35	1.00	2.00	1.00	2.00	1.58	0.42
Final Sat.:	1600	3200	1600	2880	2636	564	1600	3200	1600	2880	2535	665
Capacity Analysis Module:												
Vol/Sat:	0.10	0.13	0.13	0.21	0.26	0.26	0.07	0.37	0.07	0.15	0.35	0.35
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #29 SB I-110 Ramps/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.749
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	74	Level Of Service:	C

Street Name:	SB I-110 Ramps						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Protected			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	1	0	1! 0	1	0	0	2	1	0
Volume Module:												
Base Vol:	0	0	0	485	7	609	0	1790	279	141	856	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	485	7	609	0	1790	279	141	856	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	485	7	609	0	1790	279	141	856	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	485	7	609	0	1790	279	141	856	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	485	7	609	0	1790	279	141	856	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.32	0.02	1.66	0.00	2.60	0.40	1.00	2.00	0.00
Final Sat.:	0	0	0	2114	31	2655	0	4153	647	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.23	0.23	0.23	0.00	0.43	0.43	0.09	0.27	0.00
Crit Moves:				****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #32 Hamilton/SB I-110 Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.618
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

Street Name:	Hamilton						SB I-110 Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0 1	0 1	1	0 1	0 0	0	0 0	0 0	1	0 1!	0 0
Volume Module:												
Base Vol:	0	50	368	596	115	0	0	0	0	551	0	135
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	50	368	596	115	0	0	0	0	551	0	135
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	50	0	596	115	0	0	0	0	551	0	135
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	50	0	596	115	0	0	0	0	551	0	135
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	50	0	596	115	0	0	0	0	551	0	135
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.61	0.00	0.39
Final Sat.:	0	1600	1600	1600	1600	0	0	0	0	2570	0	630
Capacity Analysis Module:												
Vol/Sat:	0.00	0.03	0.00	0.37	0.07	0.00	0.00	0.00	0.00	0.21	0.00	0.21
Crit Moves:		****		****						****		

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City of Carson
Existing Year (2016) With Project + Mitigation

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in V/C
# 1 Normandie/Torrance	D	xxxxx	0.813	D	xxxxx	0.813	+ 0.000
# 2 Vermont/Torrance	D	xxxxx	0.888	D	xxxxx	0.888	+ 0.000
# 7 Normandie/Carson	B	xxxxx	0.683	B	xxxxx	0.683	+ 0.000
# 9 Berendo/Carson	B	xxxxx	0.603	B	xxxxx	0.603	+ 0.000
# 10 Vermont/Carson	E	xxxxx	0.972	E	xxxxx	0.972	+ 0.000
# 11 SB I-110 Ramps/Carson	C	xxxxx	0.722	C	xxxxx	0.722	+ 0.000
# 26 Normandie/223rd	C	xxxxx	0.709	C	xxxxx	0.709	+ 0.000
# 27 Meyler/223rd	B	xxxxx	0.636	B	xxxxx	0.636	+ 0.000
# 28 Vermont/223rd	F	xxxxx	1.144	F	xxxxx	1.144	+ 0.000
# 29 SB I-110 Ramps/223rd	C	xxxxx	0.741	C	xxxxx	0.741	+ 0.000
# 32 Hamilton/SB I-110 Ramps	C	xxxxx	0.794	C	xxxxx	0.794	+ 0.000

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Normandie/Torrance

Cycle (sec):	100	Critical Vol./Cap.(X):	0.813
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	122	Level Of Service:	D

Street Name:	Normandie						Torrance					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Prot+Permit			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	149	754	119	50	420	115	106	1068	93	118	1708	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	149	754	119	50	420	115	106	1068	93	118	1708	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	149	754	119	50	420	115	106	1068	93	118	1708	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	149	754	119	50	420	115	106	1068	93	118	1708	89
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	149	754	119	50	420	115	106	1068	93	118	1708	89
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Lanes:	1.00	2.00	1.00	1.00	1.57	0.43	1.00	2.00	1.00	1.00	1.90	0.10
Final Sat.:	1760	3520	1760	1760	2763	757	1760	3520	1760	1760	3346	174
Capacity Analysis Module:												
Vol/Sat:	0.08	0.21	0.07	0.03	0.15	0.15	0.06	0.30	0.05	0.07	0.51	0.51
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Vermont/Torrance

Cycle (sec):	100	Critical Vol./Cap.(X):	0.888
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	D

Street Name:	Vermont						Torrance					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	127	895	302	30	651	219	211	1041	166	471	1356	83
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	127	895	302	30	651	219	211	1041	166	471	1356	83
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	127	895	302	30	651	219	211	1041	166	471	1356	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	127	895	302	30	651	219	211	1041	166	471	1356	83
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	127	895	302	30	651	219	211	1041	166	471	1356	83
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.24	0.76	1.00	2.24	0.76	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3589	1211	1600	3592	1208	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.08	0.25	0.25	0.02	0.18	0.18	0.13	0.33	0.10	0.29	0.42	0.05
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Normandie/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.683
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	72	Level Of Service:	B

Street Name:	Normandie						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	196	750	95	55	456	170	221	962	194	175	1306	112
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	196	750	95	55	456	170	221	962	194	175	1306	112
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	196	750	95	55	456	170	221	962	194	175	1306	112
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	196	750	95	55	456	170	221	962	194	175	1306	112
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	196	750	95	55	456	170	221	962	194	175	1306	112
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Lanes:	1.00	2.00	1.00	1.00	1.46	0.54	1.00	2.00	1.00	1.00	2.76	0.24
Final Sat.:	1760	3520	1760	1760	2564	956	1760	3520	1760	1760	4863	417
Capacity Analysis Module:												
Vol/Sat:	0.11	0.21	0.05	0.03	0.18	0.18	0.13	0.27	0.11	0.10	0.27	0.27
Crit Moves:	****				****		****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Berendo/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.603
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	47	Level Of Service:	B

Street Name:	Berendo						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	41	1	140	59	0	53	76	934	83	404	1583	159
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	1	140	59	0	53	76	934	83	404	1583	159
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	41	1	140	59	0	53	76	934	83	404	1583	159
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	1	140	59	0	53	76	934	83	404	1583	159
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	41	1	140	59	0	53	76	934	83	404	1583	159
OvlAdjVol:			0									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	0	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.09	0.04	0.00	0.03	0.05	0.29	0.05	0.25	0.49	0.10
OvlAdjV/S:			0.00									
Crit Moves:	****					****		****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 Vermont/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.972
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Street Name:	Vermont						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	184	916	234	185	746	368	274	879	96	490	1754	385
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	184	916	234	185	746	368	274	879	96	490	1754	385
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	184	916	234	185	746	368	274	879	96	490	1754	385
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	184	916	234	185	746	368	274	879	96	490	1754	385
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	184	916	234	185	746	368	274	879	96	490	1754	385
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.39	0.61	1.00	2.01	0.99	1.00	2.70	0.30	1.00	2.46	0.54
Final Sat.:	1600	3823	977	1600	3214	1586	1600	4327	473	1600	3936	864
Capacity Analysis Module:												
Vol/Sat:	0.12	0.24	0.24	0.12	0.23	0.23	0.17	0.20	0.20	0.31	0.45	0.45
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 SB I-110 Ramps/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.722
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Street Name:	SB I-110 Ramps							Carson							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	0	1!	0	1	0	0	3	0	1	1	0	3	0	0
Volume Module:																
Base Vol:	0	0	0	128	0	1114	0	1151	171	150	1538	0				
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Initial Bse:	0	0	0	128	0	1114	0	1151	171	150	1538	0				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Volume:	0	0	0	128	0	1114	0	1151	171	150	1538	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	0	0	0	128	0	1114	0	1151	171	150	1538	0				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
FinalVolume:	0	0	0	128	0	1114	0	1151	171	150	1538	0				
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600				
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Lanes:	0.00	0.00	0.00	0.21	0.00	1.79	0.00	3.00	1.00	1.00	3.00	0.00				
Final Sat.:	0	0	0	330	0	2870	0	4800	1600	1600	4800	0				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00	0.08	0.00	0.39	0.00	0.24	0.11	0.09	0.32	0.00				
Crit Moves:						****		****		****						

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #26 Normandie/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.709
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	C

Street Name:	Normandie						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	97	844	183	78	462	97	74	793	55	172	1349	112
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	97	844	183	78	462	97	74	793	55	172	1349	112
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	97	844	183	78	462	97	74	793	55	172	1349	112
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	97	844	183	78	462	97	74	793	55	172	1349	112
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	97	844	183	78	462	97	74	793	55	172	1349	112
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Lanes:	1.00	2.00	1.00	1.00	1.65	0.35	1.00	2.81	0.19	1.00	2.00	1.00
Final Sat.:	1760	3520	1760	1760	2909	611	1760	4938	342	1760	3520	1760
Capacity Analysis Module:												
Vol/Sat:	0.06	0.24	0.10	0.04	0.16	0.16	0.04	0.16	0.16	0.10	0.38	0.06
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #27 Meyler/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.636
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	B

Street Name:	Meyler							223rd					
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Permitted			Permitted			Permitted			Permitted			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	0	0	1! 0	0	1	0	0 1	0	1	0	1	1	0
Volume Module:													
Base Vol:	51	7	59	114	46	115	162	857	59	118	1573	302	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	51	7	59	114	46	115	162	857	59	118	1573	302	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	51	7	59	114	46	115	162	857	59	118	1573	302	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	51	7	59	114	46	115	162	857	59	118	1573	302	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:	51	7	59	114	46	115	162	857	59	118	1573	302	
Saturation Flow Module:													
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	0.44	0.06	0.50	1.00	0.29	0.71	1.00	1.87	0.13	1.00	2.52	0.48	
Final Sat.:	697	96	807	1600	457	1143	1600	2994	206	1600	4027	773	
Capacity Analysis Module:													
Vol/Sat:	0.03	0.07	0.07	0.07	0.10	0.10	0.10	0.29	0.29	0.07	0.39	0.39	
Crit Moves:	****			****			****				****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #28 Vermont/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.144
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Vermont						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	2 0	1	1 0	1 0	2 0	1	2 0	1	1 0
Volume Module:												
Base Vol:	322	892	200	301	404	184	140	856	77	179	1540	610
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	322	892	200	301	404	184	140	856	77	179	1540	610
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	322	892	200	301	404	184	140	856	77	179	1540	610
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	322	892	200	301	404	184	140	856	77	179	1540	610
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	322	892	200	301	404	184	140	856	77	179	1540	610
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.37	0.63	1.00	2.00	1.00	2.00	1.43	0.57
Final Sat.:	1600	3200	1600	2880	2199	1001	1600	3200	1600	2880	2292	908
Capacity Analysis Module:												
Vol/Sat:	0.20	0.28	0.13	0.10	0.18	0.18	0.09	0.27	0.05	0.06	0.67	0.67
Crit Moves:	****			****			****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #29 SB I-110 Ramps/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.741
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	72	Level Of Service:	C

Street Name:	SB I-110 Ramps						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Protected			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	1 0	1! 0	1	0 0	2	1 0	1 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	349	1	963	0	1222	183	234	1358	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	349	1	963	0	1222	183	234	1358	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	349	1	963	0	1222	183	234	1358	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	349	1	963	0	1222	183	234	1358	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	349	1	963	0	1222	183	234	1358	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.01	1.99	0.00	2.61	0.39	1.00	2.00	0.00
Final Sat.:	0	0	0	1600	16	3184	0	4175	625	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.22	0.06	0.30	0.00	0.29	0.29	0.15	0.42	0.00
Crit Moves:						****		****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #32 Hamilton/SB I-110 Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.794
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	90	Level Of Service:	C

Street Name:	Hamilton						SB I-110 Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0 1	0 1	1	0 1	0 0	0	0 0	0 0	1	0 1!	0 0
Volume Module:												
Base Vol:	0	103	119	357	148	0	0	0	0	1343	0	279
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	103	119	357	148	0	0	0	0	1343	0	279
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	103	0	357	148	0	0	0	0	1343	0	279
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	103	0	357	148	0	0	0	0	1343	0	279
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	103	0	357	148	0	0	0	0	1343	0	279
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.66	0.00	0.34
Final Sat.:	0	1600	1600	1600	1600	0	0	0	0	2650	0	550
Capacity Analysis Module:												
Vol/Sat:	0.00	0.06	0.00	0.22	0.09	0.00	0.00	0.00	0.00	0.51	0.00	0.51
Crit Moves:		****		****						****		

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Normandie/Torrance	D	xxxxx	0.820	D	xxxxx	0.820	+ 0.000 V/C
# 2 Vermont/Torrance	E	xxxxx	0.948	E	xxxxx	0.948	+ 0.000 V/C
# 7 Normandie/Carson	C	xxxxx	0.776	C	xxxxx	0.776	+ 0.000 V/C
# 9 Berendo/Carson	C	xxxxx	0.711	C	xxxxx	0.711	+ 0.000 V/C
# 10 Vermont/Carson	E	xxxxx	0.936	E	xxxxx	0.936	+ 0.000 V/C
# 11 SB I-110 Ramps/Carson	C	xxxxx	0.741	C	xxxxx	0.741	+ 0.000 V/C
# 26 Normandie/223rd	B	xxxxx	0.627	B	xxxxx	0.627	+ 0.000 V/C
# 27 Meyler/223rd	B	xxxxx	0.674	B	xxxxx	0.674	+ 0.000 V/C
# 28 Vermont/223rd	E	xxxxx	0.979	E	xxxxx	0.979	+ 0.000 V/C
# 29 SB I-110 Ramps/223rd	D	xxxxx	0.826	D	xxxxx	0.826	+ 0.000 V/C
# 32 Hamilton/SB I-110 Ramps	B	xxxxx	0.690	B	xxxxx	0.690	+ 0.000 V/C

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Normandie/Torrance

Cycle (sec):	100	Critical Vol./Cap.(X):	0.820
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	127	Level Of Service:	D

Street Name:	Normandie						Torrance					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Prot+Permit			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	107	572	109	152	850	172	123	1506	173	73	1072	73
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	107	572	109	152	850	172	123	1506	173	73	1072	73
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	107	572	109	152	850	172	123	1506	173	73	1072	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	572	109	152	850	172	123	1506	173	73	1072	73
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	107	572	109	152	850	172	123	1506	173	73	1072	73
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Lanes:	1.00	2.00	1.00	1.00	1.66	0.34	1.00	2.00	1.00	1.00	1.87	0.13
Final Sat.:	1760	3520	1760	1760	2928	592	1760	3520	1760	1760	3296	224
Capacity Analysis Module:												
Vol/Sat:	0.06	0.16	0.06	0.09	0.29	0.29	0.07	0.43	0.10	0.04	0.33	0.33
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Vermont/Torrance

Cycle (sec):	100	Critical Vol./Cap.(X):	0.948
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Street Name:	Vermont						Torrance					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	108	589	504	99	934	202	211	1378	130	225	779	63
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	108	589	504	99	934	202	211	1378	130	225	779	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	108	589	504	99	934	202	211	1378	130	225	779	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	108	589	504	99	934	202	211	1378	130	225	779	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	108	589	504	99	934	202	211	1378	130	225	779	63
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.47	0.53	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	3946	854	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.07	0.18	0.32	0.06	0.24	0.24	0.13	0.43	0.08	0.14	0.24	0.04
Crit Moves:			****	****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Normandie/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.776
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	102	Level Of Service:	C

Street Name:	Normandie						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	0 1	1 0	1	1 0	1 0	2	0 1	1 0	2	1 0
Volume Module:												
Base Vol:	163	489	113	120	716	169	256	1212	229	154	1235	97
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	163	489	113	120	716	169	256	1212	229	154	1235	97
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	163	489	113	120	716	169	256	1212	229	154	1235	97
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	163	489	113	120	716	169	256	1212	229	154	1235	97
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	163	489	113	120	716	169	256	1212	229	154	1235	97
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Lanes:	1.00	2.00	1.00	1.00	1.62	0.38	1.00	2.00	1.00	1.00	2.78	0.22
Final Sat.:	1760	3520	1760	1760	2848	672	1760	3520	1760	1760	4895	385
Capacity Analysis Module:												
Vol/Sat:	0.09	0.14	0.06	0.07	0.25	0.25	0.15	0.34	0.13	0.09	0.25	0.25
Crit Moves:	****				****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Berendo/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.711
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	64	Level Of Service:	C

Street Name:	Berendo						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	57	3	293	137	5	62	43	1416	38	134	1358	74
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	3	293	137	5	62	43	1416	38	134	1358	74
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	3	293	137	5	62	43	1416	38	134	1358	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	3	293	137	5	62	43	1416	38	134	1358	74
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	3	293	137	5	62	43	1416	38	134	1358	74
OvlAdjVol:			159									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.07	0.93	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	119	1481	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.18	0.09	0.04	0.04	0.03	0.44	0.02	0.08	0.42	0.05
OvlAdjV/S:			0.10									
Crit Moves:			****	****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 Vermont/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.936
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Street Name:	Vermont						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	130	627	359	381	902	327	284	1467	206	207	1202	219
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	130	627	359	381	902	327	284	1467	206	207	1202	219
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	130	627	359	381	902	327	284	1467	206	207	1202	219
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	130	627	359	381	902	327	284	1467	206	207	1202	219
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	130	627	359	381	902	327	284	1467	206	207	1202	219
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.20	0.80	1.00	2.63	0.37	1.00	2.54	0.46
Final Sat.:	1600	3200	1600	1600	3523	1277	1600	4209	591	1600	4060	740
Capacity Analysis Module:												
Vol/Sat:	0.08	0.20	0.22	0.24	0.26	0.26	0.18	0.35	0.35	0.13	0.30	0.30
Crit Moves:			****	****			****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 SB I-110 Ramps/Carson

Cycle (sec):	100	Critical Vol./Cap.(X):	0.741
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Street Name:	SB I-110 Ramps						Carson					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	1	0 0	3	0 1	1 0	3	0 0
Volume Module:												
Base Vol:	0	0	0	223	0	737	0	1775	380	114	973	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	223	0	737	0	1775	380	114	973	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	223	0	737	0	1775	380	114	973	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	223	0	737	0	1775	380	114	973	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	223	0	737	0	1775	380	114	973	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.46	0.00	1.54	0.00	3.00	1.00	1.00	3.00	0.00
Final Sat.:	0	0	0	743	0	2457	0	4800	1600	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.14	0.00	0.30	0.00	0.37	0.24	0.07	0.20	0.00
Crit Moves:						****		****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #26 Normandie/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.627
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	B

Street Name:	Normandie						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	44	428	162	115	850	92	101	1129	223	138	914	77
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	44	428	162	115	850	92	101	1129	223	138	914	77
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	44	428	162	115	850	92	101	1129	223	138	914	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	428	162	115	850	92	101	1129	223	138	914	77
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	44	428	162	115	850	92	101	1129	223	138	914	77
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Lanes:	1.00	2.00	1.00	1.00	1.80	0.20	1.00	2.51	0.49	1.00	2.00	1.00
Final Sat.:	1760	3520	1760	1760	3176	344	1760	4409	871	1760	3520	1760
Capacity Analysis Module:												
Vol/Sat:	0.03	0.12	0.09	0.07	0.27	0.27	0.06	0.26	0.26	0.08	0.26	0.04
Crit Moves:	****				****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #27 Meyler/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.674
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	B

Street Name:	Meyler						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	0	0 1	0	1	0 1	0	1
Volume Module:												
Base Vol:	27	15	35	164	47	140	114	1266	135	137	1048	148
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	27	15	35	164	47	140	114	1266	135	137	1048	148
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	27	15	35	164	47	140	114	1266	135	137	1048	148
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	27	15	35	164	47	140	114	1266	135	137	1048	148
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	27	15	35	164	47	140	114	1266	135	137	1048	148
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.35	0.19	0.46	1.00	0.25	0.75	1.00	1.81	0.19	1.00	2.63	0.37
Final Sat.:	561	312	727	1600	402	1198	1600	2892	308	1600	4206	594
Capacity Analysis Module:												
Vol/Sat:	0.02	0.05	0.05	0.10	0.12	0.12	0.07	0.44	0.44	0.09	0.25	0.25
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #28 Vermont/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.979
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Street Name:	Vermont						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	0 1	2	0 1	1 0	1 0	2	0 1	2	0 1	1 0
Volume Module:												
Base Vol:	185	452	242	637	785	163	112	1285	130	476	981	248
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	185	452	242	637	785	163	112	1285	130	476	981	248
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	185	452	242	637	785	163	112	1285	130	476	981	248
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	185	452	242	637	785	163	112	1285	130	476	981	248
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	185	452	242	637	785	163	112	1285	130	476	981	248
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.66	0.34	1.00	2.00	1.00	2.00	1.60	0.40
Final Sat.:	1600	3200	1600	2880	2650	550	1600	3200	1600	2880	2554	646
Capacity Analysis Module:												
Vol/Sat:	0.12	0.14	0.15	0.22	0.30	0.30	0.07	0.40	0.08	0.17	0.38	0.38
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #29 SB I-110 Ramps/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.826
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	107	Level Of Service:	D

Street Name:	SB I-110 Ramps						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Protected			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	1	0	1! 0	1	0	0	2	1	0
Volume Module:												
Base Vol:	0	0	0	546	8	668	0	1963	302	159	954	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	546	8	668	0	1963	302	159	954	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	546	8	668	0	1963	302	159	954	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	546	8	668	0	1963	302	159	954	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	546	8	668	0	1963	302	159	954	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.34	0.02	1.64	0.00	2.60	0.40	1.00	2.00	0.00
Final Sat.:	0	0	0	2145	31	2624	0	4160	640	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.25	0.25	0.25	0.00	0.47	0.47	0.10	0.30	0.00
Crit Moves:				****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #32 Hamilton/SB I-110 Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.690
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Hamilton						SB I-110 Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0 1	0 1	1	0 1	0 0	0	0 0	0 0	1	0 1!	0 0
Volume Module:												
Base Vol:	0	56	415	671	130	0	0	0	0	603	0	152
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	56	415	671	130	0	0	0	0	603	0	152
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	56	0	671	130	0	0	0	0	603	0	152
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	56	0	671	130	0	0	0	0	603	0	152
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	56	0	671	130	0	0	0	0	603	0	152
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.60	0.00	0.40
Final Sat.:	0	1600	1600	1600	1600	0	0	0	0	2556	0	644
Capacity Analysis Module:												
Vol/Sat:	0.00	0.04	0.00	0.42	0.08	0.00	0.00	0.00	0.00	0.24	0.00	0.24
Crit Moves:		****		****								****

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City of Carson
Future Year (2016) With Project + Mitigation

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 24 Figueroa/220th and I-110 NB Ra	D	xxxxx	0.860	D	xxxxx	0.860	+ 0.000 V/C

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #24 Figueroa/220th and I-110 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.860
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	132	Level Of Service:	D

Street Name:	Figueroa						220th/I-110 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	1	1 0	1 0	1	1 1	1 0	0	1 0	0 1	0	0 1
Volume Module:												
Base Vol:	585	560	172	140	412	499	387	55	186	109	210	167
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	585	560	172	140	412	499	387	55	186	109	210	167
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	585	560	172	140	412	499	387	55	186	109	210	167
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	585	560	172	140	412	499	387	55	186	109	210	167
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	585	560	172	140	412	499	387	55	186	109	210	167
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.53	0.47	1.00	1.36	1.64	1.00	0.23	0.77	0.34	0.66	1.00
Final Sat.:	2560	2448	752	1600	2171	2629	1600	365	1235	547	1053	1600
Capacity Analysis Module:												
Vol/Sat:	0.23	0.23	0.23	0.09	0.19	0.19	0.24	0.15	0.15	0.20	0.20	0.10
OvlAdjV/S:						0.00						
Crit Moves:	****			****			****			****		

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 24 Figueroa/220th and I-110 NB Ra	D	xxxxx	0.812	D	xxxxx	0.812	+ 0.000 V/C

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #24 Figueroa/220th and I-110 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.812
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	99	Level Of Service:	D

Street Name:	Figueroa							220th/I-110 NB Ramps							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected					Permitted					Split Phase					Split Phase				
Rights:	Include					Ovl					Include					Include				
Min. Green:	0	0	0			0	0	0			0	0	0			0	0	0		
Y+R:	4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0		
Lanes:	2	0	1	1	0	1	0	1	1	1	1	0	0	1	0	0	1	0	0	1
Volume Module:																				
Base Vol:	727	261		54		133	581		727		257	116		141		45	107		85	
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
Initial Bse:	727	261		54		133	581		727		257	116		141		45	107		85	
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
PHF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
PHF Volume:	727	261		54		133	581		727		257	116		141		45	107		85	
Reduct Vol:	0	0		0		0	0		0		0	0		0		0	0		0	
Reduced Vol:	727	261		54		133	581		727		257	116		141		45	107		85	
PCE Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
MLF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
FinalVolume:	727	261		54		133	581		727		257	116		141		45	107		85	
OvlAdjVol:									298											
Saturation Flow Module:																				
Sat/Lane:	1600	1600		1600		1600	1600		1600		1600	1600		1600		1600	1600		1600	
Adjustment:	0.80	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
Lanes:	2.00	1.66		0.34		1.00	1.33		1.67		1.00	0.45		0.55		0.30	0.70		1.00	
Final Sat.:	2560	2651		549		1600	2132		2668		1600	722		878		474	1126		1600	
Capacity Analysis Module:																				
Vol/Sat:	0.28	0.10		0.10		0.08	0.27		0.27		0.16	0.16		0.16		0.10	0.09		0.05	
OvlAdjV/S:									0.11											
Crit Moves:	****						****							****		****				

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City of Carson
Future Year (2016) With Project + Mitigation

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 24 Figueroa/220th and I-110 NB Ra	E	xxxxx	0.944	E	xxxxx	0.944	+ 0.000 V/C
# 30 Figueroa/223rd	D	xxxxx	0.865	D	xxxxx	0.865	+ 0.000 V/C

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #24 Figueroa/220th and I-110 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.944
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Street Name:	Figueroa						220th/I-110 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	1	1 0	1 0	1	1 1	1 0	0	1 0	0 1	0	0 1
Volume Module:												
Base Vol:	641	631	193	157	463	545	419	62	196	120	234	185
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	641	631	193	157	463	545	419	62	196	120	234	185
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	641	631	193	157	463	545	419	62	196	120	234	185
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	641	631	193	157	463	545	419	62	196	120	234	185
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	641	631	193	157	463	545	419	62	196	120	234	185
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.53	0.47	1.00	1.38	1.62	1.00	0.24	0.76	0.34	0.66	1.00
Final Sat.:	2560	2450	750	1600	2205	2595	1600	384	1216	542	1058	1600
Capacity Analysis Module:												
Vol/Sat:	0.25	0.26	0.26	0.10	0.21	0.21	0.26	0.16	0.16	0.22	0.22	0.12
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #30 Figueroa/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.865
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	137	Level Of Service:	D

Street Name:	Figueroa						223rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	163	612	171	104	327	339	486	885	194	68	1094	368
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	163	612	171	104	327	339	486	885	194	68	1094	368
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	163	612	171	104	327	339	486	885	194	68	1094	368
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	163	612	171	104	327	339	486	885	194	68	1094	368
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	163	612	171	104	327	339	486	885	194	68	1094	368
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.24	0.76
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3592	1208
Capacity Analysis Module:												
Vol/Sat:	0.10	0.19	0.11	0.07	0.10	0.21	0.30	0.28	0.12	0.04	0.30	0.30
OvlAdjV/S:						0.00						
Crit Moves:	****			****			****				****	

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 24 Figueroa/220th and I-110 NB Ra	D	xxxxx	0.886	D	xxxxx	0.886	+ 0.000 V/C
# 30 Figueroa/223rd	D	xxxxx	0.846	D	xxxxx	0.846	+ 0.000 V/C

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #24 Figueroa/220th and I-110 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.886
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	D

Street Name:	Figueroa						220th/I-110 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	1	1 0	1 0	1	1 1	1 0	0	1 0	0 1	0	0 1
Volume Module:												
Base Vol:	778	294	58	147	652	778	283	131	154	50	119	95
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	778	294	58	147	652	778	283	131	154	50	119	95
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	778	294	58	147	652	778	283	131	154	50	119	95
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	778	294	58	147	652	778	283	131	154	50	119	95
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	778	294	58	147	652	778	283	131	154	50	119	95
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.67	0.33	1.00	1.37	1.63	1.00	0.46	0.54	0.30	0.70	1.00
Final Sat.:	2560	2673	527	1600	2189	2611	1600	735	865	473	1127	1600
Capacity Analysis Module:												
Vol/Sat:	0.30	0.11	0.11	0.09	0.30	0.30	0.18	0.18	0.18	0.11	0.11	0.06
Crit Moves:	****			****					****	****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

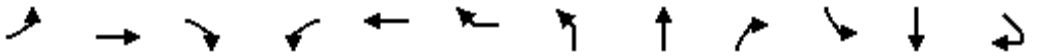
Intersection #30 Figueroa/223rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.846
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	121	Level Of Service:	D

Street Name:	Figueroa								223rd							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Ovl				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	2	0 1	1	0	2	1 0
Volume Module:																
Base Vol:	68	356	115		197	403	226		651	1618	235		71	830	152	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	68	356	115		197	403	226		651	1618	235		71	830	152	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	68	356	115		197	403	226		651	1618	235		71	830	152	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	68	356	115		197	403	226		651	1618	235		71	830	152	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	68	356	115		197	403	226		651	1618	235		71	830	152	
OvlAdjVol:							0									
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.54	0.46	
Final Sat.:	1600	3200	1600		1600	3200	1600		1600	3200	1600		1600	4057	743	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.11	0.07		0.12	0.13	0.14		0.41	0.51	0.15		0.04	0.20	0.20	
OvlAdjV/S:							0.00									
Crit Moves:	****				****				****					****		

Appendix D
LOS/Queue Analysis (HCM Methodology)

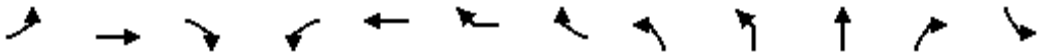
Existing Year (2016) No Project



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SER2
Lane Group Flow (vph)	102	918	34	25	1141	163	77	497	38	100	226	5
v/c Ratio	0.74	0.53	0.04	0.12	0.66	0.20	0.28	0.59	0.08	0.59	0.19	0.00
Control Delay	52.5	13.3	0.1	12.2	15.3	4.8	24.1	25.0	0.5	48.6	13.9	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.5	13.3	0.1	12.2	15.3	4.8	24.1	25.0	0.5	48.6	13.9	0.0
Queue Length 50th (ft)	31	128	0	5	174	10	26	96	0	41	31	0
Queue Length 95th (ft)	#122	196	0	20	262	41	60	141	2	#116	52	0
Internal Link Dist (ft)		1180			1126			889			889	
Turn Bay Length (ft)	100		80	120		60	90		160	110		
Base Capacity (vph)	159	1999	935	247	1999	944	366	1138	572	169	1691	1233
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.46	0.04	0.10	0.57	0.17	0.21	0.44	0.07	0.59	0.13	0.00

Intersection Summary

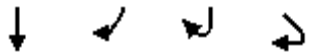
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	94	845	31	23	1050	43	107	56	15	457	35	92
Future Volume (vph)	94	845	31	23	1050	43	107	56	15	457	35	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5			4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00			1.00	0.95	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85			1.00	1.00	0.85	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00			0.95	1.00	1.00	0.95
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583			1770	3539	1583	1770
Flt Permitted	0.15	1.00	1.00	0.23	1.00	1.00			0.61	1.00	1.00	0.95
Satd. Flow (perm)	284	3539	1583	437	3539	1583			1138	3539	1583	1770
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	102	918	34	25	1141	47	116	61	16	497	38	100
RTOR Reduction (vph)	0	0	18	0	0	60	0	0	0	0	29	0
Lane Group Flow (vph)	102	918	16	25	1141	103	0	0	77	497	9	100
Turn Type	Perm	NA	Perm	Perm	NA	Perm		Perm	Perm	NA	Perm	Prot
Protected Phases		4			8					2		1
Permitted Phases	4		4	8		8		2	2		2	
Actuated Green, G (s)	29.9	29.9	29.9	29.9	29.9	29.9			14.7	14.7	14.7	4.0
Effective Green, g (s)	29.9	29.9	29.9	29.9	29.9	29.9			14.7	14.7	14.7	4.0
Actuated g/C Ratio	0.48	0.48	0.48	0.48	0.48	0.48			0.24	0.24	0.24	0.06
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5			4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	136	1703	762	210	1703	762			269	837	374	114
v/s Ratio Prot		0.26			0.32					c0.14		c0.06
v/s Ratio Perm	c0.36		0.01	0.06		0.06			0.07		0.01	
v/c Ratio	0.75	0.54	0.02	0.12	0.67	0.13			0.29	0.59	0.02	0.88
Uniform Delay, d1	13.1	11.3	8.4	8.9	12.3	8.9			19.4	21.0	18.2	28.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00
Incremental Delay, d2	20.5	0.3	0.0	0.3	1.0	0.1			0.6	1.1	0.0	47.9
Delay (s)	33.6	11.6	8.4	9.1	13.3	9.0			20.0	22.2	18.2	76.7
Level of Service	C	B	A	A	B	A			B	C	B	E
Approach Delay (s)		13.6			12.7					21.7		
Approach LOS		B			B					C		

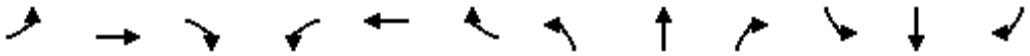
Intersection Summary			
HCM 2000 Control Delay	16.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	62.1	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	SBT	SBR	SBR2	SER2
Lane Configurations				
Traffic Volume (vph)	160	48	0	5
Future Volume (vph)	160	48	0	5
Ideal Flow (vphpl)	1900	1900	1900	1900
Total Lost time (s)	4.5			4.5
Lane Util. Factor	0.95			1.00
Frt	0.97			0.86
Flt Protected	1.00			1.00
Satd. Flow (prot)	3417			1611
Flt Permitted	1.00			1.00
Satd. Flow (perm)	3417			1611
Peak-hour factor, PHF	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	52	0	5
RTOR Reduction (vph)	0	0	0	3
Lane Group Flow (vph)	226	0	0	2
Turn Type	NA		Perm	Perm
Protected Phases	6			
Permitted Phases			6	4
Actuated Green, G (s)	23.2			29.9
Effective Green, g (s)	23.2			29.9
Actuated g/C Ratio	0.37			0.48
Clearance Time (s)	4.5			4.5
Vehicle Extension (s)	3.0			3.0
Lane Grp Cap (vph)	1276			775
v/s Ratio Prot	0.07			
v/s Ratio Perm				0.00
v/c Ratio	0.18			0.00
Uniform Delay, d1	13.0			8.4
Progression Factor	1.00			1.00
Incremental Delay, d2	0.1			0.0
Delay (s)	13.1			8.4
Level of Service	B			A
Approach Delay (s)	32.6			
Approach LOS	C			

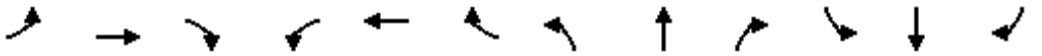
Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	64	770	100	76	1161	140	154	1190	128	66	801	161
v/c Ratio	0.62	0.59	0.15	0.46	0.89	0.21	0.68	0.84	0.18	0.53	0.72	0.27
Control Delay	50.7	20.9	1.6	29.4	31.9	3.5	48.6	27.1	5.8	51.2	26.4	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.7	20.9	1.6	29.4	31.9	3.5	48.6	27.1	5.8	51.2	26.4	5.3
Queue Length 50th (ft)	24	149	0	26	262	0	70	262	7	31	168	3
Queue Length 95th (ft)	#88	204	12	71	#386	29	#151	#384	39	#83	231	41
Internal Link Dist (ft)		1029			1030			868			853	
Turn Bay Length (ft)	90		40	240		60	160		140	165		
Base Capacity (vph)	108	1367	705	172	1367	705	238	1442	705	124	1213	643
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.56	0.14	0.44	0.85	0.20	0.65	0.83	0.18	0.53	0.66	0.25

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	708	92	70	1068	129	142	1095	118	61	737	148
Future Volume (vph)	59	708	92	70	1068	129	142	1095	118	61	737	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.15	1.00	1.00	0.24	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	280	3539	1583	445	3539	1583	1770	3539	1583	1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	64	770	100	76	1161	140	154	1190	128	66	801	161
RTOR Reduction (vph)	0	0	63	0	0	89	0	0	62	0	0	103
Lane Group Flow (vph)	64	770	37	76	1161	51	154	1190	66	66	801	58
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	26.6	26.6	26.6	26.6	26.6	26.6	9.1	28.9	28.9	3.8	23.6	23.6
Effective Green, g (s)	26.6	26.6	26.6	26.6	26.6	26.6	9.1	28.9	28.9	3.8	23.6	23.6
Actuated g/C Ratio	0.37	0.37	0.37	0.37	0.37	0.37	0.12	0.40	0.40	0.05	0.32	0.32
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	102	1293	578	162	1293	578	221	1404	628	92	1147	513
v/s Ratio Prot		0.22			c0.33		c0.09	c0.34		0.04	0.23	
v/s Ratio Perm	0.23		0.02	0.17		0.03			0.04			0.04
v/c Ratio	0.63	0.60	0.06	0.47	0.90	0.09	0.70	0.85	0.11	0.72	0.70	0.11
Uniform Delay, d1	19.0	18.7	15.0	17.7	21.8	15.1	30.5	19.9	13.8	34.0	21.5	17.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	11.5	0.7	0.0	2.1	8.5	0.1	9.2	4.9	0.1	23.3	1.9	0.1
Delay (s)	30.5	19.5	15.1	19.8	30.3	15.2	39.7	24.9	13.9	57.2	23.4	17.4
Level of Service	C	B	B	B	C	B	D	C	B	E	C	B
Approach Delay (s)		19.8			28.2			25.5			24.6	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	25.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	72.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	83.1%	ICU Level of Service	E
Analysis Period (min)	15		

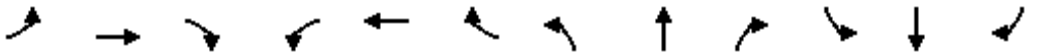
c Critical Lane Group



Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	992	145	1085	124	717
v/c Ratio	0.76	0.79	0.72	0.16	0.95
Control Delay	27.3	62.3	19.8	12.2	42.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	27.3	62.3	19.8	12.2	42.0
Queue Length 50th (ft)	138	63	196	30	251
Queue Length 95th (ft)	184	#154	266	60	#483
Internal Link Dist (ft)	987		993		
Turn Bay Length (ft)		140		380	
Base Capacity (vph)	1346	184	1540	816	781
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.74	0.79	0.70	0.15	0.92

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	798	115	133	998	0	0	0	0	114	0	660
Future Volume (vph)	0	798	115	133	998	0	0	0	0	114	0	660
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5					4.5		4.5
Lane Util. Factor		0.91		1.00	0.95					1.00		1.00
Frt		0.98		1.00	1.00					1.00		0.85
Flt Protected		1.00		0.95	1.00					0.95		1.00
Satd. Flow (prot)		4989		1770	3539					1770		1583
Flt Permitted		1.00		0.95	1.00					0.95		1.00
Satd. Flow (perm)		4989		1770	3539					1770		1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	867	125	145	1085	0	0	0	0	124	0	717
RTOR Reduction (vph)	0	27	0	0	0	0	0	0	0	0	0	52
Lane Group Flow (vph)	0	965	0	145	1085	0	0	0	0	124	0	665
Turn Type		NA		Prot	NA					Perm		Perm
Protected Phases		4		3	8							
Permitted Phases										6		6
Actuated Green, G (s)		17.4		7.1	29.0					30.2		30.2
Effective Green, g (s)		17.4		7.1	29.0					30.2		30.2
Actuated g/C Ratio		0.26		0.10	0.43					0.44		0.44
Clearance Time (s)		4.5		4.5	4.5					4.5		4.5
Vehicle Extension (s)		3.0		3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		1272		184	1504					783		700
v/s Ratio Prot		0.19		0.08	c0.31							
v/s Ratio Perm										0.07		c0.42
v/c Ratio		0.76		0.79	0.72					0.16		0.95
Uniform Delay, d1		23.5		29.8	16.3					11.4		18.3
Progression Factor		1.00		1.00	1.00					1.00		1.00
Incremental Delay, d2		2.7		19.7	1.7					0.1		22.1
Delay (s)		26.1		49.5	18.0					11.5		40.4
Level of Service		C		D	B					B		D
Approach Delay (s)		26.1			21.7			0.0			36.1	
Approach LOS		C			C			A			D	

Intersection Summary			
HCM 2000 Control Delay	27.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	68.2	Sum of lost time (s)	13.5
Intersection Capacity Utilization	76.0%	ICU Level of Service	D
Analysis Period (min)	15		

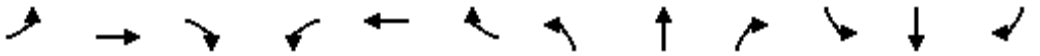
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	8	685	537	98	1141	70	221
v/c Ratio	0.03	0.36	0.49	0.31	0.34	0.17	0.42
Control Delay	9.6	9.3	3.1	22.1	4.4	16.3	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.6	9.3	3.1	22.1	4.4	16.3	5.9
Queue Length 50th (ft)	1	62	0	23	37	15	0
Queue Length 95th (ft)	8	111	47	#70	70	41	41
Internal Link Dist (ft)		806			1980		
Turn Bay Length (ft)	45		160	55			660
Base Capacity (vph)	248	1995	1127	314	3875	1005	994
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.34	0.48	0.31	0.29	0.07	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	630	494	90	1050	0	64	0	203	0	0	0
Future Volume (vph)	7	630	494	90	1050	0	64	0	203	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5			
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91		1.00		1.00			
Frt	1.00	1.00	0.85	1.00	1.00		1.00		0.85			
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95		1.00			
Satd. Flow (prot)	1770	3539	1583	1770	5085		1770		1583			
Flt Permitted	0.24	1.00	1.00	0.95	1.00		0.95		1.00			
Satd. Flow (perm)	441	3539	1583	1770	5085		1770		1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	685	537	98	1141	0	70	0	221	0	0	0
RTOR Reduction (vph)	0	0	301	0	0	0	0	0	189	0	0	0
Lane Group Flow (vph)	8	685	236	98	1141	0	70	0	32	0	0	0
Turn Type	Perm	NA	Perm	Prot	NA		Perm		Perm			
Protected Phases		4		3	8							
Permitted Phases	4		4				2		2			
Actuated Green, G (s)	16.9	16.9	16.9	2.5	23.9		5.6		5.6			
Effective Green, g (s)	16.9	16.9	16.9	2.5	23.9		5.6		5.6			
Actuated g/C Ratio	0.44	0.44	0.44	0.06	0.62		0.15		0.15			
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0		3.0			
Lane Grp Cap (vph)	193	1553	694	114	3156		257		230			
v/s Ratio Prot		c0.19		c0.06	0.22							
v/s Ratio Perm	0.02		0.15				c0.04		0.02			
v/c Ratio	0.04	0.44	0.34	0.86	0.36		0.27		0.14			
Uniform Delay, d1	6.2	7.5	7.1	17.8	3.6		14.6		14.3			
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00		1.00			
Incremental Delay, d2	0.1	0.2	0.3	43.5	0.1		0.6		0.3			
Delay (s)	6.3	7.7	7.4	61.3	3.6		15.2		14.6			
Level of Service	A	A	A	E	A		B		B			
Approach Delay (s)		7.6			8.2			14.8			0.0	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	8.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	38.5	Sum of lost time (s)	13.5
Intersection Capacity Utilization	43.1%	ICU Level of Service	A
Analysis Period (min)	15		

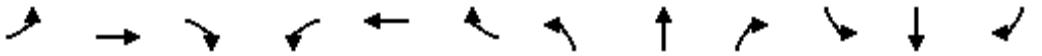
c Critical Lane Group



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	103	801	10	807	275	14	2	41	449
v/c Ratio	0.43	0.44	0.04	0.64	0.37	0.03	0.00	0.10	0.72
Control Delay	30.3	7.7	12.9	16.1	3.9	13.2	0.0	14.1	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.3	7.7	12.9	16.1	3.9	13.2	0.0	14.1	13.7
Queue Length 50th (ft)	29	56	2	96	0	3	0	9	39
Queue Length 95th (ft)	#89	115	11	173	41	13	0	26	118
Internal Link Dist (ft)		1980		560		847		971	
Turn Bay Length (ft)	70		100		160		40		620
Base Capacity (vph)	239	2304	287	1566	854	742	767	708	859
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.35	0.03	0.52	0.32	0.02	0.00	0.06	0.52

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	712	25	9	742	253	6	6	2	23	15	413
Future Volume (vph)	95	712	25	9	742	253	6	6	2	23	15	413
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5		4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.98	1.00		0.97	1.00
Satd. Flow (prot)	1770	3521		1770	3539	1583		1817	1583		1808	1583
Flt Permitted	0.95	1.00		0.35	1.00	1.00		0.90	1.00		0.86	1.00
Satd. Flow (perm)	1770	3521		650	3539	1583		1676	1583		1599	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	103	774	27	10	807	275	7	7	2	25	16	449
RTOR Reduction (vph)	0	4	0	0	0	177	0	0	1	0	0	212
Lane Group Flow (vph)	103	797	0	10	807	98	0	14	1	0	41	237
Turn Type	Prot	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases				8		8	2		2	6		6
Actuated Green, G (s)	4.0	24.5		16.0	16.0	16.0		11.6	11.6		11.6	11.6
Effective Green, g (s)	4.0	24.5		16.0	16.0	16.0		11.6	11.6		11.6	11.6
Actuated g/C Ratio	0.09	0.54		0.35	0.35	0.35		0.26	0.26		0.26	0.26
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5		4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	156	1912		230	1255	561		431	407		411	407
v/s Ratio Prot	c0.06	0.23			c0.23							
v/s Ratio Perm				0.02		0.06		0.01	0.00		0.03	c0.15
v/c Ratio	0.66	0.42		0.04	0.64	0.17		0.03	0.00		0.10	0.58
Uniform Delay, d1	19.9	6.1		9.5	12.2	10.0		12.5	12.4		12.8	14.6
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	10.0	0.1		0.1	1.1	0.1		0.0	0.0		0.1	2.1
Delay (s)	29.9	6.2		9.6	13.3	10.2		12.6	12.4		12.9	16.8
Level of Service	C	A		A	B	B		B	B		B	B
Approach Delay (s)		8.9			12.5			12.6			16.4	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	12.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	45.1	Sum of lost time (s)	13.5
Intersection Capacity Utilization	61.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

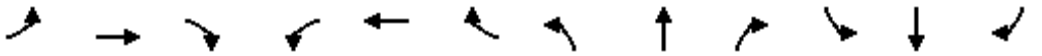


Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	338	84	299	158	486	786	142	438	392
v/c Ratio	1.00	0.19	0.92	0.38	1.01	0.66	0.73	0.69	0.65
Control Delay	90.4	1.0	74.6	8.2	81.7	29.8	64.7	44.6	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.4	1.0	74.6	8.2	81.7	29.8	64.7	44.6	9.4
Queue Length 50th (ft)	217	0	189	0	~317	213	88	138	0
Queue Length 95th (ft)	#397	0	#344	50	#526	281	#174	193	83
Internal Link Dist (ft)	835		755			938		874	
Turn Bay Length (ft)				80	290		100		200
Base Capacity (vph)	339	433	330	420	480	1194	207	638	606
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.19	0.91	0.38	1.01	0.66	0.69	0.69	0.65

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	256	55	77	87	188	145	447	560	163	131	403	361
Future Volume (vph)	256	55	77	87	188	145	447	560	163	131	403	361
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	0.97		1.00	1.00	0.85
Flt Protected		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1789	1583		1834	1583	1770	3420		1770	3539	1583
Flt Permitted		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1789	1583		1834	1583	1770	3420		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	278	60	84	95	204	158	486	609	177	142	438	392
RTOR Reduction (vph)	0	0	68	0	0	130	0	26	0	0	0	321
Lane Group Flow (vph)	0	338	16	0	299	28	486	760	0	142	438	71
Turn Type	Split	NA	Prot	Split	NA	Prot	Prot	NA		Prot	NA	Perm
Protected Phases	4	4	4	8	8	8	5	2		1	6	
Permitted Phases												6
Actuated Green, G (s)		18.9	18.9		17.8	17.8	27.1	34.1		11.0	18.0	18.0
Effective Green, g (s)		18.9	18.9		17.8	17.8	27.1	34.1		11.0	18.0	18.0
Actuated g/C Ratio		0.19	0.19		0.18	0.18	0.27	0.34		0.11	0.18	0.18
Clearance Time (s)		4.5	4.5		4.5	4.5	4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		338	299		327	282	480	1168		195	638	285
v/s Ratio Prot		c0.19	0.01		c0.16	0.02	c0.27	c0.22		0.08	0.12	
v/s Ratio Perm												0.04
v/c Ratio		1.00	0.05		0.91	0.10	1.01	0.65		0.73	0.69	0.25
Uniform Delay, d1		40.5	33.1		40.3	34.3	36.3	27.8		43.0	38.3	35.1
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		49.0	0.1		28.8	0.2	44.2	2.8		12.7	5.9	2.1
Delay (s)		89.4	33.2		69.0	34.5	80.6	30.6		55.7	44.2	37.2
Level of Service		F	C		E	C	F	C		E	D	D
Approach Delay (s)		78.2			57.1			49.7			43.0	
Approach LOS		E			E			D			D	

Intersection Summary			
HCM 2000 Control Delay	52.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	99.8	Sum of lost time (s)	18.0
Intersection Capacity Utilization	82.7%	ICU Level of Service	E
Analysis Period (min)	15		

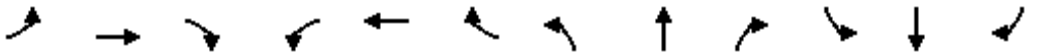
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	40	398	91	267	1173	127	1242	175	67	905	49
v/c Ratio	0.38	0.30	0.14	0.80	0.90	0.63	0.88	0.25	0.54	0.70	0.08
Control Delay	31.5	17.8	4.9	42.4	33.5	47.6	29.0	8.9	51.4	23.8	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	17.8	4.9	42.4	33.5	47.6	29.0	8.9	51.4	23.8	1.7
Queue Length 50th (ft)	14	70	0	112	266	58	273	24	31	188	0
Queue Length 95th (ft)	#47	104	28	#245	#404	#128	#401	63	#84	255	9
Internal Link Dist (ft)		987			1124		1174			1214	
Turn Bay Length (ft)	100		100	140		185		80	110		
Base Capacity (vph)	105	1329	651	340	1317	213	1504	725	125	1329	648
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.30	0.14	0.79	0.89	0.60	0.83	0.24	0.54	0.68	0.08

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	366	84	246	886	193	117	1143	161	62	833	45
Future Volume (vph)	37	366	84	246	886	193	117	1143	161	62	833	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3444		1770	3539	1583	1770	3539	1583
Flt Permitted	0.15	1.00	1.00	0.49	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	282	3539	1583	907	3444		1770	3539	1583	1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	40	398	91	267	963	210	127	1242	175	67	905	49
RTOR Reduction (vph)	0	0	58	0	24	0	0	0	54	0	0	31
Lane Group Flow (vph)	40	398	33	267	1149	0	127	1242	121	67	905	18
Turn Type	Perm	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	26.4	26.4	26.4	26.4	26.4		6.5	28.6	28.6	3.8	25.9	25.9
Effective Green, g (s)	26.4	26.4	26.4	26.4	26.4		6.5	28.6	28.6	3.8	25.9	25.9
Actuated g/C Ratio	0.37	0.37	0.37	0.37	0.37		0.09	0.40	0.40	0.05	0.36	0.36
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	102	1292	578	331	1257		159	1399	626	93	1267	567
v/s Ratio Prot		0.11			c0.33		c0.07	c0.35		0.04	0.26	
v/s Ratio Perm	0.14		0.02	0.29					0.08			0.01
v/c Ratio	0.39	0.31	0.06	0.81	0.91		0.80	0.89	0.19	0.72	0.71	0.03
Uniform Delay, d1	17.0	16.4	14.9	20.7	21.9		32.3	20.4	14.3	33.7	20.0	15.1
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.5	0.1	0.0	13.4	10.3		23.7	7.2	0.2	23.8	1.9	0.0
Delay (s)	19.5	16.6	14.9	34.0	32.2		56.0	27.6	14.4	57.5	21.9	15.1
Level of Service	B	B	B	C	C		E	C	B	E	C	B
Approach Delay (s)		16.5			32.5			28.4			24.0	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	27.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	72.3	Sum of lost time (s)	13.5
Intersection Capacity Utilization	85.6%	ICU Level of Service	E
Analysis Period (min)	15		

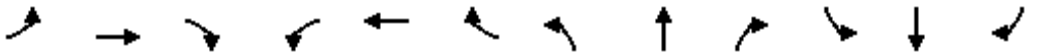
c Critical Lane Group



Lane Group	EBT	EBR	WBL	WBT	SBT
Lane Group Flow (vph)	1007	137	226	1100	910
v/c Ratio	0.87	0.22	0.75	0.62	1.01dr
Control Delay	27.4	4.2	27.9	11.7	25.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	27.4	4.2	27.9	11.7	25.3
Queue Length 50th (ft)	159	0	39	125	132
Queue Length 95th (ft)	#263	30	#106	179	#229
Internal Link Dist (ft)	979			732	799
Turn Bay Length (ft)		230	160		
Base Capacity (vph)	1177	618	301	1798	1114
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.86	0.22	0.75	0.61	0.82

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	926	126	208	1012	0	0	0	0	310	1	526
Future Volume (vph)	0	926	126	208	1012	0	0	0	0	310	1	526
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5						4.5	
Lane Util. Factor		0.95	1.00	1.00	0.95						0.95	
Frt		1.00	0.85	1.00	1.00						0.91	
Flt Protected		1.00	1.00	0.95	1.00						0.98	
Satd. Flow (prot)		3539	1583	1770	3539						3147	
Flt Permitted		1.00	1.00	0.18	1.00						0.98	
Satd. Flow (perm)		3539	1583	334	3539						3147	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1007	137	226	1100	0	0	0	0	337	1	572
RTOR Reduction (vph)	0	0	92	0	0	0	0	0	0	0	38	0
Lane Group Flow (vph)	0	1007	45	226	1100	0	0	0	0	0	872	0
Turn Type		NA	custom	pm+pt	NA					custom	NA	
Protected Phases				3	8							
Permitted Phases		4	4	8						6	6	
Actuated Green, G (s)		17.8	17.8	27.3	27.3						17.8	
Effective Green, g (s)		17.8	17.8	27.3	27.3						17.8	
Actuated g/C Ratio		0.33	0.33	0.50	0.50						0.33	
Clearance Time (s)		4.5	4.5	4.5	4.5						4.5	
Vehicle Extension (s)		3.0	3.0	3.0	3.0						3.0	
Lane Grp Cap (vph)		1164	520	301	1785						1035	
v/s Ratio Prot				0.07	c0.31							
v/s Ratio Perm		c0.28	0.03	0.31							c0.28	
v/c Ratio		0.87	0.09	0.75	0.62						1.01dr	
Uniform Delay, d1		17.0	12.5	10.3	9.6						16.8	
Progression Factor		1.00	1.00	1.00	1.00						1.00	
Incremental Delay, d2		6.9	0.1	10.1	0.6						6.3	
Delay (s)		23.9	12.6	20.4	10.3						23.2	
Level of Service		C	B	C	B						C	
Approach Delay (s)		22.6			12.0			0.0			23.2	
Approach LOS		C			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	18.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	54.1	Sum of lost time (s)	13.5
Intersection Capacity Utilization	74.4%	ICU Level of Service	D
Analysis Period (min)	15		

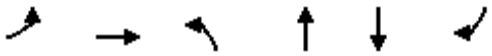
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group

Intersection	
Intersection Delay, s/veh	49.9
Intersection LOS	E

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	863	248	0	91	106	0	317	131
Future Vol, veh/h	0	863	248	0	91	106	0	317	131
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	938	270	0	99	115	0	345	142
Number of Lanes	0	2	1	0	1	1	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	3	0
HCM Control Delay	54.2	15	54.6
HCM LOS	F	B	F

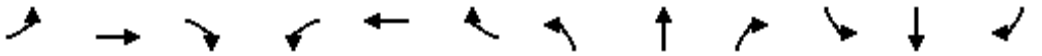
Lane	NBLn1	NBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	100%	0%	88%	0%
Vol Thru, %	100%	0%	0%	0%	0%	12%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	91	106	432	432	248	361	87
LT Vol	0	0	432	432	0	317	0
Through Vol	91	0	0	0	0	44	87
RT Vol	0	106	0	0	248	0	0
Lane Flow Rate	99	115	469	469	270	392	95
Geometry Grp	8	8	7	7	7	8	8
Degree of Util (X)	0.258	0.277	0.992	0.992	0.347	0.958	0.22
Departure Headway (Hd)	9.384	8.66	7.617	7.617	4.633	8.797	8.348
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	383	415	478	478	776	412	430
Service Time	7.148	6.424	5.351	5.351	2.366	6.542	6.093
HCM Lane V/C Ratio	0.258	0.277	0.981	0.981	0.348	0.951	0.221
HCM Control Delay	15.4	14.7	67	67	9.8	64.6	13.4
HCM Lane LOS	C	B	F	F	A	F	B
HCM 95th-tile Q	1	1.1	13	13	1.6	11.1	0.8



Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	495	454	650	680	386	111
v/c Ratio	0.90	0.70	0.87	0.35	0.40	0.22
Control Delay	44.9	17.5	42.4	10.2	24.1	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.9	17.5	42.4	10.2	24.1	6.2
Queue Length 50th (ft)	223	95	150	87	78	0
Queue Length 95th (ft)	#403	206	#238	122	117	36
Internal Link Dist (ft)		639		679	675	
Turn Bay Length (ft)	340		240			250
Base Capacity (vph)	580	674	767	1942	956	508
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.67	0.85	0.35	0.40	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	562	0	311	0	0	0	598	626	0	0	355	102
Future Volume (vph)	562	0	311	0	0	0	598	626	0	0	355	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5					4.5	4.5			4.5	4.5
Lane Util. Factor	0.95	0.95					0.97	0.95			0.95	1.00
Frt	1.00	0.89					1.00	1.00			1.00	0.85
Flt Protected	0.95	0.99					0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1552					3433	3539			3539	1583
Flt Permitted	0.95	0.99					0.95	1.00			1.00	1.00
Satd. Flow (perm)	1681	1552					3433	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	611	0	338	0	0	0	650	680	0	0	386	111
RTOR Reduction (vph)	0	142	0	0	0	0	0	0	0	0	0	81
Lane Group Flow (vph)	495	312	0	0	0	0	650	680	0	0	386	30
Turn Type	Perm	NA					Prot	NA			NA	Perm
Protected Phases		4					5	2			6	
Permitted Phases	4											6
Actuated Green, G (s)	24.3	24.3					16.1	40.6			20.0	20.0
Effective Green, g (s)	24.3	24.3					16.1	40.6			20.0	20.0
Actuated g/C Ratio	0.33	0.33					0.22	0.55			0.27	0.27
Clearance Time (s)	4.5	4.5					4.5	4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0					3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	552	510					747	1944			957	428
v/s Ratio Prot							c0.19	0.19			c0.11	
v/s Ratio Perm	c0.29	0.20										0.02
v/c Ratio	0.90	0.61					0.87	0.35			0.40	0.07
Uniform Delay, d1	23.6	20.8					27.9	9.3			22.1	20.0
Progression Factor	1.00	1.00					1.00	1.00			1.00	1.00
Incremental Delay, d2	17.1	2.2					10.8	0.5			1.3	0.3
Delay (s)	40.7	23.0					38.7	9.8			23.3	20.4
Level of Service	D	C					D	A			C	C
Approach Delay (s)		32.2			0.0			23.9			22.7	
Approach LOS		C			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	26.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	73.9	Sum of lost time (s)	13.5
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		

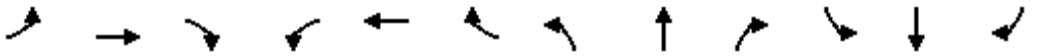
c Critical Lane Group



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	34	34	411	350	1018	813	208
v/c Ratio	0.07	0.07	0.81	0.68	0.50	0.47	0.31
Control Delay	15.3	15.3	28.2	31.9	9.1	16.5	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.3	15.3	28.2	31.9	9.1	16.5	4.1
Queue Length 50th (ft)	9	9	94	62	111	85	0
Queue Length 95th (ft)	26	26	#219	#112	158	117	38
Internal Link Dist (ft)		585			691	966	
Turn Bay Length (ft)	320		320	160			
Base Capacity (vph)	546	548	588	524	2020	1739	678
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.06	0.70	0.67	0.50	0.47	0.31

Intersection Summary

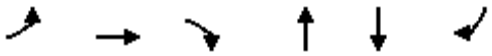
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	62	1	378	322	937	0	0	748	191
Future Volume (vph)	0	0	0	62	1	378	322	937	0	0	748	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.5	4.5	4.5	4.5	4.5			4.5	4.5
Lane Util. Factor				0.95	0.95	1.00	0.97	0.95			0.91	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1688	1583	3433	3539			5085	1583
Flt Permitted				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1688	1583	3433	3539			5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	67	1	411	350	1018	0	0	813	208
RTOR Reduction (vph)	0	0	0	0	0	79	0	0	0	0	0	137
Lane Group Flow (vph)	0	0	0	34	34	332	350	1018	0	0	813	71
Turn Type				Perm	NA	Perm	Prot	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Actuated Green, G (s)				15.5	15.5	15.5	8.6	32.7			19.6	19.6
Effective Green, g (s)				15.5	15.5	15.5	8.6	32.7			19.6	19.6
Actuated g/C Ratio				0.27	0.27	0.27	0.15	0.57			0.34	0.34
Clearance Time (s)				4.5	4.5	4.5	4.5	4.5			4.5	4.5
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				455	457	428	516	2023			1742	542
v/s Ratio Prot							c0.10	c0.29			0.16	
v/s Ratio Perm				0.02	0.02	c0.21						0.05
v/c Ratio				0.07	0.07	0.77	0.68	0.50			0.47	0.13
Uniform Delay, d1				15.5	15.5	19.2	23.0	7.4			14.7	12.9
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2				0.1	0.1	8.5	3.5	0.9			0.9	0.5
Delay (s)				15.6	15.6	27.7	26.5	8.3			15.6	13.4
Level of Service				B	B	C	C	A			B	B
Approach Delay (s)		0.0			26.0			12.9			15.2	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	57.2	Sum of lost time (s)	13.5
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		

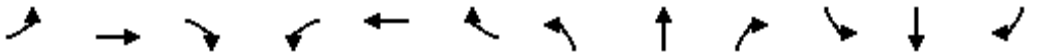
c Critical Lane Group



Lane Group	EBL	EBT	EBR	NBT	SBT	SBR
Lane Group Flow (vph)	465	7	513	1020	637	249
v/c Ratio	0.37	0.01	0.78	0.68	0.42	0.31
Control Delay	10.7	8.2	18.8	13.1	10.4	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.7	8.2	18.8	13.1	10.4	2.9
Queue Length 50th (ft)	40	0	74	105	60	0
Queue Length 95th (ft)	66	3	#207	162	94	30
Internal Link Dist (ft)		671		711	691	
Turn Bay Length (ft)						
Base Capacity (vph)	1456	1501	748	1498	1501	815
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.00	0.69	0.68	0.42	0.31

Intersection Summary

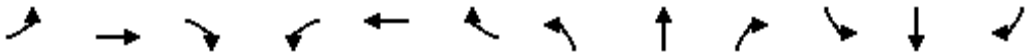
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	428	6	472	0	0	0	0	835	103	0	586	229
Future Volume (vph)	428	6	472	0	0	0	0	835	103	0	586	229
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5					4.5			4.5	4.5
Lane Util. Factor	0.97	0.95	1.00					0.95			0.95	1.00
Frt	1.00	1.00	0.85					0.98			1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00			1.00	1.00
Satd. Flow (prot)	3433	3539	1583					3481			3539	1583
Flt Permitted	0.95	1.00	1.00					1.00			1.00	1.00
Satd. Flow (perm)	3433	3539	1583					3481			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	465	7	513	0	0	0	0	908	112	0	637	249
RTOR Reduction (vph)	0	0	85	0	0	0	0	20	0	0	0	143
Lane Group Flow (vph)	465	7	428	0	0	0	0	1000	0	0	637	106
Turn Type	Split	NA	Perm				Perm	NA			NA	Perm
Protected Phases	4	4						2			6	
Permitted Phases			4				2					6
Actuated Green, G (s)	15.5	15.5	15.5					18.1			18.1	18.1
Effective Green, g (s)	15.5	15.5	15.5					18.1			18.1	18.1
Actuated g/C Ratio	0.36	0.36	0.36					0.42			0.42	0.42
Clearance Time (s)	4.5	4.5	4.5					4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	3.0
Lane Grp Cap (vph)	1249	1287	575					1479			1503	672
v/s Ratio Prot	0.14	0.00						c0.29			0.18	
v/s Ratio Perm			c0.27									0.07
v/c Ratio	0.37	0.01	0.75					0.68			0.42	0.16
Uniform Delay, d1	10.0	8.6	11.8					9.9			8.6	7.6
Progression Factor	1.00	1.00	1.00					1.00			1.00	1.00
Incremental Delay, d2	0.2	0.0	5.2					2.5			0.9	0.5
Delay (s)	10.2	8.6	17.0					12.4			9.5	8.1
Level of Service	B	A	B					B			A	A
Approach Delay (s)		13.7			0.0			12.4			9.1	
Approach LOS		B			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	11.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	42.6	Sum of lost time (s)	9.0
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

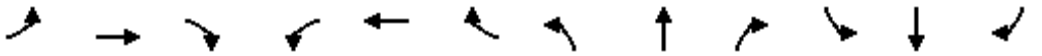


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	230	834	77	152	1340	157	136	1157	102	60	959	303
v/c Ratio	0.92	0.56	0.13	0.72	0.98	0.28	0.71	0.93	0.16	0.59	0.68	0.47
Control Delay	78.7	28.9	0.5	57.7	54.4	4.4	60.0	42.7	3.2	66.9	31.2	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.7	28.9	0.5	57.7	54.4	4.4	60.0	42.7	3.2	66.9	31.2	6.9
Queue Length 50th (ft)	131	150	0	84	~283	0	76	333	0	34	174	9
Queue Length 95th (ft)	#270	192	0	#170	#387	34	#159	#472	23	#93	220	70
Internal Link Dist (ft)		1026			1032			984			943	
Turn Bay Length (ft)	175		25	200		200	160		215	140		120
Base Capacity (vph)	251	1477	589	226	1362	557	201	1250	641	101	1507	667
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.56	0.13	0.67	0.98	0.28	0.68	0.93	0.16	0.59	0.64	0.45

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	212	767	71	140	1233	144	125	1064	94	55	882	279
Future Volume (vph)	212	767	71	140	1233	144	125	1064	94	55	882	279
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	230	834	77	152	1340	157	136	1157	102	60	959	303
RTOR Reduction (vph)	0	0	55	0	0	115	0	0	67	0	0	202
Lane Group Flow (vph)	230	834	22	152	1340	42	136	1157	35	60	959	101
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	12.5	25.6	25.6	10.5	23.6	23.6	9.5	30.9	30.9	3.9	25.3	25.3
Effective Green, g (s)	12.5	25.6	25.6	10.5	23.6	23.6	9.5	30.9	30.9	3.9	25.3	25.3
Actuated g/C Ratio	0.14	0.29	0.29	0.12	0.27	0.27	0.11	0.35	0.35	0.04	0.28	0.28
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	248	1464	455	209	1349	420	189	1230	550	77	1447	450
v/s Ratio Prot	c0.13	0.16		0.09	c0.26		c0.08	c0.33		0.03	0.19	
v/s Ratio Perm			0.01			0.03			0.02			0.06
v/c Ratio	0.93	0.57	0.05	0.73	0.99	0.10	0.72	0.94	0.06	0.78	0.66	0.23
Uniform Delay, d1	37.8	27.0	22.9	37.8	32.6	24.6	38.4	28.1	19.4	42.1	28.0	24.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	37.6	0.5	0.0	11.9	22.8	0.1	12.3	13.8	0.0	38.1	1.2	0.3
Delay (s)	75.3	27.5	22.9	49.7	55.3	24.7	50.7	41.9	19.4	80.1	29.2	24.6
Level of Service	E	C	C	D	E	C	D	D	B	F	C	C
Approach Delay (s)		36.8			51.9			41.1			30.4	
Approach LOS		D			D			D			C	

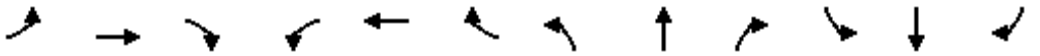
Intersection Summary			
HCM 2000 Control Delay	40.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	88.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	84.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	113	179	35	103	1486	34	11	976	50
v/c Ratio	0.27	0.43	0.08	0.31	0.63	0.03	0.06	0.41	0.05
Control Delay	11.5	21.1	8.9	9.5	8.6	3.0	6.5	6.3	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.5	21.1	8.9	9.5	8.6	3.0	6.5	6.3	2.2
Queue Length 50th (ft)	14	50	2	13	133	1	1	70	0
Queue Length 95th (ft)	47	99	19	50	258	10	8	137	11
Internal Link Dist (ft)	688	730			772			694	
Turn Bay Length (ft)				80		80	90		
Base Capacity (vph)	748	762	771	352	2510	1131	186	2510	1137
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.23	0.05	0.29	0.59	0.03	0.06	0.39	0.04

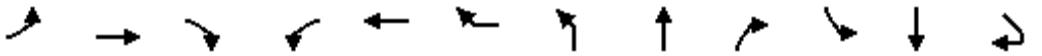
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	24	52	69	96	32	95	1367	31	10	898	46
Future Volume (vph)	28	24	52	69	96	32	95	1367	31	10	898	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.93			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99			0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1713			1825	1583	1770	3539	1583	1770	3539	1583
Flt Permitted		0.87			0.86	1.00	0.27	1.00	1.00	0.14	1.00	1.00
Satd. Flow (perm)		1503			1596	1583	498	3539	1583	263	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	26	57	75	104	35	103	1486	34	11	976	50
RTOR Reduction (vph)	0	46	0	0	0	23	0	0	10	0	0	19
Lane Group Flow (vph)	0	67	0	0	179	12	103	1486	24	11	976	31
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)		8.6			8.6	8.6	28.3	28.3	28.3	28.3	28.3	28.3
Effective Green, g (s)		8.6			8.6	8.6	28.3	28.3	28.3	28.3	28.3	28.3
Actuated g/C Ratio		0.19			0.19	0.19	0.62	0.62	0.62	0.62	0.62	0.62
Clearance Time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		281			299	296	307	2181	976	162	2181	976
v/s Ratio Prot								c0.42			0.28	
v/s Ratio Perm		0.04			c0.11	0.01	0.21		0.01	0.04		0.02
v/c Ratio		0.24			0.60	0.04	0.34	0.68	0.02	0.07	0.45	0.03
Uniform Delay, d1		15.9			17.1	15.3	4.3	5.8	3.4	3.5	4.7	3.4
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.4			3.2	0.1	0.6	0.9	0.0	0.2	0.1	0.0
Delay (s)		16.3			20.3	15.3	4.9	6.7	3.4	3.7	4.8	3.5
Level of Service		B			C	B	A	A	A	A	A	A
Approach Delay (s)		16.3			19.5			6.5			4.7	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	7.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	45.9	Sum of lost time (s)	9.0
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		

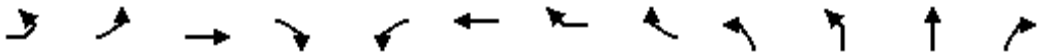
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SER2
Lane Group Flow (vph)	73	1232	48	52	1182	151	83	226	30	188	641	52
v/c Ratio	0.68	0.75	0.06	0.48	0.72	0.19	0.59	0.34	0.08	0.71	0.46	0.05
Control Delay	51.3	19.3	1.4	32.7	18.5	5.1	44.5	26.5	0.5	48.0	16.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.3	19.3	1.4	32.7	18.5	5.1	44.5	26.5	0.5	48.0	16.8	0.1
Queue Length 50th (ft)	23	215	0	15	202	9	35	47	0	84	113	0
Queue Length 95th (ft)	#102	340	8	#69	319	43	80	77	0	#199	156	0
Internal Link Dist (ft)		1180			1126			889			889	
Turn Bay Length (ft)	100		80	120		60	90		160	110		
Base Capacity (vph)	128	1933	902	128	1933	914	221	1032	520	278	1795	1218
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.64	0.05	0.41	0.61	0.17	0.38	0.22	0.06	0.68	0.36	0.04

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	1	66	1133	44	48	1087	39	100	45	31	208	28
Future Volume (vph)	1	66	1133	44	48	1087	39	100	45	31	208	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5	4.5	4.5			4.5	4.5	4.5
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95	1.00			1.00	0.95	1.00
Frt		1.00	1.00	0.85	1.00	1.00	0.85			1.00	1.00	0.85
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00			0.95	1.00	1.00
Satd. Flow (prot)		1770	3539	1583	1770	3539	1583			1770	3539	1583
Flt Permitted		0.13	1.00	1.00	0.13	1.00	1.00			0.41	1.00	1.00
Satd. Flow (perm)		235	3539	1583	235	3539	1583			761	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	72	1232	48	52	1182	42	109	49	34	226	30
RTOR Reduction (vph)	0	0	0	26	0	0	59	0	0	0	0	24
Lane Group Flow (vph)	0	73	1232	22	52	1182	92	0	0	83	226	6
Turn Type	Perm	Perm	NA	Perm	Perm	NA	Perm		Perm	Perm	NA	Perm
Protected Phases			4			8					2	
Permitted Phases	4	4		4	8		8		2	2		2
Actuated Green, G (s)		31.7	31.7	31.7	31.7	31.7	31.7			13.0	13.0	13.0
Effective Green, g (s)		31.7	31.7	31.7	31.7	31.7	31.7			13.0	13.0	13.0
Actuated g/C Ratio		0.46	0.46	0.46	0.46	0.46	0.46			0.19	0.19	0.19
Clearance Time (s)		4.5	4.5	4.5	4.5	4.5	4.5			4.5	4.5	4.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)		108	1637	732	108	1637	732			144	671	300
v/s Ratio Prot			c0.35			0.33					0.06	
v/s Ratio Perm		0.31		0.01	0.22		0.06			c0.11		0.00
v/c Ratio		0.68	0.75	0.03	0.48	0.72	0.13			0.58	0.34	0.02
Uniform Delay, d1		14.4	15.2	10.0	12.7	14.8	10.5			25.2	24.0	22.6
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00
Incremental Delay, d2		15.5	2.0	0.0	3.4	1.6	0.1			5.5	0.3	0.0
Delay (s)		29.8	17.2	10.0	16.1	16.4	10.6			30.7	24.3	22.6
Level of Service		C	B	B	B	B	B			C	C	C
Approach Delay (s)			17.6			15.8					25.7	
Approach LOS			B			B					C	

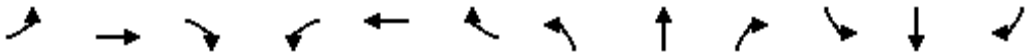
Intersection Summary			
HCM 2000 Control Delay	18.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	68.5	Sum of lost time (s)	13.5
Intersection Capacity Utilization	71.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	SBL	SBT	SBR	SBR2	SER2
Lane Configurations					
Traffic Volume (vph)	173	521	69	0	48
Future Volume (vph)	173	521	69	0	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5
Lane Util. Factor	1.00	0.95			1.00
Frt	1.00	0.98			0.86
Flt Protected	0.95	1.00			1.00
Satd. Flow (prot)	1770	3477			1611
Flt Permitted	0.95	1.00			1.00
Satd. Flow (perm)	1770	3477			1611
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	188	566	75	0	52
RTOR Reduction (vph)	0	0	0	0	28
Lane Group Flow (vph)	188	641	0	0	24
Turn Type	Prot	NA		Perm	Perm
Protected Phases	1	6			
Permitted Phases				6	4
Actuated Green, G (s)	10.3	27.8			31.7
Effective Green, g (s)	10.3	27.8			31.7
Actuated g/C Ratio	0.15	0.41			0.46
Clearance Time (s)	4.5	4.5			4.5
Vehicle Extension (s)	3.0	3.0			3.0
Lane Grp Cap (vph)	266	1411			745
v/s Ratio Prot	c0.11	0.18			
v/s Ratio Perm					0.01
v/c Ratio	0.71	0.45			0.03
Uniform Delay, d1	27.7	14.8			10.0
Progression Factor	1.00	1.00			1.00
Incremental Delay, d2	8.3	0.2			0.0
Delay (s)	36.0	15.1			10.1
Level of Service	D	B			B
Approach Delay (s)		19.8			
Approach LOS		B			

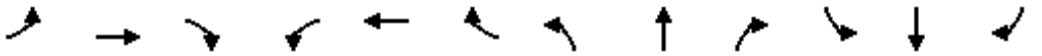
Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	60	1096	162	60	963	127	149	936	154	220	1471	238
v/c Ratio	0.73	0.96	0.27	0.73	0.85	0.21	0.88	0.71	0.23	0.79	0.96	0.33
Control Delay	77.3	50.7	8.0	77.3	37.1	5.2	86.4	28.1	6.5	57.9	41.0	12.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.3	50.7	8.0	77.3	37.1	5.2	86.4	28.1	6.5	57.9	41.0	12.9
Queue Length 50th (ft)	30	320	14	30	266	0	85	239	10	120	414	58
Queue Length 95th (ft)	#103	#457	58	#103	#355	38	#195	312	50	#225	#576	112
Internal Link Dist (ft)		1029			1030			868			853	
Turn Bay Length (ft)	90		40	240		60	160		140	165		
Base Capacity (vph)	82	1136	594	82	1136	594	169	1316	668	296	1533	727
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.96	0.27	0.73	0.85	0.21	0.88	0.71	0.23	0.74	0.96	0.33

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	1008	149	55	886	117	137	861	142	202	1353	219
Future Volume (vph)	55	1008	149	55	886	117	137	861	142	202	1353	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.14	1.00	1.00	0.14	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	258	3539	1583	258	3539	1583	1770	3539	1583	1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	1096	162	60	963	127	149	936	154	220	1471	238
RTOR Reduction (vph)	0	0	86	0	0	86	0	0	80	0	0	41
Lane Group Flow (vph)	60	1096	76	60	963	41	149	936	74	220	1471	197
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	28.9	28.9	28.9	28.9	28.9	28.9	8.6	33.5	33.5	14.1	39.0	39.0
Effective Green, g (s)	28.9	28.9	28.9	28.9	28.9	28.9	8.6	33.5	33.5	14.1	39.0	39.0
Actuated g/C Ratio	0.32	0.32	0.32	0.32	0.32	0.32	0.10	0.37	0.37	0.16	0.43	0.43
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	82	1136	508	82	1136	508	169	1317	589	277	1533	685
v/s Ratio Prot		c0.31			0.27		0.08	0.26		c0.12	c0.42	
v/s Ratio Perm	0.23		0.05	0.23		0.03			0.05			0.12
v/c Ratio	0.73	0.96	0.15	0.73	0.85	0.08	0.88	0.71	0.13	0.79	0.96	0.29
Uniform Delay, d1	27.1	30.0	21.8	27.1	28.5	21.3	40.2	24.1	18.6	36.6	24.7	16.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	28.2	18.7	0.1	28.2	6.0	0.1	37.6	1.8	0.1	14.4	14.3	0.2
Delay (s)	55.3	48.7	21.9	55.3	34.5	21.4	77.8	25.9	18.7	51.0	39.1	16.7
Level of Service	E	D	C	E	C	C	E	C	B	D	D	B
Approach Delay (s)		45.7			34.2			31.3			37.7	
Approach LOS		D			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	37.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	92.0%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1413	110	787	215	575
v/c Ratio	0.80	0.62	0.46	0.36	0.91
Control Delay	19.6	43.5	9.9	15.9	36.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	19.6	43.5	9.9	15.9	36.7
Queue Length 50th (ft)	141	36	79	52	137
Queue Length 95th (ft)	#200	#101	115	99	#320
Internal Link Dist (ft)	987		993		
Turn Bay Length (ft)		140		380	
Base Capacity (vph)	1810	176	1911	637	658
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.78	0.63	0.41	0.34	0.87

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
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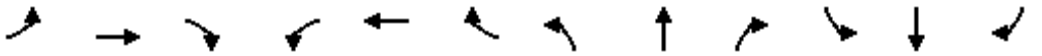


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1048	252	101	724	0	0	0	0	198	0	529
Future Volume (vph)	0	1048	252	101	724	0	0	0	0	198	0	529
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5					4.5		4.5
Lane Util. Factor		0.91		1.00	0.95					1.00		1.00
Frt		0.97		1.00	1.00					1.00		0.85
Flt Protected		1.00		0.95	1.00					0.95		1.00
Satd. Flow (prot)		4937		1770	3539					1770		1583
Flt Permitted		1.00		0.95	1.00					0.95		1.00
Satd. Flow (perm)		4937		1770	3539					1770		1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1139	274	110	787	0	0	0	0	215	0	575
RTOR Reduction (vph)	0	72	0	0	0	0	0	0	0	0	0	92
Lane Group Flow (vph)	0	1341	0	110	787	0	0	0	0	215	0	483
Turn Type		NA		Prot	NA					Perm		Perm
Protected Phases		4		3	8							
Permitted Phases										6		6
Actuated Green, G (s)		17.9		3.9	26.3					17.7		17.7
Effective Green, g (s)		17.9		3.9	26.3					17.7		17.7
Actuated g/C Ratio		0.34		0.07	0.50					0.33		0.33
Clearance Time (s)		4.5		4.5	4.5					4.5		4.5
Vehicle Extension (s)		3.0		3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		1667		130	1756					591		528
v/s Ratio Prot		c0.27		c0.06	0.22							
v/s Ratio Perm										0.12		c0.31
v/c Ratio		0.80		0.85	0.45					0.36		0.91
Uniform Delay, d1		16.0		24.3	8.6					13.4		16.9
Progression Factor		1.00		1.00	1.00					1.00		1.00
Incremental Delay, d2		2.9		36.9	0.2					0.4		20.5
Delay (s)		18.9		61.2	8.8					13.8		37.4
Level of Service		B		E	A					B		D
Approach Delay (s)		18.9			15.3			0.0			31.0	
Approach LOS		B			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	20.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	53.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		

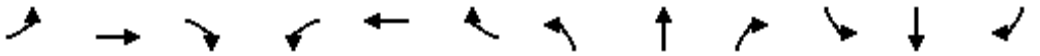
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	7	851	789	143	1113	36	79
v/c Ratio	0.03	0.43	0.64	0.38	0.27	0.11	0.20
Control Delay	9.0	9.8	4.0	22.0	2.7	18.8	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.0	9.8	4.0	22.0	2.7	18.8	4.6
Queue Length 50th (ft)	1	87	0	37	34	9	0
Queue Length 95th (ft)	7	140	54	#87	55	28	19
Internal Link Dist (ft)		806			1980		
Turn Bay Length (ft)	45		160	55			660
Base Capacity (vph)	261	2031	1244	413	4031	951	901
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.42	0.63	0.35	0.28	0.04	0.09

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	783	726	132	1024	0	33	0	73	0	0	0
Future Volume (vph)	6	783	726	132	1024	0	33	0	73	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5			
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91		1.00		1.00			
Frt	1.00	1.00	0.85	1.00	1.00		1.00		0.85			
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95		1.00			
Satd. Flow (prot)	1770	3539	1583	1770	5085		1770		1583			
Flt Permitted	0.24	1.00	1.00	0.95	1.00		0.95		1.00			
Satd. Flow (perm)	454	3539	1583	1770	5085		1770		1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	851	789	143	1113	0	36	0	79	0	0	0
RTOR Reduction (vph)	0	0	421	0	0	0	0	0	73	0	0	0
Lane Group Flow (vph)	7	851	368	143	1113	0	36	0	6	0	0	0
Turn Type	Perm	NA	Perm	Prot	NA		Perm		Perm			
Protected Phases		4		3	8							
Permitted Phases	4		4				2		2			
Actuated Green, G (s)	19.4	19.4	19.4	5.3	29.2		3.4		3.4			
Effective Green, g (s)	19.4	19.4	19.4	5.3	29.2		3.4		3.4			
Actuated g/C Ratio	0.47	0.47	0.47	0.13	0.70		0.08		0.08			
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0		3.0			
Lane Grp Cap (vph)	211	1650	738	225	3569		144		129			
v/s Ratio Prot		c0.24		c0.08	0.22							
v/s Ratio Perm	0.02		0.23				c0.02		0.00			
v/c Ratio	0.03	0.52	0.50	0.64	0.31		0.25		0.05			
Uniform Delay, d1	6.0	7.8	7.7	17.2	2.4		17.9		17.6			
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00		1.00			
Incremental Delay, d2	0.1	0.3	0.5	5.8	0.1		0.9		0.2			
Delay (s)	6.1	8.1	8.3	23.0	2.4		18.8		17.8			
Level of Service	A	A	A	C	A		B		B			
Approach Delay (s)		8.1			4.8			18.1			0.0	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	7.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	41.6	Sum of lost time (s)	13.5
Intersection Capacity Utilization	59.8%	ICU Level of Service	B
Analysis Period (min)	15		

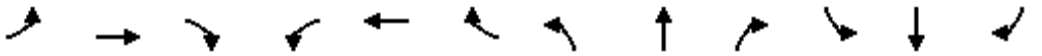
c Critical Lane Group



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	117	845	16	707	350	77	15	49	479
v/c Ratio	0.49	0.47	0.07	0.57	0.45	0.20	0.03	0.13	0.74
Control Delay	33.2	8.2	13.7	15.6	4.2	15.0	0.1	14.4	14.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.2	8.2	13.7	15.6	4.2	15.0	0.1	14.4	14.1
Queue Length 50th (ft)	33	63	3	83	0	18	0	11	43
Queue Length 95th (ft)	#104	123	15	148	46	43	0	30	128
Internal Link Dist (ft)		1980		560		847		971	
Turn Bay Length (ft)	70		100		160		40		620
Base Capacity (vph)	239	2304	275	1565	895	643	766	607	868
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.37	0.06	0.45	0.39	0.12	0.02	0.08	0.55

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	108	742	35	15	650	322	52	18	14	42	3	441
Future Volume (vph)	108	742	35	15	650	322	52	18	14	42	3	441
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5		4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.96	1.00		0.96	1.00
Satd. Flow (prot)	1770	3515		1770	3539	1583		1796	1583		1779	1583
Flt Permitted	0.95	1.00		0.33	1.00	1.00		0.78	1.00		0.74	1.00
Satd. Flow (perm)	1770	3515		623	3539	1583		1455	1583		1373	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	117	807	38	16	707	350	57	20	15	46	3	479
RTOR Reduction (vph)	0	6	0	0	0	229	0	0	11	0	0	222
Lane Group Flow (vph)	117	839	0	16	707	121	0	77	4	0	49	257
Turn Type	Prot	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases				8		8	2		2	6		6
Actuated Green, G (s)	4.0	24.1		15.6	15.6	15.6		12.0	12.0		12.0	12.0
Effective Green, g (s)	4.0	24.1		15.6	15.6	15.6		12.0	12.0		12.0	12.0
Actuated g/C Ratio	0.09	0.53		0.35	0.35	0.35		0.27	0.27		0.27	0.27
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5		4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	156	1878		215	1224	547		387	421		365	421
v/s Ratio Prot	c0.07	0.24			c0.20							
v/s Ratio Perm				0.03		0.08		0.05	0.00		0.04	c0.16
v/c Ratio	0.75	0.45		0.07	0.58	0.22		0.20	0.01		0.13	0.61
Uniform Delay, d1	20.1	6.4		9.9	12.1	10.4		12.8	12.2		12.6	14.5
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	18.2	0.2		0.1	0.7	0.2		0.3	0.0		0.2	2.6
Delay (s)	38.2	6.6		10.1	12.7	10.7		13.1	12.2		12.8	17.1
Level of Service	D	A		B	B	B		B	B		B	B
Approach Delay (s)		10.4			12.0			12.9			16.7	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	12.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	45.1	Sum of lost time (s)	13.5
Intersection Capacity Utilization	60.7%	ICU Level of Service	B
Analysis Period (min)	15		

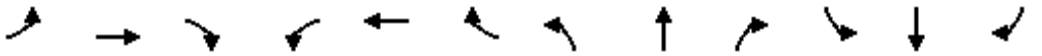
c Critical Lane Group



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	351	108	146	83	435	321	123	610	435
v/c Ratio	0.95	0.24	0.59	0.23	0.95	0.26	0.59	0.82	0.64
Control Delay	74.3	2.7	48.6	1.6	68.4	22.7	52.1	46.5	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.3	2.7	48.6	1.6	68.4	22.7	52.1	46.5	8.4
Queue Length 50th (ft)	210	0	84	0	257	68	71	185	0
Queue Length 95th (ft)	#408	14	145	0	#481	114	132	#291	86
Internal Link Dist (ft)	835		755			938		874	
Turn Bay Length (ft)				80	290		100		200
Base Capacity (vph)	371	456	349	433	457	1235	252	747	677
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.24	0.42	0.19	0.95	0.26	0.49	0.82	0.64

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	207	116	99	36	98	76	400	261	34	113	561	400
Future Volume (vph)	207	116	99	36	98	76	400	261	34	113	561	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected		0.97	1.00		0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1805	1583		1838	1583	1770	3478		1770	3539	1583
Flt Permitted		0.97	1.00		0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1805	1583		1838	1583	1770	3478		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	225	126	108	39	107	83	435	284	37	123	610	435
RTOR Reduction (vph)	0	0	86	0	0	72	0	10	0	0	0	343
Lane Group Flow (vph)	0	351	22	0	146	11	435	311	0	123	610	92
Turn Type	Split	NA	Prot	Split	NA	Prot	Prot	NA		Prot	NA	Perm
Protected Phases	4	4	4	8	8	8	5	2		1	6	
Permitted Phases												6
Actuated Green, G (s)		19.5	19.5		12.7	12.7	24.5	33.4		11.1	20.0	20.0
Effective Green, g (s)		19.5	19.5		12.7	12.7	24.5	33.4		11.1	20.0	20.0
Actuated g/C Ratio		0.21	0.21		0.13	0.13	0.26	0.35		0.12	0.21	0.21
Clearance Time (s)		4.5	4.5		4.5	4.5	4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		371	325		246	212	457	1226		207	747	334
v/s Ratio Prot		c0.19	0.01		c0.08	0.01	c0.25	0.09		0.07	c0.17	
v/s Ratio Perm												0.06
v/c Ratio		0.95	0.07		0.59	0.05	0.95	0.25		0.59	0.82	0.28
Uniform Delay, d1		37.1	30.3		38.6	35.8	34.5	21.8		39.7	35.6	31.3
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		32.8	0.1		3.8	0.1	31.6	0.5		4.5	9.6	2.0
Delay (s)		69.8	30.4		42.4	35.9	66.2	22.3		44.2	45.2	33.3
Level of Service		E	C		D	D	E	C		D	D	C
Approach Delay (s)		60.5			40.0			47.5			40.7	
Approach LOS		E			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	46.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	94.7	Sum of lost time (s)	18.0
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		

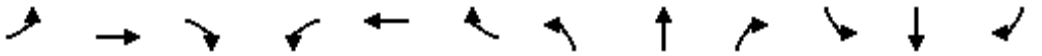
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	72	850	249	102	750	101	1015	195	221	1524	46
v/c Ratio	0.62	0.86	0.43	0.87	0.76	0.72	0.80	0.31	0.87	0.94	0.06
Control Delay	47.5	32.4	8.0	84.6	26.1	60.8	23.7	8.9	62.0	31.0	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.5	32.4	8.0	84.6	26.1	60.8	23.7	8.9	62.0	31.0	0.6
Queue Length 50th (ft)	25	166	16	38	136	40	181	24	88	301	0
Queue Length 95th (ft)	#84	#262	66	#122	196	#114	251	65	#203	#461	3
Internal Link Dist (ft)		987			1124		1174			1214	
Turn Bay Length (ft)	100		100	140		185		80	110		
Base Capacity (vph)	121	1027	597	121	1025	140	1353	667	255	1626	781
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.83	0.42	0.84	0.73	0.72	0.75	0.29	0.87	0.94	0.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	782	229	94	596	94	93	934	179	203	1402	42
Future Volume (vph)	66	782	229	94	596	94	93	934	179	203	1402	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3467		1770	3539	1583	1770	3539	1583
Flt Permitted	0.22	1.00	1.00	0.22	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	419	3539	1583	419	3467		1770	3539	1583	1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	72	850	249	102	648	102	101	1015	195	221	1524	46
RTOR Reduction (vph)	0	0	141	0	20	0	0	0	63	0	0	25
Lane Group Flow (vph)	72	850	108	102	730	0	101	1015	132	221	1524	21
Turn Type	Perm	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	17.8	17.8	17.8	17.8	17.8		3.9	23.9	23.9	9.1	29.1	29.1
Effective Green, g (s)	17.8	17.8	17.8	17.8	17.8		3.9	23.9	23.9	9.1	29.1	29.1
Actuated g/C Ratio	0.28	0.28	0.28	0.28	0.28		0.06	0.37	0.37	0.14	0.45	0.45
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	115	979	438	115	959		107	1315	588	250	1601	716
v/s Ratio Prot		0.24			0.21		0.06	0.29		c0.12	c0.43	
v/s Ratio Perm	0.17		0.07	c0.24					0.08			0.01
v/c Ratio	0.63	0.87	0.25	0.89	0.76		0.94	0.77	0.22	0.88	0.95	0.03
Uniform Delay, d1	20.3	22.1	18.0	22.3	21.3		30.1	17.8	13.8	27.1	16.9	9.8
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	10.2	8.3	0.3	50.0	3.6		68.7	2.9	0.2	28.6	12.8	0.0
Delay (s)	30.5	30.4	18.3	72.3	24.9		98.8	20.7	14.0	55.7	29.8	9.8
Level of Service	C	C	B	E	C		F	C	B	E	C	A
Approach Delay (s)		27.8			30.6			25.7			32.5	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	29.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	64.3	Sum of lost time (s)	13.5
Intersection Capacity Utilization	85.7%	ICU Level of Service	E
Analysis Period (min)	15		

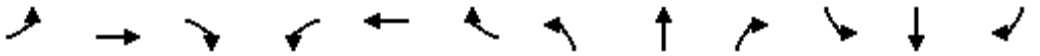
c Critical Lane Group



Lane Group	EBT	EBR	WBL	WBT	SBT
Lane Group Flow (vph)	1486	199	153	840	1044
v/c Ratio	0.94	0.24	0.71	0.42	0.93
Control Delay	35.2	3.0	31.0	10.5	38.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	35.2	3.0	31.0	10.5	38.6
Queue Length 50th (ft)	361	0	33	114	228
Queue Length 95th (ft)	#519	35	#111	154	#358
Internal Link Dist (ft)	979			732	799
Turn Bay Length (ft)		230	160		
Base Capacity (vph)	1575	815	215	2018	1128
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.94	0.24	0.71	0.42	0.93

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1367	183	141	773	0	0	0	0	485	7	468
Future Volume (vph)	0	1367	183	141	773	0	0	0	0	485	7	468
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5						4.5	
Lane Util. Factor		0.95	1.00	1.00	0.95						0.95	
Frt		1.00	0.85	1.00	1.00						0.93	
Flt Protected		1.00	1.00	0.95	1.00						0.98	
Satd. Flow (prot)		3539	1583	1770	3539						3200	
Flt Permitted		1.00	1.00	0.10	1.00						0.98	
Satd. Flow (perm)		3539	1583	186	3539						3200	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1486	199	153	840	0	0	0	0	527	8	509
RTOR Reduction (vph)	0	0	110	0	0	0	0	0	0	0	107	0
Lane Group Flow (vph)	0	1486	89	153	840	0	0	0	0	0	937	0
Turn Type		NA	custom	pm+pt	NA					custom	NA	
Protected Phases				3	8							
Permitted Phases		4	4	8						6	6	
Actuated Green, G (s)		35.5	35.5	45.5	45.5						25.3	
Effective Green, g (s)		35.5	35.5	45.5	45.5						25.3	
Actuated g/C Ratio		0.44	0.44	0.57	0.57						0.32	
Clearance Time (s)		4.5	4.5	4.5	4.5						4.5	
Vehicle Extension (s)		3.0	3.0	3.0	3.0						3.0	
Lane Grp Cap (vph)		1574	704	215	2017						1014	
v/s Ratio Prot				c0.05	0.24							
v/s Ratio Perm		c0.42	0.06	0.36							c0.29	
v/c Ratio		0.94	0.13	0.71	0.42						0.92	
Uniform Delay, d1		21.2	13.0	16.3	9.7						26.3	
Progression Factor		1.00	1.00	1.00	1.00						1.00	
Incremental Delay, d2		11.9	0.1	10.6	0.1						13.6	
Delay (s)		33.1	13.1	26.9	9.8						39.9	
Level of Service		C	B	C	A						D	
Approach Delay (s)		30.7			12.4			0.0			39.9	
Approach LOS		C			B			A			D	

Intersection Summary			
HCM 2000 Control Delay	28.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	79.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	86.2%	ICU Level of Service	E
Analysis Period (min)	15		

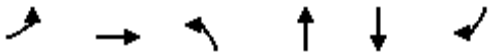
c Critical Lane Group

Intersection	
Intersection Delay, s/veh	128.4
Intersection LOS	F

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	410	135	0	50	368	0	596	115
Future Vol, veh/h	0	410	135	0	50	368	0	596	115
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	446	147	0	54	400	0	648	125
Number of Lanes	0	2	1	0	1	1	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	3	0
HCM Control Delay	17.4	35.9	267.9
HCM LOS	C	E	F

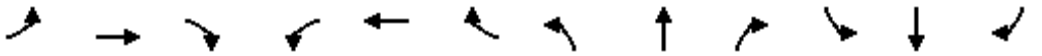
Lane	NBLn1	NBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	100%	0%	94%	0%
Vol Thru, %	100%	0%	0%	0%	0%	6%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	50	368	205	205	135	634	77
LT Vol	0	0	205	205	0	596	0
Through Vol	50	0	0	0	0	38	77
RT Vol	0	368	0	0	135	0	0
Lane Flow Rate	54	400	223	223	147	689	83
Geometry Grp	8	8	7	7	7	8	8
Degree of Util (X)	0.122	0.817	0.494	0.494	0.206	1.593	0.181
Departure Headway (Hd)	9.1	8.373	8.871	8.871	5.828	8.315	7.833
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	396	436	410	410	619	441	457
Service Time	6.8	6.073	6.571	6.571	3.528	6.091	5.609
HCM Lane V/C Ratio	0.136	0.917	0.544	0.544	0.237	1.562	0.182
HCM Control Delay	13.1	39	19.9	19.9	10	298.8	12.3
HCM Lane LOS	B	E	C	C	A	F	B
HCM 95th-tile Q	0.4	7.6	2.7	2.7	0.8	38.5	0.7



Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	253	230	662	471	830	237
v/c Ratio	0.65	0.47	0.84	0.21	0.74	0.36
Control Delay	29.8	9.7	34.8	5.9	24.7	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.8	9.7	34.8	5.9	24.7	4.7
Queue Length 50th (ft)	89	18	122	36	147	0
Queue Length 95th (ft)	158	70	#217	62	#232	45
Internal Link Dist (ft)		639		679	675	
Turn Bay Length (ft)	340		240			250
Base Capacity (vph)	495	577	815	2201	1125	664
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.40	0.81	0.21	0.74	0.36

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	287	0	157	0	0	0	609	433	0	0	764	218
Future Volume (vph)	287	0	157	0	0	0	609	433	0	0	764	218
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5					4.5	4.5			4.5	4.5
Lane Util. Factor	0.95	0.95					0.97	0.95			0.95	1.00
Frt	1.00	0.89					1.00	1.00			1.00	0.85
Flt Protected	0.95	0.99					0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1552					3433	3539			3539	1583
Flt Permitted	0.95	0.99					0.95	1.00			1.00	1.00
Satd. Flow (perm)	1681	1552					3433	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	312	0	171	0	0	0	662	471	0	0	830	237
RTOR Reduction (vph)	0	132	0	0	0	0	0	0	0	0	0	161
Lane Group Flow (vph)	253	98	0	0	0	0	662	471	0	0	830	76
Turn Type	Perm	NA					Prot	NA			NA	Perm
Protected Phases		4					5	2			6	
Permitted Phases	4											6
Actuated Green, G (s)	14.1	14.1					14.1	38.1			19.5	19.5
Effective Green, g (s)	14.1	14.1					14.1	38.1			19.5	19.5
Actuated g/C Ratio	0.23	0.23					0.23	0.62			0.32	0.32
Clearance Time (s)	4.5	4.5					4.5	4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0					3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	387	357					790	2203			1127	504
v/s Ratio Prot							c0.19	0.13			c0.23	
v/s Ratio Perm	c0.15	0.06										0.05
v/c Ratio	0.65	0.28					0.84	0.21			0.74	0.15
Uniform Delay, d1	21.3	19.4					22.5	5.0			18.6	14.9
Progression Factor	1.00	1.00					1.00	1.00			1.00	1.00
Incremental Delay, d2	3.9	0.4					7.8	0.2			4.3	0.6
Delay (s)	25.3	19.8					30.2	5.3			22.9	15.5
Level of Service	C	B					C	A			C	B
Approach Delay (s)		22.7			0.0			19.8			21.2	
Approach LOS		C			A			B			C	

Intersection Summary			
HCM 2000 Control Delay	20.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	61.2	Sum of lost time (s)	13.5
Intersection Capacity Utilization	62.5%	ICU Level of Service	B
Analysis Period (min)	15		

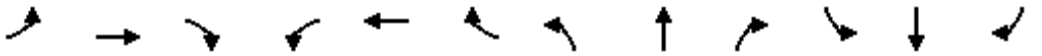
c Critical Lane Group



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	59	59	342	347	860	1309	416
v/c Ratio	0.15	0.15	0.73	0.65	0.40	0.70	0.49
Control Delay	17.0	17.0	21.1	30.0	7.1	17.9	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.0	17.0	21.1	30.0	7.1	17.9	4.2
Queue Length 50th (ft)	15	15	58	55	65	129	0
Queue Length 95th (ft)	41	41	133	#112	124	201	52
Internal Link Dist (ft)		585			691	966	
Turn Bay Length (ft)	320		320	160			
Base Capacity (vph)	556	556	617	543	2149	1881	847
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.11	0.55	0.64	0.40	0.70	0.49

Intersection Summary

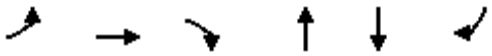
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	109	0	315	319	791	0	0	1204	383
Future Volume (vph)	0	0	0	109	0	315	319	791	0	0	1204	383
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.5	4.5	4.5	4.5	4.5			4.5	4.5
Lane Util. Factor				0.95	0.95	1.00	0.97	0.95			0.91	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1681	1583	3433	3539			5085	1583
Flt Permitted				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1681	1583	3433	3539			5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	118	0	342	347	860	0	0	1309	416
RTOR Reduction (vph)	0	0	0	0	0	107	0	0	0	0	0	262
Lane Group Flow (vph)	0	0	0	59	59	235	347	860	0	0	1309	154
Turn Type				Perm	NA	Perm	Prot	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Actuated Green, G (s)				12.4	12.4	12.4	8.5	33.2			20.2	20.2
Effective Green, g (s)				12.4	12.4	12.4	8.5	33.2			20.2	20.2
Actuated g/C Ratio				0.23	0.23	0.23	0.16	0.61			0.37	0.37
Clearance Time (s)				4.5	4.5	4.5	4.5	4.5			4.5	4.5
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				381	381	359	534	2151			1881	585
v/s Ratio Prot							c0.10	0.24			c0.26	
v/s Ratio Perm				0.04	0.04	c0.15						0.10
v/c Ratio				0.15	0.15	0.65	0.65	0.40			0.70	0.26
Uniform Delay, d1				16.9	16.9	19.1	21.7	5.5			14.6	12.0
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2				0.2	0.2	4.2	2.7	0.6			2.2	1.1
Delay (s)				17.1	17.1	23.4	24.4	6.1			16.7	13.1
Level of Service				B	B	C	C	A			B	B
Approach Delay (s)		0.0			21.8			11.4			15.9	
Approach LOS		A			C			B			B	

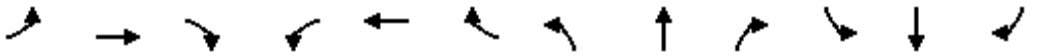
Intersection Summary			
HCM 2000 Control Delay	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	54.6	Sum of lost time (s)	13.5
Intersection Capacity Utilization	48.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	NBT	SBT	SBR
Lane Group Flow (vph)	238	107	335	1121	1037	397
v/c Ratio	0.23	0.10	0.66	0.63	0.58	0.40
Control Delay	12.2	11.2	18.1	10.8	10.6	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.2	11.2	18.1	10.8	10.6	2.5
Queue Length 50th (ft)	23	10	62	104	97	0
Queue Length 95th (ft)	43	23	127	178	164	36
Internal Link Dist (ft)		671		711	691	
Turn Bay Length (ft)						
Base Capacity (vph)	1353	1395	655	1770	1782	994
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.08	0.51	0.63	0.58	0.40

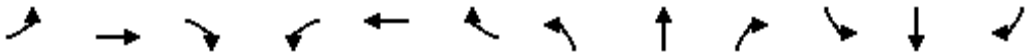
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	219	98	308	0	0	0	0	891	141	0	954	365
Future Volume (vph)	219	98	308	0	0	0	0	891	141	0	954	365
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5					4.5			4.5	4.5
Lane Util. Factor	0.97	0.95	1.00					0.95			0.95	1.00
Frt	1.00	1.00	0.85					0.98			1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00			1.00	1.00
Satd. Flow (prot)	3433	3539	1583					3467			3539	1583
Flt Permitted	0.95	1.00	1.00					1.00			1.00	1.00
Satd. Flow (perm)	3433	3539	1583					3467			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	238	107	335	0	0	0	0	968	153	0	1037	397
RTOR Reduction (vph)	0	0	37	0	0	0	0	23	0	0	0	197
Lane Group Flow (vph)	238	107	298	0	0	0	0	1098	0	0	1037	200
Turn Type	Split	NA	Perm				Perm	NA			NA	Perm
Protected Phases	4	4						2			6	
Permitted Phases			4				2					6
Actuated Green, G (s)	13.8	13.8	13.8					23.2			23.2	23.2
Effective Green, g (s)	13.8	13.8	13.8					23.2			23.2	23.2
Actuated g/C Ratio	0.30	0.30	0.30					0.50			0.50	0.50
Clearance Time (s)	4.5	4.5	4.5					4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	3.0
Lane Grp Cap (vph)	1029	1061	474					1748			1784	798
v/s Ratio Prot	0.07	0.03						c0.32			0.29	
v/s Ratio Perm			c0.19									0.13
v/c Ratio	0.23	0.10	0.63					0.63			0.58	0.25
Uniform Delay, d1	12.1	11.6	13.9					8.3			8.0	6.5
Progression Factor	1.00	1.00	1.00					1.00			1.00	1.00
Incremental Delay, d2	0.1	0.0	2.6					1.7			1.4	0.8
Delay (s)	12.2	11.7	16.5					10.0			9.4	7.2
Level of Service	B	B	B					A			A	A
Approach Delay (s)		14.2			0.0			10.0			8.8	
Approach LOS		B			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	46.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		

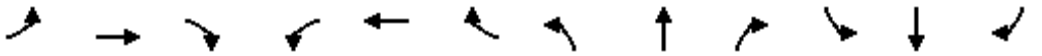
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	187	1022	214	150	957	91	87	991	147	173	1550	345
v/c Ratio	0.88	0.81	0.43	0.87	0.83	0.19	0.78	0.89	0.24	0.87	0.78	0.45
Control Delay	75.4	34.6	12.4	78.9	37.2	2.5	81.9	37.2	4.9	76.0	25.4	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.4	34.6	12.4	78.9	37.2	2.5	81.9	37.2	4.9	76.0	25.4	7.7
Queue Length 50th (ft)	94	176	28	75	167	0	44	243	0	87	252	31
Queue Length 95th (ft)	#210	226	86	#180	#221	13	#122	#354	38	#198	311	95
Internal Link Dist (ft)		1026			1032			984			943	
Turn Bay Length (ft)	175		25	200		200	160		215	140		120
Base Capacity (vph)	212	1262	500	173	1153	470	111	1141	610	198	1981	770
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.81	0.43	0.87	0.83	0.19	0.78	0.87	0.24	0.87	0.78	0.45

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	172	940	197	138	880	84	80	912	135	159	1426	317
Future Volume (vph)	172	940	197	138	880	84	80	912	135	159	1426	317
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	187	1022	214	150	957	91	87	991	147	173	1550	345
RTOR Reduction (vph)	0	0	108	0	0	71	0	0	99	0	0	154
Lane Group Flow (vph)	187	1022	106	150	957	20	87	991	48	173	1550	191
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	9.5	19.6	19.6	7.8	17.9	17.9	4.0	26.0	26.0	8.9	30.9	30.9
Effective Green, g (s)	9.5	19.6	19.6	7.8	17.9	17.9	4.0	26.0	26.0	8.9	30.9	30.9
Actuated g/C Ratio	0.12	0.24	0.24	0.10	0.22	0.22	0.05	0.32	0.32	0.11	0.38	0.38
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	209	1241	386	171	1133	352	88	1145	512	196	1956	609
v/s Ratio Prot	c0.11	c0.20		0.08	0.19		0.05	0.28		c0.10	c0.30	
v/s Ratio Perm			0.07			0.01			0.03			0.12
v/c Ratio	0.89	0.82	0.27	0.88	0.84	0.06	0.99	0.87	0.09	0.88	0.79	0.31
Uniform Delay, d1	34.9	28.7	24.6	35.8	29.9	24.6	38.1	25.5	18.9	35.2	21.9	17.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	34.8	4.6	0.4	36.0	5.9	0.1	91.3	7.0	0.1	34.0	2.3	0.3
Delay (s)	69.7	33.3	25.0	71.8	35.8	24.6	129.5	32.5	19.0	69.2	24.1	17.6
Level of Service	E	C	C	E	D	C	F	C	B	E	C	B
Approach Delay (s)		36.8			39.5			37.8			26.8	
Approach LOS		D			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	34.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	80.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	75.6%	ICU Level of Service	D
Analysis Period (min)	15		

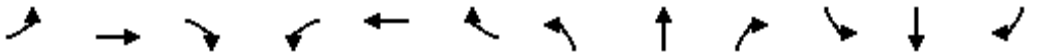
c Critical Lane Group



Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	413	94	28	74	1104	28	32	1585	21
v/c Ratio	0.82	0.20	0.05	0.56	0.59	0.03	0.17	0.85	0.02
Control Delay	33.3	16.0	6.5	31.8	11.1	3.4	10.5	17.7	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.3	16.0	6.5	31.8	11.1	3.4	10.5	17.7	2.9
Queue Length 50th (ft)	126	24	0	17	133	0	6	238	0
Queue Length 95th (ft)	#261	54	14	#78	186	10	20	#348	7
Internal Link Dist (ft)	688	730			772			694	
Turn Bay Length (ft)				80		80	90		
Base Capacity (vph)	574	535	579	141	1995	903	197	1995	903
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.18	0.05	0.52	0.55	0.03	0.16	0.79	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

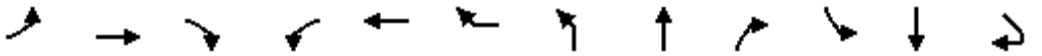


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	84	131	166	32	54	26	68	1016	26	29	1458	19
Future Volume (vph)	84	131	166	32	54	26	68	1016	26	29	1458	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.94			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99			0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1734			1829	1583	1770	3539	1583	1770	3539	1583
Flt Permitted		0.91			0.81	1.00	0.13	1.00	1.00	0.19	1.00	1.00
Satd. Flow (perm)		1588			1508	1583	251	3539	1583	350	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	91	142	180	35	59	28	74	1104	28	32	1585	21
RTOR Reduction (vph)	0	12	0	0	0	19	0	0	13	0	0	10
Lane Group Flow (vph)	0	401	0	0	94	9	74	1104	15	32	1585	11
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)		17.5			17.5	17.5	29.7	29.7	29.7	29.7	29.7	29.7
Effective Green, g (s)		17.5			17.5	17.5	29.7	29.7	29.7	29.7	29.7	29.7
Actuated g/C Ratio		0.31			0.31	0.31	0.53	0.53	0.53	0.53	0.53	0.53
Clearance Time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		494			469	492	132	1870	836	184	1870	836
v/s Ratio Prot								0.31			c0.45	
v/s Ratio Perm		c0.25			0.06	0.01	0.29		0.01	0.09		0.01
v/c Ratio		0.81			0.20	0.02	0.56	0.59	0.02	0.17	0.85	0.01
Uniform Delay, d1		17.8			14.2	13.4	8.9	9.1	6.3	6.9	11.3	6.3
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		9.8			0.2	0.0	5.4	0.5	0.0	0.5	3.8	0.0
Delay (s)		27.7			14.4	13.4	14.2	9.6	6.3	7.3	15.1	6.3
Level of Service		C			B	B	B	A	A	A	B	A
Approach Delay (s)		27.7			14.2			9.8			14.8	
Approach LOS		C			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	56.2	Sum of lost time (s)	9.0
Intersection Capacity Utilization	84.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

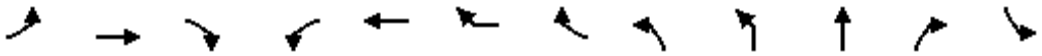
Existing Year (2016) With Project



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SER2
Lane Group Flow (vph)	102	1155	34	25	1230	163	77	497	38	100	226	5
v/c Ratio	0.79	0.64	0.04	0.17	0.68	0.19	0.30	0.62	0.09	0.55	0.19	0.00
Control Delay	60.9	14.5	0.2	13.5	15.3	4.3	29.1	29.8	1.5	48.8	17.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.9	14.5	0.2	13.5	15.3	4.3	29.1	29.8	1.5	48.8	17.1	0.0
Queue Length 50th (ft)	37	193	0	6	212	10	32	117	0	49	39	0
Queue Length 95th (ft)	#134	267	1	22	293	40	70	167	5	#124	64	0
Internal Link Dist (ft)		1180			1126			889			889	
Turn Bay Length (ft)	100		80	120		60	90		160	110		
Base Capacity (vph)	159	2241	1032	185	2241	1045	338	1052	528	184	1619	1283
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.52	0.03	0.14	0.55	0.16	0.23	0.47	0.07	0.54	0.14	0.00

Intersection Summary

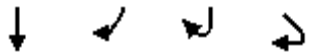
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	94	1063	31	23	1132	43	107	56	15	457	35	92
Future Volume (vph)	94	1063	31	23	1132	43	107	56	15	457	35	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5			4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00			1.00	0.95	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85			1.00	1.00	0.85	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00			0.95	1.00	1.00	0.95
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583			1770	3539	1583	1770
Flt Permitted	0.13	1.00	1.00	0.16	1.00	1.00			0.61	1.00	1.00	0.95
Satd. Flow (perm)	251	3539	1583	293	3539	1583			1138	3539	1583	1770
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	102	1155	34	25	1230	47	116	61	16	497	38	100
RTOR Reduction (vph)	0	0	17	0	0	57	0	0	0	0	29	0
Lane Group Flow (vph)	102	1155	17	25	1230	106	0	0	77	497	9	100
Turn Type	Perm	NA	Perm	Perm	NA	Perm		Perm	Perm	NA	Perm	Prot
Protected Phases		4			8					2		1
Permitted Phases	4		4	8		8		2	2		2	
Actuated Green, G (s)	35.3	35.3	35.3	35.3	35.3	35.3			15.5	15.5	15.5	4.7
Effective Green, g (s)	35.3	35.3	35.3	35.3	35.3	35.3			15.5	15.5	15.5	4.7
Actuated g/C Ratio	0.51	0.51	0.51	0.51	0.51	0.51			0.22	0.22	0.22	0.07
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5			4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	128	1810	809	149	1810	809			255	794	355	120
v/s Ratio Prot		0.33			0.35					c0.14		c0.06
v/s Ratio Perm	c0.41		0.01	0.09		0.07			0.07		0.01	
v/c Ratio	0.80	0.64	0.02	0.17	0.68	0.13			0.30	0.63	0.02	0.83
Uniform Delay, d1	13.9	12.2	8.3	9.0	12.6	8.8			22.3	24.1	20.9	31.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00
Incremental Delay, d2	28.1	0.7	0.0	0.5	1.0	0.1			0.7	1.5	0.0	36.7
Delay (s)	42.0	13.0	8.3	9.5	13.6	8.9			22.9	25.7	20.9	68.4
Level of Service	D	B	A	A	B	A			C	C	C	E
Approach Delay (s)		15.1			13.0					25.0		
Approach LOS		B			B					C		

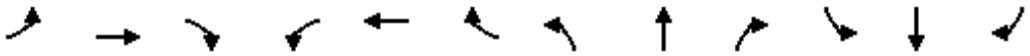
Intersection Summary			
HCM 2000 Control Delay	17.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	69.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	69.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	SBT	SBR	SBR2	SER2
Lane Configurations				
Traffic Volume (vph)	160	48	0	5
Future Volume (vph)	160	48	0	5
Ideal Flow (vphpl)	1900	1900	1900	1900
Total Lost time (s)	4.5			4.5
Lane Util. Factor	0.95			1.00
Frt	0.97			0.86
Flt Protected	1.00			1.00
Satd. Flow (prot)	3417			1611
Flt Permitted	1.00			1.00
Satd. Flow (perm)	3417			1611
Peak-hour factor, PHF	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	52	0	5
RTOR Reduction (vph)	0	0	0	2
Lane Group Flow (vph)	226	0	0	3
Turn Type	NA		Perm	Perm
Protected Phases	6			
Permitted Phases			6	4
Actuated Green, G (s)	24.7			35.3
Effective Green, g (s)	24.7			35.3
Actuated g/C Ratio	0.36			0.51
Clearance Time (s)	4.5			4.5
Vehicle Extension (s)	3.0			3.0
Lane Grp Cap (vph)	1223			824
v/s Ratio Prot	0.07			
v/s Ratio Perm				0.00
v/c Ratio	0.18			0.00
Uniform Delay, d1	15.2			8.2
Progression Factor	1.00			1.00
Incremental Delay, d2	0.1			0.0
Delay (s)	15.3			8.2
Level of Service	B			A
Approach Delay (s)	31.6			
Approach LOS	C			

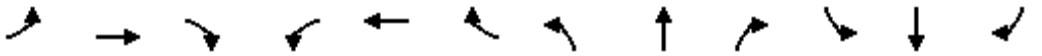
Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	64	912	196	86	1214	159	190	1209	152	114	849	161
v/c Ratio	0.68	0.70	0.29	0.75	0.93	0.24	0.75	0.90	0.23	0.79	0.76	0.27
Control Delay	60.8	24.8	7.0	64.6	38.0	5.1	52.5	34.5	9.4	73.5	29.8	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.8	24.8	7.0	64.6	38.0	5.1	52.5	34.5	9.4	73.5	29.8	6.4
Queue Length 50th (ft)	26	200	17	37	300	5	92	292	22	57	200	6
Queue Length 95th (ft)	#95	266	60	#118	#436	42	#185	#422	60	#145	268	47
Internal Link Dist (ft)		1029			1030			868			853	
Turn Bay Length (ft)	90		40	240		60	160		140	165		
Base Capacity (vph)	95	1318	679	115	1318	679	268	1362	660	144	1120	599
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.69	0.29	0.75	0.92	0.23	0.71	0.89	0.23	0.79	0.76	0.27

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	839	180	79	1117	146	175	1112	140	105	781	148
Future Volume (vph)	59	839	180	79	1117	146	175	1112	140	105	781	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.14	1.00	1.00	0.17	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	254	3539	1583	311	3539	1583	1770	3539	1583	1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	64	912	196	86	1214	159	190	1209	152	114	849	161
RTOR Reduction (vph)	0	0	90	0	0	90	0	0	51	0	0	98
Lane Group Flow (vph)	64	912	106	86	1214	69	190	1209	101	114	849	63
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	29.3	29.3	29.3	29.3	29.3	29.3	11.4	30.0	30.0	6.5	25.1	25.1
Effective Green, g (s)	29.3	29.3	29.3	29.3	29.3	29.3	11.4	30.0	30.0	6.5	25.1	25.1
Actuated g/C Ratio	0.37	0.37	0.37	0.37	0.37	0.37	0.14	0.38	0.38	0.08	0.32	0.32
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	93	1307	584	114	1307	584	254	1338	598	145	1120	501
v/s Ratio Prot		0.26			c0.34		c0.11	c0.34		0.06	0.24	
v/s Ratio Perm	0.25		0.07	0.28		0.04			0.06			0.04
v/c Ratio	0.69	0.70	0.18	0.75	0.93	0.12	0.75	0.90	0.17	0.79	0.76	0.13
Uniform Delay, d1	21.1	21.2	16.9	21.9	24.0	16.5	32.6	23.3	16.4	35.7	24.4	19.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	19.1	1.6	0.2	24.3	11.5	0.1	11.4	8.8	0.1	23.9	3.0	0.1
Delay (s)	40.2	22.9	17.0	46.1	35.5	16.6	44.0	32.1	16.5	59.6	27.4	19.4
Level of Service	D	C	B	D	D	B	D	C	B	E	C	B
Approach Delay (s)		22.9			34.1			32.0			29.5	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	30.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	79.3	Sum of lost time (s)	13.5
Intersection Capacity Utilization	86.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

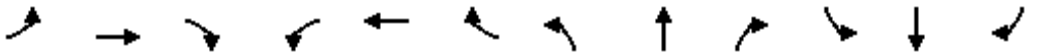


Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1311	145	1535	124	1121
v/c Ratio	0.93	1.07	1.03	0.16	1.49
Control Delay	35.7	131.2	51.0	11.8	250.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	35.7	131.2	51.0	11.8	250.0
Queue Length 50th (ft)	178	~65	~326	28	~617
Queue Length 95th (ft)	#267	#165	#475	57	#842
Internal Link Dist (ft)	987		993		
Turn Bay Length (ft)		140		380	
Base Capacity (vph)	1411	136	1497	776	750
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.93	1.07	1.03	0.16	1.49

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1050	156	133	1412	0	0	0	0	114	0	1031
Future Volume (vph)	0	1050	156	133	1412	0	0	0	0	114	0	1031
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5					4.5		4.5
Lane Util. Factor		0.91		1.00	0.95					1.00		1.00
Frt		0.98		1.00	1.00					1.00		0.85
Flt Protected		1.00		0.95	1.00					0.95		1.00
Satd. Flow (prot)		4986		1770	3539					1770		1583
Flt Permitted		1.00		0.95	1.00					0.95		1.00
Satd. Flow (perm)		4986		1770	3539					1770		1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1141	170	145	1535	0	0	0	0	124	0	1121
RTOR Reduction (vph)	0	30	0	0	0	0	0	0	0	0	0	57
Lane Group Flow (vph)	0	1281	0	145	1535	0	0	0	0	124	0	1064
Turn Type		NA		Prot	NA					Perm		Perm
Protected Phases		4		3	8							
Permitted Phases										6		6
Actuated Green, G (s)		18.0		5.0	27.5					28.5		28.5
Effective Green, g (s)		18.0		5.0	27.5					28.5		28.5
Actuated g/C Ratio		0.28		0.08	0.42					0.44		0.44
Clearance Time (s)		4.5		4.5	4.5					4.5		4.5
Vehicle Extension (s)		3.0		3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		1380		136	1497					776		694
v/s Ratio Prot		0.26		0.08	c0.43							
v/s Ratio Perm										0.07		c0.67
v/c Ratio		0.93		1.07	1.03					0.16		1.53
Uniform Delay, d1		22.9		30.0	18.8					11.0		18.2
Progression Factor		1.00		1.00	1.00					1.00		1.00
Incremental Delay, d2		11.0		96.0	29.9					0.1		247.3
Delay (s)		33.8		126.0	48.7					11.1		265.6
Level of Service		C		F	D					B		F
Approach Delay (s)		33.8			55.4			0.0			240.2	
Approach LOS		C			E			A			F	

Intersection Summary			
HCM 2000 Control Delay	103.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.40		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	110.4%	ICU Level of Service	H
Analysis Period (min)	15		

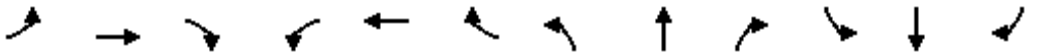
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	8	729	555	98	1308	70	221
v/c Ratio	0.04	0.40	0.51	0.35	0.37	0.19	0.44
Control Delay	9.6	10.3	3.3	23.5	4.4	17.0	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.6	10.3	3.3	23.5	4.4	17.0	6.3
Queue Length 50th (ft)	1	66	0	24	45	16	0
Queue Length 95th (ft)	8	120	48	#70	83	41	41
Internal Link Dist (ft)		806			1980		
Turn Bay Length (ft)	45		160	55			660
Base Capacity (vph)	221	1868	1098	282	3593	941	945
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.39	0.51	0.35	0.36	0.07	0.23

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	671	511	90	1203	0	64	0	203	0	0	0
Future Volume (vph)	7	671	511	90	1203	0	64	0	203	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5			
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91		1.00		1.00			
Frt	1.00	1.00	0.85	1.00	1.00		1.00		0.85			
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95		1.00			
Satd. Flow (prot)	1770	3539	1583	1770	5085		1770		1583			
Flt Permitted	0.22	1.00	1.00	0.95	1.00		0.95		1.00			
Satd. Flow (perm)	419	3539	1583	1770	5085		1770		1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	729	555	98	1308	0	70	0	221	0	0	0
RTOR Reduction (vph)	0	0	311	0	0	0	0	0	191	0	0	0
Lane Group Flow (vph)	8	729	244	98	1308	0	70	0	30	0	0	0
Turn Type	Perm	NA	Perm	Prot	NA		Perm		Perm			
Protected Phases		4		3	8							
Permitted Phases	4		4				2		2			
Actuated Green, G (s)	17.8	17.8	17.8	3.7	26.0		5.5		5.5			
Effective Green, g (s)	17.8	17.8	17.8	3.7	26.0		5.5		5.5			
Actuated g/C Ratio	0.44	0.44	0.44	0.09	0.64		0.14		0.14			
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0		3.0			
Lane Grp Cap (vph)	184	1555	695	161	3264		240		214			
v/s Ratio Prot		c0.21		0.06	c0.26							
v/s Ratio Perm	0.02		0.15				c0.04		0.02			
v/c Ratio	0.04	0.47	0.35	0.61	0.40		0.29		0.14			
Uniform Delay, d1	6.5	8.0	7.5	17.7	3.5		15.7		15.4			
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00		1.00			
Incremental Delay, d2	0.1	0.2	0.3	6.4	0.1		0.7		0.3			
Delay (s)	6.6	8.2	7.8	24.1	3.6		16.4		15.7			
Level of Service	A	A	A	C	A		B		B			
Approach Delay (s)		8.1			5.0			15.9			0.0	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	7.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	40.5	Sum of lost time (s)	13.5
Intersection Capacity Utilization	44.1%	ICU Level of Service	A
Analysis Period (min)	15		

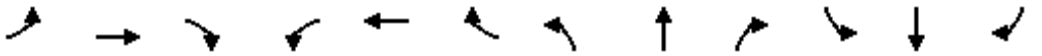
c Critical Lane Group



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	103	845	10	925	275	14	2	41	497
v/c Ratio	0.45	0.47	0.04	0.73	0.37	0.03	0.00	0.09	0.78
Control Delay	32.0	8.5	13.3	19.2	3.9	12.9	0.0	13.7	17.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.0	8.5	13.3	19.2	3.9	12.9	0.0	13.7	17.7
Queue Length 50th (ft)	31	71	2	127	0	3	0	9	56
Queue Length 95th (ft)	#89	123	11	#215	41	13	0	26	#163
Internal Link Dist (ft)		1980		560		847		971	
Turn Bay Length (ft)	70		100		160		40		620
Base Capacity (vph)	227	2223	261	1486	824	710	734	676	823
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.38	0.04	0.62	0.33	0.02	0.00	0.06	0.60

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	753	25	9	851	253	6	6	2	23	15	457
Future Volume (vph)	95	753	25	9	851	253	6	6	2	23	15	457
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5		4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.98	1.00		0.97	1.00
Satd. Flow (prot)	1770	3522		1770	3539	1583		1817	1583		1808	1583
Flt Permitted	0.95	1.00		0.33	1.00	1.00		0.91	1.00		0.87	1.00
Satd. Flow (perm)	1770	3522		623	3539	1583		1689	1583		1611	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	103	818	27	10	925	275	7	7	2	25	16	497
RTOR Reduction (vph)	0	4	0	0	0	177	0	0	1	0	0	198
Lane Group Flow (vph)	103	841	0	10	925	98	0	14	1	0	41	299
Turn Type	Prot	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases				8		8	2		2	6		6
Actuated Green, G (s)	4.0	25.3		16.8	16.8	16.8		13.0	13.0		13.0	13.0
Effective Green, g (s)	4.0	25.3		16.8	16.8	16.8		13.0	13.0		13.0	13.0
Actuated g/C Ratio	0.08	0.53		0.36	0.36	0.36		0.27	0.27		0.27	0.27
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5		4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	149	1883		221	1256	562		464	435		442	435
v/s Ratio Prot	c0.06	0.24			c0.26							
v/s Ratio Perm				0.02		0.06		0.01	0.00		0.03	c0.19
v/c Ratio	0.69	0.45		0.05	0.74	0.17		0.03	0.00		0.09	0.69
Uniform Delay, d1	21.0	6.7		10.0	13.3	10.5		12.5	12.4		12.8	15.3
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	13.0	0.2		0.1	2.3	0.1		0.0	0.0		0.1	4.5
Delay (s)	34.0	6.9		10.1	15.6	10.6		12.6	12.4		12.9	19.8
Level of Service	C	A		B	B	B		B	B		B	B
Approach Delay (s)		9.8			14.4			12.6			19.3	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	47.3	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

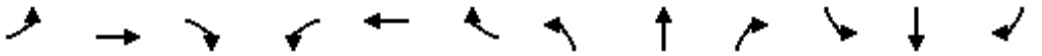


Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	481	202	346	182	636	796	152	448	542
v/c Ratio	1.16	0.42	1.13	0.50	1.16	0.63	0.80	0.79	0.86
Control Delay	143.2	14.9	141.7	25.0	133.1	38.1	89.5	67.4	25.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	143.2	14.9	141.7	25.0	133.1	38.1	89.5	67.4	25.4
Queue Length 50th (ft)	~517	34	~363	52	~682	305	136	208	83
Queue Length 95th (ft)	#739	108	#562	132	#918	377	#241	273	#291
Internal Link Dist (ft)	835		755			938		874	
Turn Bay Length (ft)				80	290		100		200
Base Capacity (vph)	414	486	307	363	549	1262	204	568	630
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.16	0.42	1.13	0.50	1.16	0.63	0.75	0.79	0.86

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	387	55	186	109	210	167	585	560	172	140	412	499
Future Volume (vph)	387	55	186	109	210	167	585	560	172	140	412	499
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	0.96		1.00	1.00	0.85
Flt Protected		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1785	1583		1832	1583	1770	3414		1770	3539	1583
Flt Permitted		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1785	1583		1832	1583	1770	3414		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	421	60	202	118	228	182	636	609	187	152	448	542
RTOR Reduction (vph)	0	0	119	0	0	97	0	20	0	0	0	376
Lane Group Flow (vph)	0	481	83	0	346	85	636	776	0	152	448	166
Turn Type	Split	NA	Prot	Split	NA	Prot	Prot	NA		Prot	NA	Perm
Protected Phases	4	4	4	8	8	8	5	2		1	6	
Permitted Phases												6
Actuated Green, G (s)		32.5	32.5		23.5	23.5	43.5	50.9		15.1	22.5	22.5
Effective Green, g (s)		32.5	32.5		23.5	23.5	43.5	50.9		15.1	22.5	22.5
Actuated g/C Ratio		0.23	0.23		0.17	0.17	0.31	0.36		0.11	0.16	0.16
Clearance Time (s)		4.5	4.5		4.5	4.5	4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		414	367		307	265	549	1241		190	568	254
v/s Ratio Prot		c0.27	0.05		c0.19	0.05	c0.36	0.23		0.09	c0.13	
v/s Ratio Perm												0.10
v/c Ratio		1.16	0.23		1.13	0.32	1.16	0.63		0.80	0.79	0.65
Uniform Delay, d1		53.8	43.6		58.2	51.2	48.2	36.7		61.0	56.5	55.1
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		96.4	0.3		90.2	0.7	90.3	2.4		20.9	10.6	12.4
Delay (s)		150.2	43.9		148.4	51.9	138.5	39.1		81.9	67.1	67.5
Level of Service		F	D		F	D	F	D		F	E	E
Approach Delay (s)		118.7			115.1			83.2			69.3	
Approach LOS		F			F			F			E	

Intersection Summary			
HCM 2000 Control Delay	89.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	100.2%	ICU Level of Service	G
Analysis Period (min)	15		

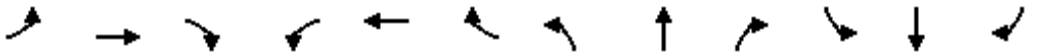
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	88	422	91	267	1210	127	1266	175	139	915	67
v/c Ratio	0.89	0.34	0.15	0.88	0.97	0.66	0.96	0.27	0.86	0.67	0.10
Control Delay	94.7	18.6	4.8	53.9	43.2	50.0	41.8	9.9	78.4	23.1	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	94.7	18.6	4.8	53.9	43.2	50.0	41.8	9.9	78.4	23.1	3.3
Queue Length 50th (ft)	38	74	0	114	276	58	296	27	65	192	0
Queue Length 95th (ft)	#125	109	28	#252	#420	#128	#440	68	#162	260	18
Internal Link Dist (ft)		987			1124		1174			1214	
Turn Bay Length (ft)	100		100	140		185		80	110		
Base Capacity (vph)	99	1259	622	305	1251	200	1316	643	162	1364	663
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.34	0.15	0.88	0.97	0.64	0.96	0.27	0.86	0.67	0.10

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	388	84	246	895	218	117	1165	161	128	842	62
Future Volume (vph)	81	388	84	246	895	218	117	1165	161	128	842	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3435		1770	3539	1583	1770	3539	1583
Flt Permitted	0.15	1.00	1.00	0.46	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	279	3539	1583	856	3435		1770	3539	1583	1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	88	422	91	267	973	237	127	1266	175	139	915	67
RTOR Reduction (vph)	0	0	59	0	29	0	0	0	54	0	0	41
Lane Group Flow (vph)	88	422	32	267	1181	0	127	1266	121	139	915	26
Turn Type	Perm	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	26.7	26.7	26.7	26.7	26.7		6.8	28.8	28.8	6.9	28.9	28.9
Effective Green, g (s)	26.7	26.7	26.7	26.7	26.7		6.8	28.8	28.8	6.9	28.9	28.9
Actuated g/C Ratio	0.35	0.35	0.35	0.35	0.35		0.09	0.38	0.38	0.09	0.38	0.38
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	98	1244	556	301	1208		158	1342	600	160	1347	602
v/s Ratio Prot		0.12			c0.34		0.07	c0.36		c0.08	0.26	
v/s Ratio Perm	0.32		0.02	0.31					0.08			0.02
v/c Ratio	0.90	0.34	0.06	0.89	0.98		0.80	0.94	0.20	0.87	0.68	0.04
Uniform Delay, d1	23.3	18.1	16.3	23.2	24.3		33.9	22.8	15.8	34.1	19.6	14.8
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	58.5	0.2	0.0	25.3	20.5		24.8	13.3	0.2	35.9	1.4	0.0
Delay (s)	81.9	18.3	16.3	48.5	44.8		58.7	36.0	16.0	70.0	21.0	14.8
Level of Service	F	B	B	D	D		E	D	B	E	C	B
Approach Delay (s)		27.3			45.5			35.6			26.7	
Approach LOS		C			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	35.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	75.9	Sum of lost time (s)	13.5
Intersection Capacity Utilization	90.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



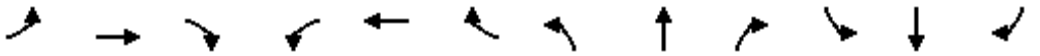
Lane Group	EBT	EBR	WBL	WBT	SBT
Lane Group Flow (vph)	1201	182	226	1337	1313
v/c Ratio	1.00	0.28	0.90	0.78	1.43dr
Control Delay	55.5	4.9	57.6	23.1	54.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	55.5	4.9	57.6	23.1	54.1
Queue Length 50th (ft)	354	1	76	316	~386
Queue Length 95th (ft)	#504	45	#212	404	#545
Internal Link Dist (ft)	979			732	799
Turn Bay Length (ft)		230	160		
Base Capacity (vph)	1207	657	250	1718	1302
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.00	0.28	0.90	0.78	1.01

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1105	167	208	1230	0	0	0	0	310	1	897
Future Volume (vph)	0	1105	167	208	1230	0	0	0	0	310	1	897
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5						4.5	
Lane Util. Factor		0.95	1.00	1.00	0.95						0.95	
Frt		1.00	0.85	1.00	1.00						0.89	
Flt Protected		1.00	1.00	0.95	1.00						0.99	
Satd. Flow (prot)		3539	1583	1770	3539						3105	
Flt Permitted		1.00	1.00	0.11	1.00						0.99	
Satd. Flow (perm)		3539	1583	212	3539						3105	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1201	182	226	1337	0	0	0	0	337	1	975
RTOR Reduction (vph)	0	0	117	0	0	0	0	0	0	0	15	0
Lane Group Flow (vph)	0	1201	65	226	1337	0	0	0	0	0	1298	0
Turn Type		NA	custom	pm+pt	NA					custom	NA	
Protected Phases				3	8							
Permitted Phases		4	4	8						6	6	
Actuated Green, G (s)		30.7	30.7	43.7	43.7						37.3	
Effective Green, g (s)		30.7	30.7	43.7	43.7						37.3	
Actuated g/C Ratio		0.34	0.34	0.49	0.49						0.41	
Clearance Time (s)		4.5	4.5	4.5	4.5						4.5	
Vehicle Extension (s)		3.0	3.0	3.0	3.0						3.0	
Lane Grp Cap (vph)		1207	539	250	1718						1286	
v/s Ratio Prot				0.09	c0.38							
v/s Ratio Perm		c0.34	0.04	0.35							c0.42	
v/c Ratio		1.00	0.12	0.90	0.78						1.43dr	
Uniform Delay, d1		29.6	20.4	21.1	19.1						26.4	
Progression Factor		1.00	1.00	1.00	1.00						1.00	
Incremental Delay, d2		24.5	0.1	32.5	2.3						27.4	
Delay (s)		54.1	20.5	53.6	21.4						53.7	
Level of Service		D	C	D	C						D	
Approach Delay (s)		49.7			26.1			0.0			53.7	
Approach LOS		D			C			A			D	

Intersection Summary			
HCM 2000 Control Delay	42.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	91.4%	ICU Level of Service	F
Analysis Period (min)	15		

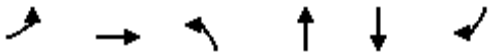
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group

Intersection	
Intersection Delay, s/veh	140.5
Intersection LOS	F

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	1234	248	0	91	106	0	317	131
Future Vol, veh/h	0	1234	248	0	91	106	0	317	131
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1341	270	0	99	115	0	345	142
Number of Lanes	0	2	1	0	1	1	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	3	0
HCM Control Delay	183.2	15.7	54.1
HCM LOS	F	C	F

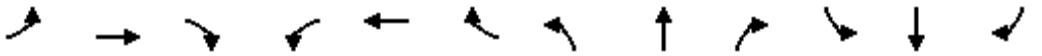
Lane	NBLn1	NBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	100%	0%	88%	0%
Vol Thru, %	100%	0%	0%	0%	0%	12%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	91	106	617	617	248	361	87
LT Vol	0	0	617	617	0	317	0
Through Vol	91	0	0	0	0	44	87
RT Vol	0	106	0	0	248	0	0
Lane Flow Rate	99	115	671	671	270	392	95
Geometry Grp	8	8	7	7	7	8	8
Degree of Util (X)	0.253	0.272	1.41	1.41	0.344	0.946	0.217
Departure Headway (Hd)	10.011	9.29	7.571	7.571	4.588	9.269	8.821
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	361	389	483	483	779	396	409
Service Time	7.711	6.99	5.323	5.323	2.338	6.969	6.521
HCM Lane V/C Ratio	0.274	0.296	1.389	1.389	0.347	0.99	0.232
HCM Control Delay	16.1	15.4	218.1	218.1	9.8	63.8	13.9
HCM Lane LOS	C	C	F	F	A	F	B
HCM 95th-tile Q	1	1.1	32	32	1.5	10.5	0.8



Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	495	454	800	680	386	111
v/c Ratio	0.91	0.72	0.92	0.34	0.43	0.23
Control Delay	49.8	20.3	46.0	10.1	27.1	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.8	20.3	46.0	10.1	27.1	6.7
Queue Length 50th (ft)	244	114	200	91	86	0
Queue Length 95th (ft)	#432	230	#305	124	127	37
Internal Link Dist (ft)		639		679	675	
Turn Bay Length (ft)	340		240			250
Base Capacity (vph)	563	650	890	1993	892	481
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.70	0.90	0.34	0.43	0.23

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	562	0	311	0	0	0	736	626	0	0	355	102
Future Volume (vph)	562	0	311	0	0	0	736	626	0	0	355	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5					4.5	4.5			4.5	4.5
Lane Util. Factor	0.95	0.95					0.97	0.95			0.95	1.00
Frt	1.00	0.89					1.00	1.00			1.00	0.85
Flt Protected	0.95	0.99					0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1552					3433	3539			3539	1583
Flt Permitted	0.95	0.99					0.95	1.00			1.00	1.00
Satd. Flow (perm)	1681	1552					3433	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	611	0	338	0	0	0	800	680	0	0	386	111
RTOR Reduction (vph)	0	133	0	0	0	0	0	0	0	0	0	83
Lane Group Flow (vph)	495	321	0	0	0	0	800	680	0	0	386	28
Turn Type	Perm	NA					Prot	NA			NA	Perm
Protected Phases		4					5	2			6	
Permitted Phases	4											6
Actuated Green, G (s)	25.5	25.5					20.1	44.5			19.9	19.9
Effective Green, g (s)	25.5	25.5					20.1	44.5			19.9	19.9
Actuated g/C Ratio	0.32	0.32					0.25	0.56			0.25	0.25
Clearance Time (s)	4.5	4.5					4.5	4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0					3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	542	500					873	1993			891	398
v/s Ratio Prot							c0.23	0.19			c0.11	
v/s Ratio Perm	c0.29	0.21										0.02
v/c Ratio	0.91	0.64					0.92	0.34			0.43	0.07
Uniform Delay, d1	25.7	22.9					28.6	9.3			24.8	22.5
Progression Factor	1.00	1.00					1.00	1.00			1.00	1.00
Incremental Delay, d2	19.8	2.8					14.1	0.5			1.5	0.3
Delay (s)	45.5	25.7					42.7	9.8			26.3	22.8
Level of Service	D	C					D	A			C	C
Approach Delay (s)		36.0			0.0			27.6			25.6	
Approach LOS		D			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	30.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	79.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.1%	ICU Level of Service	C
Analysis Period (min)	15		

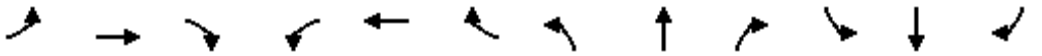
c Critical Lane Group



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	57	59	411	350	1018	813	208
v/c Ratio	0.13	0.13	0.81	0.68	0.50	0.47	0.31
Control Delay	15.9	15.9	28.2	31.9	9.1	16.5	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.9	15.9	28.2	31.9	9.1	16.5	4.1
Queue Length 50th (ft)	15	15	94	62	111	85	0
Queue Length 95th (ft)	38	40	#219	#112	158	117	38
Internal Link Dist (ft)		585			691	966	
Turn Bay Length (ft)	320		320	160			
Base Capacity (vph)	546	547	588	524	2020	1739	678
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.11	0.70	0.67	0.50	0.47	0.31

Intersection Summary

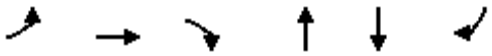
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	106	1	378	322	937	0	0	748	191
Future Volume (vph)	0	0	0	106	1	378	322	937	0	0	748	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.5	4.5	4.5	4.5	4.5			4.5	4.5
Lane Util. Factor				0.95	0.95	1.00	0.97	0.95			0.91	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1687	1583	3433	3539			5085	1583
Flt Permitted				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1687	1583	3433	3539			5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	115	1	411	350	1018	0	0	813	208
RTOR Reduction (vph)	0	0	0	0	0	79	0	0	0	0	0	137
Lane Group Flow (vph)	0	0	0	57	59	332	350	1018	0	0	813	71
Turn Type				Perm	NA	Perm	Prot	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Actuated Green, G (s)				15.5	15.5	15.5	8.6	32.7			19.6	19.6
Effective Green, g (s)				15.5	15.5	15.5	8.6	32.7			19.6	19.6
Actuated g/C Ratio				0.27	0.27	0.27	0.15	0.57			0.34	0.34
Clearance Time (s)				4.5	4.5	4.5	4.5	4.5			4.5	4.5
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				455	457	428	516	2023			1742	542
v/s Ratio Prot							c0.10	c0.29			0.16	
v/s Ratio Perm				0.03	0.03	c0.21						0.05
v/c Ratio				0.13	0.13	0.77	0.68	0.50			0.47	0.13
Uniform Delay, d1				15.7	15.8	19.2	23.0	7.4			14.7	12.9
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2				0.1	0.1	8.5	3.5	0.9			0.9	0.5
Delay (s)				15.9	15.9	27.7	26.5	8.3			15.6	13.4
Level of Service				B	B	C	C	A			B	B
Approach Delay (s)		0.0			25.1			12.9			15.2	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	57.2	Sum of lost time (s)	13.5
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		

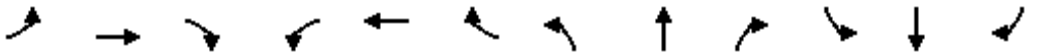
c Critical Lane Group



Lane Group	EBL	EBT	EBR	NBT	SBT	SBR
Lane Group Flow (vph)	465	7	513	1038	685	249
v/c Ratio	0.37	0.01	0.78	0.70	0.46	0.31
Control Delay	10.6	8.2	19.9	13.4	10.7	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.6	8.2	19.9	13.4	10.7	2.9
Queue Length 50th (ft)	40	0	80	107	65	0
Queue Length 95th (ft)	66	3	#215	165	101	30
Internal Link Dist (ft)		671		711	691	
Turn Bay Length (ft)						
Base Capacity (vph)	1447	1491	732	1487	1491	811
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.00	0.70	0.70	0.46	0.31

Intersection Summary

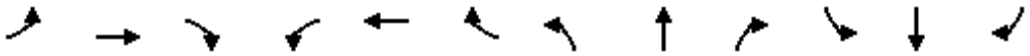
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	428	6	472	0	0	0	0	835	120	0	630	229
Future Volume (vph)	428	6	472	0	0	0	0	835	120	0	630	229
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5					4.5			4.5	4.5
Lane Util. Factor	0.97	0.95	1.00					0.95			0.95	1.00
Frt	1.00	1.00	0.85					0.98			1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00			1.00	1.00
Satd. Flow (prot)	3433	3539	1583					3473			3539	1583
Flt Permitted	0.95	1.00	1.00					1.00			1.00	1.00
Satd. Flow (perm)	3433	3539	1583					3473			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	465	7	513	0	0	0	0	908	130	0	685	249
RTOR Reduction (vph)	0	0	71	0	0	0	0	24	0	0	0	144
Lane Group Flow (vph)	465	7	442	0	0	0	0	1014	0	0	685	105
Turn Type	Split	NA	Perm				Perm	NA			NA	Perm
Protected Phases	4	4						2			6	
Permitted Phases			4				2					6
Actuated Green, G (s)	15.8	15.8	15.8					18.1			18.1	18.1
Effective Green, g (s)	15.8	15.8	15.8					18.1			18.1	18.1
Actuated g/C Ratio	0.37	0.37	0.37					0.42			0.42	0.42
Clearance Time (s)	4.5	4.5	4.5					4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	3.0
Lane Grp Cap (vph)	1264	1303	583					1465			1493	667
v/s Ratio Prot	0.14	0.00						c0.29			0.19	
v/s Ratio Perm			c0.28									0.07
v/c Ratio	0.37	0.01	0.76					0.69			0.46	0.16
Uniform Delay, d1	9.9	8.6	11.9					10.1			8.9	7.7
Progression Factor	1.00	1.00	1.00					1.00			1.00	1.00
Incremental Delay, d2	0.2	0.0	5.6					2.7			1.0	0.5
Delay (s)	10.1	8.6	17.5					12.8			9.9	8.2
Level of Service	B	A	B					B			A	A
Approach Delay (s)		13.9			0.0			12.8			9.4	
Approach LOS		B			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	12.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	42.9	Sum of lost time (s)	9.0
Intersection Capacity Utilization	54.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

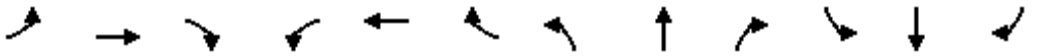


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	230	834	149	152	1340	157	163	1166	102	60	983	303
v/c Ratio	0.95	0.58	0.26	0.72	0.99	0.28	0.74	0.92	0.16	0.60	0.72	0.49
Control Delay	87.2	29.6	3.6	57.9	55.7	4.4	58.4	40.7	3.1	67.3	33.0	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.2	29.6	3.6	57.9	55.7	4.4	58.4	40.7	3.1	67.3	33.0	8.0
Queue Length 50th (ft)	132	151	0	84	~283	0	90	334	0	34	183	14
Queue Length 95th (ft)	#275	193	29	#170	#387	34	#180	#472	22	#93	231	80
Internal Link Dist (ft)		1026			1032			984			943	
Turn Bay Length (ft)	175		25	200		200	160		215	140		120
Base Capacity (vph)	242	1444	579	225	1355	555	235	1268	648	100	1424	637
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.58	0.26	0.68	0.99	0.28	0.69	0.92	0.16	0.60	0.69	0.48

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	212	767	137	140	1233	144	150	1073	94	55	904	279
Future Volume (vph)	212	767	137	140	1233	144	150	1073	94	55	904	279
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	230	834	149	152	1340	157	163	1166	102	60	983	303
RTOR Reduction (vph)	0	0	107	0	0	116	0	0	66	0	0	195
Lane Group Flow (vph)	230	834	42	152	1340	41	163	1166	36	60	983	108
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	12.1	25.1	25.1	10.6	23.6	23.6	11.0	31.7	31.7	3.9	24.6	24.6
Effective Green, g (s)	12.1	25.1	25.1	10.6	23.6	23.6	11.0	31.7	31.7	3.9	24.6	24.6
Actuated g/C Ratio	0.14	0.28	0.28	0.12	0.26	0.26	0.12	0.35	0.35	0.04	0.28	0.28
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	239	1429	444	210	1343	418	218	1256	561	77	1400	436
v/s Ratio Prot	c0.13	0.16		0.09	c0.26		c0.09	c0.33		0.03	0.19	
v/s Ratio Perm			0.03			0.03			0.02			0.07
v/c Ratio	0.96	0.58	0.09	0.72	1.00	0.10	0.75	0.93	0.06	0.78	0.70	0.25
Uniform Delay, d1	38.4	27.6	23.7	37.9	32.8	24.8	37.8	27.7	19.0	42.3	29.1	25.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	47.4	0.6	0.1	11.7	23.8	0.1	13.1	11.8	0.0	38.1	1.6	0.3
Delay (s)	85.8	28.2	23.8	49.6	56.7	24.9	50.9	39.5	19.1	80.3	30.7	25.5
Level of Service	F	C	C	D	E	C	D	D	B	F	C	C
Approach Delay (s)		38.6			53.0			39.4			31.7	
Approach LOS		D			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	41.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	89.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	84.4%	ICU Level of Service	E
Analysis Period (min)	15		

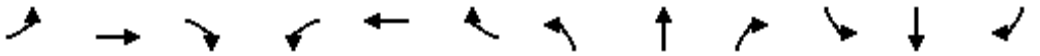
c Critical Lane Group



Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	113	197	62	103	1537	82	83	1058	50
v/c Ratio	0.30	0.58	0.16	0.39	0.71	0.08	0.65	0.49	0.05
Control Delay	14.3	29.5	12.6	11.6	10.0	2.6	37.2	7.2	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.3	29.5	12.6	11.6	10.0	2.6	37.2	7.2	1.9
Queue Length 50th (ft)	19	72	8	16	162	3	16	90	0
Queue Length 95th (ft)	56	133	35	55	281	18	#98	157	11
Internal Link Dist (ft)	688	730			772			694	
Turn Bay Length (ft)				80		80	90		
Base Capacity (vph)	547	516	552	326	2686	1215	159	2686	1213
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.38	0.11	0.32	0.57	0.07	0.52	0.39	0.04

Intersection Summary

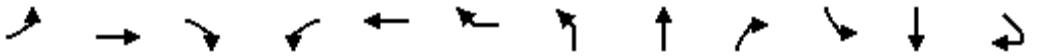
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	24	52	86	96	57	95	1414	75	76	973	46
Future Volume (vph)	28	24	52	86	96	57	95	1414	75	76	973	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.93			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99			0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1713			1820	1583	1770	3539	1583	1770	3539	1583
Flt Permitted		0.88			0.83	1.00	0.23	1.00	1.00	0.11	1.00	1.00
Satd. Flow (perm)		1528			1550	1583	429	3539	1583	211	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	26	57	93	104	62	103	1537	82	83	1058	50
RTOR Reduction (vph)	0	44	0	0	0	29	0	0	22	0	0	19
Lane Group Flow (vph)	0	69	0	0	197	33	103	1537	60	83	1058	31
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)		12.7			12.7	12.7	35.3	35.3	35.3	35.3	35.3	35.3
Effective Green, g (s)		12.7			12.7	12.7	35.3	35.3	35.3	35.3	35.3	35.3
Actuated g/C Ratio		0.22			0.22	0.22	0.62	0.62	0.62	0.62	0.62	0.62
Clearance Time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		340			345	352	265	2191	980	130	2191	980
v/s Ratio Prot								c0.43			0.30	
v/s Ratio Perm		0.04			c0.13	0.02	0.24		0.04	0.39		0.02
v/c Ratio		0.20			0.57	0.09	0.39	0.70	0.06	0.64	0.48	0.03
Uniform Delay, d1		18.0			19.7	17.6	5.4	7.3	4.3	6.8	5.9	4.2
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.3			2.3	0.1	0.9	1.0	0.0	9.9	0.2	0.0
Delay (s)		18.3			22.0	17.7	6.4	8.3	4.3	16.7	6.1	4.2
Level of Service		B			C	B	A	A	A	B	A	A
Approach Delay (s)		18.3			21.0			8.0			6.7	
Approach LOS		B			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	57.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	71.0%	ICU Level of Service	C
Analysis Period (min)	15		

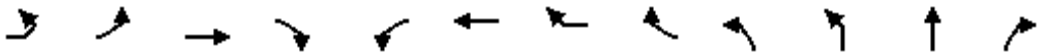
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SER2
Lane Group Flow (vph)	73	1322	48	52	1390	151	83	226	30	188	641	52
v/c Ratio	0.80	0.71	0.06	0.48	0.75	0.17	0.65	0.38	0.09	0.77	0.51	0.04
Control Delay	77.3	17.9	1.5	32.7	18.9	4.6	56.6	32.3	0.7	59.0	22.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.3	17.9	1.5	32.7	18.9	4.6	56.6	32.3	0.7	59.0	22.1	0.1
Queue Length 50th (ft)	29	257	0	16	279	10	42	56	0	98	139	0
Queue Length 95th (ft)	#122	379	10	#74	411	42	91	90	2	#221	188	0
Internal Link Dist (ft)		1180			1126			889			889	
Turn Bay Length (ft)	100		80	120		60	90		160	110		
Base Capacity (vph)	99	2023	936	118	2023	951	186	866	442	255	1550	1229
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.65	0.05	0.44	0.69	0.16	0.45	0.26	0.07	0.74	0.41	0.04

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	1	66	1216	44	48	1279	39	100	45	31	208	28
Future Volume (vph)	1	66	1216	44	48	1279	39	100	45	31	208	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5	4.5	4.5			4.5	4.5	4.5
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95	1.00			1.00	0.95	1.00
Frt		1.00	1.00	0.85	1.00	1.00	0.85			1.00	1.00	0.85
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00			0.95	1.00	1.00
Satd. Flow (prot)		1770	3539	1583	1770	3539	1583			1770	3539	1583
Flt Permitted		0.09	1.00	1.00	0.11	1.00	1.00			0.41	1.00	1.00
Satd. Flow (perm)		176	3539	1583	207	3539	1583			761	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	72	1322	48	52	1390	42	109	49	34	226	30
RTOR Reduction (vph)	0	0	0	23	0	0	52	0	0	0	0	25
Lane Group Flow (vph)	0	73	1322	25	52	1390	99	0	0	83	226	5
Turn Type	Perm	Perm	NA	Perm	Perm	NA	Perm		Perm	Perm	NA	Perm
Protected Phases			4			8					2	
Permitted Phases	4	4		4	8		8		2	2		2
Actuated Green, G (s)		42.6	42.6	42.6	42.6	42.6	42.6			13.8	13.8	13.8
Effective Green, g (s)		42.6	42.6	42.6	42.6	42.6	42.6			13.8	13.8	13.8
Actuated g/C Ratio		0.53	0.53	0.53	0.53	0.53	0.53			0.17	0.17	0.17
Clearance Time (s)		4.5	4.5	4.5	4.5	4.5	4.5			4.5	4.5	4.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)		92	1858	831	108	1858	831			129	602	269
v/s Ratio Prot			0.37			0.39					0.06	
v/s Ratio Perm		c0.42		0.02	0.25		0.06			c0.11		0.00
v/c Ratio		0.79	0.71	0.03	0.48	0.75	0.12			0.64	0.38	0.02
Uniform Delay, d1		15.7	14.6	9.3	12.2	15.1	9.8			31.4	29.8	28.0
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00
Incremental Delay, d2		36.1	1.3	0.0	3.4	1.7	0.1			10.5	0.4	0.0
Delay (s)		51.7	15.9	9.3	15.6	16.7	9.8			41.8	30.2	28.0
Level of Service		D	B	A	B	B	A			D	C	C
Approach Delay (s)			17.5			16.0					32.9	
Approach LOS			B			B					C	

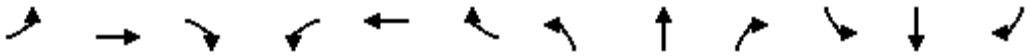
Intersection Summary			
HCM 2000 Control Delay	19.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	81.1	Sum of lost time (s)	13.5
Intersection Capacity Utilization	75.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	SBL	SBT	SBR	SBR2	SER2
Lane Configurations					
Traffic Volume (vph)	173	521	69	0	48
Future Volume (vph)	173	521	69	0	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5
Lane Util. Factor	1.00	0.95			1.00
Frt	1.00	0.98			0.86
Flt Protected	0.95	1.00			1.00
Satd. Flow (prot)	1770	3477			1611
Flt Permitted	0.95	1.00			1.00
Satd. Flow (perm)	1770	3477			1611
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	188	566	75	0	52
RTOR Reduction (vph)	0	0	0	0	25
Lane Group Flow (vph)	188	641	0	0	27
Turn Type	Prot	NA		Perm	Perm
Protected Phases	1	6			
Permitted Phases				6	4
Actuated Green, G (s)	11.2	29.5			42.6
Effective Green, g (s)	11.2	29.5			42.6
Actuated g/C Ratio	0.14	0.36			0.53
Clearance Time (s)	4.5	4.5			4.5
Vehicle Extension (s)	3.0	3.0			3.0
Lane Grp Cap (vph)	244	1264			846
v/s Ratio Prot	c0.11	0.18			
v/s Ratio Perm					0.02
v/c Ratio	0.77	0.51			0.03
Uniform Delay, d1	33.7	20.1			9.3
Progression Factor	1.00	1.00			1.00
Incremental Delay, d2	13.9	0.3			0.0
Delay (s)	47.6	20.5			9.3
Level of Service	D	C			A
Approach Delay (s)		26.6			
Approach LOS		C			

Intersection Summary

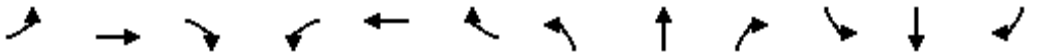


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	60	1150	199	82	1089	170	233	978	164	238	1489	238
v/c Ratio	0.81	0.97	0.33	1.11	0.92	0.28	1.02	0.76	0.25	0.82	1.05	0.35
Control Delay	97.6	53.6	12.4	173.6	45.4	10.2	110.0	32.6	9.0	63.4	68.3	16.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	97.6	53.6	12.4	173.6	45.4	10.2	110.0	32.6	9.0	63.4	68.3	16.6
Queue Length 50th (ft)	35	376	37	~60	347	24	~155	289	21	146	~547	73
Queue Length 95th (ft)	#113	#522	92	#156	#478	72	#309	368	65	#260	#683	134
Internal Link Dist (ft)		1029			1030			868			853	
Turn Bay Length (ft)	90		40	240		60	160		140	165		
Base Capacity (vph)	74	1185	606	74	1185	606	228	1295	652	311	1419	673
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.97	0.33	1.11	0.92	0.28	1.02	0.76	0.25	0.77	1.05	0.35

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	1058	183	75	1002	156	214	900	151	219	1370	219
Future Volume (vph)	55	1058	183	75	1002	156	214	900	151	219	1370	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.12	1.00	1.00	0.12	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	222	3539	1583	222	3539	1583	1770	3539	1583	1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	1150	199	82	1089	170	233	978	164	238	1489	238
RTOR Reduction (vph)	0	0	76	0	0	76	0	0	73	0	0	39
Lane Group Flow (vph)	60	1150	123	82	1089	94	233	978	91	238	1489	199
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	33.5	33.5	33.5	33.5	33.5	33.5	12.9	36.6	36.6	16.4	40.1	40.1
Effective Green, g (s)	33.5	33.5	33.5	33.5	33.5	33.5	12.9	36.6	36.6	16.4	40.1	40.1
Actuated g/C Ratio	0.34	0.34	0.34	0.34	0.34	0.34	0.13	0.37	0.37	0.16	0.40	0.40
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	74	1185	530	74	1185	530	228	1295	579	290	1419	634
v/s Ratio Prot		0.32			0.31		c0.13	0.28		0.13	c0.42	
v/s Ratio Perm	0.27		0.08	c0.37		0.06			0.06			0.13
v/c Ratio	0.81	0.97	0.23	1.11	0.92	0.18	1.02	0.76	0.16	0.82	1.05	0.31
Uniform Delay, d1	30.4	32.8	24.0	33.2	31.9	23.5	43.5	27.8	21.3	40.4	29.9	20.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	46.8	19.3	0.2	137.1	11.3	0.2	65.4	2.6	0.1	16.7	38.0	0.3
Delay (s)	77.2	52.1	24.2	170.4	43.2	23.7	108.9	30.3	21.5	57.1	67.9	20.8
Level of Service	E	D	C	F	D	C	F	C	C	E	E	C
Approach Delay (s)		49.2			48.5			42.6			60.9	
Approach LOS		D			D			D			E	

Intersection Summary			
HCM 2000 Control Delay	51.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	98.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

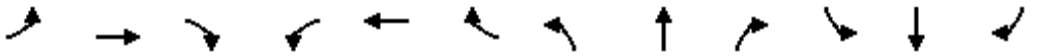


Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	2164	110	958	215	728
v/c Ratio	1.05	0.87	0.52	0.29	1.03
Control Delay	70.1	111.3	22.0	27.0	74.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	70.1	111.3	22.0	27.0	74.8
Queue Length 50th (ft)	~717	93	272	120	~606
Queue Length 95th (ft)	#812	#206	331	182	#851
Internal Link Dist (ft)	987		993		
Turn Bay Length (ft)		140		380	
Base Capacity (vph)	2067	126	1834	729	707
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.05	0.87	0.52	0.29	1.03

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1643	348	101	881	0	0	0	0	198	0	670
Future Volume (vph)	0	1643	348	101	881	0	0	0	0	198	0	670
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5					4.5		4.5
Lane Util. Factor		0.91		1.00	0.95					1.00		1.00
Frt		0.97		1.00	1.00					1.00		0.85
Flt Protected		1.00		0.95	1.00					0.95		1.00
Satd. Flow (prot)		4952		1770	3539					1770		1583
Flt Permitted		1.00		0.95	1.00					0.95		1.00
Satd. Flow (perm)		4952		1770	3539					1770		1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1786	378	110	958	0	0	0	0	215	0	728
RTOR Reduction (vph)	0	25	0	0	0	0	0	0	0	0	0	55
Lane Group Flow (vph)	0	2139	0	110	958	0	0	0	0	215	0	673
Turn Type		NA		Prot	NA					Perm		Perm
Protected Phases		4		3	8							
Permitted Phases										6		6
Actuated Green, G (s)		53.6		9.3	67.4					53.6		53.6
Effective Green, g (s)		53.6		9.3	67.4					53.6		53.6
Actuated g/C Ratio		0.41		0.07	0.52					0.41		0.41
Clearance Time (s)		4.5		4.5	4.5					4.5		4.5
Vehicle Extension (s)		3.0		3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		2041		126	1834					729		652
v/s Ratio Prot		c0.43		c0.06	0.27							
v/s Ratio Perm										0.12		c0.42
v/c Ratio		1.05		0.87	0.52					0.29		1.03
Uniform Delay, d1		38.2		59.8	20.7					25.6		38.2
Progression Factor		1.00		1.00	1.00					1.00		1.00
Incremental Delay, d2		33.8		44.0	0.3					0.2		43.7
Delay (s)		72.0		103.7	20.9					25.8		81.9
Level of Service		E		F	C					C		F
Approach Delay (s)		72.0			29.5			0.0			69.1	
Approach LOS		E			C			A			E	

Intersection Summary			
HCM 2000 Control Delay	60.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	73.3%	ICU Level of Service	D
Analysis Period (min)	15		

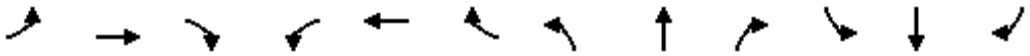
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	7	955	832	143	1176	36	79
v/c Ratio	0.03	0.48	0.66	0.40	0.29	0.11	0.21
Control Delay	9.2	10.2	4.2	22.6	2.8	18.9	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.2	10.2	4.2	22.6	2.8	18.9	4.7
Queue Length 50th (ft)	1	102	0	37	36	9	0
Queue Length 95th (ft)	7	163	55	#87	59	28	19
Internal Link Dist (ft)		806			1980		
Turn Bay Length (ft)	45		160	55			660
Base Capacity (vph)	239	1995	1255	391	4073	935	887
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.48	0.66	0.37	0.29	0.04	0.09

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	879	765	132	1082	0	33	0	73	0	0	0
Future Volume (vph)	6	879	765	132	1082	0	33	0	73	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5			
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91		1.00		1.00			
Frt	1.00	1.00	0.85	1.00	1.00		1.00		0.85			
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95		1.00			
Satd. Flow (prot)	1770	3539	1583	1770	5085		1770		1583			
Flt Permitted	0.23	1.00	1.00	0.95	1.00		0.95		1.00			
Satd. Flow (perm)	425	3539	1583	1770	5085		1770		1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	955	832	143	1176	0	36	0	79	0	0	0
RTOR Reduction (vph)	0	0	435	0	0	0	0	0	73	0	0	0
Lane Group Flow (vph)	7	955	397	143	1176	0	36	0	6	0	0	0
Turn Type	Perm	NA	Perm	Prot	NA		Perm		Perm			
Protected Phases		4		3	8							
Permitted Phases	4		4				2		2			
Actuated Green, G (s)	20.4	20.4	20.4	5.3	30.2		3.5		3.5			
Effective Green, g (s)	20.4	20.4	20.4	5.3	30.2		3.5		3.5			
Actuated g/C Ratio	0.48	0.48	0.48	0.12	0.71		0.08		0.08			
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0		3.0			
Lane Grp Cap (vph)	203	1690	756	219	3596		145		129			
v/s Ratio Prot		c0.27		c0.08	0.23							
v/s Ratio Perm	0.02		0.25				c0.02		0.00			
v/c Ratio	0.03	0.57	0.53	0.65	0.33		0.25		0.05			
Uniform Delay, d1	5.9	8.0	7.8	17.8	2.4		18.4		18.1			
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00		1.00			
Incremental Delay, d2	0.1	0.4	0.7	6.8	0.1		0.9		0.2			
Delay (s)	6.0	8.4	8.4	24.6	2.4		19.3		18.2			
Level of Service	A	A	A	C	A		B		B			
Approach Delay (s)		8.4			4.8			18.6			0.0	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	7.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	42.7	Sum of lost time (s)	13.5
Intersection Capacity Utilization	62.2%	ICU Level of Service	B
Analysis Period (min)	15		

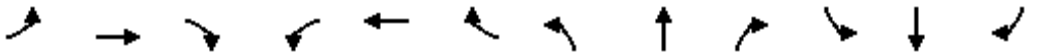
c Critical Lane Group



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	117	949	16	752	350	77	15	49	498
v/c Ratio	0.50	0.53	0.08	0.60	0.45	0.19	0.03	0.13	0.77
Control Delay	34.0	8.9	14.0	16.1	4.1	15.0	0.1	14.2	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	8.9	14.0	16.1	4.1	15.0	0.1	14.2	16.1
Queue Length 50th (ft)	35	80	3	94	0	18	0	11	51
Queue Length 95th (ft)	#104	142	15	159	46	43	0	30	#144
Internal Link Dist (ft)		1980		560		847		971	
Turn Bay Length (ft)	70		100		160		40		620
Base Capacity (vph)	232	2263	241	1522	880	627	748	593	848
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.42	0.07	0.49	0.40	0.12	0.02	0.08	0.59

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	108	838	35	15	692	322	52	18	14	42	3	458
Future Volume (vph)	108	838	35	15	692	322	52	18	14	42	3	458
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5		4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.96	1.00		0.96	1.00
Satd. Flow (prot)	1770	3518		1770	3539	1583		1796	1583		1779	1583
Flt Permitted	0.95	1.00		0.30	1.00	1.00		0.78	1.00		0.74	1.00
Satd. Flow (perm)	1770	3518		562	3539	1583		1461	1583		1380	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	117	911	38	16	752	350	57	20	15	46	3	498
RTOR Reduction (vph)	0	5	0	0	0	228	0	0	11	0	0	214
Lane Group Flow (vph)	117	944	0	16	752	122	0	77	4	0	49	284
Turn Type	Prot	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases				8		8	2		2	6		6
Actuated Green, G (s)	4.0	24.7		16.2	16.2	16.2		12.6	12.6		12.6	12.6
Effective Green, g (s)	4.0	24.7		16.2	16.2	16.2		12.6	12.6		12.6	12.6
Actuated g/C Ratio	0.09	0.53		0.35	0.35	0.35		0.27	0.27		0.27	0.27
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5		4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	152	1876		196	1238	553		397	430		375	430
v/s Ratio Prot	c0.07	0.27			c0.21							
v/s Ratio Perm				0.03		0.08		0.05	0.00		0.04	c0.18
v/c Ratio	0.77	0.50		0.08	0.61	0.22		0.19	0.01		0.13	0.66
Uniform Delay, d1	20.7	6.9		10.1	12.4	10.6		12.9	12.3		12.7	15.0
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	20.6	0.2		0.2	0.9	0.2		0.2	0.0		0.2	3.8
Delay (s)	41.3	7.1		10.3	13.3	10.8		13.2	12.3		12.9	18.7
Level of Service	D	A		B	B	B		B	B		B	B
Approach Delay (s)		10.9			12.5			13.0			18.2	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	46.3	Sum of lost time (s)	13.5
Intersection Capacity Utilization	62.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

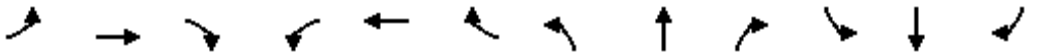


Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	405	153	165	92	790	343	145	632	790
v/c Ratio	1.17	0.38	0.81	0.34	1.26	0.21	0.72	0.80	1.17
Control Delay	155.2	16.4	92.5	10.0	171.0	23.6	83.7	63.9	116.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	155.2	16.4	92.5	10.0	171.0	23.6	83.7	63.9	116.4
Queue Length 50th (ft)	~475	25	159	0	~974	98	139	312	~587
Queue Length 95th (ft)	#688	92	#268	39	#1228	140	212	387	#844
Internal Link Dist (ft)	835		755			938		874	
Turn Bay Length (ft)				80	290		100		200
Base Capacity (vph)	345	403	222	287	625	1603	251	786	674
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.17	0.38	0.74	0.32	1.26	0.21	0.58	0.80	1.17

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	257	116	141	45	107	85	727	261	54	133	581	727
Future Volume (vph)	257	116	141	45	107	85	727	261	54	133	581	727
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	0.97		1.00	1.00	0.85
Flt Protected		0.97	1.00		0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1801	1583		1835	1583	1770	3448		1770	3539	1583
Flt Permitted		0.97	1.00		0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1801	1583		1835	1583	1770	3448		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	279	126	153	49	116	92	790	284	59	145	632	790
RTOR Reduction (vph)	0	0	99	0	0	82	0	11	0	0	0	323
Lane Group Flow (vph)	0	405	54	0	165	10	790	332	0	145	632	467
Turn Type	Split	NA	Prot	Split	NA	Prot	Prot	NA		Prot	NA	Perm
Protected Phases	4	4	4	8	8	8	5	2		1	6	
Permitted Phases												6
Actuated Green, G (s)		28.5	28.5		16.6	16.6	52.5	68.7		16.9	33.1	33.1
Effective Green, g (s)		28.5	28.5		16.6	16.6	52.5	68.7		16.9	33.1	33.1
Actuated g/C Ratio		0.19	0.19		0.11	0.11	0.35	0.46		0.11	0.22	0.22
Clearance Time (s)		4.5	4.5		4.5	4.5	4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		345	303		204	176	624	1592		201	787	352
v/s Ratio Prot		c0.22	0.03		c0.09	0.01	c0.45	0.10		0.08	0.18	
v/s Ratio Perm												c0.30
v/c Ratio		1.17	0.18		0.81	0.06	1.27	0.21		0.72	0.80	1.33
Uniform Delay, d1		60.1	50.3		64.5	59.1	48.1	23.8		63.6	54.7	57.8
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		104.6	0.3		20.5	0.1	132.1	0.3		12.0	8.5	165.9
Delay (s)		164.7	50.6		85.0	59.2	180.2	24.1		75.6	63.2	223.7
Level of Service		F	D		F	E	F	C		E	E	F
Approach Delay (s)		133.4			75.8			133.0			145.3	
Approach LOS		F			E			F			F	

Intersection Summary			
HCM 2000 Control Delay	134.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	148.7	Sum of lost time (s)	18.0
Intersection Capacity Utilization	104.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	90	860	249	102	835	101	1025	195	248	1546	88
v/c Ratio	0.78	0.87	0.43	0.88	0.84	0.73	0.83	0.29	0.88	0.95	0.11
Control Delay	67.9	33.4	7.9	86.9	30.1	61.8	26.4	4.8	61.4	32.5	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.9	33.4	7.9	86.9	30.1	61.8	26.4	4.8	61.4	32.5	2.8
Queue Length 50th (ft)	33	168	15	38	153	40	189	5	98	~313	0
Queue Length 95th (ft)	#107	#267	65	#123	#247	#114	#267	42	#220	#471	18
Internal Link Dist (ft)		987			1124		1174			1214	
Turn Bay Length (ft)	100		100	140		185		80	110		
Base Capacity (vph)	119	1017	595	119	1019	139	1284	687	281	1632	784
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.85	0.42	0.86	0.82	0.73	0.80	0.28	0.88	0.95	0.11

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
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95th percentile volume exceeds capacity, queue may be longer.
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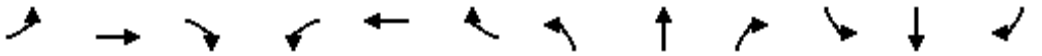


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	83	791	229	94	616	152	93	943	179	228	1422	81
Future Volume (vph)	83	791	229	94	616	152	93	943	179	228	1422	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3434		1770	3539	1583	1770	3539	1583
Flt Permitted	0.22	1.00	1.00	0.22	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	416	3539	1583	416	3434		1770	3539	1583	1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	90	860	249	102	670	165	101	1025	195	248	1546	88
RTOR Reduction (vph)	0	0	142	0	33	0	0	0	113	0	0	48
Lane Group Flow (vph)	90	860	107	102	802	0	101	1025	82	248	1546	40
Turn Type	Perm	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	17.9	17.9	17.9	17.9	17.9		3.9	23.2	23.2	10.1	29.4	29.4
Effective Green, g (s)	17.9	17.9	17.9	17.9	17.9		3.9	23.2	23.2	10.1	29.4	29.4
Actuated g/C Ratio	0.28	0.28	0.28	0.28	0.28		0.06	0.36	0.36	0.16	0.45	0.45
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	115	979	437	115	950		106	1269	567	276	1608	719
v/s Ratio Prot		0.24			0.23		0.06	0.29		c0.14	c0.44	
v/s Ratio Perm	0.22		0.07	c0.25					0.05			0.03
v/c Ratio	0.78	0.88	0.24	0.89	0.84		0.95	0.81	0.14	0.90	0.96	0.06
Uniform Delay, d1	21.6	22.4	18.1	22.4	22.1		30.3	18.7	14.0	26.8	17.1	9.9
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	28.5	9.0	0.3	50.0	6.9		71.9	3.9	0.1	29.1	14.3	0.0
Delay (s)	50.1	31.4	18.4	72.5	29.0		102.2	22.6	14.2	55.9	31.4	9.9
Level of Service	D	C	B	E	C		F	C	B	E	C	A
Approach Delay (s)		30.1			33.7			27.5			33.6	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	31.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	64.7	Sum of lost time (s)	13.5
Intersection Capacity Utilization	86.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

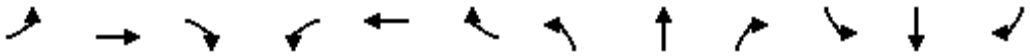


Lane Group	EBT	EBR	WBL	WBT	SBT
Lane Group Flow (vph)	1946	303	153	930	1197
v/c Ratio	1.05	0.34	0.99	0.43	1.05
Control Delay	70.7	10.8	105.3	16.0	84.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	70.7	10.8	105.3	16.0	84.2
Queue Length 50th (ft)	~1088	77	101	240	~617
Queue Length 95th (ft)	#1223	142	#256	287	#759
Internal Link Dist (ft)	979			732	799
Turn Bay Length (ft)		230	160		
Base Capacity (vph)	1852	900	155	2170	1136
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.05	0.34	0.99	0.43	1.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1790	279	141	856	0	0	0	0	485	7	609
Future Volume (vph)	0	1790	279	141	856	0	0	0	0	485	7	609
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5						4.5	
Lane Util. Factor		0.95	1.00	1.00	0.95						0.95	
Frt		1.00	0.85	1.00	1.00						0.92	
Flt Protected		1.00	1.00	0.95	1.00						0.98	
Satd. Flow (prot)		3539	1583	1770	3539						3176	
Flt Permitted		1.00	1.00	0.05	1.00						0.98	
Satd. Flow (perm)		3539	1583	90	3539						3176	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1946	303	153	930	0	0	0	0	527	8	662
RTOR Reduction (vph)	0	0	72	0	0	0	0	0	0	0	100	0
Lane Group Flow (vph)	0	1946	231	153	930	0	0	0	0	0	1097	0
Turn Type		NA	custom	pm+pt	NA					custom	NA	
Protected Phases				3	8							
Permitted Phases		4	4	8						6	6	
Actuated Green, G (s)		78.5	78.5	92.0	92.0						49.0	
Effective Green, g (s)		78.5	78.5	92.0	92.0						49.0	
Actuated g/C Ratio		0.52	0.52	0.61	0.61						0.33	
Clearance Time (s)		4.5	4.5	4.5	4.5						4.5	
Vehicle Extension (s)		3.0	3.0	3.0	3.0						3.0	
Lane Grp Cap (vph)		1852	828	156	2170						1037	
v/s Ratio Prot				c0.06	0.26							
v/s Ratio Perm		c0.55	0.15	0.54							c0.35	
v/c Ratio		1.05	0.28	0.98	0.43						1.06	
Uniform Delay, d1		35.8	19.9	49.5	15.2						50.5	
Progression Factor		1.00	1.00	1.00	1.00						1.00	
Incremental Delay, d2		35.7	0.2	66.0	0.1						44.7	
Delay (s)		71.5	20.1	115.5	15.3						95.2	
Level of Service		E	C	F	B						F	
Approach Delay (s)		64.5			29.5			0.0			95.2	
Approach LOS		E			C			A			F	

Intersection Summary			
HCM 2000 Control Delay	64.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	102.5%	ICU Level of Service	G
Analysis Period (min)	15		

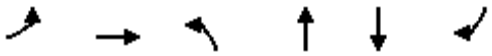
c Critical Lane Group

Intersection	
Intersection Delay, s/veh	139
Intersection LOS	F

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	551	135	0	50	368	0	596	115
Future Vol, veh/h	0	551	135	0	50	368	0	596	115
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	599	147	0	54	400	0	648	125
Number of Lanes	0	2	1	0	1	1	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	3	0
HCM Control Delay	24.6	43.4	305.5
HCM LOS	C	E	F

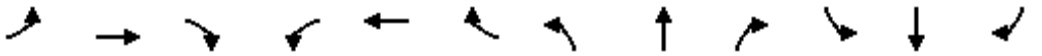
Lane	NBLn1	NBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	100%	0%	94%	0%
Vol Thru, %	100%	0%	0%	0%	0%	6%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	50	368	276	276	135	634	77
LT Vol	0	0	276	276	0	596	0
Through Vol	50	0	0	0	0	38	77
RT Vol	0	368	0	0	135	0	0
Lane Flow Rate	54	400	299	299	147	689	83
Geometry Grp	8	8	7	7	7	8	8
Degree of Util (X)	0.128	0.863	0.669	0.669	0.208	1.686	0.193
Departure Headway (Hd)	9.697	8.965	9.015	9.015	5.965	8.802	8.319
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	372	408	404	404	606	414	429
Service Time	7.397	6.665	6.715	6.715	3.665	6.593	6.109
HCM Lane V/C Ratio	0.145	0.98	0.74	0.74	0.243	1.664	0.193
HCM Control Delay	13.8	47.4	28.1	28.1	10.2	340.8	13.1
HCM Lane LOS	B	E	D	D	B	F	B
HCM 95th-tile Q	0.4	8.5	4.7	4.7	0.8	41	0.7



Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	253	230	1017	471	830	237
v/c Ratio	0.75	0.52	0.90	0.19	0.79	0.37
Control Delay	43.9	13.1	38.0	5.1	32.8	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.9	13.1	38.0	5.1	32.8	5.3
Queue Length 50th (ft)	122	26	245	41	206	0
Queue Length 95th (ft)	#210	90	#361	60	#303	51
Internal Link Dist (ft)		639		679	675	
Turn Bay Length (ft)	340		240			250
Base Capacity (vph)	390	488	1172	2417	1053	637
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.47	0.87	0.19	0.79	0.37

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	287	0	157	0	0	0	936	433	0	0	764	218
Future Volume (vph)	287	0	157	0	0	0	936	433	0	0	764	218
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5					4.5	4.5			4.5	4.5
Lane Util. Factor	0.95	0.95					0.97	0.95			0.95	1.00
Frt	1.00	0.89					1.00	1.00			1.00	0.85
Flt Protected	0.95	0.99					0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1552					3433	3539			3539	1583
Flt Permitted	0.95	0.99					0.95	1.00			1.00	1.00
Satd. Flow (perm)	1681	1552					3433	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	312	0	171	0	0	0	1017	471	0	0	830	237
RTOR Reduction (vph)	0	134	0	0	0	0	0	0	0	0	0	166
Lane Group Flow (vph)	253	96	0	0	0	0	1017	471	0	0	830	71
Turn Type	Perm	NA					Prot	NA			NA	Perm
Protected Phases		4					5	2			6	
Permitted Phases	4											6
Actuated Green, G (s)	15.6	15.6					25.4	53.1			23.2	23.2
Effective Green, g (s)	15.6	15.6					25.4	53.1			23.2	23.2
Actuated g/C Ratio	0.20	0.20					0.33	0.68			0.30	0.30
Clearance Time (s)	4.5	4.5					4.5	4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0					3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	337	311					1122	2418			1056	472
v/s Ratio Prot							c0.30	0.13			c0.23	
v/s Ratio Perm	c0.15	0.06										0.04
v/c Ratio	0.75	0.31					0.91	0.19			0.79	0.15
Uniform Delay, d1	29.2	26.5					25.0	4.5			25.0	20.0
Progression Factor	1.00	1.00					1.00	1.00			1.00	1.00
Incremental Delay, d2	9.1	0.6					10.5	0.2			5.9	0.7
Delay (s)	38.3	27.0					35.5	4.7			30.9	20.7
Level of Service	D	C					D	A			C	C
Approach Delay (s)		32.9			0.0			25.7			28.6	
Approach LOS		C			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	27.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	77.7	Sum of lost time (s)	13.5
Intersection Capacity Utilization	71.8%	ICU Level of Service	C
Analysis Period (min)	15		

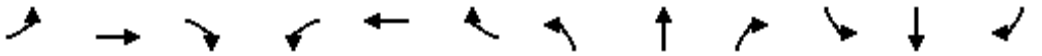
c Critical Lane Group



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	68	69	342	347	860	1309	416
v/c Ratio	0.18	0.18	0.73	0.66	0.40	0.70	0.49
Control Delay	17.2	17.3	20.7	30.1	7.1	18.1	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.2	17.3	20.7	30.1	7.1	18.1	4.2
Queue Length 50th (ft)	18	18	58	56	69	133	0
Queue Length 95th (ft)	45	46	133	#112	124	201	52
Internal Link Dist (ft)		585			691	966	
Turn Bay Length (ft)	320		320	160			
Base Capacity (vph)	554	554	615	541	2141	1874	846
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.12	0.56	0.64	0.40	0.70	0.49

Intersection Summary

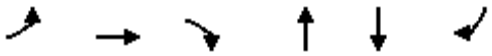
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	126	0	315	319	791	0	0	1204	383
Future Volume (vph)	0	0	0	126	0	315	319	791	0	0	1204	383
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.5	4.5	4.5	4.5	4.5			4.5	4.5
Lane Util. Factor				0.95	0.95	1.00	0.97	0.95			0.91	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1681	1583	3433	3539			5085	1583
Flt Permitted				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1681	1583	3433	3539			5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	137	0	342	347	860	0	0	1309	416
RTOR Reduction (vph)	0	0	0	0	0	107	0	0	0	0	0	263
Lane Group Flow (vph)	0	0	0	68	69	235	347	860	0	0	1309	153
Turn Type				Perm	NA	Perm	Prot	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Actuated Green, G (s)				12.6	12.6	12.6	8.5	33.2			20.2	20.2
Effective Green, g (s)				12.6	12.6	12.6	8.5	33.2			20.2	20.2
Actuated g/C Ratio				0.23	0.23	0.23	0.16	0.61			0.37	0.37
Clearance Time (s)				4.5	4.5	4.5	4.5	4.5			4.5	4.5
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				386	386	363	532	2144			1874	583
v/s Ratio Prot							c0.10	0.24			c0.26	
v/s Ratio Perm				0.04	0.04	c0.15						0.10
v/c Ratio				0.18	0.18	0.65	0.65	0.40			0.70	0.26
Uniform Delay, d1				16.9	16.9	19.1	21.8	5.6			14.7	12.1
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2				0.2	0.2	3.9	2.9	0.6			2.2	1.1
Delay (s)				17.2	17.2	23.0	24.6	6.2			16.9	13.2
Level of Service				B	B	C	C	A			B	B
Approach Delay (s)		0.0			21.4			11.5			16.0	
Approach LOS		A			C			B			B	

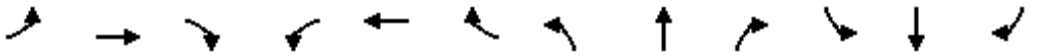
Intersection Summary			
HCM 2000 Control Delay	15.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	54.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	48.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	NBT	SBT	SBR
Lane Group Flow (vph)	238	107	335	1164	1055	397
v/c Ratio	0.23	0.10	0.66	0.66	0.59	0.40
Control Delay	12.2	11.2	18.3	11.1	10.7	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.2	11.2	18.3	11.1	10.7	2.5
Queue Length 50th (ft)	23	10	63	108	101	0
Queue Length 95th (ft)	43	23	128	187	168	36
Internal Link Dist (ft)		671		711	691	
Turn Bay Length (ft)						
Base Capacity (vph)	1351	1393	653	1767	1779	993
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.08	0.51	0.66	0.59	0.40

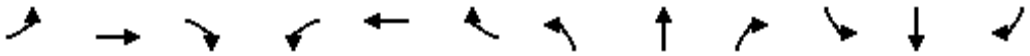
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	219	98	308	0	0	0	0	891	180	0	971	365
Future Volume (vph)	219	98	308	0	0	0	0	891	180	0	971	365
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5					4.5			4.5	4.5
Lane Util. Factor	0.97	0.95	1.00					0.95			0.95	1.00
Frt	1.00	1.00	0.85					0.97			1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00			1.00	1.00
Satd. Flow (prot)	3433	3539	1583					3450			3539	1583
Flt Permitted	0.95	1.00	1.00					1.00			1.00	1.00
Satd. Flow (perm)	3433	3539	1583					3450			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	238	107	335	0	0	0	0	968	196	0	1055	397
RTOR Reduction (vph)	0	0	35	0	0	0	0	31	0	0	0	197
Lane Group Flow (vph)	238	107	300	0	0	0	0	1133	0	0	1055	200
Turn Type	Split	NA	Perm				Perm	NA			NA	Perm
Protected Phases	4	4						2			6	
Permitted Phases			4				2					6
Actuated Green, G (s)	13.8	13.8	13.8					23.2			23.2	23.2
Effective Green, g (s)	13.8	13.8	13.8					23.2			23.2	23.2
Actuated g/C Ratio	0.30	0.30	0.30					0.50			0.50	0.50
Clearance Time (s)	4.5	4.5	4.5					4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	3.0
Lane Grp Cap (vph)	1029	1061	474					1740			1784	798
v/s Ratio Prot	0.07	0.03						c0.33			0.30	
v/s Ratio Perm			c0.19									0.13
v/c Ratio	0.23	0.10	0.63					0.65			0.59	0.25
Uniform Delay, d1	12.1	11.6	13.9					8.4			8.1	6.5
Progression Factor	1.00	1.00	1.00					1.00			1.00	1.00
Incremental Delay, d2	0.1	0.0	2.8					1.9			1.4	0.8
Delay (s)	12.2	11.7	16.7					10.3			9.5	7.2
Level of Service	B	B	B					B			A	A
Approach Delay (s)		14.3			0.0			10.3			8.9	
Approach LOS		B			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	10.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	46.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	53.4%	ICU Level of Service	A
Analysis Period (min)	15		

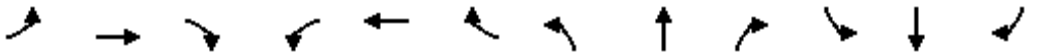
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	187	1022	241	150	957	91	150	1013	147	173	1560	345
v/c Ratio	0.89	0.82	0.48	0.87	0.84	0.19	0.87	0.89	0.24	0.89	0.92	0.50
Control Delay	76.8	34.9	14.6	80.4	37.5	2.5	80.4	37.5	4.9	79.7	36.0	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.8	34.9	14.6	80.4	37.5	2.5	80.4	37.5	4.9	79.7	36.0	9.8
Queue Length 50th (ft)	94	176	39	75	167	0	75	250	0	87	270	38
Queue Length 95th (ft)	#210	226	105	#180	#221	13	#180	#366	38	#199	#366	109
Internal Link Dist (ft)		1026			1032			984			943	
Turn Bay Length (ft)	175		25	200		200	160		215	140		120
Base Capacity (vph)	210	1252	497	172	1144	467	172	1136	608	194	1697	686
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.82	0.48	0.87	0.84	0.19	0.87	0.89	0.24	0.89	0.92	0.50

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	172	940	222	138	880	84	138	932	135	159	1435	317
Future Volume (vph)	172	940	222	138	880	84	138	932	135	159	1435	317
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	187	1022	241	150	957	91	150	1013	147	173	1560	345
RTOR Reduction (vph)	0	0	108	0	0	71	0	0	100	0	0	158
Lane Group Flow (vph)	187	1022	133	150	957	20	150	1013	47	173	1560	187
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	9.5	19.7	19.7	7.8	18.0	18.0	7.8	25.7	25.7	8.8	26.7	26.7
Effective Green, g (s)	9.5	19.7	19.7	7.8	18.0	18.0	7.8	25.7	25.7	8.8	26.7	26.7
Actuated g/C Ratio	0.12	0.25	0.25	0.10	0.22	0.22	0.10	0.32	0.32	0.11	0.33	0.33
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	210	1252	389	172	1144	356	172	1136	508	194	1697	528
v/s Ratio Prot	c0.11	c0.20		0.08	0.19		0.08	0.29		c0.10	c0.31	
v/s Ratio Perm			0.08			0.01			0.03			0.12
v/c Ratio	0.89	0.82	0.34	0.87	0.84	0.06	0.87	0.89	0.09	0.89	0.92	0.35
Uniform Delay, d1	34.7	28.4	24.8	35.6	29.6	24.3	35.6	25.8	19.0	35.1	25.6	20.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	34.0	4.2	0.5	35.1	5.5	0.1	35.1	9.1	0.1	36.2	8.4	0.4
Delay (s)	68.7	32.7	25.3	70.7	35.1	24.4	70.7	34.9	19.1	71.3	34.0	20.5
Level of Service	E	C	C	E	D	C	E	C	B	E	C	C
Approach Delay (s)		36.1			38.7			37.2			34.9	
Approach LOS		D			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	36.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	76.9%	ICU Level of Service	D
Analysis Period (min)	15		

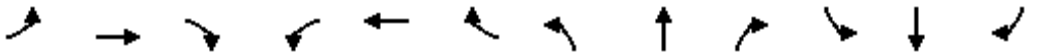
c Critical Lane Group



Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	413	136	91	74	1177	47	59	1634	21
v/c Ratio	0.85	0.40	0.18	0.57	0.62	0.05	0.35	0.86	0.02
Control Delay	37.9	20.6	8.3	32.2	11.0	3.0	15.1	17.6	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.9	20.6	8.3	32.2	11.0	3.0	15.1	17.6	2.7
Queue Length 50th (ft)	132	38	8	16	138	1	11	238	0
Queue Length 95th (ft)	#276	82	36	#79	194	12	38	#342	7
Internal Link Dist (ft)	688	730			772			694	
Turn Bay Length (ft)				80		80	90		
Base Capacity (vph)	523	370	557	138	2030	925	179	2030	919
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.37	0.16	0.54	0.58	0.05	0.33	0.80	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

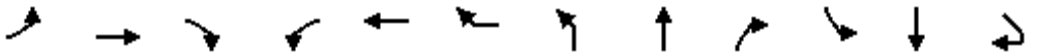


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	84	131	166	71	54	84	68	1083	43	54	1503	19
Future Volume (vph)	84	131	166	71	54	84	68	1083	43	54	1503	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.94			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99			0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1734			1811	1583	1770	3539	1583	1770	3539	1583
Flt Permitted		0.89			0.61	1.00	0.13	1.00	1.00	0.17	1.00	1.00
Satd. Flow (perm)		1568			1132	1583	241	3539	1583	313	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	91	142	180	77	59	91	74	1177	47	59	1634	21
RTOR Reduction (vph)	0	13	0	0	0	42	0	0	19	0	0	10
Lane Group Flow (vph)	0	400	0	0	136	49	74	1177	28	59	1634	11
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)		17.3			17.3	17.3	30.9	30.9	30.9	30.9	30.9	30.9
Effective Green, g (s)		17.3			17.3	17.3	30.9	30.9	30.9	30.9	30.9	30.9
Actuated g/C Ratio		0.30			0.30	0.30	0.54	0.54	0.54	0.54	0.54	0.54
Clearance Time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		474			342	478	130	1911	855	169	1911	855
v/s Ratio Prot								0.33			c0.46	
v/s Ratio Perm		c0.26			0.12	0.03	0.31		0.02	0.19		0.01
v/c Ratio		0.84			0.40	0.10	0.57	0.62	0.03	0.35	0.86	0.01
Uniform Delay, d1		18.7			15.8	14.4	8.7	9.1	6.2	7.5	11.2	6.1
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		13.0			0.8	0.1	5.6	0.6	0.0	1.3	4.0	0.0
Delay (s)		31.7			16.6	14.5	14.3	9.7	6.2	8.7	15.2	6.1
Level of Service		C			B	B	B	A	A	A	B	A
Approach Delay (s)		31.7			15.7			9.8			14.9	
Approach LOS		C			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	15.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	57.2	Sum of lost time (s)	9.0
Intersection Capacity Utilization	85.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

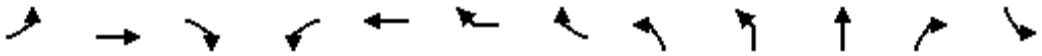
Future Year (2035) No Project



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SER2
Lane Group Flow (vph)	115	1035	38	28	1286	184	86	560	42	113	255	7
v/c Ratio	0.92	0.55	0.04	0.14	0.68	0.20	0.37	0.76	0.11	0.71	0.21	0.01
Control Delay	87.5	14.0	0.8	12.0	16.3	4.0	35.7	39.5	3.4	65.1	20.6	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.5	14.0	0.8	12.0	16.3	4.0	35.7	39.5	3.4	65.1	20.6	0.0
Queue Length 50th (ft)	54	184	0	7	255	13	42	156	0	64	53	0
Queue Length 95th (ft)	#167	238	5	23	326	43	86	215	11	#153	82	0
Internal Link Dist (ft)		1180			1126			889			889	
Turn Bay Length (ft)	100		80	120		60	90		160	110		
Base Capacity (vph)	140	2137	985	225	2137	1008	262	841	432	162	1312	1237
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.48	0.04	0.12	0.60	0.18	0.33	0.67	0.10	0.70	0.19	0.01

Intersection Summary

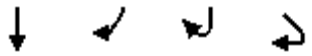
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	106	952	35	26	1183	48	121	63	17	515	39	104
Future Volume (vph)	106	952	35	26	1183	48	121	63	17	515	39	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5			4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00			1.00	0.95	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85			1.00	1.00	0.85	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00			0.95	1.00	1.00	0.95
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583			1770	3539	1583	1770
Flt Permitted	0.13	1.00	1.00	0.20	1.00	1.00			0.59	1.00	1.00	0.95
Satd. Flow (perm)	233	3539	1583	375	3539	1583			1106	3539	1583	1770
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	115	1035	38	28	1286	52	132	68	18	560	42	113
RTOR Reduction (vph)	0	0	18	0	0	61	0	0	0	0	33	0
Lane Group Flow (vph)	115	1035	20	28	1286	123	0	0	86	560	9	113
Turn Type	Perm	NA	Perm	Perm	NA	Perm		Perm	Perm	NA	Perm	Prot
Protected Phases		4			8					2		1
Permitted Phases	4		4	8		8		2	2		2	
Actuated Green, G (s)	45.0	45.0	45.0	45.0	45.0	45.0			17.6	17.6	17.6	7.6
Effective Green, g (s)	45.0	45.0	45.0	45.0	45.0	45.0			17.6	17.6	17.6	7.6
Actuated g/C Ratio	0.54	0.54	0.54	0.54	0.54	0.54			0.21	0.21	0.21	0.09
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5			4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	125	1902	851	201	1902	851			232	744	332	160
v/s Ratio Prot		0.29			0.36					c0.16		c0.06
v/s Ratio Perm	c0.49		0.01	0.07		0.08			0.08		0.01	
v/c Ratio	0.92	0.54	0.02	0.14	0.68	0.14			0.37	0.75	0.03	0.71
Uniform Delay, d1	17.7	12.6	9.1	9.7	14.1	9.7			28.3	31.0	26.2	37.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00
Incremental Delay, d2	56.3	0.3	0.0	0.3	1.0	0.1			1.0	4.3	0.0	13.3
Delay (s)	74.0	13.0	9.1	10.0	15.0	9.8			29.3	35.3	26.3	50.2
Level of Service	E	B	A	A	B	A			C	D	C	D
Approach Delay (s)		18.8			14.3					34.0		
Approach LOS		B			B					C		

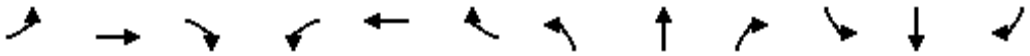
Intersection Summary			
HCM 2000 Control Delay	20.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	83.7	Sum of lost time (s)	13.5
Intersection Capacity Utilization	73.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	SBT	SBR	SBR2	SER2
Lane Configurations				
Traffic Volume (vph)	180	54	0	6
Future Volume (vph)	180	54	0	6
Ideal Flow (vphpl)	1900	1900	1900	1900
Total Lost time (s)	4.5			4.5
Lane Util. Factor	0.95			1.00
Frt	0.97			0.86
Flt Protected	1.00			1.00
Satd. Flow (prot)	3416			1611
Flt Permitted	1.00			1.00
Satd. Flow (perm)	3416			1611
Peak-hour factor, PHF	0.92	0.92	0.92	0.92
Adj. Flow (vph)	196	59	0	7
RTOR Reduction (vph)	0	0	0	3
Lane Group Flow (vph)	255	0	0	4
Turn Type	NA		Perm	Perm
Protected Phases	6			
Permitted Phases			6	4
Actuated Green, G (s)	29.7			45.0
Effective Green, g (s)	29.7			45.0
Actuated g/C Ratio	0.35			0.54
Clearance Time (s)	4.5			4.5
Vehicle Extension (s)	3.0			3.0
Lane Grp Cap (vph)	1212			866
v/s Ratio Prot	0.07			
v/s Ratio Perm				0.00
v/c Ratio	0.21			0.00
Uniform Delay, d1	18.8			9.0
Progression Factor	1.00			1.00
Incremental Delay, d2	0.1			0.0
Delay (s)	18.9			9.0
Level of Service	B			A
Approach Delay (s)	28.5			
Approach LOS	C			

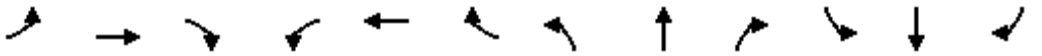
Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	72	866	113	86	1308	158	174	1340	145	75	902	182
v/c Ratio	0.85	0.62	0.16	0.60	0.94	0.23	0.75	0.90	0.21	0.74	0.80	0.31
Control Delay	94.6	24.3	3.5	43.9	40.7	6.3	57.7	34.5	9.8	82.8	33.4	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	94.6	24.3	3.5	43.9	40.7	6.3	57.7	34.5	9.8	82.8	33.4	9.4
Queue Length 50th (ft)	37	207	0	39	375	11	96	370	25	43	240	21
Queue Length 95th (ft)	#122	272	27	#112	#526	50	#190	#516	62	#119	313	69
Internal Link Dist (ft)		1029			1030			868			853	
Turn Bay Length (ft)	90		40	240		60	160		140	165		
Base Capacity (vph)	86	1404	705	144	1404	705	250	1505	715	101	1208	624
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.62	0.16	0.60	0.93	0.22	0.70	0.89	0.20	0.74	0.75	0.29

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	797	104	79	1203	145	160	1233	133	69	830	167
Future Volume (vph)	66	797	104	79	1203	145	160	1233	133	69	830	167
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.12	1.00	1.00	0.20	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	217	3539	1583	364	3539	1583	1770	3539	1583	1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	72	866	113	86	1308	158	174	1340	145	75	902	182
RTOR Reduction (vph)	0	0	69	0	0	78	0	0	43	0	0	85
Lane Group Flow (vph)	72	866	44	86	1308	80	174	1340	102	75	902	97
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	34.3	34.3	34.3	34.3	34.3	34.3	11.6	36.6	36.6	3.9	28.9	28.9
Effective Green, g (s)	34.3	34.3	34.3	34.3	34.3	34.3	11.6	36.6	36.6	3.9	28.9	28.9
Actuated g/C Ratio	0.39	0.39	0.39	0.39	0.39	0.39	0.13	0.41	0.41	0.04	0.33	0.33
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	84	1374	614	141	1374	614	232	1466	656	78	1158	518
v/s Ratio Prot		0.24			c0.37		c0.10	c0.38		0.04	0.25	
v/s Ratio Perm	0.33		0.03	0.24		0.05			0.06			0.06
v/c Ratio	0.86	0.63	0.07	0.61	0.95	0.13	0.75	0.91	0.16	0.96	0.78	0.19
Uniform Delay, d1	24.8	21.9	17.0	21.6	26.2	17.4	37.0	24.4	16.2	42.1	26.8	21.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	53.4	1.0	0.0	7.3	14.4	0.1	12.8	9.1	0.1	88.4	3.4	0.2
Delay (s)	78.1	22.8	17.0	28.9	40.6	17.5	49.7	33.4	16.3	130.5	30.2	21.5
Level of Service	E	C	B	C	D	B	D	C	B	F	C	C
Approach Delay (s)		26.0			37.6			33.6			35.3	
Approach LOS		C			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	33.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	88.3	Sum of lost time (s)	13.5
Intersection Capacity Utilization	90.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

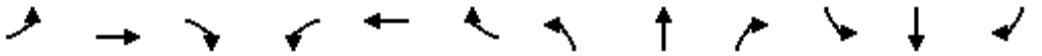


Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1118	163	1222	139	808
v/c Ratio	0.85	0.91	0.82	0.18	1.06
Control Delay	32.0	82.9	23.5	12.3	70.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.0	82.9	23.5	12.3	70.5
Queue Length 50th (ft)	162	71	235	34	~368
Queue Length 95th (ft)	#232	#177	316	66	#577
Internal Link Dist (ft)	987		993		
Turn Bay Length (ft)		140		380	
Base Capacity (vph)	1309	179	1496	793	761
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.85	0.91	0.82	0.18	1.06

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	899	130	150	1124	0	0	0	0	128	0	743
Future Volume (vph)	0	899	130	150	1124	0	0	0	0	128	0	743
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5					4.5		4.5
Lane Util. Factor		0.91		1.00	0.95					1.00		1.00
Frt		0.98		1.00	1.00					1.00		0.85
Flt Protected		1.00		0.95	1.00					0.95		1.00
Satd. Flow (prot)		4989		1770	3539					1770		1583
Flt Permitted		1.00		0.95	1.00					0.95		1.00
Satd. Flow (perm)		4989		1770	3539					1770		1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	977	141	163	1222	0	0	0	0	139	0	808
RTOR Reduction (vph)	0	27	0	0	0	0	0	0	0	0	0	52
Lane Group Flow (vph)	0	1091	0	163	1222	0	0	0	0	139	0	756
Turn Type		NA		Prot	NA					Perm		Perm
Protected Phases		4		3	8							
Permitted Phases										6		6
Actuated Green, G (s)		18.0		7.1	29.6					31.4		31.4
Effective Green, g (s)		18.0		7.1	29.6					31.4		31.4
Actuated g/C Ratio		0.26		0.10	0.42					0.45		0.45
Clearance Time (s)		4.5		4.5	4.5					4.5		4.5
Vehicle Extension (s)		3.0		3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		1282		179	1496					793		710
v/s Ratio Prot		0.22		0.09	c0.35							
v/s Ratio Perm										0.08		c0.48
v/c Ratio		0.85		0.91	0.82					0.18		1.07
Uniform Delay, d1		24.7		31.1	17.8					11.6		19.3
Progression Factor		1.00		1.00	1.00					1.00		1.00
Incremental Delay, d2		5.6		42.6	3.6					0.1		52.4
Delay (s)		30.4		73.7	21.4					11.7		71.7
Level of Service		C		E	C					B		E
Approach Delay (s)		30.4			27.5			0.0			62.9	
Approach LOS		C			C			A			E	

Intersection Summary			
HCM 2000 Control Delay	38.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	84.6%	ICU Level of Service	E
Analysis Period (min)	15		

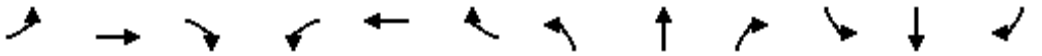
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	9	772	604	110	1286	78	249
v/c Ratio	0.04	0.42	0.55	0.38	0.36	0.21	0.47
Control Delay	10.0	10.7	3.5	24.9	4.4	17.2	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.0	10.7	3.5	24.9	4.4	17.2	6.3
Queue Length 50th (ft)	1	73	0	27	45	18	0
Queue Length 95th (ft)	9	131	51	#81	84	44	43
Internal Link Dist (ft)		806			1980		
Turn Bay Length (ft)	45		160	55			660
Base Capacity (vph)	214	1844	1114	290	3557	922	944
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.42	0.54	0.38	0.36	0.08	0.26

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	710	556	101	1183	0	72	0	229	0	0	0
Future Volume (vph)	8	710	556	101	1183	0	72	0	229	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5			
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91		1.00		1.00			
Frt	1.00	1.00	0.85	1.00	1.00		1.00		0.85			
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95		1.00			
Satd. Flow (prot)	1770	3539	1583	1770	5085		1770		1583			
Flt Permitted	0.22	1.00	1.00	0.95	1.00		0.95		1.00			
Satd. Flow (perm)	412	3539	1583	1770	5085		1770		1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	772	604	110	1286	0	78	0	249	0	0	0
RTOR Reduction (vph)	0	0	339	0	0	0	0	0	215	0	0	0
Lane Group Flow (vph)	9	772	265	110	1286	0	78	0	34	0	0	0
Turn Type	Perm	NA	Perm	Prot	NA		Perm		Perm			
Protected Phases		4		3	8							
Permitted Phases	4		4				2		2			
Actuated Green, G (s)	18.1	18.1	18.1	3.9	26.5		5.7		5.7			
Effective Green, g (s)	18.1	18.1	18.1	3.9	26.5		5.7		5.7			
Actuated g/C Ratio	0.44	0.44	0.44	0.09	0.64		0.14		0.14			
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0		3.0			
Lane Grp Cap (vph)	181	1554	695	167	3270		244		219			
v/s Ratio Prot		c0.22		c0.06	0.25							
v/s Ratio Perm	0.02		0.17				c0.04		0.02			
v/c Ratio	0.05	0.50	0.38	0.66	0.39		0.32		0.16			
Uniform Delay, d1	6.6	8.3	7.8	18.0	3.5		16.0		15.6			
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00		1.00			
Incremental Delay, d2	0.1	0.3	0.4	9.0	0.1		0.8		0.3			
Delay (s)	6.7	8.5	8.1	27.0	3.6		16.8		16.0			
Level of Service	A	A	A	C	A		B		B			
Approach Delay (s)		8.3			5.4			16.2			0.0	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	7.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	41.2	Sum of lost time (s)	13.5
Intersection Capacity Utilization	47.5%	ICU Level of Service	A
Analysis Period (min)	15		

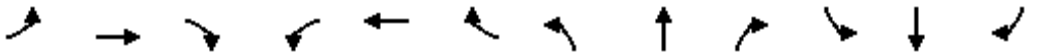
c Critical Lane Group



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	116	902	11	909	310	16	2	46	505
v/c Ratio	0.52	0.50	0.05	0.71	0.40	0.03	0.00	0.10	0.79
Control Delay	35.0	8.8	13.5	18.7	4.0	13.0	0.0	13.8	18.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.0	8.8	13.5	18.7	4.0	13.0	0.0	13.8	18.2
Queue Length 50th (ft)	35	80	2	126	0	4	0	10	58
Queue Length 95th (ft)	#102	133	12	#205	44	14	0	28	#172
Internal Link Dist (ft)		1980		560		847		971	
Turn Bay Length (ft)	70		100		160		40		620
Base Capacity (vph)	224	2219	243	1465	836	696	725	663	816
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.41	0.05	0.62	0.37	0.02	0.00	0.07	0.62

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	802	28	10	836	285	7	7	2	26	17	465
Future Volume (vph)	107	802	28	10	836	285	7	7	2	26	17	465
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5		4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.98	1.00		0.97	1.00
Satd. Flow (prot)	1770	3522		1770	3539	1583		1817	1583		1808	1583
Flt Permitted	0.95	1.00		0.32	1.00	1.00		0.90	1.00		0.86	1.00
Satd. Flow (perm)	1770	3522		588	3539	1583		1682	1583		1603	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	116	872	30	11	909	310	8	8	2	28	18	505
RTOR Reduction (vph)	0	4	0	0	0	199	0	0	1	0	0	199
Lane Group Flow (vph)	116	898	0	11	909	111	0	16	1	0	46	306
Turn Type	Prot	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases				8		8	2		2	6		6
Actuated Green, G (s)	4.0	25.5		17.0	17.0	17.0		13.1	13.1		13.1	13.1
Effective Green, g (s)	4.0	25.5		17.0	17.0	17.0		13.1	13.1		13.1	13.1
Actuated g/C Ratio	0.08	0.54		0.36	0.36	0.36		0.28	0.28		0.28	0.28
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5		4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	148	1886		210	1263	565		462	435		441	435
v/s Ratio Prot	c0.07	0.25			c0.26							
v/s Ratio Perm				0.02		0.07		0.01	0.00		0.03	c0.19
v/c Ratio	0.78	0.48		0.05	0.72	0.20		0.03	0.00		0.10	0.70
Uniform Delay, d1	21.4	6.9		10.0	13.2	10.6		12.6	12.5		12.9	15.5
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	23.2	0.2		0.1	2.0	0.2		0.0	0.0		0.1	5.1
Delay (s)	44.6	7.1		10.1	15.2	10.7		12.7	12.5		13.0	20.6
Level of Service	D	A		B	B	B		B	B		B	C
Approach Delay (s)		11.4			14.1			12.6			20.0	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	47.6	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

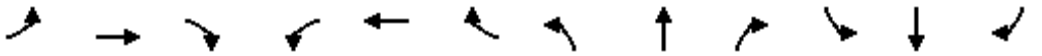


Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	380	95	337	177	547	886	161	493	442
v/c Ratio	1.01	0.22	1.00	0.44	1.03	0.75	0.79	0.90	0.72
Control Delay	97.2	3.3	99.1	16.0	87.5	38.5	77.5	70.4	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	97.2	3.3	99.1	16.0	87.5	38.5	77.5	70.4	11.5
Queue Length 50th (ft)	~302	0	~265	27	~451	310	122	200	0
Queue Length 95th (ft)	#503	18	#458	94	#669	390	#223	#296	102
Internal Link Dist (ft)	835		755			938		874	
Turn Bay Length (ft)				80	290		100		200
Base Capacity (vph)	375	439	336	401	533	1187	219	548	618
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.01	0.22	1.00	0.44	1.03	0.75	0.74	0.90	0.72

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	288	62	87	98	212	163	503	631	184	148	454	407
Future Volume (vph)	288	62	87	98	212	163	503	631	184	148	454	407
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	0.97		1.00	1.00	0.85
Flt Protected		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1789	1583		1834	1583	1770	3419		1770	3539	1583
Flt Permitted		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1789	1583		1834	1583	1770	3419		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	313	67	95	107	230	177	547	686	200	161	493	442
RTOR Reduction (vph)	0	0	75	0	0	111	0	22	0	0	0	373
Lane Group Flow (vph)	0	380	20	0	337	66	547	864	0	161	493	69
Turn Type	Split	NA	Prot	Split	NA	Prot	Prot	NA		Prot	NA	Perm
Protected Phases	4	4	4	8	8	8	5	2		1	6	
Permitted Phases												6
Actuated Green, G (s)		25.2	25.2		22.0	22.0	36.2	40.9		13.9	18.6	18.6
Effective Green, g (s)		25.2	25.2		22.0	22.0	36.2	40.9		13.9	18.6	18.6
Actuated g/C Ratio		0.21	0.21		0.18	0.18	0.30	0.34		0.12	0.16	0.16
Clearance Time (s)		4.5	4.5		4.5	4.5	4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		375	332		336	290	533	1165		205	548	245
v/s Ratio Prot		c0.21	0.01		c0.18	0.04	c0.31	0.25		0.09	c0.14	
v/s Ratio Perm												0.04
v/c Ratio		1.01	0.06		1.00	0.23	1.03	0.74		0.79	0.90	0.28
Uniform Delay, d1		47.4	37.9		49.0	41.8	41.9	34.9		51.6	49.8	44.8
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		49.9	0.1		49.8	0.4	45.8	4.3		17.7	20.3	2.8
Delay (s)		97.3	38.0		98.8	42.2	87.7	39.2		69.3	70.1	47.6
Level of Service		F	D		F	D	F	D		E	E	D
Approach Delay (s)		85.4			79.3			57.7			60.9	
Approach LOS		F			E			E			E	

Intersection Summary			
HCM 2000 Control Delay	65.6	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	91.2%	ICU Level of Service	F
Analysis Period (min)	15		

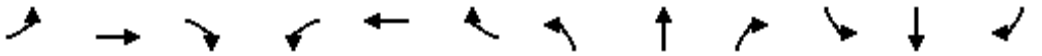
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	46	448	103	301	1321	143	1399	197	76	1020	55
v/c Ratio	0.55	0.32	0.15	0.93	0.96	0.70	0.95	0.28	0.76	0.86	0.09
Control Delay	50.7	19.7	2.8	64.3	42.8	57.9	39.8	11.9	85.5	35.8	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.7	19.7	2.8	64.3	42.8	57.9	39.8	11.9	85.5	35.8	0.3
Queue Length 50th (ft)	20	92	0	163	375	79	398	43	44	277	0
Queue Length 95th (ft)	#76	130	22	#330	#533	#161	#556	91	#121	358	0
Internal Link Dist (ft)		987			1124		1174			1214	
Turn Bay Length (ft)	100		100	140		185		80	110		
Base Capacity (vph)	84	1398	702	324	1380	215	1483	707	100	1252	642
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.32	0.15	0.93	0.96	0.67	0.94	0.28	0.76	0.81	0.09

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	412	95	277	998	217	132	1287	181	70	938	51
Future Volume (vph)	42	412	95	277	998	217	132	1287	181	70	938	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3444		1770	3539	1583	1770	3539	1583
Flt Permitted	0.11	1.00	1.00	0.44	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	214	3539	1583	821	3444		1770	3539	1583	1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	448	103	301	1085	236	143	1399	197	76	1020	55
RTOR Reduction (vph)	0	0	63	0	20	0	0	0	45	0	0	36
Lane Group Flow (vph)	46	448	40	301	1301	0	143	1399	152	76	1020	19
Turn Type	Perm	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	34.8	34.8	34.8	34.8	34.8		10.1	36.8	36.8	3.9	30.6	30.6
Effective Green, g (s)	34.8	34.8	34.8	34.8	34.8		10.1	36.8	36.8	3.9	30.6	30.6
Actuated g/C Ratio	0.39	0.39	0.39	0.39	0.39		0.11	0.41	0.41	0.04	0.34	0.34
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	83	1383	618	321	1346		200	1463	654	77	1216	544
v/s Ratio Prot		0.13			c0.38		c0.08	c0.40		0.04	0.29	
v/s Ratio Perm	0.21		0.03	0.37					0.10			0.01
v/c Ratio	0.55	0.32	0.07	0.94	0.97		0.71	0.96	0.23	0.99	0.84	0.03
Uniform Delay, d1	21.1	18.9	16.9	26.1	26.5		38.1	25.3	16.9	42.5	26.9	19.4
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.8	0.1	0.0	33.9	17.0		11.5	14.3	0.2	97.4	5.2	0.0
Delay (s)	28.9	19.0	17.0	60.0	43.5		49.5	39.6	17.1	139.9	32.2	19.4
Level of Service	C	B	B	E	D		D	D	B	F	C	B
Approach Delay (s)		19.4			46.6			37.9			38.7	
Approach LOS		B			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	38.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	89.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	93.4%	ICU Level of Service	F
Analysis Period (min)	15		

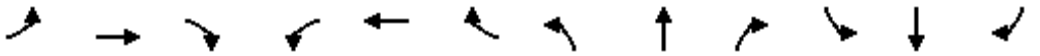
c Critical Lane Group



Lane Group	EBT	EBR	WBL	WBT	SBT
Lane Group Flow (vph)	1134	154	254	1239	1023
v/c Ratio	0.94	0.24	0.84	0.68	1.10dr
Control Delay	37.9	4.2	38.0	14.1	34.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	37.9	4.2	38.0	14.1	34.4
Queue Length 50th (ft)	225	0	53	177	192
Queue Length 95th (ft)	#352	34	#166	243	#314
Internal Link Dist (ft)	979			732	799
Turn Bay Length (ft)		230	160		
Base Capacity (vph)	1204	640	302	1825	1119
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.94	0.24	0.84	0.68	0.91

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1043	142	234	1140	0	0	0	0	349	1	592
Future Volume (vph)	0	1043	142	234	1140	0	0	0	0	349	1	592
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5						4.5	
Lane Util. Factor		0.95	1.00	1.00	0.95						0.95	
Frt		1.00	0.85	1.00	1.00						0.91	
Flt Protected		1.00	1.00	0.95	1.00						0.98	
Satd. Flow (prot)		3539	1583	1770	3539						3147	
Flt Permitted		1.00	1.00	0.15	1.00						0.98	
Satd. Flow (perm)		3539	1583	280	3539						3147	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1134	154	254	1239	0	0	0	0	379	1	643
RTOR Reduction (vph)	0	0	102	0	0	0	0	0	0	0	28	0
Lane Group Flow (vph)	0	1134	52	254	1239	0	0	0	0	0	995	0
Turn Type		NA	custom	pm+pt	NA					custom	NA	
Protected Phases				3	8							
Permitted Phases		4	4	8						6	6	
Actuated Green, G (s)		22.1	22.1	33.5	33.5						22.4	
Effective Green, g (s)		22.1	22.1	33.5	33.5						22.4	
Actuated g/C Ratio		0.34	0.34	0.52	0.52						0.35	
Clearance Time (s)		4.5	4.5	4.5	4.5						4.5	
Vehicle Extension (s)		3.0	3.0	3.0	3.0						3.0	
Lane Grp Cap (vph)		1205	539	302	1826						1086	
v/s Ratio Prot				c0.09	0.35							
v/s Ratio Perm		c0.32	0.03	0.34							c0.32	
v/c Ratio		0.94	0.10	0.84	0.68						1.10dr	
Uniform Delay, d1		20.8	14.6	13.1	11.7						20.3	
Progression Factor		1.00	1.00	1.00	1.00						1.00	
Incremental Delay, d2		14.1	0.1	18.6	1.0						11.8	
Delay (s)		34.9	14.7	31.7	12.7						32.1	
Level of Service		C	B	C	B						C	
Approach Delay (s)		32.4			15.9			0.0			32.1	
Approach LOS		C			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	25.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	64.9	Sum of lost time (s)	13.5
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

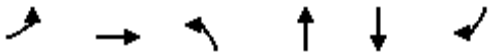
c Critical Lane Group

Intersection	
Intersection Delay, s/veh	78
Intersection LOS	F

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	972	279	0	103	119	0	357	148
Future Vol, veh/h	0	972	279	0	103	119	0	357	148
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1057	303	0	112	129	0	388	161
Number of Lanes	0	2	1	0	1	1	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	3	0
HCM Control Delay	86.6	16.5	83.8
HCM LOS	F	C	F

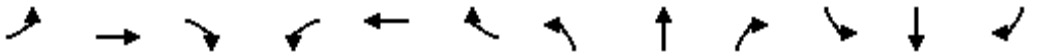
Lane	NBLn1	NBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	100%	0%	88%	0%
Vol Thru, %	100%	0%	0%	0%	0%	12%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	103	119	486	486	279	406	99
LT Vol	0	0	486	486	0	357	0
Through Vol	103	0	0	0	0	49	99
RT Vol	0	119	0	0	279	0	0
Lane Flow Rate	112	129	528	528	303	442	107
Geometry Grp	8	8	7	7	7	8	8
Degree of Util (X)	0.294	0.314	1.126	1.126	0.4	1.085	0.251
Departure Headway (Hd)	10.027	9.302	7.911	7.911	4.918	9.197	8.747
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	361	389	465	465	737	398	413
Service Time	7.727	7.002	5.611	5.611	2.618	6.897	6.447
HCM Lane V/C Ratio	0.31	0.332	1.135	1.135	0.411	1.111	0.259
HCM Control Delay	16.8	16.2	108.3	108.3	10.9	100.7	14.4
HCM Lane LOS	C	C	F	F	B	F	B
HCM 95th-tile Q	1.2	1.3	17.9	17.9	1.9	14.9	1



Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	557	511	733	766	435	125
v/c Ratio	0.94	0.75	0.92	0.41	0.50	0.26
Control Delay	51.6	21.6	49.5	11.9	28.3	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.6	21.6	49.5	11.9	28.3	6.5
Queue Length 50th (ft)	277	140	185	112	98	0
Queue Length 95th (ft)	#484	#271	#289	152	143	40
Internal Link Dist (ft)		639		679	675	
Turn Bay Length (ft)	340		240			250
Base Capacity (vph)	601	685	797	1888	869	483
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.75	0.92	0.41	0.50	0.26

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	633	0	350	0	0	0	674	705	0	0	400	115
Future Volume (vph)	633	0	350	0	0	0	674	705	0	0	400	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5					4.5	4.5			4.5	4.5
Lane Util. Factor	0.95	0.95					0.97	0.95			0.95	1.00
Frt	1.00	0.89					1.00	1.00			1.00	0.85
Flt Protected	0.95	0.99					0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1552					3433	3539			3539	1583
Flt Permitted	0.95	0.99					0.95	1.00			1.00	1.00
Satd. Flow (perm)	1681	1552					3433	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	688	0	380	0	0	0	733	766	0	0	435	125
RTOR Reduction (vph)	0	131	0	0	0	0	0	0	0	0	0	94
Lane Group Flow (vph)	557	380	0	0	0	0	733	766	0	0	435	31
Turn Type	Perm	NA					Prot	NA			NA	Perm
Protected Phases		4					5	2			6	
Permitted Phases	4											6
Actuated Green, G (s)	28.2	28.2					18.4	42.5			19.6	19.6
Effective Green, g (s)	28.2	28.2					18.4	42.5			19.6	19.6
Actuated g/C Ratio	0.35	0.35					0.23	0.53			0.25	0.25
Clearance Time (s)	4.5	4.5					4.5	4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0					3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	594	549					792	1887			870	389
v/s Ratio Prot							c0.21	0.22			c0.12	
v/s Ratio Perm	c0.33	0.24										0.02
v/c Ratio	0.94	0.69					0.93	0.41			0.50	0.08
Uniform Delay, d1	24.9	22.0					30.0	11.1			25.8	23.1
Progression Factor	1.00	1.00					1.00	1.00			1.00	1.00
Incremental Delay, d2	22.5	3.8					16.5	0.7			2.1	0.4
Delay (s)	47.4	25.8					46.5	11.7			27.9	23.5
Level of Service	D	C					D	B			C	C
Approach Delay (s)		37.0			0.0			28.7			26.9	
Approach LOS		D			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	31.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	79.7	Sum of lost time (s)	13.5
Intersection Capacity Utilization	69.8%	ICU Level of Service	C
Analysis Period (min)	15		

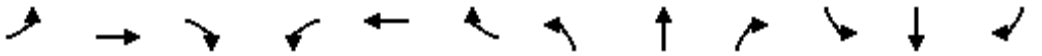
c Critical Lane Group



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	39	38	463	395	1147	916	234
v/c Ratio	0.08	0.08	0.87	0.79	0.58	0.54	0.34
Control Delay	15.4	15.3	34.7	38.3	10.3	17.5	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.4	15.3	34.7	38.3	10.3	17.5	4.1
Queue Length 50th (ft)	10	10	117	72	133	97	0
Queue Length 95th (ft)	29	29	#268	#136	187	133	40
Internal Link Dist (ft)		585			691	966	
Turn Bay Length (ft)	320		320	160			
Base Capacity (vph)	534	537	577	501	1977	1705	686
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.07	0.80	0.79	0.58	0.54	0.34

Intersection Summary

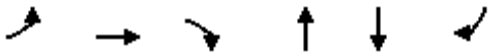
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	70	1	426	363	1055	0	0	843	215
Future Volume (vph)	0	0	0	70	1	426	363	1055	0	0	843	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.5	4.5	4.5	4.5	4.5			4.5	4.5
Lane Util. Factor				0.95	0.95	1.00	0.97	0.95			0.91	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1687	1583	3433	3539			5085	1583
Flt Permitted				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1687	1583	3433	3539			5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	76	1	463	395	1147	0	0	916	234
RTOR Reduction (vph)	0	0	0	0	0	78	0	0	0	0	0	155
Lane Group Flow (vph)	0	0	0	39	38	385	395	1147	0	0	916	79
Turn Type				Perm	NA	Perm	Prot	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Actuated Green, G (s)				16.7	16.7	16.7	8.5	32.6			19.6	19.6
Effective Green, g (s)				16.7	16.7	16.7	8.5	32.6			19.6	19.6
Actuated g/C Ratio				0.29	0.29	0.29	0.15	0.56			0.34	0.34
Clearance Time (s)				4.5	4.5	4.5	4.5	4.5			4.5	4.5
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				481	483	453	500	1978			1709	532
v/s Ratio Prot							c0.12	c0.32			0.18	
v/s Ratio Perm				0.02	0.02	c0.24						0.05
v/c Ratio				0.08	0.08	0.85	0.79	0.58			0.54	0.15
Uniform Delay, d1				15.2	15.2	19.6	24.0	8.4			15.7	13.5
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2				0.1	0.1	14.2	8.3	1.2			1.2	0.6
Delay (s)				15.3	15.3	33.8	32.3	9.6			16.9	14.1
Level of Service				B	B	C	C	A			B	B
Approach Delay (s)		0.0			31.2			15.4			16.3	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	58.3	Sum of lost time (s)	13.5
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		

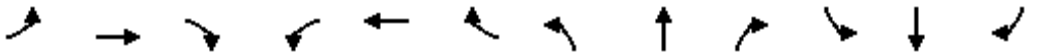
c Critical Lane Group



Lane Group	EBL	EBT	EBR	NBT	SBT	SBR
Lane Group Flow (vph)	524	8	578	1149	717	280
v/c Ratio	0.40	0.01	0.86	0.79	0.49	0.34
Control Delay	10.8	8.1	26.7	17.1	11.4	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.8	8.1	26.7	17.1	11.4	3.0
Queue Length 50th (ft)	46	1	103	126	68	0
Queue Length 95th (ft)	75	3	#266	#230	107	32
Internal Link Dist (ft)		671		711	691	
Turn Bay Length (ft)						
Base Capacity (vph)	1408	1451	708	1449	1451	814
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.01	0.82	0.79	0.49	0.34

Intersection Summary

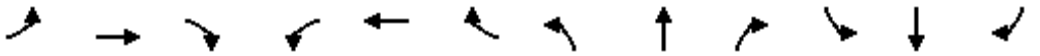
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	482	7	532	0	0	0	0	941	116	0	660	258
Future Volume (vph)	482	7	532	0	0	0	0	941	116	0	660	258
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5					4.5			4.5	4.5
Lane Util. Factor	0.97	0.95	1.00					0.95			0.95	1.00
Frt	1.00	1.00	0.85					0.98			1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00			1.00	1.00
Satd. Flow (prot)	3433	3539	1583					3481			3539	1583
Flt Permitted	0.95	1.00	1.00					1.00			1.00	1.00
Satd. Flow (perm)	3433	3539	1583					3481			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	524	8	578	0	0	0	0	1023	126	0	717	280
RTOR Reduction (vph)	0	0	62	0	0	0	0	21	0	0	0	165
Lane Group Flow (vph)	524	8	516	0	0	0	0	1128	0	0	717	115
Turn Type	Split	NA	Perm				Perm	NA			NA	Perm
Protected Phases	4	4						2			6	
Permitted Phases			4				2					6
Actuated Green, G (s)	16.9	16.9	16.9					18.0			18.0	18.0
Effective Green, g (s)	16.9	16.9	16.9					18.0			18.0	18.0
Actuated g/C Ratio	0.38	0.38	0.38					0.41			0.41	0.41
Clearance Time (s)	4.5	4.5	4.5					4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	3.0
Lane Grp Cap (vph)	1321	1362	609					1427			1451	649
v/s Ratio Prot	0.15	0.00						c0.32			0.20	
v/s Ratio Perm			c0.33									0.07
v/c Ratio	0.40	0.01	0.85					0.79			0.49	0.18
Uniform Delay, d1	9.8	8.3	12.3					11.3			9.6	8.2
Progression Factor	1.00	1.00	1.00					1.00			1.00	1.00
Incremental Delay, d2	0.2	0.0	10.6					4.5			1.2	0.6
Delay (s)	10.0	8.3	22.9					15.9			10.8	8.8
Level of Service	A	A	C					B			B	A
Approach Delay (s)		16.7			0.0			15.9			10.2	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	43.9	Sum of lost time (s)	9.0
Intersection Capacity Utilization	58.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

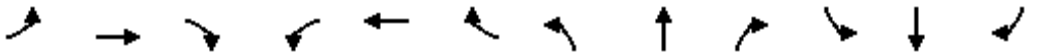


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	260	939	87	172	1510	176	153	1302	115	67	1079	341
v/c Ratio	1.04	0.64	0.15	0.70	1.04	0.31	0.77	1.01	0.18	0.84	0.72	0.54
Control Delay	115.7	37.2	1.0	60.1	72.6	8.9	71.7	63.6	6.5	116.0	38.0	14.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	115.7	37.2	1.0	60.1	72.6	8.9	71.7	63.6	6.5	116.0	38.0	14.1
Queue Length 50th (ft)	~199	213	0	117	~421	14	106	~490	5	48	251	59
Queue Length 95th (ft)	#363	272	5	185	#517	67	#200	#646	42	#132	304	152
Internal Link Dist (ft)		1026			1032			984			943	
Turn Bay Length (ft)	175		25	200		200	160		215	140		120
Base Capacity (vph)	249	1465	562	302	1456	559	212	1286	641	80	1504	630
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.04	0.64	0.15	0.57	1.04	0.31	0.72	1.01	0.18	0.84	0.72	0.54

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	239	864	80	158	1389	162	141	1198	106	62	993	314
Future Volume (vph)	239	864	80	158	1389	162	141	1198	106	62	993	314
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	260	939	87	172	1510	176	153	1302	115	67	1079	341
RTOR Reduction (vph)	0	0	62	0	0	106	0	0	66	0	0	163
Lane Group Flow (vph)	260	939	25	172	1510	70	153	1302	49	67	1079	178
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	15.5	31.7	31.7	15.3	31.5	31.5	12.5	40.0	40.0	5.0	32.5	32.5
Effective Green, g (s)	15.5	31.7	31.7	15.3	31.5	31.5	12.5	40.0	40.0	5.0	32.5	32.5
Actuated g/C Ratio	0.14	0.29	0.29	0.14	0.29	0.29	0.11	0.36	0.36	0.05	0.30	0.30
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	249	1465	456	246	1456	453	201	1286	575	80	1502	467
v/s Ratio Prot	c0.15	0.18		0.10	c0.30		c0.09	c0.37		0.04	0.21	
v/s Ratio Perm			0.02			0.04			0.03			0.11
v/c Ratio	1.04	0.64	0.05	0.70	1.04	0.15	0.76	1.01	0.08	0.84	0.72	0.38
Uniform Delay, d1	47.2	34.2	28.3	45.2	39.2	29.3	47.3	35.0	23.0	52.1	34.7	30.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	69.1	1.0	0.1	8.4	33.8	0.2	15.6	28.2	0.1	50.1	1.7	0.5
Delay (s)	116.3	35.1	28.4	53.5	73.0	29.5	62.9	63.2	23.0	102.2	36.3	31.3
Level of Service	F	D	C	D	E	C	E	E	C	F	D	C
Approach Delay (s)		51.1			67.1			60.2			38.1	
Approach LOS		D			E			E			D	

Intersection Summary			
HCM 2000 Control Delay	55.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	92.4%	ICU Level of Service	F
Analysis Period (min)	15		

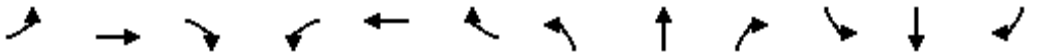
c Critical Lane Group



Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	128	202	39	116	1674	38	12	1100	57
v/c Ratio	0.32	0.52	0.09	0.41	0.70	0.04	0.08	0.46	0.05
Control Delay	12.0	23.1	9.4	13.5	10.9	3.3	7.4	7.1	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.0	23.1	9.4	13.5	10.9	3.3	7.4	7.1	2.2
Queue Length 50th (ft)	17	58	3	17	177	1	1	88	0
Queue Length 95th (ft)	52	111	21	74	#356	12	9	172	13
Internal Link Dist (ft)	688	730			772			694	
Turn Bay Length (ft)				80		80	90		
Base Capacity (vph)	622	619	636	282	2394	1079	157	2394	1089
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.33	0.06	0.41	0.70	0.04	0.08	0.46	0.05

Intersection Summary

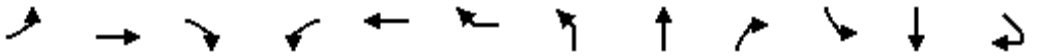
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	27	59	78	108	36	107	1540	35	11	1012	52
Future Volume (vph)	32	27	59	78	108	36	107	1540	35	11	1012	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.93			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99			0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1714			1824	1583	1770	3539	1583	1770	3539	1583
Flt Permitted		0.86			0.85	1.00	0.22	1.00	1.00	0.12	1.00	1.00
Satd. Flow (perm)		1490			1582	1583	417	3539	1583	233	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	29	64	85	117	39	116	1674	38	12	1100	57
RTOR Reduction (vph)	0	52	0	0	0	22	0	0	10	0	0	21
Lane Group Flow (vph)	0	76	0	0	202	17	116	1674	28	12	1100	36
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)		9.8			9.8	9.8	32.0	32.0	32.0	32.0	32.0	32.0
Effective Green, g (s)		9.8			9.8	9.8	32.0	32.0	32.0	32.0	32.0	32.0
Actuated g/C Ratio		0.19			0.19	0.19	0.63	0.63	0.63	0.63	0.63	0.63
Clearance Time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		287			305	305	262	2229	997	146	2229	997
v/s Ratio Prot								c0.47			0.31	
v/s Ratio Perm		0.05			c0.13	0.01	0.28		0.02	0.05		0.02
v/c Ratio		0.27			0.66	0.06	0.44	0.75	0.03	0.08	0.49	0.04
Uniform Delay, d1		17.4			19.0	16.7	4.8	6.6	3.5	3.7	5.0	3.6
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.5			5.3	0.1	1.2	1.5	0.0	0.2	0.2	0.0
Delay (s)		17.9			24.3	16.8	6.0	8.1	3.6	3.9	5.2	3.6
Level of Service		B			C	B	A	A	A	A	A	A
Approach Delay (s)		17.9			23.1			7.8			5.1	
Approach LOS		B			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	50.8	Sum of lost time (s)	9.0
Intersection Capacity Utilization	74.1%	ICU Level of Service	D
Analysis Period (min)	15		

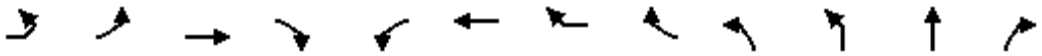
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SER2
Lane Group Flow (vph)	81	1387	54	59	1330	171	93	254	35	212	723	59
v/c Ratio	0.79	0.75	0.06	0.66	0.72	0.19	0.74	0.40	0.10	0.86	0.56	0.05
Control Delay	70.4	20.2	2.1	57.9	19.3	4.8	65.8	32.4	2.0	69.5	22.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.4	20.2	2.1	57.9	19.3	4.8	65.8	32.4	2.0	69.5	22.9	0.1
Queue Length 50th (ft)	35	304	0	23	284	13	48	63	0	116	158	0
Queue Length 95th (ft)	#130	420	12	#99	392	47	#114	98	6	#251	211	0
Internal Link Dist (ft)		1180			1126			889			889	
Turn Bay Length (ft)	100		80	120		60	90		160	110		
Base Capacity (vph)	103	1847	861	89	1847	884	165	834	429	247	1488	1171
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.75	0.06	0.66	0.72	0.19	0.56	0.30	0.08	0.86	0.49	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	1	74	1276	50	54	1224	44	113	51	35	234	32
Future Volume (vph)	1	74	1276	50	54	1224	44	113	51	35	234	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5	4.5	4.5			4.5	4.5	4.5
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95	1.00			1.00	0.95	1.00
Frt		1.00	1.00	0.85	1.00	1.00	0.85			1.00	1.00	0.85
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00			0.95	1.00	1.00
Satd. Flow (prot)		1770	3539	1583	1770	3539	1583			1770	3539	1583
Flt Permitted		0.11	1.00	1.00	0.09	1.00	1.00			0.38	1.00	1.00
Satd. Flow (perm)		198	3539	1583	172	3539	1583			702	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	80	1387	54	59	1330	48	123	55	38	254	35
RTOR Reduction (vph)	0	0	0	26	0	0	59	0	0	0	0	29
Lane Group Flow (vph)	0	81	1387	28	59	1330	112	0	0	93	254	6
Turn Type	Perm	Perm	NA	Perm	Perm	NA	Perm		Perm	Perm	NA	Perm
Protected Phases			4			8					2	
Permitted Phases	4	4		4	8		8		2	2		2
Actuated Green, G (s)		44.6	44.6	44.6	44.6	44.6	44.6			15.5	15.5	15.5
Effective Green, g (s)		44.6	44.6	44.6	44.6	44.6	44.6			15.5	15.5	15.5
Actuated g/C Ratio		0.52	0.52	0.52	0.52	0.52	0.52			0.18	0.18	0.18
Clearance Time (s)		4.5	4.5	4.5	4.5	4.5	4.5			4.5	4.5	4.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)		103	1846	825	89	1846	825			127	641	286
v/s Ratio Prot			0.39			0.38					0.07	
v/s Ratio Perm		c0.41		0.02	0.34		0.07			c0.13		0.00
v/c Ratio		0.79	0.75	0.03	0.66	0.72	0.14			0.73	0.40	0.02
Uniform Delay, d1		16.6	16.1	10.0	15.0	15.7	10.5			33.0	30.9	28.8
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00
Incremental Delay, d2		31.6	1.8	0.0	17.0	1.4	0.1			19.4	0.4	0.0
Delay (s)		48.2	17.9	10.0	32.0	17.1	10.6			52.5	31.3	28.8
Level of Service		D	B	A	C	B	B			D	C	C
Approach Delay (s)			19.2			16.9					36.2	
Approach LOS			B			B					D	

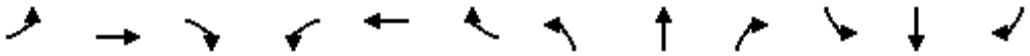
Intersection Summary			
HCM 2000 Control Delay	22.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	85.5	Sum of lost time (s)	13.5
Intersection Capacity Utilization	77.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	SBL	SBT	SBR	SBR2	SER2
Lane Configurations					
Traffic Volume (vph)	195	587	78	0	54
Future Volume (vph)	195	587	78	0	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5
Lane Util. Factor	1.00	0.95			1.00
Frt	1.00	0.98			0.86
Flt Protected	0.95	1.00			1.00
Satd. Flow (prot)	1770	3477			1611
Flt Permitted	0.95	1.00			1.00
Satd. Flow (perm)	1770	3477			1611
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	212	638	85	0	59
RTOR Reduction (vph)	0	0	0	0	28
Lane Group Flow (vph)	212	723	0	0	31
Turn Type	Prot	NA		Perm	Perm
Protected Phases	1	6			
Permitted Phases				6	4
Actuated Green, G (s)	11.9	31.9			44.6
Effective Green, g (s)	11.9	31.9			44.6
Actuated g/C Ratio	0.14	0.37			0.52
Clearance Time (s)	4.5	4.5			4.5
Vehicle Extension (s)	3.0	3.0			3.0
Lane Grp Cap (vph)	246	1297			840
v/s Ratio Prot	c0.12	0.21			
v/s Ratio Perm					0.02
v/c Ratio	0.86	0.56			0.04
Uniform Delay, d1	36.0	21.2			10.0
Progression Factor	1.00	1.00			1.00
Incremental Delay, d2	25.2	0.5			0.0
Delay (s)	61.2	21.7			10.0
Level of Service	E	C			A
Approach Delay (s)		30.7			
Approach LOS		C			

Intersection Summary

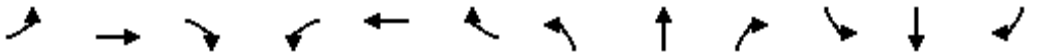


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	67	1234	183	67	1085	143	167	1054	174	248	1657	268
v/c Ratio	0.99	1.05	0.31	0.99	0.92	0.24	0.99	0.79	0.26	0.84	1.04	0.36
Control Delay	146.5	77.1	13.6	146.5	49.4	9.9	118.8	35.8	11.4	68.7	64.5	16.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	146.5	77.1	13.6	146.5	49.4	9.9	118.8	35.8	11.4	68.7	64.5	16.7
Queue Length 50th (ft)	47	~501	39	47	386	19	120	350	32	169	~667	92
Queue Length 95th (ft)	#141	#637	94	#141	#518	64	#259	436	82	#290	#805	156
Internal Link Dist (ft)		1029			1030			868			853	
Turn Bay Length (ft)	90		40	240		60	160		140	165		
Base Capacity (vph)	68	1174	594	68	1174	594	168	1339	663	318	1592	745
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.99	1.05	0.31	0.99	0.92	0.24	0.99	0.79	0.26	0.78	1.04	0.36

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	1135	168	62	998	132	154	970	160	228	1524	247
Future Volume (vph)	62	1135	168	62	998	132	154	970	160	228	1524	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.11	1.00	1.00	0.11	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	204	3539	1583	204	3539	1583	1770	3539	1583	1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	67	1234	183	67	1085	143	167	1054	174	248	1657	268
RTOR Reduction (vph)	0	0	69	0	0	69	0	0	65	0	0	33
Lane Group Flow (vph)	67	1234	114	67	1085	74	167	1054	109	248	1657	235
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	36.5	36.5	36.5	36.5	36.5	36.5	10.5	41.6	41.6	18.4	49.5	49.5
Effective Green, g (s)	36.5	36.5	36.5	36.5	36.5	36.5	10.5	41.6	41.6	18.4	49.5	49.5
Actuated g/C Ratio	0.33	0.33	0.33	0.33	0.33	0.33	0.10	0.38	0.38	0.17	0.45	0.45
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	67	1174	525	67	1174	525	168	1338	598	296	1592	712
v/s Ratio Prot		c0.35			0.31		0.09	0.30		c0.14	c0.47	
v/s Ratio Perm	0.33		0.07	0.33		0.05			0.07			0.15
v/c Ratio	1.00	1.05	0.22	1.00	0.92	0.14	0.99	0.79	0.18	0.84	1.04	0.33
Uniform Delay, d1	36.8	36.8	26.5	36.8	35.4	25.8	49.7	30.3	22.8	44.4	30.2	19.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	110.0	40.8	0.2	110.0	12.0	0.1	67.3	3.2	0.1	18.3	34.0	0.3
Delay (s)	146.7	77.5	26.7	146.7	47.5	25.9	117.1	33.4	23.0	62.6	64.2	19.8
Level of Service	F	E	C	F	D	C	F	C	C	E	E	B
Approach Delay (s)		74.4			50.2			42.1			58.6	
Approach LOS		E			D			D			E	

Intersection Summary			
HCM 2000 Control Delay	56.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	101.2%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

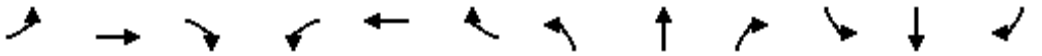


Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1592	124	887	242	648
v/c Ratio	0.91	0.74	0.52	0.39	1.03
Control Delay	26.2	55.4	10.8	16.2	62.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	26.2	55.4	10.8	16.2	62.4
Queue Length 50th (ft)	169	41	92	59	~214
Queue Length 95th (ft)	#268	#117	134	111	#390
Internal Link Dist (ft)	987		993		
Turn Bay Length (ft)		140		380	
Base Capacity (vph)	1756	167	1843	620	632
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.91	0.74	0.48	0.39	1.03

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1180	284	114	816	0	0	0	0	223	0	596
Future Volume (vph)	0	1180	284	114	816	0	0	0	0	223	0	596
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5					4.5		4.5
Lane Util. Factor		0.91		1.00	0.95					1.00		1.00
Frt		0.97		1.00	1.00					1.00		0.85
Flt Protected		1.00		0.95	1.00					0.95		1.00
Satd. Flow (prot)		4937		1770	3539					1770		1583
Flt Permitted		1.00		0.95	1.00					0.95		1.00
Satd. Flow (perm)		4937		1770	3539					1770		1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1283	309	124	887	0	0	0	0	242	0	648
RTOR Reduction (vph)	0	73	0	0	0	0	0	0	0	0	0	78
Lane Group Flow (vph)	0	1519	0	124	887	0	0	0	0	242	0	570
Turn Type		NA		Prot	NA					Perm		Perm
Protected Phases		4		3	8							
Permitted Phases										6		6
Actuated Green, G (s)		18.1		3.9	26.5					18.6		18.6
Effective Green, g (s)		18.1		3.9	26.5					18.6		18.6
Actuated g/C Ratio		0.33		0.07	0.49					0.34		0.34
Clearance Time (s)		4.5		4.5	4.5					4.5		4.5
Vehicle Extension (s)		3.0		3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		1651		127	1733					608		544
v/s Ratio Prot		c0.31		c0.07	0.25							
v/s Ratio Perm										0.14		c0.36
v/c Ratio		0.92		0.98	0.51					0.40		1.05
Uniform Delay, d1		17.3		25.1	9.4					13.5		17.8
Progression Factor		1.00		1.00	1.00					1.00		1.00
Incremental Delay, d2		8.6		71.9	0.3					0.4		51.6
Delay (s)		26.0		96.9	9.7					13.9		69.4
Level of Service		C		F	A					B		E
Approach Delay (s)		26.0			20.4			0.0			54.3	
Approach LOS		C			C			A			D	

Intersection Summary			
HCM 2000 Control Delay	31.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	54.1	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		

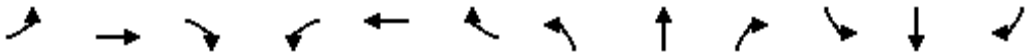
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	8	959	889	162	1253	40	89
v/c Ratio	0.04	0.51	0.72	0.48	0.34	0.13	0.25
Control Delay	9.6	11.5	6.2	25.3	3.5	18.9	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.6	11.5	6.2	25.3	3.5	18.9	5.8
Queue Length 50th (ft)	1	102	7	41	39	10	0
Queue Length 95th (ft)	8	164	#130	#106	64	30	23
Internal Link Dist (ft)		806			1980		
Turn Bay Length (ft)	45		160	55			660
Base Capacity (vph)	203	1829	1225	352	3724	915	870
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.52	0.73	0.46	0.34	0.04	0.10

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	882	818	149	1153	0	37	0	82	0	0	0
Future Volume (vph)	7	882	818	149	1153	0	37	0	82	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5			
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91		1.00		1.00			
Frt	1.00	1.00	0.85	1.00	1.00		1.00		0.85			
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95		1.00			
Satd. Flow (prot)	1770	3539	1583	1770	5085		1770		1583			
Flt Permitted	0.21	1.00	1.00	0.95	1.00		0.95		1.00			
Satd. Flow (perm)	392	3539	1583	1770	5085		1770		1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	959	889	162	1253	0	40	0	89	0	0	0
RTOR Reduction (vph)	0	0	453	0	0	0	0	0	79	0	0	0
Lane Group Flow (vph)	8	959	436	162	1253	0	40	0	10	0	0	0
Turn Type	Perm	NA	Perm	Prot	NA		Perm		Perm			
Protected Phases		4		3	8							
Permitted Phases	4		4				2		2			
Actuated Green, G (s)	20.4	20.4	20.4	5.3	30.2		4.9		4.9			
Effective Green, g (s)	20.4	20.4	20.4	5.3	30.2		4.9		4.9			
Actuated g/C Ratio	0.46	0.46	0.46	0.12	0.68		0.11		0.11			
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0		3.0			
Lane Grp Cap (vph)	181	1637	732	212	3482		196		175			
v/s Ratio Prot		0.27		c0.09	0.25							
v/s Ratio Perm	0.02		c0.28				c0.02		0.01			
v/c Ratio	0.04	0.59	0.60	0.76	0.36		0.20		0.06			
Uniform Delay, d1	6.5	8.7	8.8	18.8	2.9		17.8		17.5			
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00		1.00			
Incremental Delay, d2	0.1	0.5	1.3	15.0	0.1		0.5		0.1			
Delay (s)	6.6	9.3	10.1	33.8	3.0		18.3		17.7			
Level of Service	A	A	B	C	A		B		B			
Approach Delay (s)		9.7			6.5			17.9			0.0	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	8.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	44.1	Sum of lost time (s)	13.5
Intersection Capacity Utilization	66.4%	ICU Level of Service	C
Analysis Period (min)	15		

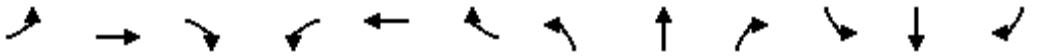
c Critical Lane Group



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	133	951	18	796	395	86	17	54	540
v/c Ratio	0.49	0.52	0.09	0.65	0.49	0.21	0.03	0.14	0.79
Control Delay	31.5	9.3	16.1	18.6	4.5	16.0	0.1	15.1	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	9.3	16.1	18.6	4.5	16.0	0.1	15.1	16.3
Queue Length 50th (ft)	41	83	4	111	0	21	0	13	54
Queue Length 95th (ft)	#110	156	18	191	53	49	0	34	157
Internal Link Dist (ft)		1980		560		847		971	
Turn Bay Length (ft)	70		100		160		40		620
Base Capacity (vph)	295	2262	231	1459	885	662	782	623	907
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.42	0.08	0.55	0.45	0.13	0.02	0.09	0.60

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	122	836	39	17	732	363	59	20	16	47	3	497
Future Volume (vph)	122	836	39	17	732	363	59	20	16	47	3	497
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5		4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.96	1.00		0.95	1.00
Satd. Flow (prot)	1770	3516		1770	3539	1583		1796	1583		1779	1583
Flt Permitted	0.95	1.00		0.30	1.00	1.00		0.78	1.00		0.73	1.00
Satd. Flow (perm)	1770	3516		560	3539	1583		1449	1583		1365	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	133	909	42	18	796	395	64	22	17	51	3	540
RTOR Reduction (vph)	0	5	0	0	0	259	0	0	12	0	0	245
Lane Group Flow (vph)	133	946	0	18	796	136	0	86	5	0	54	295
Turn Type	Prot	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases				8		8	2		2	6		6
Actuated Green, G (s)	5.4	27.1		17.2	17.2	17.2		13.8	13.8		13.8	13.8
Effective Green, g (s)	5.4	27.1		17.2	17.2	17.2		13.8	13.8		13.8	13.8
Actuated g/C Ratio	0.11	0.54		0.34	0.34	0.34		0.28	0.28		0.28	0.28
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5		4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	191	1909		193	1219	545		400	437		377	437
v/s Ratio Prot	c0.08	0.27			c0.22							
v/s Ratio Perm				0.03		0.09		0.06	0.00		0.04	c0.19
v/c Ratio	0.70	0.50		0.09	0.65	0.25		0.21	0.01		0.14	0.68
Uniform Delay, d1	21.5	7.1		11.1	13.8	11.7		13.9	13.1		13.6	16.1
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	10.5	0.2		0.2	1.3	0.2		0.3	0.0		0.2	4.1
Delay (s)	32.0	7.3		11.3	15.1	12.0		14.2	13.1		13.8	20.2
Level of Service	C	A		B	B	B		B	B		B	C
Approach Delay (s)		10.4			14.0			14.0			19.6	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	49.9	Sum of lost time (s)	13.5
Intersection Capacity Utilization	66.6%	ICU Level of Service	C
Analysis Period (min)	15		

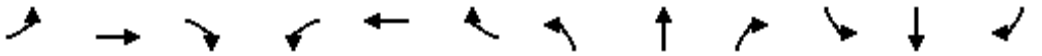
c Critical Lane Group



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	395	122	165	93	490	361	138	687	490
v/c Ratio	0.97	0.26	0.71	0.29	0.97	0.28	0.66	0.95	0.71
Control Delay	82.7	6.5	65.5	4.7	74.8	26.6	64.6	69.1	11.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.7	6.5	65.5	4.7	74.8	26.6	64.6	69.1	11.9
Queue Length 50th (ft)	299	0	121	0	368	97	101	273	21
Queue Length 95th (ft)	#512	41	196	18	#601	146	168	#404	136
Internal Link Dist (ft)	835		755			938		874	
Turn Bay Length (ft)				80	290		100		200
Base Capacity (vph)	409	463	283	358	507	1306	264	726	688
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.26	0.58	0.26	0.97	0.28	0.52	0.95	0.71

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	233	131	112	41	110	86	451	294	38	127	632	451
Future Volume (vph)	233	131	112	41	110	86	451	294	38	127	632	451
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected		0.97	1.00		0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1805	1583		1838	1583	1770	3479		1770	3539	1583
Flt Permitted		0.97	1.00		0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1805	1583		1838	1583	1770	3479		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	253	142	122	45	120	93	490	320	41	138	687	490
RTOR Reduction (vph)	0	0	94	0	0	81	0	8	0	0	0	363
Lane Group Flow (vph)	0	395	28	0	165	12	490	353	0	138	687	127
Turn Type	Split	NA	Prot	Split	NA	Prot	Prot	NA		Prot	NA	Perm
Protected Phases	4	4	4	8	8	8	5	2		1	6	
Permitted Phases												6
Actuated Green, G (s)		26.5	26.5		14.9	14.9	33.5	43.7		13.9	24.1	24.1
Effective Green, g (s)		26.5	26.5		14.9	14.9	33.5	43.7		13.9	24.1	24.1
Actuated g/C Ratio		0.23	0.23		0.13	0.13	0.29	0.37		0.12	0.21	0.21
Clearance Time (s)		4.5	4.5		4.5	4.5	4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		408	358		234	201	506	1299		210	728	326
v/s Ratio Prot		c0.22	0.02		c0.09	0.01	c0.28	0.10		0.08	c0.19	
v/s Ratio Perm												0.08
v/c Ratio		0.97	0.08		0.71	0.06	0.97	0.27		0.66	0.94	0.39
Uniform Delay, d1		44.8	35.6		48.9	44.9	41.2	25.6		49.3	45.8	40.1
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		35.8	0.1		9.3	0.1	32.9	0.5		7.2	22.1	3.5
Delay (s)		80.7	35.7		58.2	45.0	74.1	26.1		56.5	67.9	43.6
Level of Service		F	D		E	D	E	C		E	E	D
Approach Delay (s)		70.1			53.5			53.7			57.6	
Approach LOS		E			D			D			E	

Intersection Summary			
HCM 2000 Control Delay	58.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	117.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	85.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

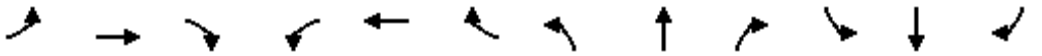


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	80	958	280	115	844	114	1143	220	249	1716	51
v/c Ratio	0.75	0.92	0.48	1.08	0.82	0.90	0.89	0.32	0.94	1.10	0.07
Control Delay	68.0	40.5	10.9	143.8	30.3	95.5	31.3	6.4	75.1	75.1	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.0	40.5	10.9	143.8	30.3	95.5	31.3	6.4	75.1	75.1	1.1
Queue Length 50th (ft)	31	208	33	~57	171	50	237	16	108	~450	0
Queue Length 95th (ft)	#104	#324	95	#151	#262	#140	#358	58	#238	#580	7
Internal Link Dist (ft)		987			1124		1174			1214	
Turn Bay Length (ft)	100		100	140		185		80	110		
Base Capacity (vph)	106	1036	588	106	1033	126	1289	680	265	1567	753
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.92	0.48	1.08	0.82	0.90	0.89	0.32	0.94	1.10	0.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	881	258	106	671	106	105	1052	202	229	1579	47
Future Volume (vph)	74	881	258	106	671	106	105	1052	202	229	1579	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3467		1770	3539	1583	1770	3539	1583
Flt Permitted	0.20	1.00	1.00	0.20	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	363	3539	1583	363	3467		1770	3539	1583	1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	80	958	280	115	729	115	114	1143	220	249	1716	51
RTOR Reduction (vph)	0	0	125	0	18	0	0	0	104	0	0	28
Lane Group Flow (vph)	80	958	155	115	826	0	114	1143	116	249	1716	23
Turn Type	Perm	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	20.5	20.5	20.5	20.5	20.5		5.0	25.5	25.5	10.5	31.0	31.0
Effective Green, g (s)	20.5	20.5	20.5	20.5	20.5		5.0	25.5	25.5	10.5	31.0	31.0
Actuated g/C Ratio	0.29	0.29	0.29	0.29	0.29		0.07	0.36	0.36	0.15	0.44	0.44
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	106	1036	463	106	1015		126	1289	576	265	1567	701
v/s Ratio Prot		0.27			0.24		0.06	0.32		c0.14	c0.48	
v/s Ratio Perm	0.22		0.10	c0.32					0.07			0.01
v/c Ratio	0.75	0.92	0.33	1.08	0.81		0.90	0.89	0.20	0.94	1.10	0.03
Uniform Delay, d1	22.5	24.0	19.4	24.8	23.0		32.3	20.9	15.3	29.4	19.5	11.0
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	25.8	13.3	0.4	112.1	5.1		51.7	7.7	0.2	38.7	53.4	0.0
Delay (s)	48.3	37.4	19.8	136.9	28.1		83.9	28.6	15.4	68.1	72.9	11.0
Level of Service	D	D	B	F	C		F	C	B	E	E	B
Approach Delay (s)		34.3			41.1			30.9			70.7	
Approach LOS		C			D			C			E	

Intersection Summary			
HCM 2000 Control Delay	47.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	94.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

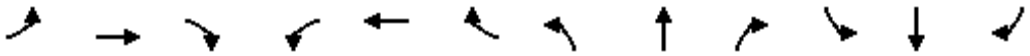


Lane Group	EBT	EBR	WBL	WBT	SBT
Lane Group Flow (vph)	1674	224	173	947	1175
v/c Ratio	1.02	0.27	0.89	0.46	1.03
Control Delay	54.2	5.2	62.4	13.1	63.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	54.2	5.2	62.4	13.1	63.9
Queue Length 50th (ft)	~570	17	59	171	~392
Queue Length 95th (ft)	#735	59	#185	218	#526
Internal Link Dist (ft)	979			732	799
Turn Bay Length (ft)		230	160		
Base Capacity (vph)	1645	829	194	2045	1145
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.02	0.27	0.89	0.46	1.03

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1540	206	159	871	0	0	0	0	546	8	527
Future Volume (vph)	0	1540	206	159	871	0	0	0	0	546	8	527
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5						4.5	
Lane Util. Factor		0.95	1.00	1.00	0.95						0.95	
Frt		1.00	0.85	1.00	1.00						0.93	
Flt Protected		1.00	1.00	0.95	1.00						0.98	
Satd. Flow (prot)		3539	1583	1770	3539						3200	
Flt Permitted		1.00	1.00	0.08	1.00						0.98	
Satd. Flow (perm)		3539	1583	146	3539						3200	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1674	224	173	947	0	0	0	0	593	9	573
RTOR Reduction (vph)	0	0	94	0	0	0	0	0	0	0	84	0
Lane Group Flow (vph)	0	1674	130	173	947	0	0	0	0	0	1092	0
Turn Type		NA	custom	pm+pt	NA					custom	NA	
Protected Phases				3	8							
Permitted Phases		4	4	8						6	6	
Actuated Green, G (s)		46.5	46.5	57.8	57.8						33.2	
Effective Green, g (s)		46.5	46.5	57.8	57.8						33.2	
Actuated g/C Ratio		0.46	0.46	0.58	0.58						0.33	
Clearance Time (s)		4.5	4.5	4.5	4.5						4.5	
Vehicle Extension (s)		3.0	3.0	3.0	3.0						3.0	
Lane Grp Cap (vph)		1645	736	194	2045						1062	
v/s Ratio Prot				c0.06	0.27							
v/s Ratio Perm		c0.47	0.08	0.45							c0.34	
v/c Ratio		1.02	0.18	0.89	0.46						1.03	
Uniform Delay, d1		26.8	15.6	25.8	12.2						33.4	
Progression Factor		1.00	1.00	1.00	1.00						1.00	
Incremental Delay, d2		26.7	0.1	36.2	0.2						34.9	
Delay (s)		53.5	15.7	61.9	12.3						68.3	
Level of Service		D	B	E	B						E	
Approach Delay (s)		49.0			20.0			0.0			68.3	
Approach LOS		D			B			A			E	

Intersection Summary			
HCM 2000 Control Delay	46.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	95.7%	ICU Level of Service	F
Analysis Period (min)	15		

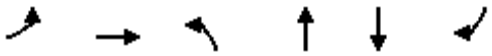
c Critical Lane Group

Intersection	
Intersection Delay, s/veh	184.2
Intersection LOS	F

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	462	152	0	56	415	0	671	130
Future Vol, veh/h	0	462	152	0	56	415	0	671	130
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	502	165	0	61	451	0	729	141
Number of Lanes	0	2	1	0	1	1	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	3	0
HCM Control Delay	20.4	58.2	383.8
HCM LOS	C	F	F

Lane	NBLn1	NBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	100%	0%	94%	0%
Vol Thru, %	100%	0%	0%	0%	0%	6%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	56	415	231	231	152	714	87
LT Vol	0	0	231	231	0	671	0
Through Vol	56	0	0	0	0	43	87
RT Vol	0	415	0	0	152	0	0
Lane Flow Rate	61	451	251	251	165	776	94
Geometry Grp	8	8	7	7	7	8	8
Degree of Util (X)	0.14	0.952	0.568	0.568	0.239	1.887	0.216
Departure Headway (Hd)	9.784	9.051	9.297	9.297	6.229	8.748	8.265
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	369	406	392	392	580	419	432
Service Time	7.484	6.751	6.997	6.997	3.929	6.537	6.053
HCM Lane V/C Ratio	0.165	1.111	0.64	0.64	0.284	1.852	0.218
HCM Control Delay	14.1	64.1	23.5	23.5	10.9	428.7	13.3
HCM Lane LOS	B	F	C	C	B	F	B
HCM 95th-tile Q	0.5	10.8	3.4	3.4	0.9	50.8	0.8



Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	284	259	746	530	936	267
v/c Ratio	0.74	0.52	0.87	0.23	0.82	0.39
Control Delay	36.8	10.9	37.2	5.9	30.0	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.8	10.9	37.2	5.9	30.0	4.7
Queue Length 50th (ft)	114	23	157	46	198	0
Queue Length 95th (ft)	#198	85	#251	70	#307	48
Internal Link Dist (ft)		639		679	675	
Turn Bay Length (ft)	340		240			250
Base Capacity (vph)	449	555	892	2259	1135	689
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.47	0.84	0.23	0.82	0.39

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
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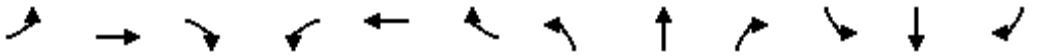


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	323	0	177	0	0	0	686	488	0	0	861	246
Future Volume (vph)	323	0	177	0	0	0	686	488	0	0	861	246
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5					4.5	4.5			4.5	4.5
Lane Util. Factor	0.95	0.95					0.97	0.95			0.95	1.00
Frt	1.00	0.89					1.00	1.00			1.00	0.85
Flt Protected	0.95	0.99					0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1553					3433	3539			3539	1583
Flt Permitted	0.95	0.99					0.95	1.00			1.00	1.00
Satd. Flow (perm)	1681	1553					3433	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	351	0	192	0	0	0	746	530	0	0	936	267
RTOR Reduction (vph)	0	148	0	0	0	0	0	0	0	0	0	181
Lane Group Flow (vph)	284	111	0	0	0	0	746	530	0	0	936	86
Turn Type	Perm	NA					Prot	NA			NA	Perm
Protected Phases		4					5	2			6	
Permitted Phases	4											6
Actuated Green, G (s)	15.4	15.4					16.9	43.1			21.7	21.7
Effective Green, g (s)	15.4	15.4					16.9	43.1			21.7	21.7
Actuated g/C Ratio	0.23	0.23					0.25	0.64			0.32	0.32
Clearance Time (s)	4.5	4.5					4.5	4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0					3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	383	354					859	2259			1137	508
v/s Ratio Prot							c0.22	0.15			c0.26	
v/s Ratio Perm	c0.17	0.07										0.05
v/c Ratio	0.74	0.31					0.87	0.23			0.82	0.17
Uniform Delay, d1	24.2	21.7					24.2	5.2			21.1	16.4
Progression Factor	1.00	1.00					1.00	1.00			1.00	1.00
Incremental Delay, d2	7.5	0.5					9.3	0.2			6.8	0.7
Delay (s)	31.7	22.2					33.5	5.4			27.9	17.1
Level of Service	C	C					C	A			C	B
Approach Delay (s)		27.2			0.0			21.9			25.5	
Approach LOS		C			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	24.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	67.5	Sum of lost time (s)	13.5
Intersection Capacity Utilization	69.0%	ICU Level of Service	C
Analysis Period (min)	15		

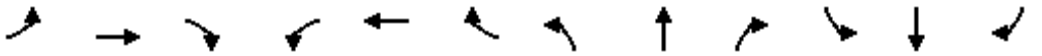
c Critical Lane Group



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	67	67	386	390	968	1474	468
v/c Ratio	0.15	0.15	0.79	0.76	0.47	0.82	0.54
Control Delay	16.6	16.6	26.9	35.8	8.3	22.6	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.6	16.6	26.9	35.8	8.3	22.6	4.5
Queue Length 50th (ft)	17	17	86	70	98	175	0
Queue Length 95th (ft)	44	44	#200	#134	144	#262	55
Internal Link Dist (ft)		585			691	966	
Turn Bay Length (ft)	320		320	160			
Base Capacity (vph)	534	534	578	515	2064	1797	862
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.13	0.67	0.76	0.47	0.82	0.54

Intersection Summary

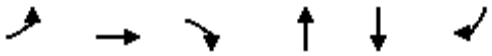
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	123	0	355	359	891	0	0	1356	431
Future Volume (vph)	0	0	0	123	0	355	359	891	0	0	1356	431
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.5	4.5	4.5	4.5	4.5			4.5	4.5
Lane Util. Factor				0.95	0.95	1.00	0.97	0.95			0.91	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1681	1583	3433	3539			5085	1583
Flt Permitted				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1681	1583	3433	3539			5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	134	0	386	390	968	0	0	1474	468
RTOR Reduction (vph)	0	0	0	0	0	81	0	0	0	0	0	302
Lane Group Flow (vph)	0	0	0	67	67	305	390	968	0	0	1474	166
Turn Type				Perm	NA	Perm	Prot	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Actuated Green, G (s)				14.6	14.6	14.6	8.5	33.2			20.2	20.2
Effective Green, g (s)				14.6	14.6	14.6	8.5	33.2			20.2	20.2
Actuated g/C Ratio				0.26	0.26	0.26	0.15	0.58			0.36	0.36
Clearance Time (s)				4.5	4.5	4.5	4.5	4.5			4.5	4.5
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				432	432	406	513	2068			1808	562
v/s Ratio Prot							c0.11	0.27			c0.29	
v/s Ratio Perm				0.04	0.04	c0.19						0.11
v/c Ratio				0.16	0.16	0.75	0.76	0.47			0.82	0.30
Uniform Delay, d1				16.3	16.3	19.4	23.2	6.7			16.6	13.2
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2				0.2	0.2	7.6	6.5	0.8			4.2	1.3
Delay (s)				16.5	16.5	27.1	29.7	7.5			20.8	14.5
Level of Service				B	B	C	C	A			C	B
Approach Delay (s)		0.0			24.3			13.9			19.3	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	56.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	54.1%	ICU Level of Service	A
Analysis Period (min)	15		

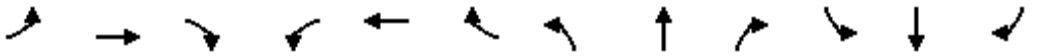
c Critical Lane Group



Lane Group	EBL	EBT	EBR	NBT	SBT	SBR
Lane Group Flow (vph)	268	120	377	1264	1168	447
v/c Ratio	0.26	0.11	0.75	0.68	0.62	0.43
Control Delay	14.3	13.1	24.7	11.7	11.2	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.3	13.1	24.7	11.7	11.2	2.4
Queue Length 50th (ft)	31	13	89	147	135	0
Queue Length 95th (ft)	54	28	#176	215	195	36
Internal Link Dist (ft)		671		711	691	
Turn Bay Length (ft)						
Base Capacity (vph)	1222	1260	593	1856	1873	1048
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.10	0.64	0.68	0.62	0.43

Intersection Summary

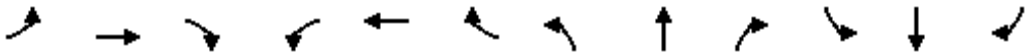
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	247	110	347	0	0	0	0	1004	159	0	1075	411
Future Volume (vph)	247	110	347	0	0	0	0	1004	159	0	1075	411
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5					4.5			4.5	4.5
Lane Util. Factor	0.97	0.95	1.00					0.95			0.95	1.00
Frt	1.00	1.00	0.85					0.98			1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00			1.00	1.00
Satd. Flow (prot)	3433	3539	1583					3467			3539	1583
Flt Permitted	0.95	1.00	1.00					1.00			1.00	1.00
Satd. Flow (perm)	3433	3539	1583					3467			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	268	120	377	0	0	0	0	1091	173	0	1168	447
RTOR Reduction (vph)	0	0	33	0	0	0	0	22	0	0	0	210
Lane Group Flow (vph)	268	120	344	0	0	0	0	1242	0	0	1168	237
Turn Type	Split	NA	Perm				Perm	NA			NA	Perm
Protected Phases	4	4						2			6	
Permitted Phases			4				2					6
Actuated Green, G (s)	15.5	15.5	15.5					27.6			27.6	27.6
Effective Green, g (s)	15.5	15.5	15.5					27.6			27.6	27.6
Actuated g/C Ratio	0.30	0.30	0.30					0.53			0.53	0.53
Clearance Time (s)	4.5	4.5	4.5					4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	3.0
Lane Grp Cap (vph)	1021	1052	470					1836			1874	838
v/s Ratio Prot	0.08	0.03						c0.36			0.33	
v/s Ratio Perm			c0.22									0.15
v/c Ratio	0.26	0.11	0.73					0.68			0.62	0.28
Uniform Delay, d1	13.9	13.3	16.4					9.0			8.6	6.8
Progression Factor	1.00	1.00	1.00					1.00			1.00	1.00
Incremental Delay, d2	0.1	0.0	5.8					2.0			1.6	0.8
Delay (s)	14.1	13.4	22.2					11.0			10.2	7.6
Level of Service	B	B	C					B			B	A
Approach Delay (s)		18.0			0.0			11.0			9.5	
Approach LOS		B			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	11.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	52.1	Sum of lost time (s)	9.0
Intersection Capacity Utilization	58.7%	ICU Level of Service	B
Analysis Period (min)	15		

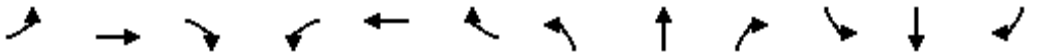
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	211	1151	241	168	1077	103	98	1116	165	195	1746	388
v/c Ratio	0.93	0.94	0.50	0.92	0.98	0.23	0.83	0.93	0.26	0.95	0.88	0.51
Control Delay	86.1	49.0	18.0	91.7	58.5	5.0	90.8	43.6	4.8	92.2	32.3	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.1	49.0	18.0	91.7	58.5	5.0	90.8	43.6	4.8	92.2	32.3	10.8
Queue Length 50th (ft)	121	235	53	96	224	0	56	318	1	112	331	60
Queue Length 95th (ft)	#254	#324	126	#217	#317	28	#146	#452	42	#242	398	142
Internal Link Dist (ft)		1026			1032			984			943	
Turn Bay Length (ft)	175		25	200		200	160		215	140		120
Base Capacity (vph)	226	1226	478	182	1101	442	118	1199	644	206	1977	756
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.94	0.50	0.92	0.98	0.23	0.83	0.93	0.26	0.95	0.88	0.51

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	194	1059	222	155	991	95	90	1027	152	179	1606	357
Future Volume (vph)	194	1059	222	155	991	95	90	1027	152	179	1606	357
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	211	1151	241	168	1077	103	98	1116	165	195	1746	388
RTOR Reduction (vph)	0	0	96	0	0	81	0	0	108	0	0	141
Lane Group Flow (vph)	211	1151	145	168	1077	22	98	1116	57	195	1746	247
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	11.5	21.7	21.7	9.3	19.5	19.5	6.0	30.5	30.5	10.5	35.0	35.0
Effective Green, g (s)	11.5	21.7	21.7	9.3	19.5	19.5	6.0	30.5	30.5	10.5	35.0	35.0
Actuated g/C Ratio	0.13	0.24	0.24	0.10	0.22	0.22	0.07	0.34	0.34	0.12	0.39	0.39
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	226	1226	381	182	1101	342	118	1199	536	206	1977	615
v/s Ratio Prot	c0.12	c0.23		0.09	0.21		0.06	0.32		c0.11	c0.34	
v/s Ratio Perm			0.09			0.01			0.04			0.16
v/c Ratio	0.93	0.94	0.38	0.92	0.98	0.07	0.83	0.93	0.11	0.95	0.88	0.40
Uniform Delay, d1	38.9	33.5	28.5	40.0	35.0	28.0	41.5	28.7	20.4	39.5	25.6	19.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	41.6	13.4	0.6	45.0	21.7	0.1	36.7	12.7	0.1	47.2	5.1	0.4
Delay (s)	80.5	46.9	29.2	85.0	56.8	28.1	78.2	41.5	20.5	86.7	30.7	20.4
Level of Service	F	D	C	F	E	C	E	D	C	F	C	C
Approach Delay (s)		48.7			58.1			41.6			33.6	
Approach LOS		D			E			D			C	

Intersection Summary			
HCM 2000 Control Delay	43.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	83.2%	ICU Level of Service	E
Analysis Period (min)	15		

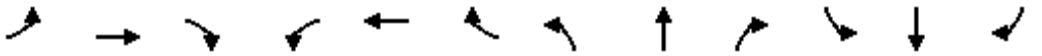
c Critical Lane Group



Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	467	105	32	84	1243	32	36	1785	23
v/c Ratio	0.95	0.25	0.06	0.74	0.63	0.04	0.23	0.91	0.03
Control Delay	55.1	19.1	7.0	53.3	11.6	3.4	12.0	21.6	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.1	19.1	7.0	53.3	11.6	3.4	12.0	21.6	2.9
Queue Length 50th (ft)	175	31	0	22	159	1	7	300	0
Queue Length 95th (ft)	#352	66	17	#100	218	11	24	#483	8
Internal Link Dist (ft)	688	730			772			694	
Turn Bay Length (ft)				80		80	90		
Base Capacity (vph)	491	425	505	116	1989	901	156	1989	900
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.25	0.06	0.72	0.62	0.04	0.23	0.90	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

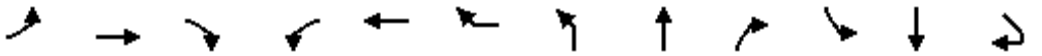


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	148	187	36	61	29	77	1144	29	33	1642	21
Future Volume (vph)	95	148	187	36	61	29	77	1144	29	33	1642	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.94			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99			0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1734			1829	1583	1770	3539	1583	1770	3539	1583
Flt Permitted		0.90			0.75	1.00	0.11	1.00	1.00	0.15	1.00	1.00
Satd. Flow (perm)		1577			1395	1583	208	3539	1583	280	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	103	161	203	39	66	32	84	1243	32	36	1785	23
RTOR Reduction (vph)	0	10	0	0	0	22	0	0	12	0	0	10
Lane Group Flow (vph)	0	457	0	0	105	10	84	1243	20	36	1785	13
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)		19.7			19.7	19.7	35.9	35.9	35.9	35.9	35.9	35.9
Effective Green, g (s)		19.7			19.7	19.7	35.9	35.9	35.9	35.9	35.9	35.9
Actuated g/C Ratio		0.30			0.30	0.30	0.56	0.56	0.56	0.56	0.56	0.56
Clearance Time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		480			425	482	115	1966	879	155	1966	879
v/s Ratio Prot								0.35			c0.50	
v/s Ratio Perm		c0.29			0.08	0.01	0.40		0.01	0.13		0.01
v/c Ratio		0.95			0.25	0.02	0.73	0.63	0.02	0.23	0.91	0.01
Uniform Delay, d1		22.0			16.9	15.7	10.7	9.8	6.5	7.3	12.9	6.4
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		29.3			0.3	0.0	21.0	0.7	0.0	0.8	6.5	0.0
Delay (s)		51.2			17.2	15.7	31.8	10.5	6.5	8.1	19.4	6.4
Level of Service		D			B	B	C	B	A	A	B	A
Approach Delay (s)		51.2			16.8			11.7			19.0	
Approach LOS		D			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	20.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	64.6	Sum of lost time (s)	9.0
Intersection Capacity Utilization	92.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

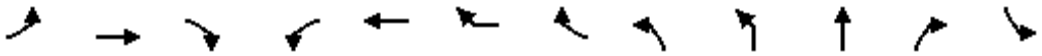
Future Year (2035) With Project



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SER2
Lane Group Flow (vph)	115	1272	38	28	1375	184	86	560	42	113	255	7
v/c Ratio	0.94	0.63	0.04	0.19	0.68	0.19	0.39	0.79	0.11	0.84	0.23	0.01
Control Delay	93.9	14.7	0.7	13.4	15.7	3.7	36.6	43.0	3.4	87.0	22.3	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.9	14.7	0.7	13.4	15.7	3.7	36.6	43.0	3.4	87.0	22.3	0.0
Queue Length 50th (ft)	57	241	0	7	273	12	42	158	0	65	54	0
Queue Length 95th (ft)	#172	308	4	24	348	41	87	217	11	#162	83	0
Internal Link Dist (ft)		1180			1126			889			889	
Turn Bay Length (ft)	100		80	120		60	90		160	110		
Base Capacity (vph)	122	2023	936	150	2023	962	235	753	394	135	1160	1201
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.63	0.04	0.19	0.68	0.19	0.37	0.74	0.11	0.84	0.22	0.01

Intersection Summary

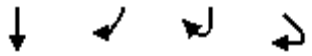
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	106	1170	35	26	1265	48	121	63	17	515	39	104
Future Volume (vph)	106	1170	35	26	1265	48	121	63	17	515	39	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5			4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00			1.00	0.95	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85			1.00	1.00	0.85	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00			0.95	1.00	1.00	0.95
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583			1770	3539	1583	1770
Flt Permitted	0.11	1.00	1.00	0.14	1.00	1.00			0.59	1.00	1.00	0.95
Satd. Flow (perm)	214	3539	1583	262	3539	1583			1106	3539	1583	1770
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	115	1272	38	28	1375	52	132	68	18	560	42	113
RTOR Reduction (vph)	0	0	16	0	0	57	0	0	0	0	34	0
Lane Group Flow (vph)	115	1272	22	28	1375	127	0	0	86	560	8	113
Turn Type	Perm	NA	Perm	Perm	NA	Perm		Perm	Perm	NA	Perm	Prot
Protected Phases		4			8					2		1
Permitted Phases	4		4	8		8		2	2		2	
Actuated Green, G (s)	50.8	50.8	50.8	50.8	50.8	50.8			17.8	17.8	17.8	6.8
Effective Green, g (s)	50.8	50.8	50.8	50.8	50.8	50.8			17.8	17.8	17.8	6.8
Actuated g/C Ratio	0.57	0.57	0.57	0.57	0.57	0.57			0.20	0.20	0.20	0.08
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5			4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	122	2022	904	149	2022	904			221	708	316	135
v/s Ratio Prot		0.36			0.39					c0.16		c0.06
v/s Ratio Perm	c0.54		0.01	0.11		0.08			0.08		0.01	
v/c Ratio	0.94	0.63	0.02	0.19	0.68	0.14			0.39	0.79	0.03	0.84
Uniform Delay, d1	17.7	12.7	8.3	9.1	13.4	8.9			30.8	33.8	28.6	40.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00
Incremental Delay, d2	63.4	0.6	0.0	0.6	1.0	0.1			1.1	6.0	0.0	34.0
Delay (s)	81.1	13.4	8.3	9.8	14.3	9.0			32.0	39.8	28.6	74.6
Level of Service	F	B	A	A	B	A			C	D	C	E
Approach Delay (s)		18.7			13.6					38.1		
Approach LOS		B			B					D		

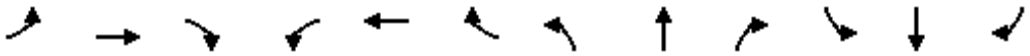
Intersection Summary			
HCM 2000 Control Delay	21.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	88.9	Sum of lost time (s)	13.5
Intersection Capacity Utilization	75.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	SBT	SBR	SBR2	SER2
Lane Configurations				
Traffic Volume (vph)	180	54	0	6
Future Volume (vph)	180	54	0	6
Ideal Flow (vphpl)	1900	1900	1900	1900
Total Lost time (s)	4.5			4.5
Lane Util. Factor	0.95			1.00
Frt	0.97			0.86
Flt Protected	1.00			1.00
Satd. Flow (prot)	3416			1611
Flt Permitted	1.00			1.00
Satd. Flow (perm)	3416			1611
Peak-hour factor, PHF	0.92	0.92	0.92	0.92
Adj. Flow (vph)	196	59	0	7
RTOR Reduction (vph)	0	0	0	3
Lane Group Flow (vph)	255	0	0	4
Turn Type	NA		Perm	Perm
Protected Phases	6			
Permitted Phases			6	4
Actuated Green, G (s)	29.1			50.8
Effective Green, g (s)	29.1			50.8
Actuated g/C Ratio	0.33			0.57
Clearance Time (s)	4.5			4.5
Vehicle Extension (s)	3.0			3.0
Lane Grp Cap (vph)	1118			920
v/s Ratio Prot	0.07			
v/s Ratio Perm				0.00
v/c Ratio	0.23			0.00
Uniform Delay, d1	21.7			8.2
Progression Factor	1.00			1.00
Incremental Delay, d2	0.1			0.0
Delay (s)	21.8			8.2
Level of Service	C			A
Approach Delay (s)	38.0			
Approach LOS	D			

Intersection Summary

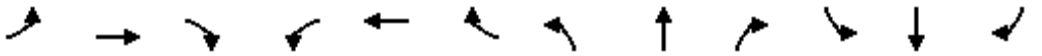


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	72	1009	209	96	1361	176	210	1359	168	123	950	182
v/c Ratio	0.88	0.74	0.30	1.02	1.00	0.26	0.91	0.99	0.26	0.91	0.80	0.30
Control Delay	102.9	27.8	9.2	132.6	52.6	7.3	81.4	50.7	11.7	100.8	33.5	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	102.9	27.8	9.2	132.6	52.6	7.3	81.4	50.7	11.7	100.8	33.5	9.1
Queue Length 50th (ft)	37	254	30	~56	398	17	120	396	34	71	255	21
Queue Length 95th (ft)	#123	329	78	#157	#558	59	#251	#555	79	#175	333	68
Internal Link Dist (ft)		1029			1030			868			853	
Turn Bay Length (ft)	90		40	240		60	160		140	165		
Base Capacity (vph)	82	1364	688	94	1364	688	230	1372	658	135	1183	613
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.74	0.30	1.02	1.00	0.26	0.91	0.99	0.26	0.91	0.80	0.30

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	928	192	88	1252	162	193	1250	155	113	874	167
Future Volume (vph)	66	928	192	88	1252	162	193	1250	155	113	874	167
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.12	1.00	1.00	0.13	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	215	3539	1583	245	3539	1583	1770	3539	1583	1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	72	1009	209	96	1361	176	210	1359	168	123	950	182
RTOR Reduction (vph)	0	0	78	0	0	78	0	0	45	0	0	85
Lane Group Flow (vph)	72	1009	131	96	1361	98	210	1359	123	123	950	97
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	34.7	34.7	34.7	34.7	34.7	34.7	11.7	34.9	34.9	6.9	30.1	30.1
Effective Green, g (s)	34.7	34.7	34.7	34.7	34.7	34.7	11.7	34.9	34.9	6.9	30.1	30.1
Actuated g/C Ratio	0.39	0.39	0.39	0.39	0.39	0.39	0.13	0.39	0.39	0.08	0.33	0.33
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	82	1364	610	94	1364	610	230	1372	613	135	1183	529
v/s Ratio Prot		0.29			0.38		c0.12	c0.38		0.07	0.27	
v/s Ratio Perm	0.34		0.08	c0.39		0.06			0.08			0.06
v/c Ratio	0.88	0.74	0.21	1.02	1.00	0.16	0.91	0.99	0.20	0.91	0.80	0.18
Uniform Delay, d1	25.7	23.8	18.5	27.6	27.6	18.1	38.6	27.4	18.3	41.2	27.3	21.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	59.9	2.1	0.2	98.7	23.7	0.1	36.4	22.0	0.2	51.3	4.0	0.2
Delay (s)	85.6	25.9	18.7	126.4	51.3	18.2	75.1	49.3	18.5	92.5	31.3	21.4
Level of Service	F	C	B	F	D	B	E	D	B	F	C	C
Approach Delay (s)		28.1			52.1			49.5			35.9	
Approach LOS		C			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	42.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	94.6%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

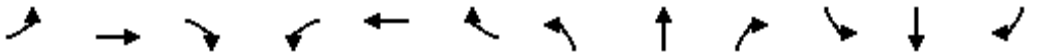


Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1437	163	1672	139	1211
v/c Ratio	0.94	1.11	1.03	0.20	1.77
Control Delay	34.0	139.2	49.5	13.1	370.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	139.2	49.5	13.1	370.0
Queue Length 50th (ft)	178	~70	~325	32	~662
Queue Length 95th (ft)	#271	#171	#476	65	#886
Internal Link Dist (ft)	987		993		
Turn Bay Length (ft)		140		380	
Base Capacity (vph)	1529	147	1622	693	686
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.94	1.11	1.03	0.20	1.77

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1151	171	150	1538	0	0	0	0	128	0	1114
Future Volume (vph)	0	1151	171	150	1538	0	0	0	0	128	0	1114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5					4.5		4.5
Lane Util. Factor		0.91		1.00	0.95					1.00		1.00
Frt		0.98		1.00	1.00					1.00		0.85
Flt Protected		1.00		0.95	1.00					0.95		1.00
Satd. Flow (prot)		4987		1770	3539					1770		1583
Flt Permitted		1.00		0.95	1.00					0.95		1.00
Satd. Flow (perm)		4987		1770	3539					1770		1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1251	186	163	1672	0	0	0	0	139	0	1211
RTOR Reduction (vph)	0	33	0	0	0	0	0	0	0	0	0	66
Lane Group Flow (vph)	0	1404	0	163	1672	0	0	0	0	139	0	1145
Turn Type		NA		Prot	NA					Perm		Perm
Protected Phases		4		3	8							
Permitted Phases										6		6
Actuated Green, G (s)		18.0		5.0	27.5					23.5		23.5
Effective Green, g (s)		18.0		5.0	27.5					23.5		23.5
Actuated g/C Ratio		0.30		0.08	0.46					0.39		0.39
Clearance Time (s)		4.5		4.5	4.5					4.5		4.5
Vehicle Extension (s)		3.0		3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		1496		147	1622					693		620
v/s Ratio Prot		0.28		0.09	c0.47							
v/s Ratio Perm										0.08		c0.72
v/c Ratio		0.94		1.11	1.03					0.20		1.85
Uniform Delay, d1		20.5		27.5	16.2					12.0		18.2
Progression Factor		1.00		1.00	1.00					1.00		1.00
Incremental Delay, d2		11.5		106.4	30.7					0.1		387.1
Delay (s)		32.0		133.9	46.9					12.2		405.3
Level of Service		C		F	D					B		F
Approach Delay (s)		32.0			54.6			0.0			364.8	
Approach LOS		C			D			A			F	

Intersection Summary			
HCM 2000 Control Delay	138.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.54		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	119.0%	ICU Level of Service	H
Analysis Period (min)	15		

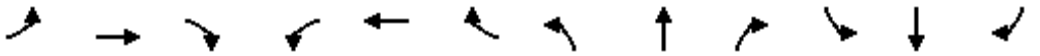
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	9	816	623	110	1452	78	249
v/c Ratio	0.04	0.45	0.56	0.40	0.41	0.22	0.48
Control Delay	10.0	10.9	3.5	25.4	4.6	17.3	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.0	10.9	3.5	25.4	4.6	17.3	6.4
Queue Length 50th (ft)	1	78	0	27	53	18	0
Queue Length 95th (ft)	9	140	52	#81	98	44	43
Internal Link Dist (ft)		806			1980		
Turn Bay Length (ft)	45		160	55			660
Base Capacity (vph)	206	1825	1118	278	3550	913	937
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.45	0.56	0.40	0.41	0.09	0.27

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	751	573	101	1336	0	72	0	229	0	0	0
Future Volume (vph)	8	751	573	101	1336	0	72	0	229	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5			
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91		1.00		1.00			
Frt	1.00	1.00	0.85	1.00	1.00		1.00		0.85			
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95		1.00			
Satd. Flow (prot)	1770	3539	1583	1770	5085		1770		1583			
Flt Permitted	0.22	1.00	1.00	0.95	1.00		0.95		1.00			
Satd. Flow (perm)	401	3539	1583	1770	5085		1770		1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	816	623	110	1452	0	78	0	249	0	0	0
RTOR Reduction (vph)	0	0	346	0	0	0	0	0	214	0	0	0
Lane Group Flow (vph)	9	816	277	110	1452	0	78	0	35	0	0	0
Turn Type	Perm	NA	Perm	Prot	NA		Perm		Perm			
Protected Phases		4		3	8							
Permitted Phases	4		4				2		2			
Actuated Green, G (s)	18.6	18.6	18.6	3.9	27.0		5.8		5.8			
Effective Green, g (s)	18.6	18.6	18.6	3.9	27.0		5.8		5.8			
Actuated g/C Ratio	0.44	0.44	0.44	0.09	0.65		0.14		0.14			
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0		3.0			
Lane Grp Cap (vph)	178	1574	704	165	3284		245		219			
v/s Ratio Prot		c0.23		0.06	c0.29							
v/s Ratio Perm	0.02		0.18				c0.04		0.02			
v/c Ratio	0.05	0.52	0.39	0.67	0.44		0.32		0.16			
Uniform Delay, d1	6.6	8.4	7.8	18.3	3.7		16.2		15.8			
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00		1.00			
Incremental Delay, d2	0.1	0.3	0.4	9.8	0.1		0.8		0.3			
Delay (s)	6.7	8.7	8.2	28.1	3.8		17.0		16.2			
Level of Service	A	A	A	C	A		B		B			
Approach Delay (s)		8.4			5.5			16.4			0.0	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	7.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	41.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		

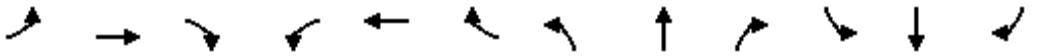
c Critical Lane Group



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	116	946	11	1027	310	16	2	46	553
v/c Ratio	0.62	0.54	0.06	0.82	0.41	0.03	0.00	0.09	0.83
Control Delay	42.9	10.1	13.8	23.5	4.0	12.5	0.0	13.2	22.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.9	10.1	13.8	23.5	4.0	12.5	0.0	13.2	22.5
Queue Length 50th (ft)	38	100	2	164	0	3	0	10	83
Queue Length 95th (ft)	#108	145	12	#272	44	14	0	28	#244
Internal Link Dist (ft)		1980		560		847		971	
Turn Bay Length (ft)	70		100		160		40		620
Base Capacity (vph)	188	2073	216	1361	799	670	697	640	776
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.46	0.05	0.75	0.39	0.02	0.00	0.07	0.71

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	843	28	10	945	285	7	7	2	26	17	509
Future Volume (vph)	107	843	28	10	945	285	7	7	2	26	17	509
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5		4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.98	1.00		0.97	1.00
Satd. Flow (prot)	1770	3522		1770	3539	1583		1817	1583		1808	1583
Flt Permitted	0.95	1.00		0.30	1.00	1.00		0.91	1.00		0.87	1.00
Satd. Flow (perm)	1770	3522		563	3539	1583		1697	1583		1618	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	116	916	30	11	1027	310	8	8	2	28	18	553
RTOR Reduction (vph)	0	4	0	0	0	201	0	0	1	0	0	173
Lane Group Flow (vph)	116	942	0	11	1027	109	0	16	1	0	46	380
Turn Type	Prot	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases				8		8	2		2	6		6
Actuated Green, G (s)	3.7	25.8		17.6	17.6	17.6		15.3	15.3		15.3	15.3
Effective Green, g (s)	3.7	25.8		17.6	17.6	17.6		15.3	15.3		15.3	15.3
Actuated g/C Ratio	0.07	0.51		0.35	0.35	0.35		0.31	0.31		0.31	0.31
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5		4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	130	1813		197	1243	556		518	483		494	483
v/s Ratio Prot	c0.07	0.27			c0.29							
v/s Ratio Perm				0.02		0.07		0.01	0.00		0.03	c0.24
v/c Ratio	0.89	0.52		0.06	0.83	0.20		0.03	0.00		0.09	0.79
Uniform Delay, d1	23.0	8.0		10.8	14.9	11.3		12.2	12.1		12.4	15.9
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	47.7	0.3		0.1	4.6	0.2		0.0	0.0		0.1	8.3
Delay (s)	70.7	8.3		10.9	19.5	11.5		12.2	12.1		12.5	24.2
Level of Service	E	A		B	B	B		B	B		B	C
Approach Delay (s)		15.1			17.6			12.2			23.3	
Approach LOS		B			B			B			C	

Intersection Summary			
HCM 2000 Control Delay	17.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	50.1	Sum of lost time (s)	13.5
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

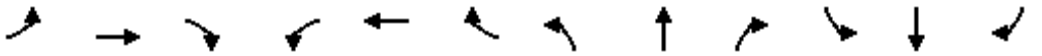


Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	522	213	384	201	697	896	171	503	592
v/c Ratio	1.27	0.45	1.19	0.54	1.30	0.73	0.83	0.84	0.94
Control Delay	186.4	20.6	163.0	31.3	189.9	44.8	94.4	73.4	40.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	186.4	20.6	163.0	31.3	189.9	44.8	94.4	73.4	40.9
Queue Length 50th (ft)	~642	58	~451	81	~869	393	165	254	182
Queue Length 95th (ft)	#872	141	#662	169	#1117	475	#277	#336	#430
Internal Link Dist (ft)	835		755			938		874	
Turn Bay Length (ft)				80	290		100		200
Base Capacity (vph)	410	471	323	369	536	1235	223	601	627
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.27	0.45	1.19	0.54	1.30	0.73	0.77	0.84	0.94

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	419	62	196	120	234	185	641	631	193	157	463	545
Future Volume (vph)	419	62	196	120	234	185	641	631	193	157	463	545
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	0.96		1.00	1.00	0.85
Flt Protected		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1785	1583		1832	1583	1770	3415		1770	3539	1583
Flt Permitted		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1785	1583		1832	1583	1770	3415		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	455	67	213	130	254	201	697	686	210	171	503	592
RTOR Reduction (vph)	0	0	108	0	0	90	0	19	0	0	0	359
Lane Group Flow (vph)	0	522	105	0	384	111	697	877	0	171	503	233
Turn Type	Split	NA	Prot	Split	NA	Prot	Prot	NA		Prot	NA	Perm
Protected Phases	4	4	4	8	8	8	5	2		1	6	
Permitted Phases												6
Actuated Green, G (s)		34.5	34.5		26.5	26.5	45.5	53.5		17.5	25.5	25.5
Effective Green, g (s)		34.5	34.5		26.5	26.5	45.5	53.5		17.5	25.5	25.5
Actuated g/C Ratio		0.23	0.23		0.18	0.18	0.30	0.36		0.12	0.17	0.17
Clearance Time (s)		4.5	4.5		4.5	4.5	4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		410	364		323	279	536	1218		206	601	269
v/s Ratio Prot		c0.29	0.07		c0.21	0.07	c0.39	0.26		0.10	0.14	
v/s Ratio Perm												c0.15
v/c Ratio		1.27	0.29		1.19	0.40	1.30	0.72		0.83	0.84	0.87
Uniform Delay, d1		57.8	47.6		61.8	54.7	52.2	41.8		64.8	60.2	60.6
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		140.8	0.4		111.7	0.9	148.4	3.7		23.7	13.1	29.4
Delay (s)		198.5	48.1		173.4	55.6	200.7	45.5		88.5	73.3	90.0
Level of Service		F	D		F	E	F	D		F	E	F
Approach Delay (s)		154.9			133.0			113.4			83.2	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	114.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	108.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

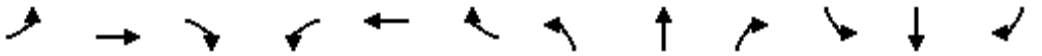


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	93	472	103	301	1358	143	1423	197	148	1029	74
v/c Ratio	1.13	0.35	0.15	1.01	1.01	0.71	1.06	0.31	0.95	0.82	0.12
Control Delay	172.7	20.7	4.5	84.5	56.1	59.2	71.6	13.6	105.1	33.5	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	172.7	20.7	4.5	84.5	56.1	59.2	71.6	13.6	105.1	33.5	5.9
Queue Length 50th (ft)	~62	98	0	~170	~403	79	~473	47	85	279	0
Queue Length 95th (ft)	#159	137	31	#340	#559	#161	#606	98	#204	361	28
Internal Link Dist (ft)		987			1124		1174			1214	
Turn Bay Length (ft)	100		100	140		185		80	110		
Base Capacity (vph)	82	1356	670	299	1340	210	1340	645	155	1251	607
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.13	0.35	0.15	1.01	1.01	0.68	1.06	0.31	0.95	0.82	0.12

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	86	434	95	277	1007	242	132	1309	181	136	947	68
Future Volume (vph)	86	434	95	277	1007	242	132	1309	181	136	947	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3436		1770	3539	1583	1770	3539	1583
Flt Permitted	0.12	1.00	1.00	0.42	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	216	3539	1583	783	3436		1770	3539	1583	1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	93	472	103	301	1095	263	143	1423	197	148	1029	74
RTOR Reduction (vph)	0	0	64	0	23	0	0	0	45	0	0	47
Lane Group Flow (vph)	93	472	39	301	1335	0	143	1423	152	148	1029	27
Turn Type	Perm	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	34.5	34.5	34.5	34.5	34.5		10.2	34.1	34.1	7.9	31.8	31.8
Effective Green, g (s)	34.5	34.5	34.5	34.5	34.5		10.2	34.1	34.1	7.9	31.8	31.8
Actuated g/C Ratio	0.38	0.38	0.38	0.38	0.38		0.11	0.38	0.38	0.09	0.35	0.35
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	82	1356	606	300	1317		200	1340	599	155	1250	559
v/s Ratio Prot		0.13			0.39		0.08	c0.40		c0.08	0.29	
v/s Ratio Perm	c0.43		0.02	0.38					0.10			0.02
v/c Ratio	1.13	0.35	0.07	1.00	1.01		0.71	1.06	0.25	0.95	0.82	0.05
Uniform Delay, d1	27.8	19.7	17.6	27.8	27.8		38.5	27.9	19.2	40.9	26.5	19.1
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	140.2	0.2	0.0	52.8	28.1		11.5	42.9	0.2	58.4	4.5	0.0
Delay (s)	168.0	19.9	17.6	80.6	55.9		50.0	70.8	19.4	99.2	31.1	19.2
Level of Service	F	B	B	F	E		D	E	B	F	C	B
Approach Delay (s)		40.2			60.4			63.4			38.4	
Approach LOS		D			E			E			D	

Intersection Summary			
HCM 2000 Control Delay	53.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	99.0%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



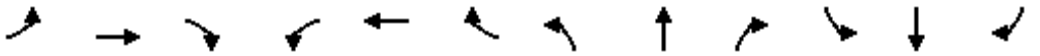
Lane Group	EBT	EBR	WBL	WBT	SBT
Lane Group Flow (vph)	1328	199	254	1476	1427
v/c Ratio	1.07	0.30	1.03	0.85	1.54dr
Control Delay	78.7	7.3	91.7	27.9	83.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	78.7	7.3	91.7	27.9	83.2
Queue Length 50th (ft)	~496	16	~123	414	~541
Queue Length 95th (ft)	#630	64	#281	517	#679
Internal Link Dist (ft)	979			732	799
Turn Bay Length (ft)		230	160		
Base Capacity (vph)	1242	660	246	1744	1306
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.07	0.30	1.03	0.85	1.09

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1222	183	234	1358	0	0	0	0	349	1	963
Future Volume (vph)	0	1222	183	234	1358	0	0	0	0	349	1	963
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5						4.5	
Lane Util. Factor		0.95	1.00	1.00	0.95						0.95	
Frt		1.00	0.85	1.00	1.00						0.89	
Flt Protected		1.00	1.00	0.95	1.00						0.99	
Satd. Flow (prot)		3539	1583	1770	3539						3108	
Flt Permitted		1.00	1.00	0.10	1.00						0.99	
Satd. Flow (perm)		3539	1583	188	3539						3108	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1328	199	254	1476	0	0	0	0	379	1	1047
RTOR Reduction (vph)	0	0	104	0	0	0	0	0	0	0	10	0
Lane Group Flow (vph)	0	1328	95	254	1476	0	0	0	0	0	1417	0
Turn Type		NA	custom	pm+pt	NA					custom	NA	
Protected Phases				3	8							
Permitted Phases		4	4	8						6	6	
Actuated Green, G (s)		35.1	35.1	49.3	49.3						41.7	
Effective Green, g (s)		35.1	35.1	49.3	49.3						41.7	
Actuated g/C Ratio		0.35	0.35	0.49	0.49						0.42	
Clearance Time (s)		4.5	4.5	4.5	4.5						4.5	
Vehicle Extension (s)		3.0	3.0	3.0	3.0						3.0	
Lane Grp Cap (vph)		1242	555	246	1744						1296	
v/s Ratio Prot				c0.10	0.42							
v/s Ratio Perm		0.38	0.06	c0.41							c0.46	
v/c Ratio		1.07	0.17	1.03	0.85						1.54dr	
Uniform Delay, d1		32.5	22.4	27.7	22.1						29.1	
Progression Factor		1.00	1.00	1.00	1.00						1.00	
Incremental Delay, d2		46.2	0.1	66.1	4.0						54.4	
Delay (s)		78.7	22.5	93.8	26.1						83.5	
Level of Service		E	C	F	C						F	
Approach Delay (s)		71.4			36.0			0.0			83.5	
Approach LOS		E			D			A			F	

Intersection Summary			
HCM 2000 Control Delay	62.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	99.3%	ICU Level of Service	F
Analysis Period (min)	15		

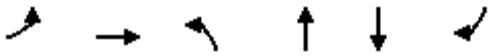
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group

Intersection	
Intersection Delay, s/veh	183.5
Intersection LOS	F

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	1343	279	0	103	119	0	357	148
Future Vol, veh/h	0	1343	279	0	103	119	0	357	148
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1460	303	0	112	129	0	388	161
Number of Lanes	0	2	1	0	1	1	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	3	0
HCM Control Delay	236.5	17.5	86.2
HCM LOS	F	C	F

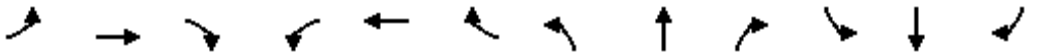
Lane	NBLn1	NBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	100%	0%	88%	0%
Vol Thru, %	100%	0%	0%	0%	0%	12%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	103	119	672	672	279	406	99
LT Vol	0	0	672	672	0	357	0
Through Vol	103	0	0	0	0	49	99
RT Vol	0	119	0	0	279	0	0
Lane Flow Rate	112	129	730	730	303	442	107
Geometry Grp	8	8	7	7	7	8	8
Degree of Util (X)	0.294	0.315	1.561	1.561	0.4	1.088	0.251
Departure Headway (Hd)	10.697	9.975	7.916	7.916	4.923	9.612	9.165
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	338	363	467	467	737	380	395
Service Time	8.397	7.675	5.616	5.616	2.623	7.312	6.865
HCM Lane V/C Ratio	0.331	0.355	1.563	1.563	0.411	1.163	0.271
HCM Control Delay	17.8	17.2	283.4	283.4	10.9	103.5	14.9
HCM Lane LOS	C	C	F	F	B	F	B
HCM 95th-tile Q	1.2	1.3	38.8	38.8	1.9	14.6	1



Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	557	511	883	766	435	125
v/c Ratio	0.93	0.77	0.95	0.40	0.55	0.28
Control Delay	53.1	24.8	52.1	12.7	34.2	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.1	24.8	52.1	12.7	34.2	7.5
Queue Length 50th (ft)	313	172	253	126	116	0
Queue Length 95th (ft)	#527	310	#373	168	165	44
Internal Link Dist (ft)		639		679	675	
Turn Bay Length (ft)	340		240			250
Base Capacity (vph)	613	681	943	1926	784	448
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.75	0.94	0.40	0.55	0.28

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	633	0	350	0	0	0	812	705	0	0	400	115
Future Volume (vph)	633	0	350	0	0	0	812	705	0	0	400	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5					4.5	4.5			4.5	4.5
Lane Util. Factor	0.95	0.95					0.97	0.95			0.95	1.00
Frt	1.00	0.89					1.00	1.00			1.00	0.85
Flt Protected	0.95	0.99					0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1552					3433	3539			3539	1583
Flt Permitted	0.95	0.99					0.95	1.00			1.00	1.00
Satd. Flow (perm)	1681	1552					3433	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	688	0	380	0	0	0	883	766	0	0	435	125
RTOR Reduction (vph)	0	117	0	0	0	0	0	0	0	0	0	97
Lane Group Flow (vph)	557	394	0	0	0	0	883	766	0	0	435	28
Turn Type	Perm	NA					Prot	NA			NA	Perm
Protected Phases		4					5	2			6	
Permitted Phases	4											6
Actuated Green, G (s)	31.6	31.6					24.2	48.5			19.8	19.8
Effective Green, g (s)	31.6	31.6					24.2	48.5			19.8	19.8
Actuated g/C Ratio	0.35	0.35					0.27	0.54			0.22	0.22
Clearance Time (s)	4.5	4.5					4.5	4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0					3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	596	550					932	1926			786	351
v/s Ratio Prot							c0.26	0.22			c0.12	
v/s Ratio Perm	c0.33	0.25										0.02
v/c Ratio	0.93	0.72					0.95	0.40			0.55	0.08
Uniform Delay, d1	27.8	24.9					31.8	11.8			30.7	27.4
Progression Factor	1.00	1.00					1.00	1.00			1.00	1.00
Incremental Delay, d2	21.9	4.4					17.9	0.6			2.8	0.4
Delay (s)	49.7	29.3					49.7	12.4			33.5	27.9
Level of Service	D	C					D	B			C	C
Approach Delay (s)		39.9			0.0			32.4			32.3	
Approach LOS		D			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	34.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	89.1	Sum of lost time (s)	13.5
Intersection Capacity Utilization	73.7%	ICU Level of Service	D
Analysis Period (min)	15		

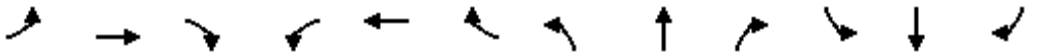
c Critical Lane Group



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	62	63	463	395	1147	916	234
v/c Ratio	0.13	0.13	0.87	0.79	0.58	0.54	0.34
Control Delay	15.9	15.9	34.7	38.3	10.3	17.5	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.9	15.9	34.7	38.3	10.3	17.5	4.1
Queue Length 50th (ft)	16	16	117	72	133	97	0
Queue Length 95th (ft)	41	42	#268	#136	187	133	40
Internal Link Dist (ft)		585			691	966	
Turn Bay Length (ft)	320		320	160			
Base Capacity (vph)	534	536	577	501	1977	1705	686
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.12	0.80	0.79	0.58	0.54	0.34

Intersection Summary

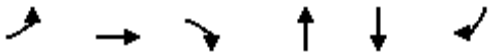
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	114	1	426	363	1055	0	0	843	215
Future Volume (vph)	0	0	0	114	1	426	363	1055	0	0	843	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.5	4.5	4.5	4.5	4.5			4.5	4.5
Lane Util. Factor				0.95	0.95	1.00	0.97	0.95			0.91	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1687	1583	3433	3539			5085	1583
Flt Permitted				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1687	1583	3433	3539			5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	124	1	463	395	1147	0	0	916	234
RTOR Reduction (vph)	0	0	0	0	0	78	0	0	0	0	0	155
Lane Group Flow (vph)	0	0	0	62	63	385	395	1147	0	0	916	79
Turn Type				Perm	NA	Perm	Prot	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Actuated Green, G (s)				16.7	16.7	16.7	8.5	32.6			19.6	19.6
Effective Green, g (s)				16.7	16.7	16.7	8.5	32.6			19.6	19.6
Actuated g/C Ratio				0.29	0.29	0.29	0.15	0.56			0.34	0.34
Clearance Time (s)				4.5	4.5	4.5	4.5	4.5			4.5	4.5
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				481	483	453	500	1978			1709	532
v/s Ratio Prot							c0.12	c0.32			0.18	
v/s Ratio Perm				0.04	0.04	c0.24						0.05
v/c Ratio				0.13	0.13	0.85	0.79	0.58			0.54	0.15
Uniform Delay, d1				15.4	15.4	19.6	24.0	8.4			15.7	13.5
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2				0.1	0.1	14.2	8.3	1.2			1.2	0.6
Delay (s)				15.5	15.5	33.8	32.3	9.6			16.9	14.1
Level of Service				B	B	C	C	A			B	B
Approach Delay (s)		0.0			29.9			15.4			16.3	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	58.3	Sum of lost time (s)	13.5
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		

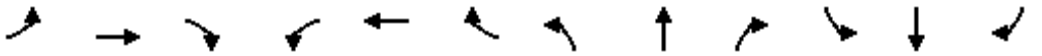
c Critical Lane Group



Lane Group	EBL	EBT	EBR	NBT	SBT	SBR
Lane Group Flow (vph)	524	8	578	1168	765	280
v/c Ratio	0.39	0.01	0.86	0.78	0.51	0.34
Control Delay	11.5	8.7	26.8	17.3	12.3	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.5	8.7	26.8	17.3	12.3	2.9
Queue Length 50th (ft)	52	1	119	145	84	0
Queue Length 95th (ft)	81	3	#286	#226	125	34
Internal Link Dist (ft)		671		711	691	
Turn Bay Length (ft)						
Base Capacity (vph)	1451	1496	721	1489	1496	831
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.01	0.80	0.78	0.51	0.34

Intersection Summary

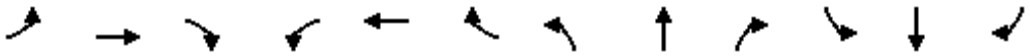
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	482	7	532	0	0	0	0	941	133	0	704	258
Future Volume (vph)	482	7	532	0	0	0	0	941	133	0	704	258
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5					4.5			4.5	4.5
Lane Util. Factor	0.97	0.95	1.00					0.95			0.95	1.00
Frt	1.00	1.00	0.85					0.98			1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00			1.00	1.00
Satd. Flow (prot)	3433	3539	1583					3473			3539	1583
Flt Permitted	0.95	1.00	1.00					1.00			1.00	1.00
Satd. Flow (perm)	3433	3539	1583					3473			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	524	8	578	0	0	0	0	1023	145	0	765	280
RTOR Reduction (vph)	0	0	55	0	0	0	0	22	0	0	0	161
Lane Group Flow (vph)	524	8	523	0	0	0	0	1146	0	0	765	119
Turn Type	Split	NA	Perm				Perm	NA			NA	Perm
Protected Phases	4	4						2			6	
Permitted Phases			4				2					6
Actuated Green, G (s)	19.0	19.0	19.0					20.6			20.6	20.6
Effective Green, g (s)	19.0	19.0	19.0					20.6			20.6	20.6
Actuated g/C Ratio	0.39	0.39	0.39					0.42			0.42	0.42
Clearance Time (s)	4.5	4.5	4.5					4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	3.0
Lane Grp Cap (vph)	1342	1383	618					1472			1500	670
v/s Ratio Prot	0.15	0.00						c0.33			0.22	
v/s Ratio Perm			c0.33									0.07
v/c Ratio	0.39	0.01	0.85					0.78			0.51	0.18
Uniform Delay, d1	10.6	9.0	13.5					12.0			10.3	8.7
Progression Factor	1.00	1.00	1.00					1.00			1.00	1.00
Incremental Delay, d2	0.2	0.0	10.3					4.1			1.2	0.6
Delay (s)	10.8	9.0	23.8					16.2			11.5	9.3
Level of Service	B	A	C					B			B	A
Approach Delay (s)		17.6			0.0			16.2			10.9	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	48.6	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

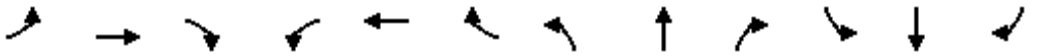


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	260	939	159	172	1510	176	180	1312	115	67	1103	341
v/c Ratio	1.04	0.64	0.28	0.70	1.04	0.31	0.79	1.02	0.18	0.84	0.77	0.57
Control Delay	115.7	37.2	7.7	60.1	72.6	8.9	71.0	65.5	6.5	116.0	41.0	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	115.7	37.2	7.7	60.1	72.6	8.9	71.0	65.5	6.5	116.0	41.0	16.1
Queue Length 50th (ft)	~199	213	5	117	~421	14	124	~518	5	48	265	68
Queue Length 95th (ft)	#363	272	57	185	#517	67	#226	#654	42	#132	320	165
Internal Link Dist (ft)		1026			1032			984			943	
Turn Bay Length (ft)	175		25	200		200	160		215	140		120
Base Capacity (vph)	249	1465	562	302	1456	559	242	1286	641	80	1425	602
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.04	0.64	0.28	0.57	1.04	0.31	0.74	1.02	0.18	0.84	0.77	0.57

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	239	864	146	158	1389	162	166	1207	106	62	1015	314
Future Volume (vph)	239	864	146	158	1389	162	166	1207	106	62	1015	314
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	260	939	159	172	1510	176	180	1312	115	67	1103	341
RTOR Reduction (vph)	0	0	106	0	0	106	0	0	66	0	0	158
Lane Group Flow (vph)	260	939	53	172	1510	70	180	1312	49	67	1103	183
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	15.5	31.7	31.7	15.3	31.5	31.5	14.2	40.0	40.0	5.0	30.8	30.8
Effective Green, g (s)	15.5	31.7	31.7	15.3	31.5	31.5	14.2	40.0	40.0	5.0	30.8	30.8
Actuated g/C Ratio	0.14	0.29	0.29	0.14	0.29	0.29	0.13	0.36	0.36	0.05	0.28	0.28
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	249	1465	456	246	1456	453	228	1286	575	80	1423	443
v/s Ratio Prot	c0.15	0.18		0.10	c0.30		c0.10	c0.37		0.04	0.22	
v/s Ratio Perm			0.03			0.04			0.03			0.12
v/c Ratio	1.04	0.64	0.12	0.70	1.04	0.15	0.79	1.02	0.08	0.84	0.78	0.41
Uniform Delay, d1	47.2	34.2	28.8	45.2	39.2	29.3	46.5	35.0	23.0	52.1	36.4	32.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	69.1	1.0	0.1	8.4	33.8	0.2	16.4	30.3	0.1	50.1	2.7	0.6
Delay (s)	116.3	35.1	28.9	53.5	73.0	29.5	62.9	65.3	23.0	102.2	39.1	32.9
Level of Service	F	D	C	D	E	C	E	E	C	F	D	C
Approach Delay (s)		50.0			67.1			62.0			40.5	
Approach LOS		D			E			E			D	

Intersection Summary			
HCM 2000 Control Delay	55.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	92.6%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	128	220	66	116	1725	86	84	1182	57
v/c Ratio	0.37	0.72	0.18	0.47	0.73	0.08	0.84	0.50	0.05
Control Delay	23.3	46.7	17.3	13.9	10.3	2.4	73.5	7.1	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.3	46.7	17.3	13.9	10.3	2.4	73.5	7.1	1.4
Queue Length 50th (ft)	38	118	13	25	265	5	28	139	0
Queue Length 95th (ft)	89	#223	48	69	338	18	#70	179	10
Internal Link Dist (ft)	688	730			772			694	
Turn Bay Length (ft)				80		80	90		
Base Capacity (vph)	417	381	440	301	2885	1300	123	2885	1301
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.58	0.15	0.39	0.60	0.07	0.68	0.41	0.04

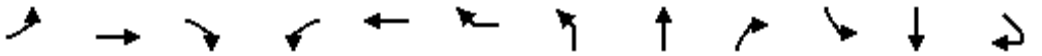
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	27	59	95	108	61	107	1587	79	77	1087	52
Future Volume (vph)	32	27	59	95	108	61	107	1587	79	77	1087	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.93			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99			0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1714			1820	1583	1770	3539	1583	1770	3539	1583
Flt Permitted		0.84			0.78	1.00	0.20	1.00	1.00	0.08	1.00	1.00
Satd. Flow (perm)		1460			1462	1583	370	3539	1583	151	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	29	64	103	117	66	116	1725	86	84	1182	57
RTOR Reduction (vph)	0	40	0	0	0	30	0	0	17	0	0	19
Lane Group Flow (vph)	0	88	0	0	220	36	116	1725	69	84	1182	38
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)		15.8			15.8	15.8	50.6	50.6	50.6	50.6	50.6	50.6
Effective Green, g (s)		15.8			15.8	15.8	50.6	50.6	50.6	50.6	50.6	50.6
Actuated g/C Ratio		0.21			0.21	0.21	0.67	0.67	0.67	0.67	0.67	0.67
Clearance Time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		305			306	331	248	2374	1062	101	2374	1062
v/s Ratio Prot								0.49			0.33	
v/s Ratio Perm		0.06			c0.15	0.02	0.31		0.04	c0.55		0.02
v/c Ratio		0.29			0.72	0.11	0.47	0.73	0.06	0.83	0.50	0.04
Uniform Delay, d1		25.1			27.7	24.1	5.9	8.0	4.3	9.2	6.1	4.2
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.5			7.8	0.1	1.4	1.1	0.0	41.4	0.2	0.0
Delay (s)		25.6			35.6	24.3	7.3	9.1	4.3	50.7	6.3	4.2
Level of Service		C			D	C	A	A	A	D	A	A
Approach Delay (s)		25.6			33.0			8.8			9.0	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	11.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	75.4	Sum of lost time (s)	9.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		

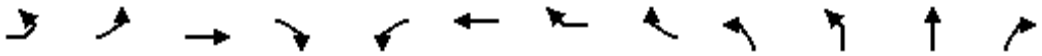
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SER2
Lane Group Flow (vph)	81	1477	54	59	1539	171	93	254	35	212	723	59
v/c Ratio	0.91	0.71	0.06	0.57	0.74	0.18	0.82	0.44	0.11	0.95	0.63	0.05
Control Delay	102.4	18.8	2.6	42.1	19.7	4.1	90.9	42.7	4.4	96.6	32.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	102.4	18.8	2.6	42.1	19.7	4.1	90.9	42.7	4.4	96.6	32.9	0.1
Queue Length 50th (ft)	50	385	0	26	413	14	62	83	0	151	218	0
Queue Length 95th (ft)	#155	471	15	#100	506	45	#148	123	13	#303	281	0
Internal Link Dist (ft)		1180			1126			889			889	
Turn Bay Length (ft)	100		80	120		60	90		160	110		
Base Capacity (vph)	89	2070	951	103	2070	977	134	679	352	223	1252	1210
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.71	0.06	0.57	0.74	0.18	0.69	0.37	0.10	0.95	0.58	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	1	74	1359	50	54	1416	44	113	51	35	234	32
Future Volume (vph)	1	74	1359	50	54	1416	44	113	51	35	234	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5	4.5	4.5			4.5	4.5	4.5
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95	1.00			1.00	0.95	1.00
Frt		1.00	1.00	0.85	1.00	1.00	0.85			1.00	1.00	0.85
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00			0.95	1.00	1.00
Satd. Flow (prot)		1770	3539	1583	1770	3539	1583			1770	3539	1583
Flt Permitted		0.08	1.00	1.00	0.09	1.00	1.00			0.38	1.00	1.00
Satd. Flow (perm)		153	3539	1583	176	3539	1583			702	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	80	1477	54	59	1539	48	123	55	38	254	35
RTOR Reduction (vph)	0	0	0	22	0	0	51	0	0	0	0	29
Lane Group Flow (vph)	0	81	1477	32	59	1539	120	0	0	93	254	6
Turn Type	Perm	Perm	NA	Perm	Perm	NA	Perm		Perm	Perm	NA	Perm
Protected Phases			4			8					2	
Permitted Phases	4	4		4	8		8		2	2		2
Actuated Green, G (s)		62.6	62.6	62.6	62.6	62.6	62.6			17.4	17.4	17.4
Effective Green, g (s)		62.6	62.6	62.6	62.6	62.6	62.6			17.4	17.4	17.4
Actuated g/C Ratio		0.59	0.59	0.59	0.59	0.59	0.59			0.16	0.16	0.16
Clearance Time (s)		4.5	4.5	4.5	4.5	4.5	4.5			4.5	4.5	4.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)		89	2070	926	102	2070	926			114	575	257
v/s Ratio Prot			0.42			0.43					0.07	
v/s Ratio Perm		c0.53		0.02	0.34		0.08			c0.13		0.00
v/c Ratio		0.91	0.71	0.03	0.58	0.74	0.13			0.82	0.44	0.02
Uniform Delay, d1		19.7	15.8	9.4	13.9	16.3	10.0			43.3	40.4	37.7
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00
Incremental Delay, d2		66.4	1.2	0.0	7.7	1.5	0.1			34.4	0.5	0.0
Delay (s)		86.1	17.0	9.4	21.6	17.8	10.0			77.6	41.0	37.7
Level of Service		F	B	A	C	B	B			E	D	D
Approach Delay (s)			20.2			17.2					49.6	
Approach LOS			C			B					D	

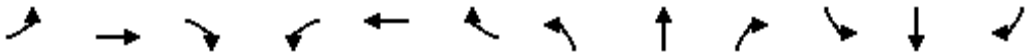
Intersection Summary			
HCM 2000 Control Delay	26.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	107.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	81.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	SBL	SBT	SBR	SBR2	SER2
Lane Configurations					
Traffic Volume (vph)	195	587	78	0	54
Future Volume (vph)	195	587	78	0	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5
Lane Util. Factor	1.00	0.95			1.00
Frt	1.00	0.98			0.86
Flt Protected	0.95	1.00			1.00
Satd. Flow (prot)	1770	3477			1611
Flt Permitted	0.95	1.00			1.00
Satd. Flow (perm)	1770	3477			1611
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	212	638	85	0	59
RTOR Reduction (vph)	0	0	0	0	24
Lane Group Flow (vph)	212	723	0	0	35
Turn Type	Prot	NA		Perm	Perm
Protected Phases	1	6			
Permitted Phases				6	4
Actuated Green, G (s)	13.5	35.4			62.6
Effective Green, g (s)	13.5	35.4			62.6
Actuated g/C Ratio	0.13	0.33			0.59
Clearance Time (s)	4.5	4.5			4.5
Vehicle Extension (s)	3.0	3.0			3.0
Lane Grp Cap (vph)	223	1150			942
v/s Ratio Prot	c0.12	0.21			
v/s Ratio Perm					0.02
v/c Ratio	0.95	0.63			0.04
Uniform Delay, d1	46.4	30.2			9.4
Progression Factor	1.00	1.00			1.00
Incremental Delay, d2	46.3	1.1			0.0
Delay (s)	92.8	31.3			9.4
Level of Service	F	C			A
Approach Delay (s)		45.3			
Approach LOS		D			

Intersection Summary

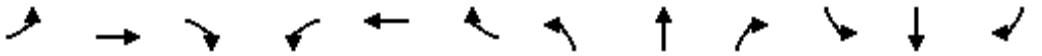


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	67	1288	220	89	1211	186	251	1097	184	266	1675	268
v/c Ratio	1.00	0.99	0.34	1.33	0.93	0.29	1.25	0.89	0.30	0.95	1.20	0.40
Control Delay	149.9	57.6	14.5	253.1	47.0	12.2	187.4	43.7	12.8	88.4	127.4	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	149.9	57.6	14.5	253.1	47.0	12.2	187.4	43.7	12.8	88.4	127.4	20.4
Queue Length 50th (ft)	46	470	55	~81	427	38	~222	380	38	188	~755	102
Queue Length 95th (ft)	#142	#628	117	#186	#567	91	#382	#502	93	#348	#894	174
Internal Link Dist (ft)		1029			1030			868			853	
Turn Bay Length (ft)	90		40	240		60	160		140	165		
Base Capacity (vph)	67	1302	648	67	1302	648	201	1238	621	281	1399	662
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.99	0.34	1.33	0.93	0.29	1.25	0.89	0.30	0.95	1.20	0.40

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	1185	202	82	1114	171	231	1009	169	245	1541	247
Future Volume (vph)	62	1185	202	82	1114	171	231	1009	169	245	1541	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.10	1.00	1.00	0.10	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	184	3539	1583	184	3539	1583	1770	3539	1583	1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	67	1288	220	89	1211	186	251	1097	184	266	1675	268
RTOR Reduction (vph)	0	0	66	0	0	66	0	0	68	0	0	36
Lane Group Flow (vph)	67	1288	154	89	1211	120	251	1097	116	266	1675	232
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	40.5	40.5	40.5	40.5	40.5	40.5	12.5	38.5	38.5	17.5	43.5	43.5
Effective Green, g (s)	40.5	40.5	40.5	40.5	40.5	40.5	12.5	38.5	38.5	17.5	43.5	43.5
Actuated g/C Ratio	0.37	0.37	0.37	0.37	0.37	0.37	0.11	0.35	0.35	0.16	0.40	0.40
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	67	1302	582	67	1302	582	201	1238	554	281	1399	626
v/s Ratio Prot		0.36			0.34		c0.14	0.31		0.15	c0.47	
v/s Ratio Perm	0.36		0.10	c0.48		0.08			0.07			0.15
v/c Ratio	1.00	0.99	0.27	1.33	0.93	0.21	1.25	0.89	0.21	0.95	1.20	0.37
Uniform Delay, d1	34.8	34.5	24.3	34.8	33.4	23.8	48.8	33.7	25.1	45.8	33.2	23.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	110.0	22.1	0.2	220.6	11.9	0.2	146.3	7.9	0.2	39.1	96.0	0.4
Delay (s)	144.7	56.6	24.6	255.3	45.3	23.9	195.1	41.6	25.3	84.9	129.2	23.9
Level of Service	F	E	C	F	D	C	F	D	C	F	F	C
Approach Delay (s)		55.9			55.2			64.8			111.1	
Approach LOS		E			E			E			F	

Intersection Summary			
HCM 2000 Control Delay	75.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.25		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	107.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

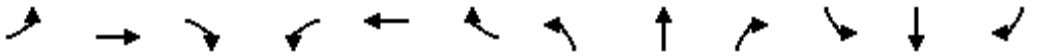


Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	2342	124	1058	242	801
v/c Ratio	1.16	1.03	0.59	0.32	1.11
Control Delay	114.8	153.2	26.3	27.6	102.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	114.8	153.2	26.3	27.6	102.8
Queue Length 50th (ft)	~915	~121	350	143	~798
Queue Length 95th (ft)	#1006	#255	419	211	#1051
Internal Link Dist (ft)	987		993		
Turn Bay Length (ft)		140		380	
Base Capacity (vph)	2022	120	1782	764	721
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.16	1.03	0.59	0.32	1.11

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1775	380	114	973	0	0	0	0	223	0	737
Future Volume (vph)	0	1775	380	114	973	0	0	0	0	223	0	737
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5					4.5		4.5
Lane Util. Factor		0.91		1.00	0.95					1.00		1.00
Frt		0.97		1.00	1.00					1.00		0.85
Flt Protected		1.00		0.95	1.00					0.95		1.00
Satd. Flow (prot)		4951		1770	3539					1770		1583
Flt Permitted		1.00		0.95	1.00					0.95		1.00
Satd. Flow (perm)		4951		1770	3539					1770		1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1929	413	124	1058	0	0	0	0	242	0	801
RTOR Reduction (vph)	0	24	0	0	0	0	0	0	0	0	0	37
Lane Group Flow (vph)	0	2318	0	124	1058	0	0	0	0	242	0	764
Turn Type		NA		Prot	NA					Perm		Perm
Protected Phases		4		3	8							
Permitted Phases										6		6
Actuated Green, G (s)		56.5		9.5	70.5					60.5		60.5
Effective Green, g (s)		56.5		9.5	70.5					60.5		60.5
Actuated g/C Ratio		0.40		0.07	0.50					0.43		0.43
Clearance Time (s)		4.5		4.5	4.5					4.5		4.5
Vehicle Extension (s)		3.0		3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		1998		120	1782					764		684
v/s Ratio Prot		c0.47		c0.07	0.30							
v/s Ratio Perm										0.14		c0.48
v/c Ratio		1.16		1.03	0.59					0.32		1.12
Uniform Delay, d1		41.8		65.2	24.6					26.2		39.8
Progression Factor		1.00		1.00	1.00					1.00		1.00
Incremental Delay, d2		78.1		91.4	0.5					0.2		70.9
Delay (s)		119.9		156.6	25.1					26.4		110.7
Level of Service		F		F	C					C		F
Approach Delay (s)		119.9			38.9			0.0			91.1	
Approach LOS		F			D			A			F	

Intersection Summary			
HCM 2000 Control Delay	92.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	80.0%	ICU Level of Service	D
Analysis Period (min)	15		

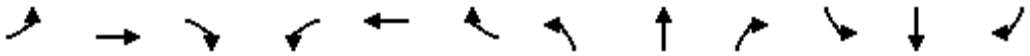
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	8	1063	932	162	1316	40	89
v/c Ratio	0.04	0.60	0.78	0.57	0.33	0.17	0.31
Control Delay	8.7	11.9	7.6	33.5	3.0	24.5	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.7	11.9	7.6	33.5	3.0	24.5	9.0
Queue Length 50th (ft)	1	126	20	53	43	13	0
Queue Length 95th (ft)	8	192	#133	#127	69	36	31
Internal Link Dist (ft)		806			1980		
Turn Bay Length (ft)	45		160	55			660
Base Capacity (vph)	206	1993	1248	297	3946	682	667
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.53	0.75	0.55	0.33	0.06	0.13

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	978	857	149	1211	0	37	0	82	0	0	0
Future Volume (vph)	7	978	857	149	1211	0	37	0	82	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5			
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91		1.00		1.00			
Frt	1.00	1.00	0.85	1.00	1.00		1.00		0.85			
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95		1.00			
Satd. Flow (prot)	1770	3539	1583	1770	5085		1770		1583			
Flt Permitted	0.20	1.00	1.00	0.95	1.00		0.95		1.00			
Satd. Flow (perm)	367	3539	1583	1770	5085		1770		1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	1063	932	162	1316	0	40	0	89	0	0	0
RTOR Reduction (vph)	0	0	412	0	0	0	0	0	80	0	0	0
Lane Group Flow (vph)	8	1063	520	162	1316	0	40	0	9	0	0	0
Turn Type	Perm	NA	Perm	Prot	NA		Perm		Perm			
Protected Phases		4		3	8							
Permitted Phases	4		4				2		2			
Actuated Green, G (s)	26.7	26.7	26.7	8.5	39.7		5.2		5.2			
Effective Green, g (s)	26.7	26.7	26.7	8.5	39.7		5.2		5.2			
Actuated g/C Ratio	0.50	0.50	0.50	0.16	0.74		0.10		0.10			
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0		3.0			
Lane Grp Cap (vph)	181	1753	784	279	3745		170		152			
v/s Ratio Prot		0.30		c0.09	0.26							
v/s Ratio Perm	0.02		c0.33				c0.02		0.01			
v/c Ratio	0.04	0.61	0.66	0.58	0.35		0.24		0.06			
Uniform Delay, d1	7.0	9.8	10.2	21.0	2.5		22.5		22.1			
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00		1.00			
Incremental Delay, d2	0.1	0.6	2.1	3.1	0.1		0.7		0.2			
Delay (s)	7.1	10.4	12.3	24.1	2.6		23.2		22.3			
Level of Service	A	B	B	C	A		C		C			
Approach Delay (s)		11.3			4.9			22.6			0.0	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	9.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	53.9	Sum of lost time (s)	13.5
Intersection Capacity Utilization	68.8%	ICU Level of Service	C
Analysis Period (min)	15		

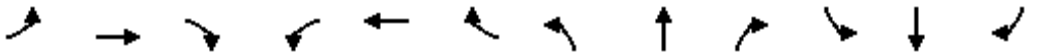
c Critical Lane Group



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	133	1055	18	841	395	86	17	54	559
v/c Ratio	0.50	0.57	0.10	0.68	0.49	0.21	0.03	0.14	0.81
Control Delay	32.4	10.1	16.6	19.7	4.5	15.9	0.1	15.1	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.4	10.1	16.6	19.7	4.5	15.9	0.1	15.1	18.1
Queue Length 50th (ft)	42	104	4	125	0	21	0	13	61
Queue Length 95th (ft)	#110	180	18	204	53	49	0	34	#185
Internal Link Dist (ft)		1980		560		847		971	
Turn Bay Length (ft)	70		100		160		40		620
Base Capacity (vph)	286	2227	201	1414	869	643	761	606	886
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.47	0.09	0.59	0.45	0.13	0.02	0.09	0.63

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	122	932	39	17	774	363	59	20	16	47	3	514
Future Volume (vph)	122	932	39	17	774	363	59	20	16	47	3	514
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5		4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.96	1.00		0.95	1.00
Satd. Flow (prot)	1770	3518		1770	3539	1583		1796	1583		1779	1583
Flt Permitted	0.95	1.00		0.27	1.00	1.00		0.78	1.00		0.74	1.00
Satd. Flow (perm)	1770	3518		505	3539	1583		1453	1583		1370	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	133	1013	42	18	841	395	64	22	17	51	3	559
RTOR Reduction (vph)	0	5	0	0	0	257	0	0	12	0	0	240
Lane Group Flow (vph)	133	1050	0	18	841	138	0	86	5	0	54	319
Turn Type	Prot	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases				8		8	2		2	6		6
Actuated Green, G (s)	5.4	27.7		17.8	17.8	17.8		14.4	14.4		14.4	14.4
Effective Green, g (s)	5.4	27.7		17.8	17.8	17.8		14.4	14.4		14.4	14.4
Actuated g/C Ratio	0.11	0.54		0.35	0.35	0.35		0.28	0.28		0.28	0.28
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5		4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	187	1907		175	1232	551		409	446		386	446
v/s Ratio Prot	0.08	c0.30			c0.24							
v/s Ratio Perm				0.04		0.09		0.06	0.00		0.04	c0.20
v/c Ratio	0.71	0.55		0.10	0.68	0.25		0.21	0.01		0.14	0.72
Uniform Delay, d1	22.1	7.6		11.3	14.2	11.9		14.0	13.2		13.7	16.5
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	12.0	0.3		0.3	1.6	0.2		0.3	0.0		0.2	5.4
Delay (s)	34.1	8.0		11.5	15.8	12.1		14.3	13.2		13.9	21.9
Level of Service	C	A		B	B	B		B	B		B	C
Approach Delay (s)		10.9			14.6			14.1			21.2	
Approach LOS		B			B			B			C	

Intersection Summary			
HCM 2000 Control Delay	14.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	51.1	Sum of lost time (s)	13.5
Intersection Capacity Utilization	68.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

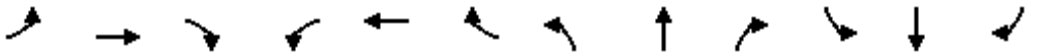


Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	450	167	183	103	846	383	160	709	846
v/c Ratio	1.26	0.41	0.86	0.37	1.39	0.25	0.74	0.91	1.26
Control Delay	187.2	19.1	98.9	12.9	221.6	25.9	83.3	72.9	154.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	187.2	19.1	98.9	12.9	221.6	25.9	83.3	72.9	154.3
Queue Length 50th (ft)	~554	37	178	0	~1100	117	153	360	~709
Queue Length 95th (ft)	#775	109	#310	53	#1355	164	229	#472	#968
Internal Link Dist (ft)	835		755			938		874	
Turn Bay Length (ft)				80	290		100		200
Base Capacity (vph)	356	410	221	286	610	1542	272	782	669
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.26	0.41	0.83	0.36	1.39	0.25	0.59	0.91	1.26

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	283	131	154	50	119	95	778	294	58	147	652	778
Future Volume (vph)	283	131	154	50	119	95	778	294	58	147	652	778
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected		0.97	1.00		0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1801	1583		1836	1583	1770	3452		1770	3539	1583
Flt Permitted		0.97	1.00		0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1801	1583		1836	1583	1770	3452		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	308	142	167	54	129	103	846	320	63	160	709	846
RTOR Reduction (vph)	0	0	98	0	0	91	0	10	0	0	0	320
Lane Group Flow (vph)	0	450	69	0	183	12	846	373	0	160	709	526
Turn Type	Split	NA	Prot	Split	NA	Prot	Prot	NA		Prot	NA	Perm
Protected Phases	4	4	4	8	8	8	5	2		1	6	
Permitted Phases												6
Actuated Green, G (s)		29.5	29.5		17.3	17.3	51.5	66.3		18.2	33.0	33.0
Effective Green, g (s)		29.5	29.5		17.3	17.3	51.5	66.3		18.2	33.0	33.0
Actuated g/C Ratio		0.20	0.20		0.12	0.12	0.34	0.44		0.12	0.22	0.22
Clearance Time (s)		4.5	4.5		4.5	4.5	4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		355	312		212	183	610	1532		215	782	349
v/s Ratio Prot		c0.25	0.04		c0.10	0.01	c0.48	0.11		0.09	0.20	
v/s Ratio Perm												c0.33
v/c Ratio		1.27	0.22		0.86	0.07	1.39	0.24		0.74	0.91	1.51
Uniform Delay, d1		59.9	50.3		64.8	58.8	48.9	25.9		63.3	56.6	58.2
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		140.9	0.4		28.4	0.2	184.1	0.4		13.0	16.1	242.4
Delay (s)		200.8	50.6		93.3	58.9	233.0	26.2		76.3	72.8	300.6
Level of Service		F	D		F	E	F	C		E	E	F
Approach Delay (s)		160.2			80.9			168.6			185.5	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	168.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.32		
Actuated Cycle Length (s)	149.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	111.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

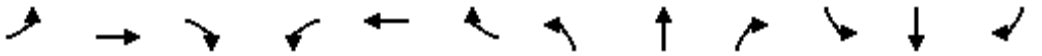


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	99	967	280	115	929	114	1153	220	276	1738	93
v/c Ratio	0.93	0.93	0.48	1.08	0.90	0.90	0.91	0.33	1.00	1.11	0.12
Control Delay	103.1	41.7	10.9	143.8	36.0	95.5	33.8	6.6	89.0	80.6	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	103.1	41.7	10.9	143.8	36.0	95.5	33.8	6.6	89.0	80.6	3.4
Queue Length 50th (ft)	41	212	33	~57	192	50	243	16	~121	~461	0
Queue Length 95th (ft)	#129	#329	95	#151	#304	#140	#368	59	#264	#590	22
Internal Link Dist (ft)		987			1124		1174			1214	
Turn Bay Length (ft)	100		100	140		185		80	110		
Base Capacity (vph)	106	1036	588	106	1036	126	1268	672	275	1567	753
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.93	0.48	1.08	0.90	0.90	0.91	0.33	1.00	1.11	0.12

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	890	258	106	691	164	105	1061	202	254	1599	86
Future Volume (vph)	91	890	258	106	691	164	105	1061	202	254	1599	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3437		1770	3539	1583	1770	3539	1583
Flt Permitted	0.20	1.00	1.00	0.20	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	363	3539	1583	363	3437		1770	3539	1583	1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	99	967	280	115	751	178	114	1153	220	276	1738	93
RTOR Reduction (vph)	0	0	125	0	30	0	0	0	105	0	0	52
Lane Group Flow (vph)	99	967	155	115	899	0	114	1153	115	276	1738	41
Turn Type	Perm	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	20.5	20.5	20.5	20.5	20.5		5.0	25.1	25.1	10.9	31.0	31.0
Effective Green, g (s)	20.5	20.5	20.5	20.5	20.5		5.0	25.1	25.1	10.9	31.0	31.0
Actuated g/C Ratio	0.29	0.29	0.29	0.29	0.29		0.07	0.36	0.36	0.16	0.44	0.44
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	106	1036	463	106	1006		126	1268	567	275	1567	701
v/s Ratio Prot		0.27			0.26		0.06	0.33		c0.16	c0.49	
v/s Ratio Perm	0.27		0.10	c0.32					0.07			0.03
v/c Ratio	0.93	0.93	0.33	1.08	0.89		0.90	0.91	0.20	1.00	1.11	0.06
Uniform Delay, d1	24.1	24.1	19.4	24.8	23.7		32.3	21.4	15.5	29.6	19.5	11.2
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	66.1	14.6	0.4	112.1	10.2		51.7	9.7	0.2	55.2	58.8	0.0
Delay (s)	90.2	38.6	19.8	136.9	33.9		83.9	31.0	15.7	84.7	78.3	11.2
Level of Service	F	D	B	F	C		F	C	B	F	E	B
Approach Delay (s)		38.5			45.3			32.8			76.2	
Approach LOS		D			D			C			E	

Intersection Summary			
HCM 2000 Control Delay	51.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	95.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

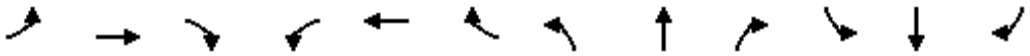


Lane Group	EBT	EBR	WBL	WBT	SBT
Lane Group Flow (vph)	2134	328	173	1037	1328
v/c Ratio	1.17	0.37	1.15	0.49	1.16
Control Delay	115.6	12.5	153.8	17.6	122.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	115.6	12.5	153.8	17.6	122.7
Queue Length 50th (ft)	~1302	97	~148	286	~768
Queue Length 95th (ft)	#1431	168	#308	340	#911
Internal Link Dist (ft)	979			732	799
Turn Bay Length (ft)		230	160		
Base Capacity (vph)	1828	889	150	2135	1144
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.17	0.37	1.15	0.49	1.16

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1963	302	159	954	0	0	0	0	546	8	668
Future Volume (vph)	0	1963	302	159	954	0	0	0	0	546	8	668
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5						4.5	
Lane Util. Factor		0.95	1.00	1.00	0.95						0.95	
Frt		1.00	0.85	1.00	1.00						0.92	
Flt Protected		1.00	1.00	0.95	1.00						0.98	
Satd. Flow (prot)		3539	1583	1770	3539						3178	
Flt Permitted		1.00	1.00	0.05	1.00						0.98	
Satd. Flow (perm)		3539	1583	91	3539						3178	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	2134	328	173	1037	0	0	0	0	593	9	726
RTOR Reduction (vph)	0	0	72	0	0	0	0	0	0	0	74	0
Lane Group Flow (vph)	0	2134	256	173	1037	0	0	0	0	0	1254	0
Turn Type		NA	custom	pm+pt	NA					custom	NA	
Protected Phases				3	8							
Permitted Phases		4	4	8						6	6	
Actuated Green, G (s)		77.5	77.5	90.5	90.5						50.5	
Effective Green, g (s)		77.5	77.5	90.5	90.5						50.5	
Actuated g/C Ratio		0.52	0.52	0.60	0.60						0.34	
Clearance Time (s)		4.5	4.5	4.5	4.5						4.5	
Vehicle Extension (s)		3.0	3.0	3.0	3.0						3.0	
Lane Grp Cap (vph)		1828	817	150	2135						1069	
v/s Ratio Prot				c0.07	0.29							
v/s Ratio Perm		0.60	0.16	c0.63							c0.39	
v/c Ratio		1.17	0.31	1.15	0.49						1.17	
Uniform Delay, d1		36.2	20.9	49.0	16.7						49.8	
Progression Factor		1.00	1.00	1.00	1.00						1.00	
Incremental Delay, d2		81.7	0.2	120.6	0.2						87.9	
Delay (s)		117.9	21.1	169.6	16.9						137.6	
Level of Service		F	C	F	B						F	
Approach Delay (s)		105.0			38.7			0.0			137.6	
Approach LOS		F			D			A			F	

Intersection Summary			
HCM 2000 Control Delay	97.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	112.0%	ICU Level of Service	H
Analysis Period (min)	15		

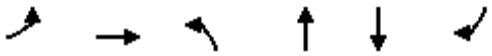
c Critical Lane Group

Intersection	
Intersection Delay, s/veh	195.9
Intersection LOS	F

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	603	152	0	56	415	0	671	130
Future Vol, veh/h	0	603	152	0	56	415	0	671	130
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	655	165	0	61	451	0	729	141
Number of Lanes	0	2	1	0	1	1	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	3	0
HCM Control Delay	30.3	71.2	425.2
HCM LOS	D	F	F

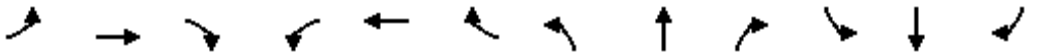
Lane	NBLn1	NBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	100%	0%	94%	0%
Vol Thru, %	100%	0%	0%	0%	0%	6%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	56	415	302	302	152	714	87
LT Vol	0	0	302	302	0	671	0
Through Vol	56	0	0	0	0	43	87
RT Vol	0	415	0	0	152	0	0
Lane Flow Rate	61	451	328	328	165	776	94
Geometry Grp	8	8	7	7	7	8	8
Degree of Util (X)	0.147	1.002	0.746	0.746	0.242	1.989	0.229
Departure Headway (Hd)	10.397	9.66	9.431	9.431	6.354	9.326	8.841
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	347	379	387	387	568	396	409
Service Time	8.097	7.36	7.131	7.131	4.054	7.026	6.541
HCM Lane V/C Ratio	0.176	1.19	0.848	0.848	0.29	1.96	0.23
HCM Control Delay	14.9	78.8	35.2	35.2	11.1	475.1	14.1
HCM Lane LOS	B	F	E	E	B	F	B
HCM 95th-tile Q	0.5	11.9	5.9	5.9	0.9	53.1	0.9



Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	284	259	1101	530	936	267
v/c Ratio	0.86	0.62	0.95	0.21	0.84	0.39
Control Delay	60.0	21.5	46.8	5.0	37.5	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.0	21.5	46.8	5.0	37.5	5.0
Queue Length 50th (ft)	164	60	310	48	263	0
Queue Length 95th (ft)	#302	144	#443	67	#370	54
Internal Link Dist (ft)		639		679	675	
Turn Bay Length (ft)	340		240			250
Base Capacity (vph)	349	436	1176	2484	1110	680
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.59	0.94	0.21	0.84	0.39

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	323	0	177	0	0	0	1013	488	0	0	861	246
Future Volume (vph)	323	0	177	0	0	0	1013	488	0	0	861	246
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5					4.5	4.5			4.5	4.5
Lane Util. Factor	0.95	0.95					0.97	0.95			0.95	1.00
Frt	1.00	0.89					1.00	1.00			1.00	0.85
Flt Protected	0.95	0.99					0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1553					3433	3539			3539	1583
Flt Permitted	0.95	0.99					0.95	1.00			1.00	1.00
Satd. Flow (perm)	1681	1553					3433	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	351	0	192	0	0	0	1101	530	0	0	936	267
RTOR Reduction (vph)	0	116	0	0	0	0	0	0	0	0	0	183
Lane Group Flow (vph)	284	143	0	0	0	0	1101	530	0	0	936	84
Turn Type	Perm	NA					Prot	NA			NA	Perm
Protected Phases		4					5	2			6	
Permitted Phases	4											6
Actuated Green, G (s)	17.5	17.5					30.1	62.6			28.0	28.0
Effective Green, g (s)	17.5	17.5					30.1	62.6			28.0	28.0
Actuated g/C Ratio	0.20	0.20					0.34	0.70			0.31	0.31
Clearance Time (s)	4.5	4.5					4.5	4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0					3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	330	305					1159	2486			1112	497
v/s Ratio Prot							c0.32	0.15			c0.26	
v/s Ratio Perm	c0.17	0.09										0.05
v/c Ratio	0.86	0.47					0.95	0.21			0.84	0.17
Uniform Delay, d1	34.6	31.7					28.8	4.6			28.5	22.1
Progression Factor	1.00	1.00					1.00	1.00			1.00	1.00
Incremental Delay, d2	19.9	1.1					15.7	0.2			7.8	0.7
Delay (s)	54.5	32.8					44.5	4.8			36.2	22.9
Level of Service	D	C					D	A			D	C
Approach Delay (s)		44.2			0.0			31.6			33.3	
Approach LOS		D			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	34.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	89.1	Sum of lost time (s)	13.5
Intersection Capacity Utilization	78.3%	ICU Level of Service	D
Analysis Period (min)	15		

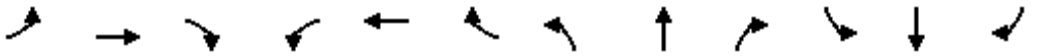
c Critical Lane Group



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	76	76	386	390	968	1474	468
v/c Ratio	0.18	0.18	0.79	0.76	0.47	0.82	0.54
Control Delay	16.9	16.9	26.9	35.8	8.3	22.6	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.9	16.9	26.9	35.8	8.3	22.6	4.5
Queue Length 50th (ft)	21	21	86	70	98	175	0
Queue Length 95th (ft)	49	49	#200	#134	144	#262	55
Internal Link Dist (ft)		585			691	966	
Turn Bay Length (ft)	320		320	160			
Base Capacity (vph)	534	534	578	515	2064	1797	862
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.14	0.67	0.76	0.47	0.82	0.54

Intersection Summary

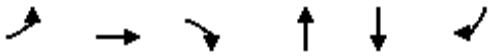
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	140	0	355	359	891	0	0	1356	431
Future Volume (vph)	0	0	0	140	0	355	359	891	0	0	1356	431
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.5	4.5	4.5	4.5	4.5			4.5	4.5
Lane Util. Factor				0.95	0.95	1.00	0.97	0.95			0.91	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1681	1583	3433	3539			5085	1583
Flt Permitted				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1681	1583	3433	3539			5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	152	0	386	390	968	0	0	1474	468
RTOR Reduction (vph)	0	0	0	0	0	81	0	0	0	0	0	302
Lane Group Flow (vph)	0	0	0	76	76	305	390	968	0	0	1474	166
Turn Type				Perm	NA	Perm	Prot	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Actuated Green, G (s)				14.6	14.6	14.6	8.5	33.2			20.2	20.2
Effective Green, g (s)				14.6	14.6	14.6	8.5	33.2			20.2	20.2
Actuated g/C Ratio				0.26	0.26	0.26	0.15	0.58			0.36	0.36
Clearance Time (s)				4.5	4.5	4.5	4.5	4.5			4.5	4.5
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				432	432	406	513	2068			1808	562
v/s Ratio Prot							c0.11	0.27			c0.29	
v/s Ratio Perm				0.05	0.05	c0.19						0.11
v/c Ratio				0.18	0.18	0.75	0.76	0.47			0.82	0.30
Uniform Delay, d1				16.4	16.4	19.4	23.2	6.7			16.6	13.2
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2				0.2	0.2	7.6	6.5	0.8			4.2	1.3
Delay (s)				16.6	16.6	27.1	29.7	7.5			20.8	14.5
Level of Service				B	B	C	C	A			C	B
Approach Delay (s)		0.0			24.1			13.9			19.3	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	56.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	54.1%	ICU Level of Service	A
Analysis Period (min)	15		

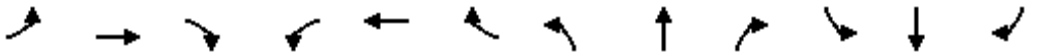
c Critical Lane Group



Lane Group	EBL	EBT	EBR	NBT	SBT	SBR
Lane Group Flow (vph)	268	120	377	1306	1187	447
v/c Ratio	0.27	0.12	0.77	0.67	0.60	0.42
Control Delay	16.1	14.7	27.3	11.5	10.8	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.1	14.7	27.3	11.5	10.8	2.3
Queue Length 50th (ft)	36	15	99	161	145	0
Queue Length 95th (ft)	60	31	#194	231	205	35
Internal Link Dist (ft)		671		711	691	
Turn Bay Length (ft)						
Base Capacity (vph)	1178	1215	578	1939	1962	1076
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.10	0.65	0.67	0.60	0.42

Intersection Summary

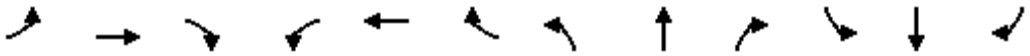
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	247	110	347	0	0	0	0	1004	198	0	1092	411
Future Volume (vph)	247	110	347	0	0	0	0	1004	198	0	1092	411
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5					4.5			4.5	4.5
Lane Util. Factor	0.97	0.95	1.00					0.95			0.95	1.00
Frt	1.00	1.00	0.85					0.98			1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00			1.00	1.00
Satd. Flow (prot)	3433	3539	1583					3452			3539	1583
Flt Permitted	0.95	1.00	1.00					1.00			1.00	1.00
Satd. Flow (perm)	3433	3539	1583					3452			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	268	120	377	0	0	0	0	1091	215	0	1187	447
RTOR Reduction (vph)	0	0	38	0	0	0	0	26	0	0	0	199
Lane Group Flow (vph)	268	120	339	0	0	0	0	1280	0	0	1187	248
Turn Type	Split	NA	Perm				Perm	NA			NA	Perm
Protected Phases	4	4						2			6	
Permitted Phases			4				2					6
Actuated Green, G (s)	16.4	16.4	16.4					31.7			31.7	31.7
Effective Green, g (s)	16.4	16.4	16.4					31.7			31.7	31.7
Actuated g/C Ratio	0.29	0.29	0.29					0.56			0.56	0.56
Clearance Time (s)	4.5	4.5	4.5					4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	3.0
Lane Grp Cap (vph)	986	1016	454					1916			1964	878
v/s Ratio Prot	0.08	0.03						c0.37			0.34	
v/s Ratio Perm			c0.21									0.16
v/c Ratio	0.27	0.12	0.75					0.67			0.60	0.28
Uniform Delay, d1	15.7	15.0	18.5					9.0			8.5	6.7
Progression Factor	1.00	1.00	1.00					1.00			1.00	1.00
Incremental Delay, d2	0.1	0.1	6.6					1.9			1.4	0.8
Delay (s)	15.9	15.1	25.1					10.8			9.9	7.5
Level of Service	B	B	C					B			A	A
Approach Delay (s)		20.3			0.0			10.8			9.2	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	12.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	57.1	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		

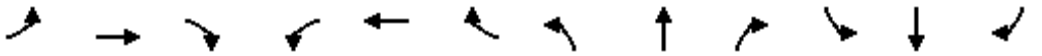
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	211	1151	268	168	1077	103	161	1138	165	195	1755	388
v/c Ratio	0.93	0.95	0.57	0.90	0.98	0.23	0.93	0.95	0.31	0.95	0.96	0.55
Control Delay	86.1	50.6	20.7	86.9	58.5	5.0	95.3	46.4	24.0	92.2	43.5	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.1	50.6	20.7	86.9	58.5	5.0	95.3	46.4	24.0	92.2	43.5	13.0
Queue Length 50th (ft)	121	236	67	96	224	0	93	328	69	112	353	69
Queue Length 95th (ft)	#254	#326	147	#215	#317	28	#212	#465	120	#242	#465	158
Internal Link Dist (ft)		1026			1032			984			943	
Turn Bay Length (ft)	175		25	200		200	160		215	140		120
Base Capacity (vph)	226	1214	474	186	1101	442	173	1199	536	206	1819	706
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.95	0.57	0.90	0.98	0.23	0.93	0.95	0.31	0.95	0.96	0.55

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	194	1059	247	155	991	95	148	1047	152	179	1615	357
Future Volume (vph)	194	1059	247	155	991	95	148	1047	152	179	1615	357
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	211	1151	268	168	1077	103	161	1138	165	195	1755	388
RTOR Reduction (vph)	0	0	97	0	0	81	0	0	0	0	0	140
Lane Group Flow (vph)	211	1151	171	168	1077	22	161	1138	165	195	1755	248
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	11.5	21.5	21.5	9.5	19.5	19.5	8.8	30.5	30.5	10.5	32.2	32.2
Effective Green, g (s)	11.5	21.5	21.5	9.5	19.5	19.5	8.8	30.5	30.5	10.5	32.2	32.2
Actuated g/C Ratio	0.13	0.24	0.24	0.11	0.22	0.22	0.10	0.34	0.34	0.12	0.36	0.36
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	226	1214	378	186	1101	342	173	1199	536	206	1819	566
v/s Ratio Prot	c0.12	c0.23		0.09	0.21		0.09	0.32		c0.11	c0.35	
v/s Ratio Perm			0.11			0.01			0.10			0.16
v/c Ratio	0.93	0.95	0.45	0.90	0.98	0.07	0.93	0.95	0.31	0.95	0.96	0.44
Uniform Delay, d1	38.9	33.7	29.2	39.8	35.0	28.0	40.3	29.0	22.0	39.5	28.3	22.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	41.6	14.9	0.9	39.7	21.7	0.1	48.5	15.2	0.3	47.2	13.6	0.5
Delay (s)	80.5	48.6	30.1	79.5	56.8	28.1	88.8	44.2	22.3	86.7	42.0	22.6
Level of Service	F	D	C	E	E	C	F	D	C	F	D	C
Approach Delay (s)		49.7			57.4			46.6			42.5	
Approach LOS		D			E			D			D	

Intersection Summary			
HCM 2000 Control Delay	48.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	84.3%	ICU Level of Service	E
Analysis Period (min)	15		

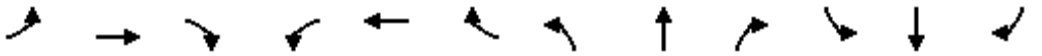
c Critical Lane Group



Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	467	148	95	84	1316	50	63	1834	23
v/c Ratio	0.95	0.47	0.18	0.84	0.65	0.05	0.45	0.91	0.03
Control Delay	58.0	27.1	11.7	76.5	12.8	3.8	21.7	22.7	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.0	27.1	11.7	76.5	12.8	3.8	21.7	22.7	3.1
Queue Length 50th (ft)	207	56	15	29	198	3	15	361	0
Queue Length 95th (ft)	#393	111	47	#117	263	16	56	#516	9
Internal Link Dist (ft)	688	730			772			694	
Turn Bay Length (ft)				80		80	90		
Base Capacity (vph)	490	315	523	102	2057	934	144	2057	929
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.47	0.18	0.82	0.64	0.05	0.44	0.89	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



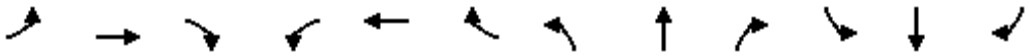
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	148	187	75	61	87	77	1211	46	58	1687	21
Future Volume (vph)	95	148	187	75	61	87	77	1211	46	58	1687	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.94			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99			0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1734			1813	1583	1770	3539	1583	1770	3539	1583
Flt Permitted		0.89			0.55	1.00	0.09	1.00	1.00	0.13	1.00	1.00
Satd. Flow (perm)		1557			1020	1583	176	3539	1583	247	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	103	161	203	82	66	95	84	1316	50	63	1834	23
RTOR Reduction (vph)	0	10	0	0	0	35	0	0	15	0	0	10
Lane Group Flow (vph)	0	457	0	0	148	60	84	1316	35	63	1834	13
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)		22.9			22.9	22.9	42.3	42.3	42.3	42.3	42.3	42.3
Effective Green, g (s)		22.9			22.9	22.9	42.3	42.3	42.3	42.3	42.3	42.3
Actuated g/C Ratio		0.31			0.31	0.31	0.57	0.57	0.57	0.57	0.57	0.57
Clearance Time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		480			314	488	100	2017	902	140	2017	902
v/s Ratio Prot								0.37			c0.52	
v/s Ratio Perm		c0.29			0.15	0.04	0.48		0.02	0.26		0.01
v/c Ratio		0.95			0.47	0.12	0.84	0.65	0.04	0.45	0.91	0.01
Uniform Delay, d1		25.1			20.8	18.4	13.2	10.9	7.0	9.2	14.2	6.9
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		29.3			1.1	0.1	43.1	0.8	0.0	2.3	6.5	0.0
Delay (s)		54.4			21.9	18.6	56.2	11.7	7.0	11.5	20.7	6.9
Level of Service		D			C	B	E	B	A	B	C	A
Approach Delay (s)		54.4			20.6			14.1			20.3	
Approach LOS		D			C			B			C	

Intersection Summary			
HCM 2000 Control Delay	22.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	74.2	Sum of lost time (s)	9.0
Intersection Capacity Utilization	93.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Appendix E
LOS/Queue Analysis With Mitigation (HCM Methodology)

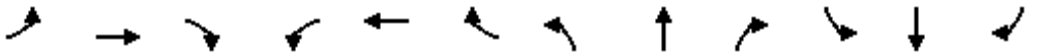
Existing Year (2016) With Project + Mitigation



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	64	912	196	86	1214	159	190	1209	152	114	849	161
v/c Ratio	0.53	0.64	0.27	0.69	0.85	0.22	0.69	0.80	0.21	0.72	0.75	0.26
Control Delay	37.2	20.6	5.3	51.3	27.6	3.6	43.0	24.9	7.7	58.9	26.7	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.2	20.6	5.3	51.3	27.6	3.6	43.0	24.9	7.7	58.9	26.7	4.7
Queue Length 50th (ft)	21	167	9	31	248	0	79	246	16	49	171	0
Queue Length 95th (ft)	#74	226	47	#104	#364	32	#163	#342	51	#128	233	37
Internal Link Dist (ft)		1029			1030			868			853	
Turn Bay Length (ft)	90		40	240		60	160		140	165		160
Base Capacity (vph)	127	1484	765	131	1484	765	293	1502	730	159	1216	657
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.61	0.26	0.66	0.82	0.21	0.65	0.80	0.21	0.72	0.70	0.25

Intersection Summary

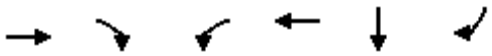
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	839	180	79	1117	146	175	1112	140	105	781	148
Future Volume (vph)	59	839	180	79	1117	146	175	1112	140	105	781	148
Ideal Flow (vphpl)	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1947	3893	1742	1947	3893	1742	1947	3893	1742	1947	3893	1742
Flt Permitted	0.16	1.00	1.00	0.17	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	333	3893	1742	344	3893	1742	1947	3893	1742	1947	3893	1742
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	64	912	196	86	1214	159	190	1209	152	114	849	161
RTOR Reduction (vph)	0	0	105	0	0	102	0	0	58	0	0	112
Lane Group Flow (vph)	64	912	91	86	1214	57	190	1209	94	114	849	49
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	24.6	24.6	24.6	24.6	24.6	24.6	9.6	26.0	26.0	4.2	20.6	20.6
Effective Green, g (s)	24.6	24.6	24.6	24.6	24.6	24.6	9.6	26.0	26.0	4.2	20.6	20.6
Actuated g/C Ratio	0.36	0.36	0.36	0.36	0.36	0.36	0.14	0.38	0.38	0.06	0.30	0.30
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	119	1402	627	123	1402	627	273	1481	663	119	1174	525
v/s Ratio Prot		0.23			c0.31		c0.10	c0.31		0.06	0.22	
v/s Ratio Perm	0.19		0.05	0.25		0.03			0.05			0.03
v/c Ratio	0.54	0.65	0.15	0.70	0.87	0.09	0.70	0.82	0.14	0.96	0.72	0.09
Uniform Delay, d1	17.3	18.3	14.8	18.7	20.3	14.5	28.0	19.0	13.8	32.0	21.3	17.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.6	1.1	0.1	15.9	5.9	0.1	7.5	3.6	0.1	68.6	2.2	0.1
Delay (s)	22.0	19.3	14.9	34.6	26.2	14.5	35.5	22.6	13.9	100.5	23.5	17.2
Level of Service	C	B	B	C	C	B	D	C	B	F	C	B
Approach Delay (s)		18.7			25.4			23.3			30.4	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	24.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	68.3	Sum of lost time (s)	13.5
Intersection Capacity Utilization	80.5%	ICU Level of Service	D
Analysis Period (min)	15		

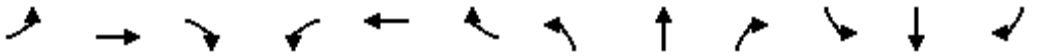
c Critical Lane Group



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	1141	170	145	1535	628	617
v/c Ratio	0.80	0.33	0.79	0.66	0.92	0.93
Control Delay	26.7	10.6	61.6	15.5	37.3	38.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.7	10.6	61.6	15.5	37.3	38.4
Queue Length 50th (ft)	153	20	58	167	202	198
Queue Length 95th (ft)	201	64	#147	213	#417	#412
Internal Link Dist (ft)	987			993	737	
Turn Bay Length (ft)		40	140			
Base Capacity (vph)	1443	521	183	2330	707	691
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.33	0.79	0.66	0.89	0.89

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1050	156	133	1412	0	0	0	0	114	0	1031
Future Volume (vph)	0	1050	156	133	1412	0	0	0	0	114	0	1031
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5						4.5	4.5
Lane Util. Factor		0.91	1.00	1.00	0.91						0.95	0.95
Frt		1.00	0.85	1.00	1.00						0.88	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.99	1.00
Satd. Flow (prot)		5085	1583	1770	5085						1541	1504
Flt Permitted		1.00	1.00	0.95	1.00						0.99	1.00
Satd. Flow (perm)		5085	1583	1770	5085						1541	1504
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1141	170	145	1535	0	0	0	0	124	0	1121
RTOR Reduction (vph)	0	0	73	0	0	0	0	0	0	0	60	60
Lane Group Flow (vph)	0	1141	97	145	1535	0	0	0	0	0	568	557
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		4		3	8						6	
Permitted Phases			4							6		6
Actuated Green, G (s)		17.9	17.9	6.6	29.0						25.8	25.8
Effective Green, g (s)		17.9	17.9	6.6	29.0						25.8	25.8
Actuated g/C Ratio		0.28	0.28	0.10	0.45						0.40	0.40
Clearance Time (s)		4.5	4.5	4.5	4.5						4.5	4.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0						3.0	3.0
Lane Grp Cap (vph)		1426	444	183	2311						623	608
v/s Ratio Prot		c0.22		0.08	c0.30							
v/s Ratio Perm			0.06								0.37	c0.37
v/c Ratio		0.80	0.22	0.79	0.66						0.91	0.92
Uniform Delay, d1		21.3	17.6	27.9	13.6						17.9	18.0
Progression Factor		1.00	1.00	1.00	1.00						1.00	1.00
Incremental Delay, d2		3.3	0.3	20.5	0.7						17.6	18.5
Delay (s)		24.6	17.8	48.4	14.3						35.6	36.5
Level of Service		C	B	D	B						D	D
Approach Delay (s)		23.7			17.3			0.0			36.0	
Approach LOS		C			B			A			D	

Intersection Summary			
HCM 2000 Control Delay	24.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	63.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	77.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

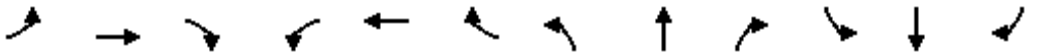


Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	421	262	346	182	636	796	152	681	309
v/c Ratio	1.06	0.54	1.02	0.49	1.00	0.49	0.95	0.80	0.39
Control Delay	101.5	18.4	96.6	22.2	77.8	18.0	99.3	39.5	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	101.5	18.4	96.6	22.2	77.8	18.0	99.3	39.5	10.8
Queue Length 50th (ft)	~297	56	~236	47	~211	164	96	200	75
Queue Length 95th (ft)	#485	136	#410	114	#329	216	#222	272	142
Internal Link Dist (ft)		835	755			938		874	
Turn Bay Length (ft)				80	290		100		
Base Capacity (vph)	396	489	338	372	635	1638	160	850	790
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.06	0.54	1.02	0.49	1.00	0.49	0.95	0.80	0.39

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	387	55	186	109	210	167	585	560	172	140	412	499
Future Volume (vph)	387	55	186	109	210	167	585	560	172	140	412	499
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00	0.97	0.95		1.00	0.91	0.91
Frt	1.00	0.88			1.00	0.85	1.00	0.96		1.00	0.95	0.85
Flt Protected	0.95	1.00			0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1647			1832	1583	3433	3414		1770	3216	1441
Flt Permitted	0.95	1.00			0.98	1.00	0.95	1.00		0.35	1.00	1.00
Satd. Flow (perm)	1770	1647			1832	1583	3433	3414		653	3216	1441
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	421	60	202	118	228	182	636	609	187	152	448	542
RTOR Reduction (vph)	0	121	0	0	0	80	0	29	0	0	60	60
Lane Group Flow (vph)	421	141	0	0	346	102	636	767	0	152	621	249
Turn Type	Split	NA		Split	NA	Prot	Prot	NA		Perm	NA	pm+ov
Protected Phases	4	4		8	8	8	5	2			6	4
Permitted Phases										6		6
Actuated Green, G (s)	22.4	22.4			18.5	18.5	18.5	47.1		24.6	24.6	47.0
Effective Green, g (s)	22.4	22.4			18.5	18.5	18.5	47.1		24.6	24.6	47.0
Actuated g/C Ratio	0.22	0.22			0.18	0.18	0.18	0.47		0.25	0.25	0.47
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	396	368			338	292	635	1607		160	791	734
v/s Ratio Prot	c0.24	0.09			c0.19	0.06	c0.19	0.22			0.19	0.08
v/s Ratio Perm										c0.23		0.10
v/c Ratio	1.06	0.38			1.02	0.35	1.00	0.48		0.95	0.79	0.34
Uniform Delay, d1	38.8	32.9			40.8	35.5	40.8	18.0		37.1	35.2	16.7
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	63.0	0.7			55.1	0.7	36.1	0.2		55.6	5.2	0.3
Delay (s)	101.8	33.6			95.9	36.2	76.8	18.3		92.7	40.4	17.0
Level of Service	F	C			F	D	E	B		F	D	B
Approach Delay (s)		75.6			75.3			44.3			41.0	
Approach LOS		E			E			D			D	

Intersection Summary			
HCM 2000 Control Delay	53.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	85.3%	ICU Level of Service	E
Analysis Period (min)	15		

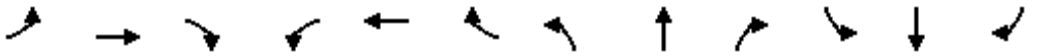
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	88	422	91	267	1210	127	1266	175	139	915	67
v/c Ratio	0.69	0.33	0.14	0.84	0.94	0.63	0.87	0.25	0.83	0.60	0.09
Control Delay	52.1	17.1	4.1	47.0	36.0	44.1	27.5	7.6	69.1	18.7	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.1	17.1	4.1	47.0	36.0	44.1	27.5	7.6	69.1	18.7	2.0
Queue Length 50th (ft)	30	64	0	97	232	49	237	19	55	156	0
Queue Length 95th (ft)	#102	98	24	#222	#365	#116	#357	55	#145	215	13
Internal Link Dist (ft)		987			1124		1174			1214	
Turn Bay Length (ft)	100		100	140		185		80	110		
Base Capacity (vph)	127	1294	646	317	1290	204	1469	720	168	1515	739
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.33	0.14	0.84	0.94	0.62	0.86	0.24	0.83	0.60	0.09

Intersection Summary

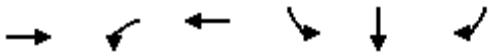
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	388	84	246	895	218	117	1165	161	128	842	62
Future Volume (vph)	81	388	84	246	895	218	117	1165	161	128	842	62
Ideal Flow (vphpl)	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1947	3893	1742	1947	3779		1947	3893	1742	1947	3893	1742
Flt Permitted	0.19	1.00	1.00	0.47	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	381	3893	1742	954	3779		1947	3893	1742	1947	3893	1742
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	88	422	91	267	973	237	127	1266	175	139	915	67
RTOR Reduction (vph)	0	0	61	0	33	0	0	0	63	0	0	41
Lane Group Flow (vph)	88	422	30	267	1177	0	127	1266	112	139	915	26
Turn Type	Perm	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	21.5	21.5	21.5	21.5	21.5		5.4	25.0	25.0	5.6	25.2	25.2
Effective Green, g (s)	21.5	21.5	21.5	21.5	21.5		5.4	25.0	25.0	5.6	25.2	25.2
Actuated g/C Ratio	0.33	0.33	0.33	0.33	0.33		0.08	0.38	0.38	0.09	0.38	0.38
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	124	1275	570	312	1238		160	1483	663	166	1495	669
v/s Ratio Prot		0.11			c0.31		0.07	c0.33		c0.07	0.24	
v/s Ratio Perm	0.23		0.02	0.28					0.06			0.01
v/c Ratio	0.71	0.33	0.05	0.86	0.95		0.79	0.85	0.17	0.84	0.61	0.04
Uniform Delay, d1	19.3	16.6	15.1	20.6	21.5		29.6	18.6	13.4	29.6	16.3	12.6
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	17.0	0.2	0.0	19.9	15.3		23.1	5.0	0.1	29.1	0.7	0.0
Delay (s)	36.3	16.8	15.1	40.5	36.8		52.6	23.6	13.6	58.6	17.0	12.7
Level of Service	D	B	B	D	D		D	C	B	E	B	B
Approach Delay (s)		19.4			37.5			24.9			21.9	
Approach LOS		B			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	27.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	65.6	Sum of lost time (s)	13.5
Intersection Capacity Utilization	83.7%	ICU Level of Service	E
Analysis Period (min)	15		

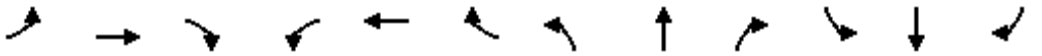
c Critical Lane Group



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1383	226	1337	303	503	507
v/c Ratio	0.83	0.76	0.75	0.54	0.99	0.87
Control Delay	22.1	28.1	14.4	19.2	60.5	32.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.1	28.1	14.4	19.2	60.5	32.4
Queue Length 50th (ft)	143	39	168	83	167	123
Queue Length 95th (ft)	#198	#105	240	151	#362	#296
Internal Link Dist (ft)	979		732		799	
Turn Bay Length (ft)		160				
Base Capacity (vph)	1667	299	1775	562	506	582
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.76	0.75	0.54	0.99	0.87

Intersection Summary

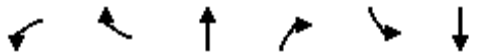
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1105	167	208	1230	0	0	0	0	310	1	897
Future Volume (vph)	0	1105	167	208	1230	0	0	0	0	310	1	897
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5					4.5	4.5	4.5
Lane Util. Factor		0.91		1.00	0.95					0.95	0.91	0.95
Frt		0.98		1.00	1.00					1.00	0.86	0.85
Flt Protected		1.00		0.95	1.00					0.95	1.00	1.00
Satd. Flow (prot)		4985		1770	3539					1681	1454	1504
Flt Permitted		1.00		0.18	1.00					0.95	1.00	1.00
Satd. Flow (perm)		4985		331	3539					1681	1454	1504
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1201	182	226	1337	0	0	0	0	337	1	975
RTOR Reduction (vph)	0	36	0	0	0	0	0	0	0	0	20	79
Lane Group Flow (vph)	0	1347	0	226	1337	0	0	0	0	303	483	428
Turn Type		NA		pm+pt	NA					custom	NA	custom
Protected Phases				3	8							
Permitted Phases		4		8						6	6	6
Actuated Green, G (s)		18.0		27.6	27.6					18.4	18.4	18.4
Effective Green, g (s)		18.0		27.6	27.6					18.4	18.4	18.4
Actuated g/C Ratio		0.33		0.50	0.50					0.33	0.33	0.33
Clearance Time (s)		4.5		4.5	4.5					4.5	4.5	4.5
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1631		299	1775					562	486	503
v/s Ratio Prot				0.07	c0.38							
v/s Ratio Perm		0.27		c0.31						0.18	c0.33	0.28
v/c Ratio		0.83		0.76	0.75					0.54	0.99	0.85
Uniform Delay, d1		17.1		10.3	11.0					14.9	18.2	17.0
Progression Factor		1.00		1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		3.6		10.4	1.9					1.0	39.0	13.0
Delay (s)		20.6		20.7	12.8					15.9	57.3	30.0
Level of Service		C		C	B					B	E	C
Approach Delay (s)		20.6			14.0			0.0			37.2	
Approach LOS		C			B			A			D	

Intersection Summary			
HCM 2000 Control Delay	23.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1341	270	99	115	345	142
v/c Ratio	0.83	0.35	0.41	0.07	0.77	0.19
Control Delay	24.1	11.7	37.9	0.1	41.9	15.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.1	11.7	37.9	0.1	41.9	15.2
Queue Length 50th (ft)	287	58	47	0	162	43
Queue Length 95th (ft)	#426	121	92	0	#316	79
Internal Link Dist (ft)	784		1067			1091
Turn Bay Length (ft)		40			180	
Base Capacity (vph)	1835	879	517	1583	492	1155
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.31	0.19	0.07	0.70	0.12

Intersection Summary

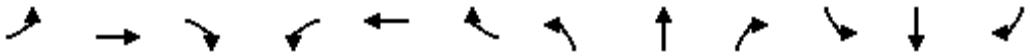
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1234	248	91	106	317	131
Future Volume (vph)	1234	248	91	106	317	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.0	4.5	4.5
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1583	1863	1583	1770	1863
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1583	1863	1583	1770	1863
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1341	270	99	115	345	142
RTOR Reduction (vph)	0	37	0	0	0	0
Lane Group Flow (vph)	1341	233	99	115	345	142
Turn Type	Prot	Prot	NA	Free	Prot	NA
Protected Phases	8	8			1	
Permitted Phases			2	Free		6
Actuated Green, G (s)	34.7	34.7	7.6	74.5	18.7	30.8
Effective Green, g (s)	34.7	34.7	7.6	74.5	18.7	30.8
Actuated g/C Ratio	0.47	0.47	0.10	1.00	0.25	0.41
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	1598	737	190	1583	444	770
v/s Ratio Prot	c0.39	0.15			c0.19	
v/s Ratio Perm			c0.05	0.07		0.08
v/c Ratio	0.84	0.32	0.52	0.07	0.78	0.18
Uniform Delay, d1	17.5	12.5	31.7	0.0	26.0	13.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.1	0.2	2.6	0.1	8.3	0.1
Delay (s)	21.5	12.7	34.3	0.1	34.3	14.0
Level of Service	C	B	C	A	C	B
Approach Delay (s)	20.0		15.9			28.4
Approach LOS	C		B			C

Intersection Summary			
HCM 2000 Control Delay	21.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	74.5	Sum of lost time (s)	13.5
Intersection Capacity Utilization	66.9%	ICU Level of Service	C
Analysis Period (min)	15		

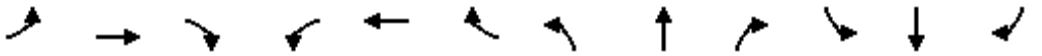
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	230	834	149	152	1340	157	163	1166	102	60	983	303
v/c Ratio	0.88	0.57	0.25	0.58	0.92	0.26	0.70	0.89	0.15	0.49	0.69	0.45
Control Delay	69.4	27.8	2.6	41.4	40.1	2.8	51.0	35.3	2.2	50.3	29.3	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.4	27.8	2.6	41.4	40.1	2.8	51.0	35.3	2.2	50.3	29.3	5.8
Queue Length 50th (ft)	115	136	0	72	239	0	79	292	0	30	160	2
Queue Length 95th (ft)	#242	179	20	128	#330	24	#162	#420	17	#74	204	59
Internal Link Dist (ft)		1026			1032			984			943	
Turn Bay Length (ft)	175		25	200		200	160		215	140		120
Base Capacity (vph)	260	1459	606	305	1461	606	245	1315	682	123	1504	686
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.57	0.25	0.50	0.92	0.26	0.67	0.89	0.15	0.49	0.65	0.44

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	212	767	137	140	1233	144	150	1073	94	55	904	279
Future Volume (vph)	212	767	137	140	1233	144	150	1073	94	55	904	279
Ideal Flow (vphpl)	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1947	5594	1742	1947	5594	1742	1947	3893	1742	1947	5594	1742
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1947	5594	1742	1947	5594	1742	1947	3893	1742	1947	5594	1742
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	230	834	149	152	1340	157	163	1166	102	60	983	303
RTOR Reduction (vph)	0	0	111	0	0	116	0	0	68	0	0	219
Lane Group Flow (vph)	230	834	38	152	1340	41	163	1166	34	60	983	84
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	10.5	20.5	20.5	10.5	20.5	20.5	9.4	26.5	26.5	3.9	21.0	21.0
Effective Green, g (s)	10.5	20.5	20.5	10.5	20.5	20.5	9.4	26.5	26.5	3.9	21.0	21.0
Actuated g/C Ratio	0.13	0.26	0.26	0.13	0.26	0.26	0.12	0.33	0.33	0.05	0.26	0.26
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	257	1444	449	257	1444	449	230	1299	581	95	1479	460
v/s Ratio Prot	c0.12	0.15		0.08	c0.24		c0.08	c0.30		0.03	0.18	
v/s Ratio Perm			0.02			0.02			0.02			0.05
v/c Ratio	0.89	0.58	0.09	0.59	0.93	0.09	0.71	0.90	0.06	0.63	0.66	0.18
Uniform Delay, d1	33.9	25.7	22.3	32.4	28.7	22.4	33.7	25.2	18.0	37.0	26.1	22.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	30.1	0.6	0.1	3.6	10.6	0.1	9.6	8.5	0.0	12.9	1.1	0.2
Delay (s)	64.0	26.2	22.4	36.1	39.3	22.5	43.3	33.6	18.0	49.9	27.2	22.8
Level of Service	E	C	C	D	D	C	D	C	B	D	C	C
Approach Delay (s)		32.9			37.4			33.6			27.2	
Approach LOS		C			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	33.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	79.4	Sum of lost time (s)	18.0
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		

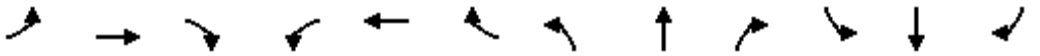
c Critical Lane Group



Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	113	197	62	103	1537	82	83	1058	50
v/c Ratio	0.26	0.45	0.13	0.32	0.59	0.07	0.45	0.41	0.04
Control Delay	11.1	20.8	11.5	10.1	8.2	2.9	19.4	6.4	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.1	20.8	11.5	10.1	8.2	2.9	19.4	6.4	2.2
Queue Length 50th (ft)	14	55	9	13	135	3	12	77	0
Queue Length 95th (ft)	46	105	32	53	263	19	#79	153	12
Internal Link Dist (ft)	688	730			772			694	
Turn Bay Length (ft)				80		80	90		
Base Capacity (vph)	749	752	772	343	2750	1247	197	2750	1245
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.26	0.08	0.30	0.56	0.07	0.42	0.38	0.04

Intersection Summary

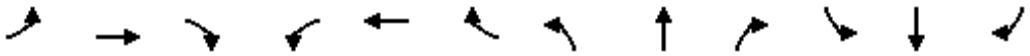
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	24	52	86	96	57	95	1414	75	76	973	46
Future Volume (vph)	28	24	52	86	96	57	95	1414	75	76	973	46
Ideal Flow (vphpl)	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090
Total Lost time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.93			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99			0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1884			2002	1742	1947	3893	1742	1947	3893	1742
Flt Permitted		0.86			0.84	1.00	0.24	1.00	1.00	0.14	1.00	1.00
Satd. Flow (perm)		1650			1731	1742	486	3893	1742	279	3893	1742
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	26	57	93	104	62	103	1537	82	83	1058	50
RTOR Reduction (vph)	0	46	0	0	0	22	0	0	22	0	0	19
Lane Group Flow (vph)	0	67	0	0	197	40	103	1537	60	83	1058	31
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)		9.1			9.1	9.1	29.4	29.4	29.4	29.4	29.4	29.4
Effective Green, g (s)		9.1			9.1	9.1	29.4	29.4	29.4	29.4	29.4	29.4
Actuated g/C Ratio		0.19			0.19	0.19	0.62	0.62	0.62	0.62	0.62	0.62
Clearance Time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		316			331	333	300	2409	1078	172	2409	1078
v/s Ratio Prot								c0.39			0.27	
v/s Ratio Perm		0.04			c0.11	0.02	0.21		0.03	0.30		0.02
v/c Ratio		0.21			0.60	0.12	0.34	0.64	0.06	0.48	0.44	0.03
Uniform Delay, d1		16.2			17.5	15.9	4.4	5.7	3.6	4.9	4.7	3.5
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.3			2.9	0.2	0.7	0.6	0.0	2.1	0.1	0.0
Delay (s)		16.5			20.4	16.1	5.1	6.3	3.6	7.0	4.9	3.5
Level of Service		B			C	B	A	A	A	A	A	A
Approach Delay (s)		16.5			19.3			6.1			5.0	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	7.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	47.5	Sum of lost time (s)	9.0
Intersection Capacity Utilization	66.4%	ICU Level of Service	C
Analysis Period (min)	15		

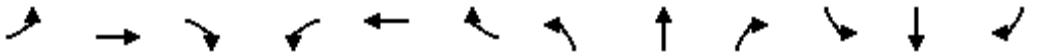
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	60	1150	199	82	1089	170	233	978	164	238	1489	238
v/c Ratio	0.55	0.99	0.34	0.75	0.93	0.29	0.95	0.70	0.24	0.76	0.97	0.32
Control Delay	44.9	50.9	13.4	67.4	41.4	11.9	81.4	24.0	9.7	47.5	41.2	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.9	50.9	13.4	67.4	41.4	11.9	81.4	24.0	9.7	47.5	41.2	11.2
Queue Length 50th (ft)	23	277	39	34	256	28	109	203	24	106	347	45
Queue Length 95th (ft)	#77	#414	90	#111	#381	73	#240	270	64	#207	#504	95
Internal Link Dist (ft)		1029			1030			868			853	
Turn Bay Length (ft)	90		40	240		60	160		140	165		160
Base Capacity (vph)	109	1167	583	109	1167	583	246	1400	682	327	1531	737
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.99	0.34	0.75	0.93	0.29	0.95	0.70	0.24	0.73	0.97	0.32

Intersection Summary

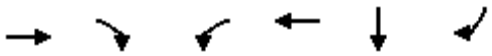
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	1058	183	75	1002	156	214	900	151	219	1370	219
Future Volume (vph)	55	1058	183	75	1002	156	214	900	151	219	1370	219
Ideal Flow (vphpl)	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1947	3893	1742	1947	3893	1742	1947	3893	1742	1947	3893	1742
Flt Permitted	0.18	1.00	1.00	0.18	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	364	3893	1742	364	3893	1742	1947	3893	1742	1947	3893	1742
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	1150	199	82	1089	170	233	978	164	238	1489	238
RTOR Reduction (vph)	0	0	61	0	0	61	0	0	56	0	0	53
Lane Group Flow (vph)	60	1150	138	82	1089	109	233	978	108	238	1489	185
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	22.5	22.5	22.5	22.5	22.5	22.5	9.5	27.0	27.0	12.0	29.5	29.5
Effective Green, g (s)	22.5	22.5	22.5	22.5	22.5	22.5	9.5	27.0	27.0	12.0	29.5	29.5
Actuated g/C Ratio	0.30	0.30	0.30	0.30	0.30	0.30	0.13	0.36	0.36	0.16	0.39	0.39
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	109	1167	522	109	1167	522	246	1401	627	311	1531	685
v/s Ratio Prot		c0.30			0.28		c0.12	0.25		0.12	c0.38	
v/s Ratio Perm	0.16		0.08	0.23		0.06			0.06			0.11
v/c Ratio	0.55	0.99	0.26	0.75	0.93	0.21	0.95	0.70	0.17	0.77	0.97	0.27
Uniform Delay, d1	22.0	26.1	20.0	23.7	25.5	19.6	32.5	20.5	16.4	30.2	22.4	15.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.9	22.7	0.3	25.0	13.3	0.2	42.5	1.5	0.1	10.7	16.8	0.2
Delay (s)	27.9	48.7	20.2	48.7	38.8	19.8	75.0	22.1	16.5	40.8	39.2	15.7
Level of Service	C	D	C	D	D	B	E	C	B	D	D	B
Approach Delay (s)		43.8			37.0			30.4			36.5	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	36.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	91.0%	ICU Level of Service	E
Analysis Period (min)	15		

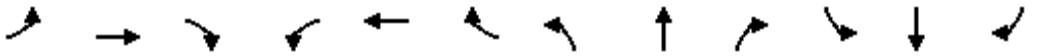
c Critical Lane Group



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	1786	378	110	958	484	459
v/c Ratio	0.87	0.52	0.68	0.36	0.86	0.85
Control Delay	23.7	11.9	52.1	8.3	32.4	32.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.7	11.9	52.1	8.3	32.4	32.3
Queue Length 50th (ft)	220	60	40	65	131	122
Queue Length 95th (ft)	#324	133	#113	89	#298	#285
Internal Link Dist (ft)	987			993	737	
Turn Bay Length (ft)		40	140			
Base Capacity (vph)	2046	723	161	2920	608	580
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.52	0.68	0.33	0.80	0.79

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1643	348	101	881	0	0	0	0	198	0	670
Future Volume (vph)	0	1643	348	101	881	0	0	0	0	198	0	670
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5						4.5	4.5
Lane Util. Factor		0.91	1.00	1.00	0.91						0.95	0.95
Frt		1.00	0.85	1.00	1.00						0.92	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.98	1.00
Satd. Flow (prot)		5085	1583	1770	5085						1587	1504
Flt Permitted		1.00	1.00	0.95	1.00						0.98	1.00
Satd. Flow (perm)		5085	1583	1770	5085						1587	1504
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1786	378	110	958	0	0	0	0	215	0	728
RTOR Reduction (vph)	0	0	87	0	0	0	0	0	0	0	76	76
Lane Group Flow (vph)	0	1786	291	110	958	0	0	0	0	0	408	383
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		4		3	8						6	
Permitted Phases			4							6		6
Actuated Green, G (s)		22.9	22.9	3.9	31.3						17.5	17.5
Effective Green, g (s)		22.9	22.9	3.9	31.3						17.5	17.5
Actuated g/C Ratio		0.40	0.40	0.07	0.54						0.30	0.30
Clearance Time (s)		4.5	4.5	4.5	4.5						4.5	4.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0						3.0	3.0
Lane Grp Cap (vph)		2014	627	119	2753						480	455
v/s Ratio Prot		c0.35		c0.06	0.19							
v/s Ratio Perm			0.18								0.26	0.25
v/c Ratio		0.89	0.46	0.92	0.35						0.85	0.84
Uniform Delay, d1		16.2	12.9	26.8	7.5						18.9	18.9
Progression Factor		1.00	1.00	1.00	1.00						1.00	1.00
Incremental Delay, d2		5.1	0.5	59.0	0.1						13.5	13.2
Delay (s)		21.4	13.5	85.8	7.6						32.4	32.1
Level of Service		C	B	F	A						C	C
Approach Delay (s)		20.0			15.6			0.0			32.2	
Approach LOS		B			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	21.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	57.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	73.3%	ICU Level of Service	D
Analysis Period (min)	15		

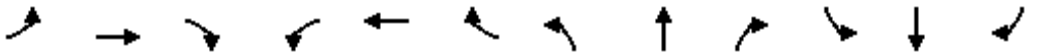
c Critical Lane Group



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	279	279	165	92	790	343	145	980	442
v/c Ratio	0.89	0.81	0.67	0.31	0.96	0.17	0.48	0.97	0.53
Control Delay	73.1	54.7	57.0	11.4	64.5	10.2	37.9	56.3	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.1	54.7	57.0	11.4	64.5	10.2	37.9	56.3	12.2
Queue Length 50th (ft)	187	154	108	0	275	48	81	335	112
Queue Length 95th (ft)	#355	#304	178	45	#421	77	152	#511	226
Internal Link Dist (ft)		835	755			938		874	
Turn Bay Length (ft)				80	290		100		
Base Capacity (vph)	314	343	320	352	820	1992	301	1012	833
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.81	0.52	0.26	0.96	0.17	0.48	0.97	0.53

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	257	116	141	45	107	85	727	261	54	133	581	727
Future Volume (vph)	257	116	141	45	107	85	727	261	54	133	581	727
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00	0.97	0.95		1.00	0.91	0.91
Frt	1.00	0.92			1.00	0.85	1.00	0.97		1.00	0.95	0.85
Flt Protected	0.95	1.00			0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1710			1835	1583	3433	3448		1770	3210	1441
Flt Permitted	0.95	1.00			0.99	1.00	0.95	1.00		0.55	1.00	1.00
Satd. Flow (perm)	1770	1710			1835	1583	3433	3448		1016	3210	1441
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	279	126	153	49	116	92	790	284	59	145	632	790
RTOR Reduction (vph)	0	39	0	0	0	80	0	15	0	0	59	102
Lane Group Flow (vph)	279	240	0	0	165	12	790	328	0	145	921	340
Turn Type	Split	NA		Split	NA	Prot	Prot	NA		Perm	NA	pm+ov
Protected Phases	4	4		8	8	8	5	2			6	4
Permitted Phases										6		6
Actuated Green, G (s)	18.8	18.8			14.3	14.3	25.3	60.8		31.5	31.5	50.3
Effective Green, g (s)	18.8	18.8			14.3	14.3	25.3	60.8		31.5	31.5	50.3
Actuated g/C Ratio	0.18	0.18			0.14	0.14	0.24	0.57		0.30	0.30	0.47
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	314	303			247	213	820	1979		302	954	738
v/s Ratio Prot	c0.16	0.14			c0.09	0.01	c0.23	0.10			c0.29	0.08
v/s Ratio Perm										0.14		0.15
v/c Ratio	0.89	0.79			0.67	0.06	0.96	0.17		0.48	0.97	0.46
Uniform Delay, d1	42.5	41.7			43.5	39.9	39.8	10.6		30.5	36.7	18.7
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	24.7	13.1			6.7	0.1	22.7	0.0		5.4	21.9	0.5
Delay (s)	67.3	54.8			50.2	40.0	62.6	10.7		35.9	58.5	19.1
Level of Service	E	D			D	D	E	B		D	E	B
Approach Delay (s)		61.0			46.6			46.9			45.3	
Approach LOS		E			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	48.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	105.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	80.7%	ICU Level of Service	D
Analysis Period (min)	15		

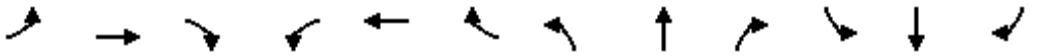
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	90	860	249	102	835	101	1025	195	248	1546	88
v/c Ratio	0.69	0.79	0.39	0.78	0.76	0.65	0.76	0.27	0.81	0.87	0.10
Control Delay	52.3	27.4	7.3	64.4	25.1	51.7	22.8	4.7	49.6	23.6	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.3	27.4	7.3	64.4	25.1	51.7	22.8	4.7	49.6	23.6	2.7
Queue Length 50th (ft)	31	163	15	37	148	40	183	5	97	290	0
Queue Length 95th (ft)	#101	226	64	#116	210	#108	249	42	#210	#440	19
Internal Link Dist (ft)		987			1124		1174			1214	
Turn Bay Length (ft)	100		100	140		185		80	110		
Base Capacity (vph)	137	1154	655	137	1152	155	1434	753	311	1784	852
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.75	0.38	0.74	0.72	0.65	0.71	0.26	0.80	0.87	0.10

Intersection Summary

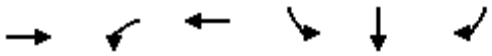
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	83	791	229	94	616	152	93	943	179	228	1422	81
Future Volume (vph)	83	791	229	94	616	152	93	943	179	228	1422	81
Ideal Flow (vphpl)	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1947	3893	1742	1947	3778		1947	3893	1742	1947	3893	1742
Flt Permitted	0.23	1.00	1.00	0.23	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	466	3893	1742	466	3778		1947	3893	1742	1947	3893	1742
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	90	860	249	102	670	165	101	1025	195	248	1546	88
RTOR Reduction (vph)	0	0	143	0	34	0	0	0	113	0	0	48
Lane Group Flow (vph)	90	860	106	102	801	0	101	1025	82	248	1546	40
Turn Type	Perm	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	17.6	17.6	17.6	17.6	17.6		3.9	22.8	22.8	9.9	28.8	28.8
Effective Green, g (s)	17.6	17.6	17.6	17.6	17.6		3.9	22.8	22.8	9.9	28.8	28.8
Actuated g/C Ratio	0.28	0.28	0.28	0.28	0.28		0.06	0.36	0.36	0.16	0.45	0.45
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	128	1073	480	128	1042		119	1391	622	302	1757	786
v/s Ratio Prot		c0.22			0.21		0.05	0.26		c0.13	c0.40	
v/s Ratio Perm	0.19		0.06	0.22					0.05			0.02
v/c Ratio	0.70	0.80	0.22	0.80	0.77		0.85	0.74	0.13	0.82	0.88	0.05
Uniform Delay, d1	20.8	21.5	17.8	21.4	21.2		29.7	17.9	13.8	26.1	15.9	9.8
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	16.1	4.4	0.2	28.1	3.5		39.8	2.1	0.1	16.2	5.4	0.0
Delay (s)	36.8	25.9	18.0	49.5	24.7		69.5	20.0	13.9	42.3	21.3	9.9
Level of Service	D	C	B	D	C		E	B	B	D	C	A
Approach Delay (s)		25.1			27.4			22.9			23.6	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	24.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	63.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	80.0%	ICU Level of Service	D
Analysis Period (min)	15		

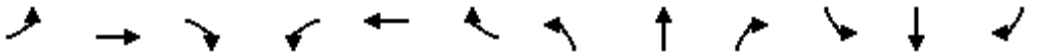
c Critical Lane Group



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	2249	153	930	416	397	384
v/c Ratio	0.96	0.70	0.44	0.84	0.74	0.72
Control Delay	33.0	30.0	10.0	43.2	26.3	24.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.0	30.0	10.0	43.2	26.3	24.4
Queue Length 50th (ft)	381	32	126	200	128	114
Queue Length 95th (ft)	#517	#111	169	#355	#249	221
Internal Link Dist (ft)	979		732		799	
Turn Bay Length (ft)		160				
Base Capacity (vph)	2338	218	2092	523	556	559
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.70	0.44	0.80	0.71	0.69

Intersection Summary

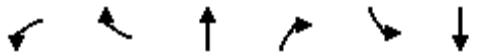
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1790	279	141	856	0	0	0	0	485	7	609
Future Volume (vph)	0	1790	279	141	856	0	0	0	0	485	7	609
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5					4.5	4.5	4.5
Lane Util. Factor		0.91		1.00	0.95					0.95	0.91	0.95
Frt		0.98		1.00	1.00					1.00	0.89	0.85
Flt Protected		1.00		0.95	1.00					0.95	0.99	1.00
Satd. Flow (prot)		4983		1770	3539					1681	1496	1504
Flt Permitted		1.00		0.10	1.00					0.95	0.99	1.00
Satd. Flow (perm)		4983		181	3539					1681	1496	1504
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1946	303	153	930	0	0	0	0	527	8	662
RTOR Reduction (vph)	0	26	0	0	0	0	0	0	0	0	93	93
Lane Group Flow (vph)	0	2223	0	153	930	0	0	0	0	416	304	291
Turn Type		NA		pm+pt	NA					custom	NA	custom
Protected Phases				3	8							
Permitted Phases		4		8						6	6	6
Actuated Green, G (s)		36.6		46.6	46.6					23.2	23.2	23.2
Effective Green, g (s)		36.6		46.6	46.6					23.2	23.2	23.2
Actuated g/C Ratio		0.46		0.59	0.59					0.29	0.29	0.29
Clearance Time (s)		4.5		4.5	4.5					4.5	4.5	4.5
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		2314		217	2092					494	440	442
v/s Ratio Prot				c0.05	0.26							
v/s Ratio Perm		c0.45		0.37						c0.25	0.20	0.19
v/c Ratio		0.96		0.71	0.44					0.84	0.69	0.66
Uniform Delay, d1		20.4		16.3	8.9					26.1	24.6	24.3
Progression Factor		1.00		1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		11.0		10.0	0.2					12.3	4.6	3.5
Delay (s)		31.4		26.2	9.1					38.4	29.3	27.9
Level of Service		C		C	A					D	C	C
Approach Delay (s)		31.4			11.5			0.0			32.0	
Approach LOS		C			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	26.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	78.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	79.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	599	147	54	400	648	125
v/c Ratio	0.72	0.33	0.26	0.25	0.83	0.11
Control Delay	29.0	14.4	31.5	0.4	29.1	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.0	14.4	31.5	0.4	29.1	5.7
Queue Length 50th (ft)	118	25	22	0	234	20
Queue Length 95th (ft)	177	70	53	0	#448	38
Internal Link Dist (ft)	784		1067			1091
Turn Bay Length (ft)		40			180	
Base Capacity (vph)	940	485	510	1583	821	1502
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.30	0.11	0.25	0.79	0.08

Intersection Summary

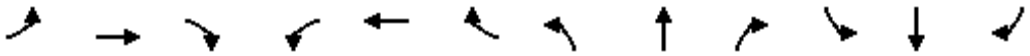
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	551	135	50	368	596	115
Future Volume (vph)	551	135	50	368	596	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.0	4.5	4.5
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1583	1863	1583	1770	1863
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1583	1863	1583	1770	1863
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	599	147	54	400	648	125
RTOR Reduction (vph)	0	54	0	0	0	0
Lane Group Flow (vph)	599	93	54	400	648	125
Turn Type	Prot	Perm	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		Free		
Actuated Green, G (s)	16.1	16.1	7.5	66.2	29.1	41.1
Effective Green, g (s)	16.1	16.1	7.5	66.2	29.1	41.1
Actuated g/C Ratio	0.24	0.24	0.11	1.00	0.44	0.62
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	834	384	211	1583	778	1156
v/s Ratio Prot	c0.17		0.03		c0.37	0.07
v/s Ratio Perm		0.06		c0.25		
v/c Ratio	0.72	0.24	0.26	0.25	0.83	0.11
Uniform Delay, d1	23.0	20.1	26.8	0.0	16.4	5.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.0	0.3	0.6	0.4	7.6	0.0
Delay (s)	25.9	20.5	27.4	0.4	24.0	5.1
Level of Service	C	C	C	A	C	A
Approach Delay (s)	24.9		3.6			21.0
Approach LOS	C		A			C

Intersection Summary			
HCM 2000 Control Delay	18.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	66.2	Sum of lost time (s)	13.5
Intersection Capacity Utilization	62.9%	ICU Level of Service	B
Analysis Period (min)	15		

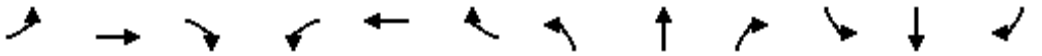
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	187	1022	241	150	957	91	150	1013	147	173	1560	345
v/c Ratio	0.84	0.71	0.43	0.84	0.73	0.17	0.84	0.85	0.23	0.86	0.87	0.48
Control Delay	65.9	28.4	11.7	73.4	30.2	1.8	73.4	32.8	4.5	71.9	31.0	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.9	28.4	11.7	73.4	30.2	1.8	73.4	32.8	4.5	71.9	31.0	8.8
Queue Length 50th (ft)	87	156	32	70	149	0	70	231	0	81	249	33
Queue Length 95th (ft)	#196	201	89	#170	193	10	#170	#335	36	#189	#319	98
Internal Link Dist (ft)		1026			1032			984			943	
Turn Bay Length (ft)	175		25	200		200	160		215	140		120
Base Capacity (vph)	222	1482	574	178	1354	537	178	1194	640	201	1783	722
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.69	0.42	0.84	0.71	0.17	0.84	0.85	0.23	0.86	0.87	0.48

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	172	940	222	138	880	84	138	932	135	159	1435	317
Future Volume (vph)	172	940	222	138	880	84	138	932	135	159	1435	317
Ideal Flow (vphpl)	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1947	5594	1742	1947	5594	1742	1947	3893	1742	1947	5594	1742
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1947	5594	1742	1947	5594	1742	1947	3893	1742	1947	5594	1742
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	187	1022	241	150	957	91	150	1013	147	173	1560	345
RTOR Reduction (vph)	0	0	114	0	0	70	0	0	102	0	0	168
Lane Group Flow (vph)	187	1022	127	150	957	21	150	1013	45	173	1560	177
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	8.5	19.0	19.0	6.8	17.3	17.3	6.8	22.8	22.8	7.7	23.7	23.7
Effective Green, g (s)	8.5	19.0	19.0	6.8	17.3	17.3	6.8	22.8	22.8	7.7	23.7	23.7
Actuated g/C Ratio	0.11	0.26	0.26	0.09	0.23	0.23	0.09	0.31	0.31	0.10	0.32	0.32
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	222	1430	445	178	1302	405	178	1194	534	201	1784	555
v/s Ratio Prot	c0.10	c0.18		0.08	0.17		0.08	0.26		c0.09	c0.28	
v/s Ratio Perm			0.07			0.01			0.03			0.10
v/c Ratio	0.84	0.71	0.29	0.84	0.74	0.05	0.84	0.85	0.08	0.86	0.87	0.32
Uniform Delay, d1	32.2	25.2	22.2	33.2	26.4	22.1	33.2	24.1	18.3	32.8	23.9	19.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	24.1	1.7	0.4	28.7	2.2	0.1	28.7	5.8	0.1	29.3	5.1	0.3
Delay (s)	56.3	26.9	22.6	61.9	28.6	22.2	61.9	29.9	18.4	62.0	29.0	19.5
Level of Service	E	C	C	E	C	C	E	C	B	E	C	B
Approach Delay (s)		30.0			32.3			32.3			30.2	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	31.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	74.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	71.3%	ICU Level of Service	C
Analysis Period (min)	15		

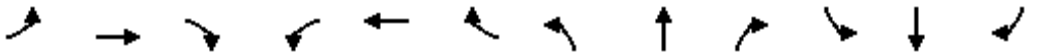
c Critical Lane Group



Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	413	136	91	74	1177	47	59	1634	21
v/c Ratio	0.80	0.38	0.16	0.50	0.56	0.05	0.32	0.78	0.02
Control Delay	31.5	19.9	8.2	24.0	9.9	2.9	13.2	13.6	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	19.9	8.2	24.0	9.9	2.9	13.2	13.6	2.7
Queue Length 50th (ft)	127	38	8	15	132	1	11	221	0
Queue Length 95th (ft)	#256	80	35	#71	182	12	36	302	7
Internal Link Dist (ft)	688	730			772			694	
Turn Bay Length (ft)				80		80	90		
Base Capacity (vph)	599	419	633	164	2333	1060	208	2333	1054
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.32	0.14	0.45	0.50	0.04	0.28	0.70	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

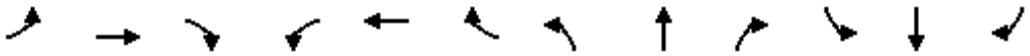


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	84	131	166	71	54	84	68	1083	43	54	1503	19
Future Volume (vph)	84	131	166	71	54	84	68	1083	43	54	1503	19
Ideal Flow (vphpl)	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090
Total Lost time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.94			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99			0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1907			1993	1742	1947	3893	1742	1947	3893	1742
Flt Permitted		0.89			0.60	1.00	0.13	1.00	1.00	0.17	1.00	1.00
Satd. Flow (perm)		1723			1232	1742	274	3893	1742	348	3893	1742
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	91	142	180	77	59	91	74	1177	47	59	1634	21
RTOR Reduction (vph)	0	13	0	0	0	42	0	0	19	0	0	10
Lane Group Flow (vph)	0	400	0	0	136	49	74	1177	28	59	1634	11
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)		16.3			16.3	16.3	29.9	29.9	29.9	29.9	29.9	29.9
Effective Green, g (s)		16.3			16.3	16.3	29.9	29.9	29.9	29.9	29.9	29.9
Actuated g/C Ratio		0.30			0.30	0.30	0.54	0.54	0.54	0.54	0.54	0.54
Clearance Time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		508			363	514	148	2108	943	188	2108	943
v/s Ratio Prot								0.30			c0.42	
v/s Ratio Perm		c0.23			0.11	0.03	0.27		0.02	0.17		0.01
v/c Ratio		0.79			0.37	0.09	0.50	0.56	0.03	0.31	0.78	0.01
Uniform Delay, d1		17.9			15.4	14.1	8.0	8.3	5.9	7.0	10.0	5.8
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		7.9			0.7	0.1	2.6	0.3	0.0	1.0	1.8	0.0
Delay (s)		25.8			16.1	14.2	10.6	8.6	5.9	7.9	11.8	5.8
Level of Service		C			B	B	B	A	A	A	B	A
Approach Delay (s)		25.8			15.3			8.6			11.6	
Approach LOS		C			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	12.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	55.2	Sum of lost time (s)	9.0
Intersection Capacity Utilization	79.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

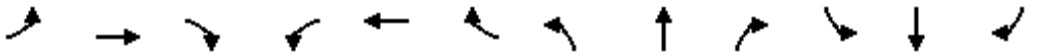
Future Year (2035) With Project + Mitigation



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	72	1009	209	96	1361	176	210	1359	168	123	950	182
v/c Ratio	0.62	0.71	0.30	0.82	0.96	0.25	0.88	0.96	0.24	0.82	0.76	0.29
Control Delay	45.6	22.5	10.1	72.9	39.5	8.8	67.5	38.5	8.4	73.4	26.2	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.6	22.5	10.1	72.9	39.5	8.8	67.5	38.5	8.4	73.4	26.2	10.5
Queue Length 50th (ft)	25	191	33	37	294	23	91	293	21	53	191	27
Queue Length 95th (ft)	#88	257	78	#121	#437	62	#205	#436	59	#141	258	70
Internal Link Dist (ft)		1029			1030			868			853	
Turn Bay Length (ft)	90		40	240		60	160		140	165		160
Base Capacity (vph)	117	1418	694	117	1418	694	239	1423	696	150	1245	621
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.71	0.30	0.82	0.96	0.25	0.88	0.96	0.24	0.82	0.76	0.29

Intersection Summary

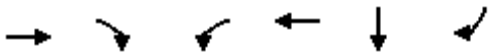
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	928	192	88	1252	162	193	1250	155	113	874	167
Future Volume (vph)	66	928	192	88	1252	162	193	1250	155	113	874	167
Ideal Flow (vphpl)	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1947	3893	1742	1947	3893	1742	1947	3893	1742	1947	3893	1742
Flt Permitted	0.16	1.00	1.00	0.16	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	321	3893	1742	321	3893	1742	1947	3893	1742	1947	3893	1742
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	72	1009	209	96	1361	176	210	1359	168	123	950	182
RTOR Reduction (vph)	0	0	60	0	0	60	0	0	60	0	0	64
Lane Group Flow (vph)	72	1009	149	96	1361	116	210	1359	108	123	950	118
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	25.5	25.5	25.5	25.5	25.5	25.5	8.6	25.6	25.6	5.4	22.4	22.4
Effective Green, g (s)	25.5	25.5	25.5	25.5	25.5	25.5	8.6	25.6	25.6	5.4	22.4	22.4
Actuated g/C Ratio	0.36	0.36	0.36	0.36	0.36	0.36	0.12	0.37	0.37	0.08	0.32	0.32
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	116	1418	634	116	1418	634	239	1423	637	150	1245	557
v/s Ratio Prot		0.26			c0.35		c0.11	c0.35		0.06	0.24	
v/s Ratio Perm	0.22		0.09	0.30		0.07			0.06			0.07
v/c Ratio	0.62	0.71	0.24	0.83	0.96	0.18	0.88	0.96	0.17	0.82	0.76	0.21
Uniform Delay, d1	18.3	19.1	15.5	20.2	21.7	15.2	30.2	21.6	15.0	31.8	21.4	17.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.9	1.7	0.2	36.2	15.2	0.1	28.4	14.4	0.1	28.2	2.8	0.2
Delay (s)	28.2	20.8	15.7	56.4	36.9	15.3	58.6	36.1	15.1	60.0	24.2	17.6
Level of Service	C	C	B	E	D	B	E	D	B	E	C	B
Approach Delay (s)		20.4			35.7			36.8			26.8	
Approach LOS		C			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	30.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	87.7%	ICU Level of Service	E
Analysis Period (min)	15		

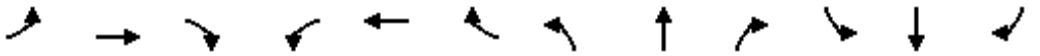
c Critical Lane Group



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	1251	186	163	1672	684	666
v/c Ratio	0.93	0.38	0.86	0.75	0.95	0.95
Control Delay	38.6	13.5	71.2	19.1	42.3	41.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.6	13.5	71.2	19.1	42.3	41.9
Queue Length 50th (ft)	192	31	71	212	252	244
Queue Length 95th (ft)	#278	81	#173	267	#490	#478
Internal Link Dist (ft)	987			993	737	
Turn Bay Length (ft)		40	140			
Base Capacity (vph)	1350	489	190	2226	727	711
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.38	0.86	0.75	0.94	0.94

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1151	171	150	1538	0	0	0	0	128	0	1114
Future Volume (vph)	0	1151	171	150	1538	0	0	0	0	128	0	1114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5						4.5	4.5
Lane Util. Factor		0.91	1.00	1.00	0.91						0.95	0.95
Frt		1.00	0.85	1.00	1.00						0.88	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.99	1.00
Satd. Flow (prot)		5085	1583	1770	5085						1542	1504
Flt Permitted		1.00	1.00	0.95	1.00						0.99	1.00
Satd. Flow (perm)		5085	1583	1770	5085						1542	1504
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1251	186	163	1672	0	0	0	0	139	0	1211
RTOR Reduction (vph)	0	0	69	0	0	0	0	0	0	0	53	53
Lane Group Flow (vph)	0	1251	117	163	1672	0	0	0	0	0	631	613
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		4		3	8						6	
Permitted Phases			4							6		6
Actuated Green, G (s)		18.5	18.5	7.5	30.5						30.2	30.2
Effective Green, g (s)		18.5	18.5	7.5	30.5						30.2	30.2
Actuated g/C Ratio		0.27	0.27	0.11	0.44						0.43	0.43
Clearance Time (s)		4.5	4.5	4.5	4.5						4.5	4.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0						3.0	3.0
Lane Grp Cap (vph)		1349	420	190	2225						668	651
v/s Ratio Prot		c0.25		0.09	c0.33							
v/s Ratio Perm			0.07								0.41	0.41
v/c Ratio		0.93	0.28	0.86	0.75						0.94	0.94
Uniform Delay, d1		24.9	20.3	30.6	16.4						18.9	18.9
Progression Factor		1.00	1.00	1.00	1.00						1.00	1.00
Incremental Delay, d2		11.1	0.4	29.7	1.5						22.0	21.9
Delay (s)		36.0	20.7	60.3	17.9						40.9	40.8
Level of Service		D	C	E	B						D	D
Approach Delay (s)		34.0			21.7			0.0			40.9	
Approach LOS		C			C			A			D	

Intersection Summary			
HCM 2000 Control Delay	31.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	69.7	Sum of lost time (s)	13.5
Intersection Capacity Utilization	83.2%	ICU Level of Service	E
Analysis Period (min)	15		

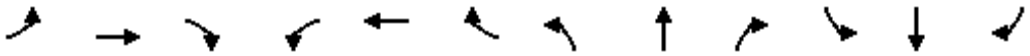
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	9	816	623	110	1452	78	249
v/c Ratio	0.04	0.45	0.56	0.40	0.41	0.22	0.48
Control Delay	10.0	10.9	3.5	25.4	4.6	17.3	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.0	10.9	3.5	25.4	4.6	17.3	6.4
Queue Length 50th (ft)	1	78	0	27	53	18	0
Queue Length 95th (ft)	9	140	52	#81	98	44	43
Internal Link Dist (ft)		806			1980		
Turn Bay Length (ft)	45		160	55			660
Base Capacity (vph)	206	1825	1118	278	3550	913	937
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.45	0.56	0.40	0.41	0.09	0.27

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	751	573	101	1336	0	72	0	229	0	0	0
Future Volume (vph)	8	751	573	101	1336	0	72	0	229	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5			
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91		1.00		1.00			
Frt	1.00	1.00	0.85	1.00	1.00		1.00		0.85			
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95		1.00			
Satd. Flow (prot)	1770	3539	1583	1770	5085		1770		1583			
Flt Permitted	0.22	1.00	1.00	0.95	1.00		0.95		1.00			
Satd. Flow (perm)	401	3539	1583	1770	5085		1770		1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	816	623	110	1452	0	78	0	249	0	0	0
RTOR Reduction (vph)	0	0	346	0	0	0	0	0	214	0	0	0
Lane Group Flow (vph)	9	816	277	110	1452	0	78	0	35	0	0	0
Turn Type	Perm	NA	Perm	Prot	NA		Perm		Perm			
Protected Phases		4		3	8							
Permitted Phases	4		4				2		2			
Actuated Green, G (s)	18.6	18.6	18.6	3.9	27.0		5.8		5.8			
Effective Green, g (s)	18.6	18.6	18.6	3.9	27.0		5.8		5.8			
Actuated g/C Ratio	0.44	0.44	0.44	0.09	0.65		0.14		0.14			
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0		3.0			
Lane Grp Cap (vph)	178	1574	704	165	3284		245		219			
v/s Ratio Prot		c0.23		0.06	c0.29							
v/s Ratio Perm	0.02		0.18				c0.04		0.02			
v/c Ratio	0.05	0.52	0.39	0.67	0.44		0.32		0.16			
Uniform Delay, d1	6.6	8.4	7.8	18.3	3.7		16.2		15.8			
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00		1.00			
Incremental Delay, d2	0.1	0.3	0.4	9.8	0.1		0.8		0.3			
Delay (s)	6.7	8.7	8.2	28.1	3.8		17.0		16.2			
Level of Service	A	A	A	C	A		B		B			
Approach Delay (s)		8.4			5.5			16.4			0.0	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	7.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	41.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		

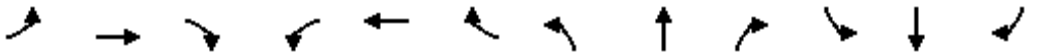
c Critical Lane Group



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	116	946	11	1027	310	16	2	46	553
v/c Ratio	0.62	0.54	0.06	0.82	0.41	0.03	0.00	0.09	0.83
Control Delay	42.9	10.1	13.8	23.5	4.0	12.5	0.0	13.2	22.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.9	10.1	13.8	23.5	4.0	12.5	0.0	13.2	22.5
Queue Length 50th (ft)	38	100	2	164	0	3	0	10	83
Queue Length 95th (ft)	#108	145	12	#272	44	14	0	28	#244
Internal Link Dist (ft)		1980		560		847		971	
Turn Bay Length (ft)	70		100		160		40		620
Base Capacity (vph)	188	2073	216	1361	799	670	697	640	776
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.46	0.05	0.75	0.39	0.02	0.00	0.07	0.71

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	843	28	10	945	285	7	7	2	26	17	509
Future Volume (vph)	107	843	28	10	945	285	7	7	2	26	17	509
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5		4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.98	1.00		0.97	1.00
Satd. Flow (prot)	1770	3522		1770	3539	1583		1817	1583		1808	1583
Flt Permitted	0.95	1.00		0.30	1.00	1.00		0.91	1.00		0.87	1.00
Satd. Flow (perm)	1770	3522		563	3539	1583		1697	1583		1618	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	116	916	30	11	1027	310	8	8	2	28	18	553
RTOR Reduction (vph)	0	4	0	0	0	201	0	0	1	0	0	173
Lane Group Flow (vph)	116	942	0	11	1027	109	0	16	1	0	46	380
Turn Type	Prot	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases				8		8	2		2	6		6
Actuated Green, G (s)	3.7	25.8		17.6	17.6	17.6		15.3	15.3		15.3	15.3
Effective Green, g (s)	3.7	25.8		17.6	17.6	17.6		15.3	15.3		15.3	15.3
Actuated g/C Ratio	0.07	0.51		0.35	0.35	0.35		0.31	0.31		0.31	0.31
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5		4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	130	1813		197	1243	556		518	483		494	483
v/s Ratio Prot	c0.07	0.27			c0.29							
v/s Ratio Perm				0.02		0.07		0.01	0.00		0.03	c0.24
v/c Ratio	0.89	0.52		0.06	0.83	0.20		0.03	0.00		0.09	0.79
Uniform Delay, d1	23.0	8.0		10.8	14.9	11.3		12.2	12.1		12.4	15.9
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	47.7	0.3		0.1	4.6	0.2		0.0	0.0		0.1	8.3
Delay (s)	70.7	8.3		10.9	19.5	11.5		12.2	12.1		12.5	24.2
Level of Service	E	A		B	B	B		B	B		B	C
Approach Delay (s)		15.1			17.6			12.2			23.3	
Approach LOS		B			B			B			C	

Intersection Summary			
HCM 2000 Control Delay	17.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	50.1	Sum of lost time (s)	13.5
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

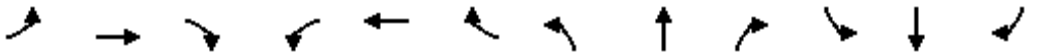


Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	455	280	384	201	697	896	171	758	337
v/c Ratio	1.11	0.58	1.08	0.47	1.09	0.84	0.92	0.99	0.58
Control Delay	117.7	24.2	112.0	15.7	105.3	42.7	98.8	68.6	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	117.7	24.2	112.0	15.7	105.3	42.7	98.8	68.6	8.3
Queue Length 50th (ft)	~368	88	~302	31	~286	298	122	271	0
Queue Length 95th (ft)	#567	177	#489	100	#403	380	#254	#409	85
Internal Link Dist (ft)		835	755			938		874	
Turn Bay Length (ft)				80	290		100		
Base Capacity (vph)	410	486	357	429	639	1066	185	769	582
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.11	0.58	1.08	0.47	1.09	0.84	0.92	0.99	0.58

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	419	62	196	120	234	185	641	631	193	157	463	545
Future Volume (vph)	419	62	196	120	234	185	641	631	193	157	463	545
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	1.00			1.00	1.00	0.97	0.95		1.00	0.91	0.91
Frt	1.00	0.89			1.00	0.85	1.00	0.96		1.00	0.95	0.85
Flt Protected	0.95	1.00			0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1650			1832	1583	3433	3415		1770	3219	1441
Flt Permitted	0.95	1.00			0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1650			1832	1583	3433	3415		1770	3219	1441
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	455	67	213	130	254	201	697	686	210	171	503	592
RTOR Reduction (vph)	0	104	0	0	0	120	0	26	0	0	52	262
Lane Group Flow (vph)	455	176	0	0	384	81	697	870	0	171	706	75
Turn Type	Split	NA		Split	NA	Prot	Prot	NA		Prot	NA	Perm
Protected Phases	4	4		8	8	8	5	2		1	6	
Permitted Phases												6
Actuated Green, G (s)	25.5	25.5			21.5	21.5	20.5	33.5		11.5	24.5	24.5
Effective Green, g (s)	25.5	25.5			21.5	21.5	20.5	33.5		11.5	24.5	24.5
Actuated g/C Ratio	0.23	0.23			0.20	0.20	0.19	0.30		0.10	0.22	0.22
Clearance Time (s)	4.5	4.5			4.5	4.5	4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	410	382			358	309	639	1040		185	716	320
v/s Ratio Prot	c0.26	0.11			c0.21	0.05	c0.20	0.25		0.10	c0.22	
v/s Ratio Perm												0.05
v/c Ratio	1.11	0.46			1.07	0.26	1.09	0.84		0.92	0.99	0.23
Uniform Delay, d1	42.2	36.3			44.2	37.5	44.8	35.7		48.8	42.6	35.1
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	77.6	0.9			68.2	0.5	62.8	8.0		44.8	29.8	0.4
Delay (s)	119.9	37.2			112.5	38.0	107.6	43.7		93.6	72.4	35.4
Level of Service	F	D			F	D	F	D		F	E	D
Approach Delay (s)		88.4			86.9			71.6			65.4	
Approach LOS		F			F			E			E	

Intersection Summary			
HCM 2000 Control Delay	74.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	94.1%	ICU Level of Service	F
Analysis Period (min)	15		

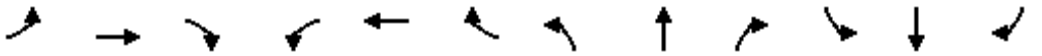
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	93	472	103	301	1358	143	1423	197	148	1029	74
v/c Ratio	0.91	0.34	0.15	0.97	0.98	0.69	0.96	0.28	0.86	0.73	0.11
Control Delay	99.3	19.4	4.5	72.2	44.9	53.0	40.8	11.0	78.8	25.8	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	99.3	19.4	4.5	72.2	44.9	53.0	40.8	11.0	78.8	25.8	4.4
Queue Length 50th (ft)	43	88	0	145	337	70	356	37	74	231	0
Queue Length 95th (ft)	#135	126	30	#304	#491	#149	#507	83	#177	302	23
Internal Link Dist (ft)		987			1124		1174			1214	
Turn Bay Length (ft)	100		100	140		185		80	110		
Base Capacity (vph)	102	1406	695	311	1391	214	1484	714	172	1415	685
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.34	0.15	0.97	0.98	0.67	0.96	0.28	0.86	0.73	0.11

Intersection Summary

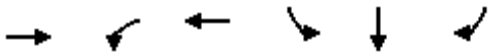
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	86	434	95	277	1007	242	132	1309	181	136	947	68
Future Volume (vph)	86	434	95	277	1007	242	132	1309	181	136	947	68
Ideal Flow (vphpl)	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1947	3893	1742	1947	3780		1947	3893	1742	1947	3893	1742
Flt Permitted	0.14	1.00	1.00	0.42	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	284	3893	1742	861	3780		1947	3893	1742	1947	3893	1742
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	93	472	103	301	1095	263	143	1423	197	148	1029	74
RTOR Reduction (vph)	0	0	66	0	26	0	0	0	51	0	0	47
Lane Group Flow (vph)	93	472	37	301	1332	0	143	1423	146	148	1029	27
Turn Type	Perm	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	28.9	28.9	28.9	28.9	28.9		8.5	30.5	30.5	7.1	29.1	29.1
Effective Green, g (s)	28.9	28.9	28.9	28.9	28.9		8.5	30.5	30.5	7.1	29.1	29.1
Actuated g/C Ratio	0.36	0.36	0.36	0.36	0.36		0.11	0.38	0.38	0.09	0.36	0.36
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	102	1406	629	311	1365		206	1484	664	172	1416	633
v/s Ratio Prot		0.12			c0.35		0.07	c0.37		c0.08	0.26	
v/s Ratio Perm	0.33		0.02	0.35					0.08			0.02
v/c Ratio	0.91	0.34	0.06	0.97	0.98		0.69	0.96	0.22	0.86	0.73	0.04
Uniform Delay, d1	24.3	18.6	16.7	25.1	25.2		34.5	24.1	16.7	36.0	22.0	16.4
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	61.3	0.1	0.0	41.9	18.6		9.7	14.6	0.2	32.9	1.9	0.0
Delay (s)	85.7	18.7	16.7	67.0	43.8		44.2	38.7	16.9	68.8	23.9	16.5
Level of Service	F	B	B	E	D		D	D	B	E	C	B
Approach Delay (s)		27.7			48.0			36.7			28.8	
Approach LOS		C			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	37.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	91.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

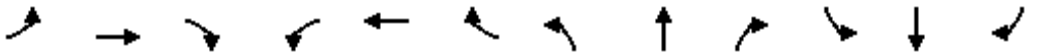


Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1527	254	1476	341	542	544
v/c Ratio	0.92	0.86	0.83	0.60	1.08	0.93
Control Delay	28.1	40.5	17.5	20.6	85.7	41.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.1	40.5	17.5	20.6	85.7	41.2
Queue Length 50th (ft)	166	44	199	95	~221	140
Queue Length 95th (ft)	#258	#130	#291	171	#404	#329
Internal Link Dist (ft)	979		732		799	
Turn Bay Length (ft)		160				
Base Capacity (vph)	1667	296	1769	565	502	584
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.86	0.83	0.60	1.08	0.93

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

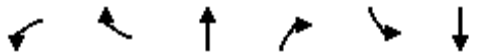
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1222	183	234	1358	0	0	0	0	349	1	963
Future Volume (vph)	0	1222	183	234	1358	0	0	0	0	349	1	963
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5					4.5	4.5	4.5
Lane Util. Factor		0.91		1.00	0.95					0.95	0.91	0.95
Frt		0.98		1.00	1.00					1.00	0.86	0.85
Flt Protected		1.00		0.95	1.00					0.95	1.00	1.00
Satd. Flow (prot)		4986		1770	3539					1681	1454	1504
Flt Permitted		1.00		0.18	1.00					0.95	1.00	1.00
Satd. Flow (perm)		4986		331	3539					1681	1454	1504
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1328	199	254	1476	0	0	0	0	379	1	1047
RTOR Reduction (vph)	0	36	0	0	0	0	0	0	0	0	13	79
Lane Group Flow (vph)	0	1491	0	254	1476	0	0	0	0	341	529	465
Turn Type		NA		pm+pt	NA					custom	NA	custom
Protected Phases				3	8							
Permitted Phases		4		8						6	6	6
Actuated Green, G (s)		18.0		27.5	27.5					18.5	18.5	18.5
Effective Green, g (s)		18.0		27.5	27.5					18.5	18.5	18.5
Actuated g/C Ratio		0.33		0.50	0.50					0.34	0.34	0.34
Clearance Time (s)		4.5		4.5	4.5					4.5	4.5	4.5
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1631		296	1769					565	489	505
v/s Ratio Prot				0.08	c0.42							
v/s Ratio Perm		0.30		c0.35						0.20	c0.36	0.31
v/c Ratio		0.91		0.86	0.83					0.60	1.08	0.92
Uniform Delay, d1		17.8		11.2	11.8					15.2	18.2	17.5
Progression Factor		1.00		1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		8.3		21.0	3.6					1.8	64.4	22.3
Delay (s)		26.0		32.2	15.4					17.0	82.6	39.8
Level of Service		C		C	B					B	F	D
Approach Delay (s)		26.0			17.8			0.0			50.6	
Approach LOS		C			B			A			D	

Intersection Summary			
HCM 2000 Control Delay	30.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	84.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1460	303	112	129	388	161
v/c Ratio	0.92	0.39	0.48	0.08	0.90	0.20
Control Delay	31.7	12.9	39.9	0.1	56.9	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.7	12.9	39.9	0.1	56.9	15.3
Queue Length 50th (ft)	339	70	54	0	190	50
Queue Length 95th (ft)	#535	142	102	0	#375	88
Internal Link Dist (ft)	784		1067			1091
Turn Bay Length (ft)		40			180	
Base Capacity (vph)	1592	772	444	1583	431	1002
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.39	0.25	0.08	0.90	0.16

Intersection Summary

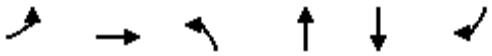
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1343	279	103	119	357	148
Future Volume (vph)	1343	279	103	119	357	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.0	4.5	4.5
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1583	1863	1583	1770	1863
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1583	1863	1583	1770	1863
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1460	303	112	129	388	161
RTOR Reduction (vph)	0	39	0	0	0	0
Lane Group Flow (vph)	1460	264	112	129	388	161
Turn Type	Prot	Perm	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		Free		
Actuated Green, G (s)	37.5	37.5	10.2	80.9	19.7	34.4
Effective Green, g (s)	37.5	37.5	10.2	80.9	19.7	34.4
Actuated g/C Ratio	0.46	0.46	0.13	1.00	0.24	0.43
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	1591	733	234	1583	431	792
v/s Ratio Prot	c0.43		c0.06		c0.22	0.09
v/s Ratio Perm		0.17		0.08		
v/c Ratio	0.92	0.36	0.48	0.08	0.90	0.20
Uniform Delay, d1	20.3	14.0	32.9	0.0	29.6	14.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	8.7	0.3	1.5	0.1	21.4	0.1
Delay (s)	29.0	14.3	34.4	0.1	51.1	14.8
Level of Service	C	B	C	A	D	B
Approach Delay (s)	26.5		16.1			40.4
Approach LOS	C		B			D

Intersection Summary			
HCM 2000 Control Delay	28.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	80.9	Sum of lost time (s)	13.5
Intersection Capacity Utilization	72.3%	ICU Level of Service	C
Analysis Period (min)	15		

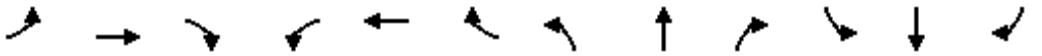
c Critical Lane Group



Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	557	511	883	766	435	125
v/c Ratio	0.93	0.77	0.95	0.40	0.55	0.28
Control Delay	53.1	24.8	52.1	12.7	34.2	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.1	24.8	52.1	12.7	34.2	7.5
Queue Length 50th (ft)	313	172	253	126	116	0
Queue Length 95th (ft)	#527	310	#373	168	165	44
Internal Link Dist (ft)		639		679	675	
Turn Bay Length (ft)	340		240			250
Base Capacity (vph)	613	681	943	1926	784	448
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.75	0.94	0.40	0.55	0.28

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	633	0	350	0	0	0	812	705	0	0	400	115
Future Volume (vph)	633	0	350	0	0	0	812	705	0	0	400	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5					4.5	4.5			4.5	4.5
Lane Util. Factor	0.95	0.95					0.97	0.95			0.95	1.00
Frt	1.00	0.89					1.00	1.00			1.00	0.85
Flt Protected	0.95	0.99					0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1552					3433	3539			3539	1583
Flt Permitted	0.95	0.99					0.95	1.00			1.00	1.00
Satd. Flow (perm)	1681	1552					3433	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	688	0	380	0	0	0	883	766	0	0	435	125
RTOR Reduction (vph)	0	117	0	0	0	0	0	0	0	0	0	97
Lane Group Flow (vph)	557	394	0	0	0	0	883	766	0	0	435	28
Turn Type	Perm	NA					Prot	NA			NA	Perm
Protected Phases		4					5	2			6	
Permitted Phases	4											6
Actuated Green, G (s)	31.6	31.6					24.2	48.5			19.8	19.8
Effective Green, g (s)	31.6	31.6					24.2	48.5			19.8	19.8
Actuated g/C Ratio	0.35	0.35					0.27	0.54			0.22	0.22
Clearance Time (s)	4.5	4.5					4.5	4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0					3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	596	550					932	1926			786	351
v/s Ratio Prot							c0.26	0.22			c0.12	
v/s Ratio Perm	c0.33	0.25										0.02
v/c Ratio	0.93	0.72					0.95	0.40			0.55	0.08
Uniform Delay, d1	27.8	24.9					31.8	11.8			30.7	27.4
Progression Factor	1.00	1.00					1.00	1.00			1.00	1.00
Incremental Delay, d2	21.9	4.4					17.9	0.6			2.8	0.4
Delay (s)	49.7	29.3					49.7	12.4			33.5	27.9
Level of Service	D	C					D	B			C	C
Approach Delay (s)		39.9			0.0			32.4			32.3	
Approach LOS		D			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	34.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	89.1	Sum of lost time (s)	13.5
Intersection Capacity Utilization	73.7%	ICU Level of Service	D
Analysis Period (min)	15		

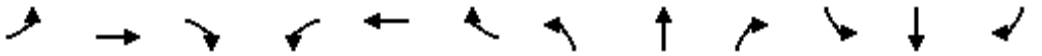
c Critical Lane Group



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	62	63	463	395	1147	916	234
v/c Ratio	0.13	0.13	0.87	0.79	0.58	0.54	0.34
Control Delay	15.9	15.9	34.7	38.3	10.3	17.5	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.9	15.9	34.7	38.3	10.3	17.5	4.1
Queue Length 50th (ft)	16	16	117	72	133	97	0
Queue Length 95th (ft)	41	42	#268	#136	187	133	40
Internal Link Dist (ft)		585			691	966	
Turn Bay Length (ft)	320		320	160			
Base Capacity (vph)	534	536	577	501	1977	1705	686
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.12	0.80	0.79	0.58	0.54	0.34

Intersection Summary

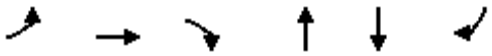
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	114	1	426	363	1055	0	0	843	215
Future Volume (vph)	0	0	0	114	1	426	363	1055	0	0	843	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.5	4.5	4.5	4.5	4.5			4.5	4.5
Lane Util. Factor				0.95	0.95	1.00	0.97	0.95			0.91	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1687	1583	3433	3539			5085	1583
Flt Permitted				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1687	1583	3433	3539			5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	124	1	463	395	1147	0	0	916	234
RTOR Reduction (vph)	0	0	0	0	0	78	0	0	0	0	0	155
Lane Group Flow (vph)	0	0	0	62	63	385	395	1147	0	0	916	79
Turn Type				Perm	NA	Perm	Prot	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Actuated Green, G (s)				16.7	16.7	16.7	8.5	32.6			19.6	19.6
Effective Green, g (s)				16.7	16.7	16.7	8.5	32.6			19.6	19.6
Actuated g/C Ratio				0.29	0.29	0.29	0.15	0.56			0.34	0.34
Clearance Time (s)				4.5	4.5	4.5	4.5	4.5			4.5	4.5
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				481	483	453	500	1978			1709	532
v/s Ratio Prot							c0.12	c0.32			0.18	
v/s Ratio Perm				0.04	0.04	c0.24						0.05
v/c Ratio				0.13	0.13	0.85	0.79	0.58			0.54	0.15
Uniform Delay, d1				15.4	15.4	19.6	24.0	8.4			15.7	13.5
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2				0.1	0.1	14.2	8.3	1.2			1.2	0.6
Delay (s)				15.5	15.5	33.8	32.3	9.6			16.9	14.1
Level of Service				B	B	C	C	A			B	B
Approach Delay (s)		0.0			29.9			15.4			16.3	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	58.3	Sum of lost time (s)	13.5
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		

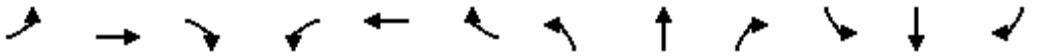
c Critical Lane Group



Lane Group	EBL	EBT	EBR	NBT	SBT	SBR
Lane Group Flow (vph)	524	8	578	1168	765	280
v/c Ratio	0.39	0.01	0.86	0.78	0.51	0.34
Control Delay	11.5	8.7	26.8	17.3	12.3	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.5	8.7	26.8	17.3	12.3	2.9
Queue Length 50th (ft)	52	1	119	145	84	0
Queue Length 95th (ft)	81	3	#286	#226	125	34
Internal Link Dist (ft)		671		711	691	
Turn Bay Length (ft)						
Base Capacity (vph)	1451	1496	721	1489	1496	831
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.01	0.80	0.78	0.51	0.34

Intersection Summary

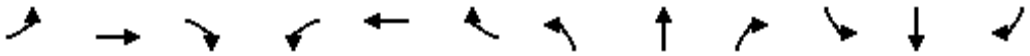
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	482	7	532	0	0	0	0	941	133	0	704	258
Future Volume (vph)	482	7	532	0	0	0	0	941	133	0	704	258
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5					4.5			4.5	4.5
Lane Util. Factor	0.97	0.95	1.00					0.95			0.95	1.00
Frt	1.00	1.00	0.85					0.98			1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00			1.00	1.00
Satd. Flow (prot)	3433	3539	1583					3473			3539	1583
Flt Permitted	0.95	1.00	1.00					1.00			1.00	1.00
Satd. Flow (perm)	3433	3539	1583					3473			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	524	8	578	0	0	0	0	1023	145	0	765	280
RTOR Reduction (vph)	0	0	55	0	0	0	0	22	0	0	0	161
Lane Group Flow (vph)	524	8	523	0	0	0	0	1146	0	0	765	119
Turn Type	Split	NA	Perm				Perm	NA			NA	Perm
Protected Phases	4	4						2			6	
Permitted Phases			4				2					6
Actuated Green, G (s)	19.0	19.0	19.0					20.6			20.6	20.6
Effective Green, g (s)	19.0	19.0	19.0					20.6			20.6	20.6
Actuated g/C Ratio	0.39	0.39	0.39					0.42			0.42	0.42
Clearance Time (s)	4.5	4.5	4.5					4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	3.0
Lane Grp Cap (vph)	1342	1383	618					1472			1500	670
v/s Ratio Prot	0.15	0.00						c0.33			0.22	
v/s Ratio Perm			c0.33									0.07
v/c Ratio	0.39	0.01	0.85					0.78			0.51	0.18
Uniform Delay, d1	10.6	9.0	13.5					12.0			10.3	8.7
Progression Factor	1.00	1.00	1.00					1.00			1.00	1.00
Incremental Delay, d2	0.2	0.0	10.3					4.1			1.2	0.6
Delay (s)	10.8	9.0	23.8					16.2			11.5	9.3
Level of Service	B	A	C					B			B	A
Approach Delay (s)		17.6			0.0			16.2			10.9	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	48.6	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		

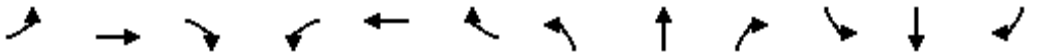
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	260	939	159	172	1510	176	180	1312	115	67	1103	341
v/c Ratio	0.96	0.59	0.26	0.65	0.96	0.29	0.76	0.92	0.16	0.68	0.72	0.52
Control Delay	89.0	33.0	5.8	52.1	51.2	6.9	62.9	42.2	4.9	79.6	35.4	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.0	33.0	5.8	52.1	51.2	6.9	62.9	42.2	4.9	79.6	35.4	12.0
Queue Length 50th (ft)	167	191	0	105	350	6	112	421	0	43	230	47
Queue Length 95th (ft)	#325	245	46	170	#457	55	#210	#565	36	#113	280	128
Internal Link Dist (ft)		1026			1032			984			943	
Turn Bay Length (ft)	175		25	200		200	160		215	140		120
Base Capacity (vph)	271	1589	612	325	1569	606	252	1424	710	99	1603	674
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.59	0.26	0.53	0.96	0.29	0.71	0.92	0.16	0.68	0.69	0.51

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	239	864	146	158	1389	162	166	1207	106	62	1015	314
Future Volume (vph)	239	864	146	158	1389	162	166	1207	106	62	1015	314
Ideal Flow (vphpl)	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1947	5594	1742	1947	5594	1742	1947	3893	1742	1947	5594	1742
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1947	5594	1742	1947	5594	1742	1947	3893	1742	1947	5594	1742
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	260	939	159	172	1510	176	180	1312	115	67	1103	341
RTOR Reduction (vph)	0	0	114	0	0	118	0	0	73	0	0	176
Lane Group Flow (vph)	260	939	45	172	1510	58	180	1312	42	67	1103	165
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	13.7	27.9	27.9	13.4	27.6	27.6	12.0	35.9	35.9	3.9	27.8	27.8
Effective Green, g (s)	13.7	27.9	27.9	13.4	27.6	27.6	12.0	35.9	35.9	3.9	27.8	27.8
Actuated g/C Ratio	0.14	0.28	0.28	0.14	0.28	0.28	0.12	0.36	0.36	0.04	0.28	0.28
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	269	1574	490	263	1557	485	235	1410	631	76	1569	488
v/s Ratio Prot	c0.13	0.17		0.09	c0.27		c0.09	c0.34		0.03	0.20	
v/s Ratio Perm			0.03			0.03			0.02			0.09
v/c Ratio	0.97	0.60	0.09	0.65	0.97	0.12	0.77	0.93	0.07	0.88	0.70	0.34
Uniform Delay, d1	42.5	30.7	26.3	40.7	35.3	26.7	42.2	30.4	20.6	47.4	32.0	28.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	45.2	0.6	0.1	5.7	16.0	0.1	13.8	11.2	0.0	64.5	1.5	0.4
Delay (s)	87.7	31.4	26.3	46.4	51.3	26.8	56.0	41.6	20.7	111.8	33.4	28.7
Level of Service	F	C	C	D	D	C	E	D	C	F	C	C
Approach Delay (s)		41.5			48.5			41.7			35.8	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	42.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	99.1	Sum of lost time (s)	18.0
Intersection Capacity Utilization	85.9%	ICU Level of Service	E
Analysis Period (min)	15		

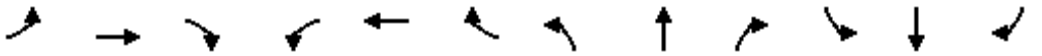
c Critical Lane Group



Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	128	220	66	116	1725	86	84	1182	57
v/c Ratio	0.37	0.72	0.18	0.47	0.73	0.08	0.84	0.50	0.05
Control Delay	23.3	46.7	17.3	13.9	10.3	2.4	73.5	7.1	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.3	46.7	17.3	13.9	10.3	2.4	73.5	7.1	1.4
Queue Length 50th (ft)	38	118	13	25	265	5	28	139	0
Queue Length 95th (ft)	89	#223	48	69	338	18	#70	179	10
Internal Link Dist (ft)	688	730			772			694	
Turn Bay Length (ft)				80		80	90		
Base Capacity (vph)	417	381	440	301	2885	1300	123	2885	1301
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.58	0.15	0.39	0.60	0.07	0.68	0.41	0.04

Intersection Summary

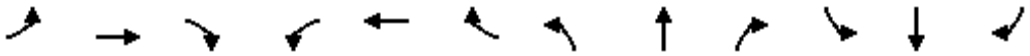
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	27	59	95	108	61	107	1587	79	77	1087	52
Future Volume (vph)	32	27	59	95	108	61	107	1587	79	77	1087	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.93			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99			0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1714			1820	1583	1770	3539	1583	1770	3539	1583
Flt Permitted		0.84			0.78	1.00	0.20	1.00	1.00	0.08	1.00	1.00
Satd. Flow (perm)		1460			1462	1583	370	3539	1583	151	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	29	64	103	117	66	116	1725	86	84	1182	57
RTOR Reduction (vph)	0	40	0	0	0	30	0	0	17	0	0	19
Lane Group Flow (vph)	0	88	0	0	220	36	116	1725	69	84	1182	38
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)		15.8			15.8	15.8	50.6	50.6	50.6	50.6	50.6	50.6
Effective Green, g (s)		15.8			15.8	15.8	50.6	50.6	50.6	50.6	50.6	50.6
Actuated g/C Ratio		0.21			0.21	0.21	0.67	0.67	0.67	0.67	0.67	0.67
Clearance Time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		305			306	331	248	2374	1062	101	2374	1062
v/s Ratio Prot								0.49			0.33	
v/s Ratio Perm		0.06			c0.15	0.02	0.31		0.04	c0.55		0.02
v/c Ratio		0.29			0.72	0.11	0.47	0.73	0.06	0.83	0.50	0.04
Uniform Delay, d1		25.1			27.7	24.1	5.9	8.0	4.3	9.2	6.1	4.2
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.5			7.8	0.1	1.4	1.1	0.0	41.4	0.2	0.0
Delay (s)		25.6			35.6	24.3	7.3	9.1	4.3	50.7	6.3	4.2
Level of Service		C			D	C	A	A	A	D	A	A
Approach Delay (s)		25.6			33.0			8.8			9.0	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	11.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	75.4	Sum of lost time (s)	9.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

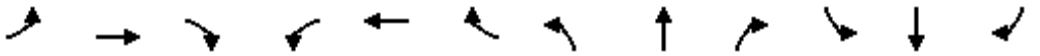


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	67	1288	220	89	1211	186	251	1097	184	266	1675	268
v/c Ratio	0.83	1.02	0.34	1.10	0.96	0.29	1.02	0.75	0.25	0.83	1.04	0.35
Control Delay	97.0	64.2	13.7	166.0	50.8	11.5	108.5	31.4	9.9	62.3	63.3	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	97.0	64.2	13.7	166.0	50.8	11.5	108.5	31.4	9.9	62.3	63.3	16.5
Queue Length 50th (ft)	39	~444	48	~64	395	32	~167	321	29	164	~610	84
Queue Length 95th (ft)	#123	#593	107	#164	#537	83	#325	401	76	#285	#747	148
Internal Link Dist (ft)		1029			1030			868			853	
Turn Bay Length (ft)	90		40	240		60	160		140	165		160
Base Capacity (vph)	81	1265	643	81	1265	643	245	1459	724	340	1611	759
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	1.02	0.34	1.10	0.96	0.29	1.02	0.75	0.25	0.78	1.04	0.35

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

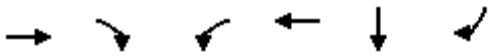
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	1185	202	82	1114	171	231	1009	169	245	1541	247
Future Volume (vph)	62	1185	202	82	1114	171	231	1009	169	245	1541	247
Ideal Flow (vphpl)	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1947	3893	1742	1947	3893	1742	1947	3893	1742	1947	3893	1742
Flt Permitted	0.12	1.00	1.00	0.12	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	252	3893	1742	252	3893	1742	1947	3893	1742	1947	3893	1742
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	67	1288	220	89	1211	186	251	1097	184	266	1675	268
RTOR Reduction (vph)	0	0	78	0	0	78	0	0	72	0	0	38
Lane Group Flow (vph)	67	1288	142	89	1211	108	251	1097	112	266	1675	230
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	32.5	32.5	32.5	32.5	32.5	32.5	12.6	37.5	37.5	16.5	41.4	41.4
Effective Green, g (s)	32.5	32.5	32.5	32.5	32.5	32.5	12.6	37.5	37.5	16.5	41.4	41.4
Actuated g/C Ratio	0.32	0.32	0.32	0.32	0.32	0.32	0.13	0.38	0.38	0.16	0.41	0.41
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	81	1265	566	81	1265	566	245	1459	653	321	1611	721
v/s Ratio Prot		0.33			0.31		c0.13	0.28		0.14	c0.43	
v/s Ratio Perm	0.27		0.08	c0.35		0.06			0.06			0.13
v/c Ratio	0.83	1.02	0.25	1.10	0.96	0.19	1.02	0.75	0.17	0.83	1.04	0.32
Uniform Delay, d1	31.2	33.8	24.8	33.8	33.1	24.3	43.7	27.2	20.9	40.4	29.3	19.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	47.1	30.0	0.2	129.4	16.0	0.2	64.0	2.2	0.1	16.0	33.5	0.3
Delay (s)	78.3	63.7	25.0	163.1	49.1	24.5	107.7	29.4	21.0	56.4	62.8	20.0
Level of Service	E	E	C	F	D	C	F	C	C	E	E	C
Approach Delay (s)		58.9			52.8			41.2			56.8	
Approach LOS		E			D			D			E	

Intersection Summary			
HCM 2000 Control Delay	52.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	99.3%	ICU Level of Service	F
Analysis Period (min)	15		

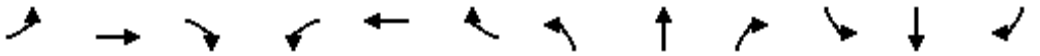
c Critical Lane Group



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	1929	413	124	1058	538	505
v/c Ratio	0.95	0.58	0.82	0.38	0.94	0.92
Control Delay	33.2	15.0	71.9	9.5	46.8	44.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.2	15.0	71.9	9.5	46.8	44.9
Queue Length 50th (ft)	286	90	54	87	195	180
Queue Length 95th (ft)	#401	176	#141	114	#397	#373
Internal Link Dist (ft)	987			993	737	
Turn Bay Length (ft)		40	140			
Base Capacity (vph)	2026	708	152	2794	583	556
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.58	0.82	0.38	0.92	0.91

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1775	380	114	973	0	0	0	0	223	0	737
Future Volume (vph)	0	1775	380	114	973	0	0	0	0	223	0	737
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5						4.5	4.5
Lane Util. Factor		0.91	1.00	1.00	0.91						0.95	0.95
Frt		1.00	0.85	1.00	1.00						0.92	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.98	1.00
Satd. Flow (prot)		5085	1583	1770	5085						1588	1504
Flt Permitted		1.00	1.00	0.95	1.00						0.98	1.00
Satd. Flow (perm)		5085	1583	1770	5085						1588	1504
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1929	413	124	1058	0	0	0	0	242	0	801
RTOR Reduction (vph)	0	0	78	0	0	0	0	0	0	0	64	64
Lane Group Flow (vph)	0	1929	335	124	1058	0	0	0	0	0	474	441
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		4		3	8						6	
Permitted Phases			4							6		6
Actuated Green, G (s)		27.7	27.7	6.0	38.2						22.3	22.3
Effective Green, g (s)		27.7	27.7	6.0	38.2						22.3	22.3
Actuated g/C Ratio		0.40	0.40	0.09	0.55						0.32	0.32
Clearance Time (s)		4.5	4.5	4.5	4.5						4.5	4.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0						3.0	3.0
Lane Grp Cap (vph)		2026	630	152	2794						509	482
v/s Ratio Prot		c0.38		c0.07	0.21							
v/s Ratio Perm			0.21								0.30	0.29
v/c Ratio		0.95	0.53	0.82	0.38						0.93	0.92
Uniform Delay, d1		20.3	16.0	31.2	8.9						22.9	22.7
Progression Factor		1.00	1.00	1.00	1.00						1.00	1.00
Incremental Delay, d2		10.8	0.9	27.4	0.1						24.0	21.9
Delay (s)		31.1	16.8	58.6	9.0						46.9	44.6
Level of Service		C	B	E	A						D	D
Approach Delay (s)		28.6			14.2			0.0			45.8	
Approach LOS		C			B			A			D	

Intersection Summary			
HCM 2000 Control Delay	28.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	69.5	Sum of lost time (s)	13.5
Intersection Capacity Utilization	79.3%	ICU Level of Service	D
Analysis Period (min)	15		

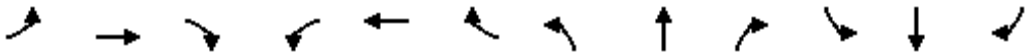
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	8	1063	932	162	1316	40	89
v/c Ratio	0.04	0.60	0.78	0.57	0.33	0.17	0.31
Control Delay	8.7	11.9	7.6	33.5	3.0	24.5	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.7	11.9	7.6	33.5	3.0	24.5	9.0
Queue Length 50th (ft)	1	126	20	53	43	13	0
Queue Length 95th (ft)	8	192	#133	#127	69	36	31
Internal Link Dist (ft)		806			1980		
Turn Bay Length (ft)	45		160	55			660
Base Capacity (vph)	206	1993	1248	297	3946	682	667
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.53	0.75	0.55	0.33	0.06	0.13

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	978	857	149	1211	0	37	0	82	0	0	0
Future Volume (vph)	7	978	857	149	1211	0	37	0	82	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5			
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91		1.00		1.00			
Frt	1.00	1.00	0.85	1.00	1.00		1.00		0.85			
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95		1.00			
Satd. Flow (prot)	1770	3539	1583	1770	5085		1770		1583			
Flt Permitted	0.20	1.00	1.00	0.95	1.00		0.95		1.00			
Satd. Flow (perm)	367	3539	1583	1770	5085		1770		1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	1063	932	162	1316	0	40	0	89	0	0	0
RTOR Reduction (vph)	0	0	412	0	0	0	0	0	80	0	0	0
Lane Group Flow (vph)	8	1063	520	162	1316	0	40	0	9	0	0	0
Turn Type	Perm	NA	Perm	Prot	NA		Perm		Perm			
Protected Phases		4		3	8							
Permitted Phases	4		4				2		2			
Actuated Green, G (s)	26.7	26.7	26.7	8.5	39.7		5.2		5.2			
Effective Green, g (s)	26.7	26.7	26.7	8.5	39.7		5.2		5.2			
Actuated g/C Ratio	0.50	0.50	0.50	0.16	0.74		0.10		0.10			
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0		3.0			
Lane Grp Cap (vph)	181	1753	784	279	3745		170		152			
v/s Ratio Prot		0.30		c0.09	0.26							
v/s Ratio Perm	0.02		c0.33				c0.02		0.01			
v/c Ratio	0.04	0.61	0.66	0.58	0.35		0.24		0.06			
Uniform Delay, d1	7.0	9.8	10.2	21.0	2.5		22.5		22.1			
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00		1.00			
Incremental Delay, d2	0.1	0.6	2.1	3.1	0.1		0.7		0.2			
Delay (s)	7.1	10.4	12.3	24.1	2.6		23.2		22.3			
Level of Service	A	B	B	C	A		C		C			
Approach Delay (s)		11.3			4.9			22.6			0.0	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	9.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	53.9	Sum of lost time (s)	13.5
Intersection Capacity Utilization	68.8%	ICU Level of Service	C
Analysis Period (min)	15		

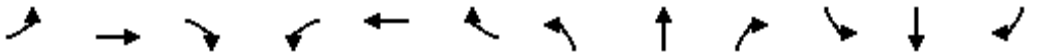
c Critical Lane Group



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	133	1055	18	841	395	86	17	54	559
v/c Ratio	0.50	0.57	0.10	0.68	0.49	0.21	0.03	0.14	0.81
Control Delay	32.4	10.1	16.6	19.7	4.5	15.9	0.1	15.1	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.4	10.1	16.6	19.7	4.5	15.9	0.1	15.1	18.1
Queue Length 50th (ft)	42	104	4	125	0	21	0	13	61
Queue Length 95th (ft)	#110	180	18	204	53	49	0	34	#185
Internal Link Dist (ft)		1980		560		847		971	
Turn Bay Length (ft)	70		100		160		40		620
Base Capacity (vph)	286	2227	201	1414	869	643	761	606	886
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.47	0.09	0.59	0.45	0.13	0.02	0.09	0.63

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	122	932	39	17	774	363	59	20	16	47	3	514
Future Volume (vph)	122	932	39	17	774	363	59	20	16	47	3	514
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5		4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.96	1.00		0.95	1.00
Satd. Flow (prot)	1770	3518		1770	3539	1583		1796	1583		1779	1583
Flt Permitted	0.95	1.00		0.27	1.00	1.00		0.78	1.00		0.74	1.00
Satd. Flow (perm)	1770	3518		505	3539	1583		1453	1583		1370	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	133	1013	42	18	841	395	64	22	17	51	3	559
RTOR Reduction (vph)	0	5	0	0	0	257	0	0	12	0	0	240
Lane Group Flow (vph)	133	1050	0	18	841	138	0	86	5	0	54	319
Turn Type	Prot	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases				8		8	2		2	6		6
Actuated Green, G (s)	5.4	27.7		17.8	17.8	17.8		14.4	14.4		14.4	14.4
Effective Green, g (s)	5.4	27.7		17.8	17.8	17.8		14.4	14.4		14.4	14.4
Actuated g/C Ratio	0.11	0.54		0.35	0.35	0.35		0.28	0.28		0.28	0.28
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5		4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	187	1907		175	1232	551		409	446		386	446
v/s Ratio Prot	0.08	c0.30			c0.24							
v/s Ratio Perm				0.04		0.09		0.06	0.00		0.04	c0.20
v/c Ratio	0.71	0.55		0.10	0.68	0.25		0.21	0.01		0.14	0.72
Uniform Delay, d1	22.1	7.6		11.3	14.2	11.9		14.0	13.2		13.7	16.5
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	12.0	0.3		0.3	1.6	0.2		0.3	0.0		0.2	5.4
Delay (s)	34.1	8.0		11.5	15.8	12.1		14.3	13.2		13.9	21.9
Level of Service	C	A		B	B	B		B	B		B	C
Approach Delay (s)		10.9			14.6			14.1			21.2	
Approach LOS		B			B			B			C	

Intersection Summary			
HCM 2000 Control Delay	14.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	51.1	Sum of lost time (s)	13.5
Intersection Capacity Utilization	68.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	308	309	183	103	846	383	160	1073	482
v/c Ratio	1.02	0.94	0.75	0.31	1.03	0.27	0.70	1.04	0.63
Control Delay	105.7	80.3	68.7	5.8	84.2	23.0	65.2	78.2	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.7	80.3	68.7	5.8	84.2	23.0	65.2	78.2	7.9
Queue Length 50th (ft)	~254	208	136	0	~363	96	119	~475	10
Queue Length 95th (ft)	#436	#391	216	27	#494	141	189	#624	117
Internal Link Dist (ft)		835	755			938		874	
Turn Bay Length (ft)				80	290		100		
Base Capacity (vph)	302	327	280	357	820	1440	286	1027	760
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.94	0.65	0.29	1.03	0.27	0.56	1.04	0.63

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
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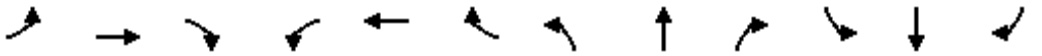

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	283	131	154	50	119	95	778	294	58	147	652	778
Future Volume (vph)	283	131	154	50	119	95	778	294	58	147	652	778
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	1.00			1.00	1.00	0.97	0.95		1.00	0.91	0.91
Frt	1.00	0.92			1.00	0.85	1.00	0.98		1.00	0.95	0.85
Flt Protected	0.95	1.00			0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1712			1836	1583	3433	3452		1770	3218	1441
Flt Permitted	0.95	1.00			0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1712			1836	1583	3433	3452		1770	3218	1441
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	308	142	167	54	129	103	846	320	63	160	709	846
RTOR Reduction (vph)	0	35	0	0	0	89	0	13	0	0	48	322
Lane Group Flow (vph)	308	274	0	0	183	14	846	370	0	160	1025	160
Turn Type	Split	NA		Split	NA	Prot	Prot	NA		Prot	NA	Perm
Protected Phases	4	4		8	8	8	5	2		1	6	
Permitted Phases												6
Actuated Green, G (s)	20.1	20.1			15.6	15.6	28.1	48.7		15.3	35.9	35.9
Effective Green, g (s)	20.1	20.1			15.6	15.6	28.1	48.7		15.3	35.9	35.9
Actuated g/C Ratio	0.17	0.17			0.13	0.13	0.24	0.41		0.13	0.31	0.31
Clearance Time (s)	4.5	4.5			4.5	4.5	4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	302	292			243	209	819	1428		230	981	439
v/s Ratio Prot	c0.17	0.16			c0.10	0.01	c0.25	0.11		0.09	c0.32	
v/s Ratio Perm												0.11
v/c Ratio	1.02	0.94			0.75	0.07	1.03	0.26		0.70	1.04	0.36
Uniform Delay, d1	48.8	48.2			49.2	44.7	44.8	22.7		49.0	40.9	32.0
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	57.0	36.3			12.4	0.1	40.2	0.1		8.8	41.2	0.5
Delay (s)	105.8	84.5			61.6	44.8	85.0	22.8		57.8	82.1	32.5
Level of Service	F	F			E	D	F	C		E	F	C
Approach Delay (s)		95.1			55.5			65.6			65.9	
Approach LOS		F			E			E			E	

Intersection Summary			
HCM 2000 Control Delay	69.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	117.7	Sum of lost time (s)	18.0
Intersection Capacity Utilization	88.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	99	967	280	115	929	114	1153	220	276	1738	93
v/c Ratio	0.85	0.84	0.44	0.99	0.81	0.82	0.83	0.30	0.91	1.02	0.11
Control Delay	81.4	31.4	10.1	113.7	28.7	76.1	27.4	6.3	65.7	47.1	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.4	31.4	10.1	113.7	28.7	76.1	27.4	6.3	65.7	47.1	3.3
Queue Length 50th (ft)	40	203	33	49	185	50	234	16	119	~391	0
Queue Length 95th (ft)	#124	#302	91	#146	#258	#134	#317	59	#251	#555	22
Internal Link Dist (ft)		987			1124		1174			1214	
Turn Bay Length (ft)	100		100	140		185		80	110		
Base Capacity (vph)	116	1151	640	116	1147	139	1384	725	303	1712	819
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.84	0.44	0.99	0.81	0.82	0.83	0.30	0.91	1.02	0.11

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
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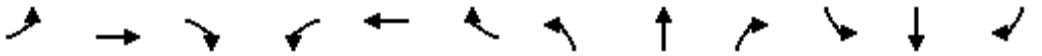
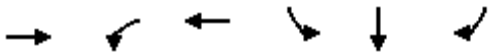


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	890	258	106	691	164	105	1061	202	254	1599	86
Future Volume (vph)	91	890	258	106	691	164	105	1061	202	254	1599	86
Ideal Flow (vphpl)	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1947	3893	1742	1947	3781		1947	3893	1742	1947	3893	1742
Flt Permitted	0.19	1.00	1.00	0.19	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	396	3893	1742	396	3781		1947	3893	1742	1947	3893	1742
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	99	967	280	115	751	178	114	1153	220	276	1738	93
RTOR Reduction (vph)	0	0	125	0	30	0	0	0	106	0	0	52
Lane Group Flow (vph)	99	967	155	115	899	0	114	1153	114	276	1738	41
Turn Type	Perm	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	20.7	20.7	20.7	20.7	20.7		5.0	24.9	24.9	10.9	30.8	30.8
Effective Green, g (s)	20.7	20.7	20.7	20.7	20.7		5.0	24.9	24.9	10.9	30.8	30.8
Actuated g/C Ratio	0.30	0.30	0.30	0.30	0.30		0.07	0.36	0.36	0.16	0.44	0.44
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	117	1151	515	117	1118		139	1384	619	303	1712	766
v/s Ratio Prot		0.25			0.24		0.06	0.30		c0.14	c0.45	
v/s Ratio Perm	0.25		0.09	c0.29					0.07			0.02
v/c Ratio	0.85	0.84	0.30	0.98	0.80		0.82	0.83	0.18	0.91	1.02	0.05
Uniform Delay, d1	23.2	23.1	19.1	24.5	22.8		32.1	20.6	15.6	29.1	19.6	11.2
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	39.9	5.7	0.3	77.4	4.3		30.5	4.5	0.1	29.8	25.6	0.0
Delay (s)	63.1	28.8	19.4	101.9	27.1		62.6	25.1	15.7	58.9	45.2	11.3
Level of Service	E	C	B	F	C		E	C	B	E	D	B
Approach Delay (s)		29.3			35.3			26.6			45.5	
Approach LOS		C			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	35.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	88.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	2462	173	1037	463	437	428
v/c Ratio	1.03	0.82	0.49	0.91	0.83	0.81
Control Delay	51.0	46.0	11.3	55.2	36.8	35.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.0	46.0	11.3	55.2	36.8	35.1
Queue Length 50th (ft)	~553	46	163	264	193	177
Queue Length 95th (ft)	#650	#158	211	#454	#373	#344
Internal Link Dist (ft)	979		732		799	
Turn Bay Length (ft)		160				
Base Capacity (vph)	2389	211	2115	516	535	536
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.82	0.49	0.90	0.82	0.80

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
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95th percentile volume exceeds capacity, queue may be longer.
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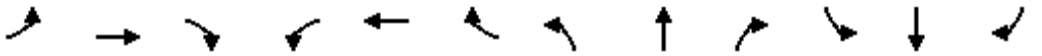


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1963	302	159	954	0	0	0	0	546	8	668
Future Volume (vph)	0	1963	302	159	954	0	0	0	0	546	8	668
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5					4.5	4.5	4.5
Lane Util. Factor		0.91		1.00	0.95					0.95	0.91	0.95
Frt		0.98		1.00	1.00					1.00	0.90	0.85
Flt Protected		1.00		0.95	1.00					0.95	0.99	1.00
Satd. Flow (prot)		4984		1770	3539					1681	1499	1504
Flt Permitted		1.00		0.09	1.00					0.95	0.99	1.00
Satd. Flow (perm)		4984		159	3539					1681	1499	1504
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	2134	328	173	1037	0	0	0	0	593	9	726
RTOR Reduction (vph)	0	23	0	0	0	0	0	0	0	0	75	75
Lane Group Flow (vph)	0	2439	0	173	1037	0	0	0	0	463	362	353
Turn Type		NA		pm+pt	NA					custom	NA	custom
Protected Phases				3	8							
Permitted Phases		4		8						6	6	6
Actuated Green, G (s)		42.5		53.5	53.5					27.0	27.0	27.0
Effective Green, g (s)		42.5		53.5	53.5					27.0	27.0	27.0
Actuated g/C Ratio		0.47		0.60	0.60					0.30	0.30	0.30
Clearance Time (s)		4.5		4.5	4.5					4.5	4.5	4.5
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		2366		212	2115					507	452	453
v/s Ratio Prot				c0.06	0.29							
v/s Ratio Perm		c0.49		0.43						c0.28	0.24	0.23
v/c Ratio		1.03		0.82	0.49					0.91	0.80	0.78
Uniform Delay, d1		23.5		21.2	10.2					30.1	28.8	28.5
Progression Factor		1.00		1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		27.0		20.9	0.2					20.8	9.6	8.2
Delay (s)		50.5		42.1	10.4					51.0	38.3	36.7
Level of Service		D		D	B					D	D	D
Approach Delay (s)		50.5			14.9			0.0			42.2	
Approach LOS		D			B			A			D	

Intersection Summary			
HCM 2000 Control Delay	39.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	89.5	Sum of lost time (s)	13.5
Intersection Capacity Utilization	86.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	655	165	61	451	729	141
v/c Ratio	0.80	0.39	0.31	0.28	0.86	0.12
Control Delay	37.4	19.5	37.2	0.5	30.5	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.4	19.5	37.2	0.5	30.5	5.4
Queue Length 50th (ft)	159	41	29	0	293	23
Queue Length 95th (ft)	#254	99	64	0	#539	42
Internal Link Dist (ft)	784		1067			1091
Turn Bay Length (ft)		40				
Base Capacity (vph)	846	438	459	1583	931	1550
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.38	0.13	0.28	0.78	0.09

Intersection Summary

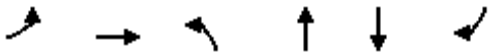
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	603	152	56	415	671	130
Future Volume (vph)	603	152	56	415	671	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.0	4.5	4.5
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1583	1863	1583	1770	1863
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1583	1863	1583	1770	1863
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	655	165	61	451	729	141
RTOR Reduction (vph)	0	49	0	0	0	0
Lane Group Flow (vph)	655	116	61	451	729	141
Turn Type	Prot	Perm	NA	Free	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		Free		
Actuated Green, G (s)	18.0	18.0	8.0	75.7	36.2	48.7
Effective Green, g (s)	18.0	18.0	8.0	75.7	36.2	48.7
Actuated g/C Ratio	0.24	0.24	0.11	1.00	0.48	0.64
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	816	376	196	1583	846	1198
v/s Ratio Prot	c0.19		0.03		c0.41	0.08
v/s Ratio Perm		0.07		c0.28		
v/c Ratio	0.80	0.31	0.31	0.28	0.86	0.12
Uniform Delay, d1	27.2	23.7	31.3	0.0	17.5	5.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.7	0.5	0.9	0.5	9.0	0.0
Delay (s)	32.9	24.2	32.2	0.5	26.5	5.3
Level of Service	C	C	C	A	C	A
Approach Delay (s)	31.2		4.2			23.1
Approach LOS	C		A			C

Intersection Summary			
HCM 2000 Control Delay	21.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	75.7	Sum of lost time (s)	13.5
Intersection Capacity Utilization	68.5%	ICU Level of Service	C
Analysis Period (min)	15		

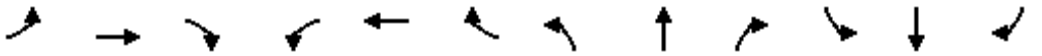
c Critical Lane Group



Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	284	259	1101	530	936	267
v/c Ratio	0.86	0.62	0.95	0.21	0.84	0.39
Control Delay	60.0	21.5	46.8	5.0	37.5	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.0	21.5	46.8	5.0	37.5	5.0
Queue Length 50th (ft)	164	60	310	48	263	0
Queue Length 95th (ft)	#302	144	#443	67	#370	54
Internal Link Dist (ft)		639		679	675	
Turn Bay Length (ft)	340		240			250
Base Capacity (vph)	349	436	1176	2484	1110	680
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.59	0.94	0.21	0.84	0.39

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	323	0	177	0	0	0	1013	488	0	0	861	246
Future Volume (vph)	323	0	177	0	0	0	1013	488	0	0	861	246
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5					4.5	4.5			4.5	4.5
Lane Util. Factor	0.95	0.95					0.97	0.95			0.95	1.00
Frt	1.00	0.89					1.00	1.00			1.00	0.85
Flt Protected	0.95	0.99					0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1553					3433	3539			3539	1583
Flt Permitted	0.95	0.99					0.95	1.00			1.00	1.00
Satd. Flow (perm)	1681	1553					3433	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	351	0	192	0	0	0	1101	530	0	0	936	267
RTOR Reduction (vph)	0	116	0	0	0	0	0	0	0	0	0	183
Lane Group Flow (vph)	284	143	0	0	0	0	1101	530	0	0	936	84
Turn Type	Perm	NA					Prot	NA			NA	Perm
Protected Phases		4					5	2			6	
Permitted Phases	4											6
Actuated Green, G (s)	17.5	17.5					30.1	62.6			28.0	28.0
Effective Green, g (s)	17.5	17.5					30.1	62.6			28.0	28.0
Actuated g/C Ratio	0.20	0.20					0.34	0.70			0.31	0.31
Clearance Time (s)	4.5	4.5					4.5	4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0					3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	330	305					1159	2486			1112	497
v/s Ratio Prot							c0.32	0.15			c0.26	
v/s Ratio Perm	c0.17	0.09										0.05
v/c Ratio	0.86	0.47					0.95	0.21			0.84	0.17
Uniform Delay, d1	34.6	31.7					28.8	4.6			28.5	22.1
Progression Factor	1.00	1.00					1.00	1.00			1.00	1.00
Incremental Delay, d2	19.9	1.1					15.7	0.2			7.8	0.7
Delay (s)	54.5	32.8					44.5	4.8			36.2	22.9
Level of Service	D	C					D	A			D	C
Approach Delay (s)		44.2			0.0			31.6			33.3	
Approach LOS		D			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	34.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	89.1	Sum of lost time (s)	13.5
Intersection Capacity Utilization	78.3%	ICU Level of Service	D
Analysis Period (min)	15		

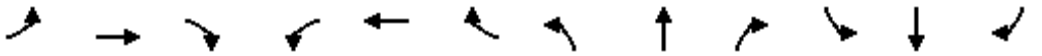
c Critical Lane Group



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	76	76	386	390	968	1474	468
v/c Ratio	0.18	0.18	0.79	0.76	0.47	0.82	0.54
Control Delay	16.9	16.9	26.9	35.8	8.3	22.6	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.9	16.9	26.9	35.8	8.3	22.6	4.5
Queue Length 50th (ft)	21	21	86	70	98	175	0
Queue Length 95th (ft)	49	49	#200	#134	144	#262	55
Internal Link Dist (ft)		585			691	966	
Turn Bay Length (ft)	320		320	160			
Base Capacity (vph)	534	534	578	515	2064	1797	862
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.14	0.67	0.76	0.47	0.82	0.54

Intersection Summary

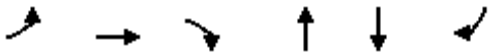
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	140	0	355	359	891	0	0	1356	431
Future Volume (vph)	0	0	0	140	0	355	359	891	0	0	1356	431
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.5	4.5	4.5	4.5	4.5			4.5	4.5
Lane Util. Factor				0.95	0.95	1.00	0.97	0.95			0.91	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1681	1583	3433	3539			5085	1583
Flt Permitted				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1681	1583	3433	3539			5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	152	0	386	390	968	0	0	1474	468
RTOR Reduction (vph)	0	0	0	0	0	81	0	0	0	0	0	302
Lane Group Flow (vph)	0	0	0	76	76	305	390	968	0	0	1474	166
Turn Type				Perm	NA	Perm	Prot	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Actuated Green, G (s)				14.6	14.6	14.6	8.5	33.2			20.2	20.2
Effective Green, g (s)				14.6	14.6	14.6	8.5	33.2			20.2	20.2
Actuated g/C Ratio				0.26	0.26	0.26	0.15	0.58			0.36	0.36
Clearance Time (s)				4.5	4.5	4.5	4.5	4.5			4.5	4.5
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				432	432	406	513	2068			1808	562
v/s Ratio Prot							c0.11	0.27			c0.29	
v/s Ratio Perm				0.05	0.05	c0.19						0.11
v/c Ratio				0.18	0.18	0.75	0.76	0.47			0.82	0.30
Uniform Delay, d1				16.4	16.4	19.4	23.2	6.7			16.6	13.2
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2				0.2	0.2	7.6	6.5	0.8			4.2	1.3
Delay (s)				16.6	16.6	27.1	29.7	7.5			20.8	14.5
Level of Service				B	B	C	C	A			C	B
Approach Delay (s)		0.0			24.1			13.9			19.3	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	56.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	54.1%	ICU Level of Service	A
Analysis Period (min)	15		

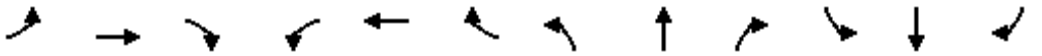
c Critical Lane Group



Lane Group	EBL	EBT	EBR	NBT	SBT	SBR
Lane Group Flow (vph)	268	120	377	1306	1187	447
v/c Ratio	0.27	0.12	0.77	0.67	0.60	0.42
Control Delay	16.1	14.7	27.3	11.5	10.8	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.1	14.7	27.3	11.5	10.8	2.3
Queue Length 50th (ft)	36	15	99	161	145	0
Queue Length 95th (ft)	60	31	#194	231	205	35
Internal Link Dist (ft)		671		711	691	
Turn Bay Length (ft)						
Base Capacity (vph)	1178	1215	578	1939	1962	1076
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.10	0.65	0.67	0.60	0.42

Intersection Summary

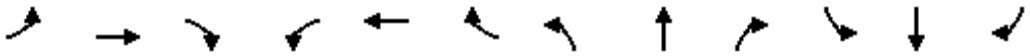
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	247	110	347	0	0	0	0	1004	198	0	1092	411
Future Volume (vph)	247	110	347	0	0	0	0	1004	198	0	1092	411
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5					4.5			4.5	4.5
Lane Util. Factor	0.97	0.95	1.00					0.95			0.95	1.00
Frt	1.00	1.00	0.85					0.98			1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00			1.00	1.00
Satd. Flow (prot)	3433	3539	1583					3452			3539	1583
Flt Permitted	0.95	1.00	1.00					1.00			1.00	1.00
Satd. Flow (perm)	3433	3539	1583					3452			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	268	120	377	0	0	0	0	1091	215	0	1187	447
RTOR Reduction (vph)	0	0	38	0	0	0	0	26	0	0	0	199
Lane Group Flow (vph)	268	120	339	0	0	0	0	1280	0	0	1187	248
Turn Type	Split	NA	Perm				Perm	NA			NA	Perm
Protected Phases	4	4						2			6	
Permitted Phases			4				2					6
Actuated Green, G (s)	16.4	16.4	16.4					31.7			31.7	31.7
Effective Green, g (s)	16.4	16.4	16.4					31.7			31.7	31.7
Actuated g/C Ratio	0.29	0.29	0.29					0.56			0.56	0.56
Clearance Time (s)	4.5	4.5	4.5					4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	3.0
Lane Grp Cap (vph)	986	1016	454					1916			1964	878
v/s Ratio Prot	0.08	0.03						c0.37			0.34	
v/s Ratio Perm			c0.21									0.16
v/c Ratio	0.27	0.12	0.75					0.67			0.60	0.28
Uniform Delay, d1	15.7	15.0	18.5					9.0			8.5	6.7
Progression Factor	1.00	1.00	1.00					1.00			1.00	1.00
Incremental Delay, d2	0.1	0.1	6.6					1.9			1.4	0.8
Delay (s)	15.9	15.1	25.1					10.8			9.9	7.5
Level of Service	B	B	C					B			A	A
Approach Delay (s)		20.3			0.0			10.8			9.2	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	12.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	57.1	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		

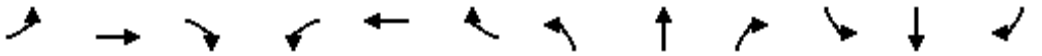
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	211	1151	268	168	1077	103	161	1138	165	195	1755	388
v/c Ratio	0.89	0.83	0.50	0.88	0.86	0.21	0.88	0.92	0.25	0.89	0.94	0.53
Control Delay	74.0	34.9	15.6	77.5	38.0	3.2	78.9	40.5	4.6	75.8	37.6	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.0	34.9	15.6	77.5	38.0	3.2	78.9	40.5	4.6	75.8	37.6	11.1
Queue Length 50th (ft)	106	200	51	84	190	0	81	285	0	98	307	55
Queue Length 95th (ft)	#228	250	120	#194	#257	20	#189	#413	40	#216	#410	134
Internal Link Dist (ft)		1026			1032			984			943	
Turn Bay Length (ft)	175		25	200		200	160		215	140		120
Base Capacity (vph)	236	1384	538	192	1258	502	184	1231	663	219	1866	738
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.83	0.50	0.88	0.86	0.21	0.88	0.92	0.25	0.89	0.94	0.53

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	194	1059	247	155	991	95	148	1047	152	179	1615	357
Future Volume (vph)	194	1059	247	155	991	95	148	1047	152	179	1615	357
Ideal Flow (vphpl)	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1947	5594	1742	1947	5594	1742	1947	3893	1742	1947	5594	1742
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1947	5594	1742	1947	5594	1742	1947	3893	1742	1947	5594	1742
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	211	1151	268	168	1077	103	161	1138	165	195	1755	388
RTOR Reduction (vph)	0	0	108	0	0	80	0	0	113	0	0	157
Lane Group Flow (vph)	211	1151	160	168	1077	23	161	1138	52	195	1755	231
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	9.7	19.8	19.8	7.9	18.0	18.0	7.6	25.3	25.3	9.0	26.7	26.7
Effective Green, g (s)	9.7	19.8	19.8	7.9	18.0	18.0	7.6	25.3	25.3	9.0	26.7	26.7
Actuated g/C Ratio	0.12	0.25	0.25	0.10	0.22	0.22	0.09	0.32	0.32	0.11	0.33	0.33
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	236	1384	431	192	1258	391	184	1231	550	219	1866	581
v/s Ratio Prot	c0.11	c0.21		0.09	0.19		0.08	0.29		c0.10	c0.31	
v/s Ratio Perm			0.09			0.01			0.03			0.13
v/c Ratio	0.89	0.83	0.37	0.88	0.86	0.06	0.88	0.92	0.09	0.89	0.94	0.40
Uniform Delay, d1	34.6	28.5	24.9	35.6	29.8	24.3	35.7	26.4	19.3	35.0	25.9	20.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	31.8	4.4	0.5	32.8	5.9	0.1	33.9	11.6	0.1	33.0	10.0	0.4
Delay (s)	66.5	32.9	25.5	68.4	35.7	24.4	69.6	38.1	19.4	68.0	35.9	20.9
Level of Service	E	C	C	E	D	C	E	D	B	E	D	C
Approach Delay (s)		36.1			38.9			39.4			36.1	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	37.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		

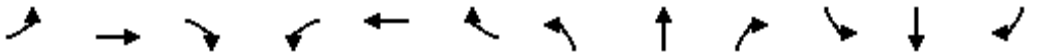
c Critical Lane Group



Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	467	148	95	84	1316	50	63	1834	23
v/c Ratio	0.89	0.42	0.17	0.60	0.62	0.05	0.45	0.87	0.02
Control Delay	41.8	21.0	10.7	33.4	11.0	3.2	20.9	17.8	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.8	21.0	10.7	33.4	11.0	3.2	20.9	17.8	2.8
Queue Length 50th (ft)	155	42	14	19	156	2	12	272	0
Queue Length 95th (ft)	#313	88	42	#87	213	14	#56	#388	8
Internal Link Dist (ft)	688	730			772			694	
Turn Bay Length (ft)				80		80	90		
Base Capacity (vph)	550	367	581	143	2171	989	145	2171	983
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.40	0.16	0.59	0.61	0.05	0.43	0.84	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	148	187	75	61	87	77	1211	46	58	1687	21
Future Volume (vph)	95	148	187	75	61	87	77	1211	46	58	1687	21
Ideal Flow (vphpl)	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090	2090
Total Lost time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.94			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99			0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1908			1994	1742	1947	3893	1742	1947	3893	1742
Flt Permitted		0.89			0.56	1.00	0.13	1.00	1.00	0.13	1.00	1.00
Satd. Flow (perm)		1712			1155	1742	259	3893	1742	263	3893	1742
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	103	161	203	82	66	95	84	1316	50	63	1834	23
RTOR Reduction (vph)	0	7	0	0	0	29	0	0	18	0	0	11
Lane Group Flow (vph)	0	460	0	0	148	66	84	1316	32	63	1834	12
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Actuated Green, G (s)		17.7			17.7	17.7	31.7	31.7	31.7	31.7	31.7	31.7
Effective Green, g (s)		17.7			17.7	17.7	31.7	31.7	31.7	31.7	31.7	31.7
Actuated g/C Ratio		0.30			0.30	0.30	0.54	0.54	0.54	0.54	0.54	0.54
Clearance Time (s)		4.5			4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		518			350	527	140	2113	945	142	2113	945
v/s Ratio Prot								0.34			c0.47	
v/s Ratio Perm		c0.27			0.13	0.04	0.32		0.02	0.24		0.01
v/c Ratio		0.89			0.42	0.13	0.60	0.62	0.03	0.44	0.87	0.01
Uniform Delay, d1		19.4			16.3	14.7	9.1	9.2	6.2	8.0	11.5	6.1
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		16.7			0.8	0.1	6.8	0.6	0.0	2.2	4.1	0.0
Delay (s)		36.1			17.1	14.9	15.8	9.8	6.2	10.2	15.6	6.2
Level of Service		D			B	B	B	A	A	B	B	A
Approach Delay (s)		36.1			16.2			10.0			15.3	
Approach LOS		D			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	58.4	Sum of lost time (s)	9.0
Intersection Capacity Utilization	86.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Appendix F
Land Use Summary Table

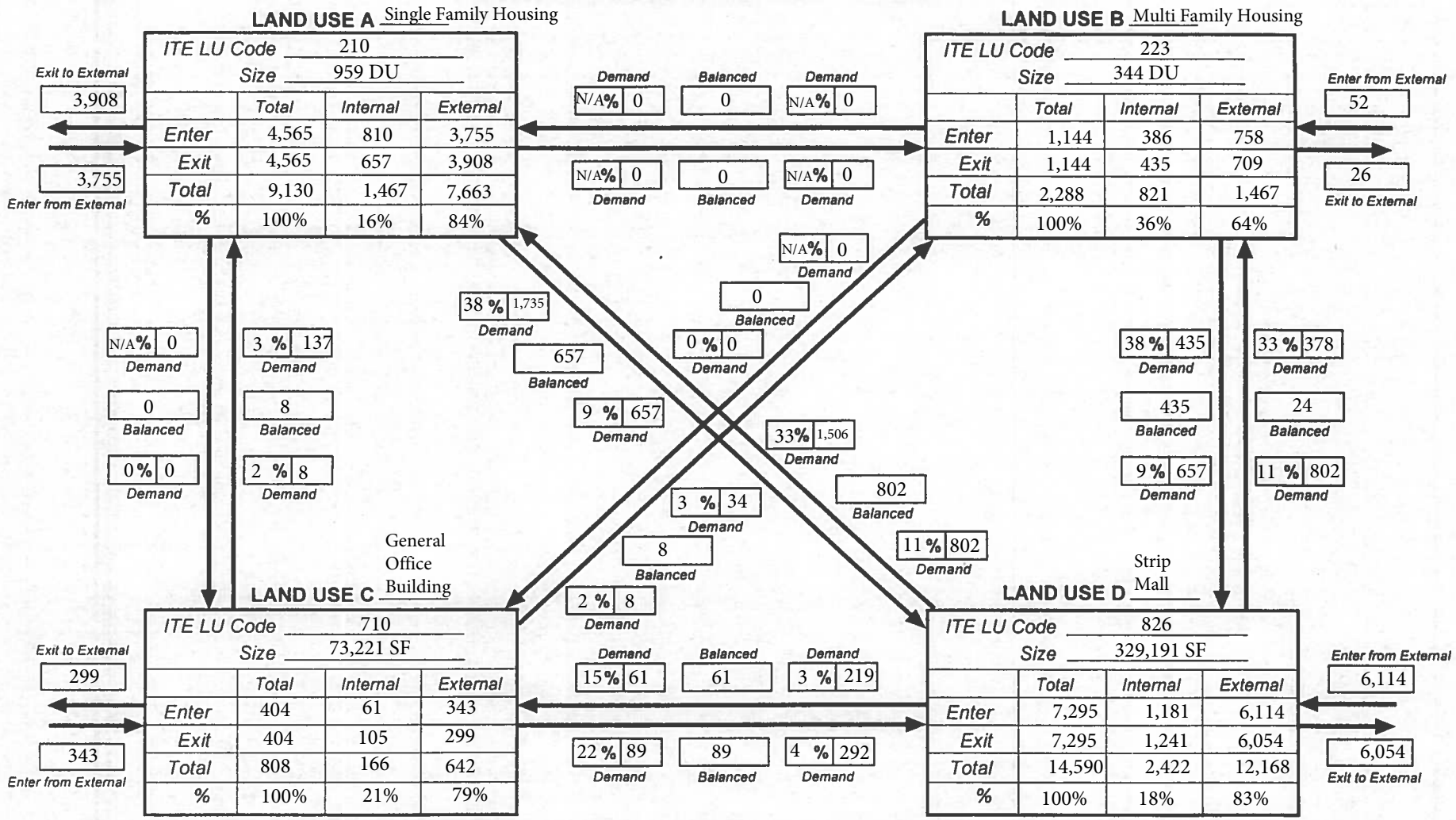
				EXISTING						PROPOSED						
Land Use Type	Land Use Subtype	ITE Code	Land Use Zone	EXLU_TTLUN	EXLU_TTLSF	Population / Employees	Total DU	Total SF	Unit Amount (kSF)	PROP_TTLUN	PROP_TTLSF	Population / Employees	Population / Employees	Total DU	Total SF	Unit Amount (kSF)
Residential	Single-Family	210	West Carson Residential 1	893	-	2924	959	0	0.000	851	0	2215	2443	939	0	0.000
			West Carson Residential 3	1	-					0	0	0				
			Residential Planned Development	37	-					88	0	228				
			Industrial Flex	3	-					0	0	0				
			Mixed Use Development 1	5	-					0	0	0				
			Mixed Use Development 2	20	-					0	0	0				
Residential	Multi-Family (Apartments Mid-Rise)	223	Harbor UCLA Medical Zone	-	-	955	344	0	0.000	100	0	0	7397	2637	0	0.000
			West Carson Residential 1	62	-					0	0	0				
			West Carson Residential 3	86	-					171	0	498				
			West Carson Residential 4	116	-					484	0	1411				
			Industrial Flex	12	-					486	0	1,417				
			Unlimited Commercial	-	-					30	0	87				
			Mixed Use Development 1	25	-					143	0	416				
			Mixed Use Development 2	43	-					1,223	0	3,568				
Industrial	General Light Industry	110	Unlimited Commercial	-	25,886	182	0	188560	188.560	-	5,062	5	548	0	571952	571.952
			Industrial Flex	-	115,438					-	566,890	543				
			Mixed Use Development 2	-	47,236					-	0	0				
Industrial	Unrefrigerated Warehouse - No Rail	152	Industrial Flex	-	188,703	279	0	299074	299.074	-	0		0	0	0	0.000
			Mixed Use Development 2	-	110,371					-	0					
Commercial	Hospital	610	West Carson Residential 4	-	42,473	137	0	66289	66.289	-	0		0	0	0	0.000
			Mixed Use Development 1	-	23,816					-	0					
Commercial	General Office Building	710	Industrial Flex	-	10,429	151	0	73221	73.221	-	453,512	933	2,741	0	1335076	1335.076
			Neighborhood Commercial	-	14,787					-	13,308	28				
			Unlimited Commercial	-	32,941					-	40,496	84				
			Mixed Use Development 1	-	12,685					-	338,422	695				
			Mixed Use Development 2	-	2,379					-	489,338	1,001				
Retail	Strip Mall	826	Industrial Flex	-	33,491	394	0	329191	329.191	-	113,378	134	906	0	754295	754.295
			Neighborhood Commercial	-	0					-	1,479	2				
			Unlimited Commercial	-	0					-	5,062	6				
			Mixed Use Development 1	-	54,236					-	145,038	174				
			Mixed Use Development 1	-	143,191											
			Mixed Use Development 2	-	83,194					-	489,338	590				
			Mixed Use Development 2	-	15,079											
							1303	956335	956.335					3576	2661323	2661.323

Appendix G
Mixed Use Internal Trip Capture Calculations

Analyst IBI Group
Date 5/01/17

MULTI- USE DEVELOPMENT TRIP GENERATION AND INTERNAL CAPTURE SUMMARY

Name of Dvlpt West Carson Existing Land Use Zoning
Time Period Daily



Net External Trips for Multi-Use Development

	LAND USE A	LAND USE B	LAND USE C	LAND USE D	TOTAL
Enter	3,755	758	343	6,114	10,970
Exit	3,908	709	299	6,054	10,970
Total	7,663	1,467	642	12,168	21,940
Single-Use Trip Gen. Est.	9,130	2,288	808	14,590	26,816

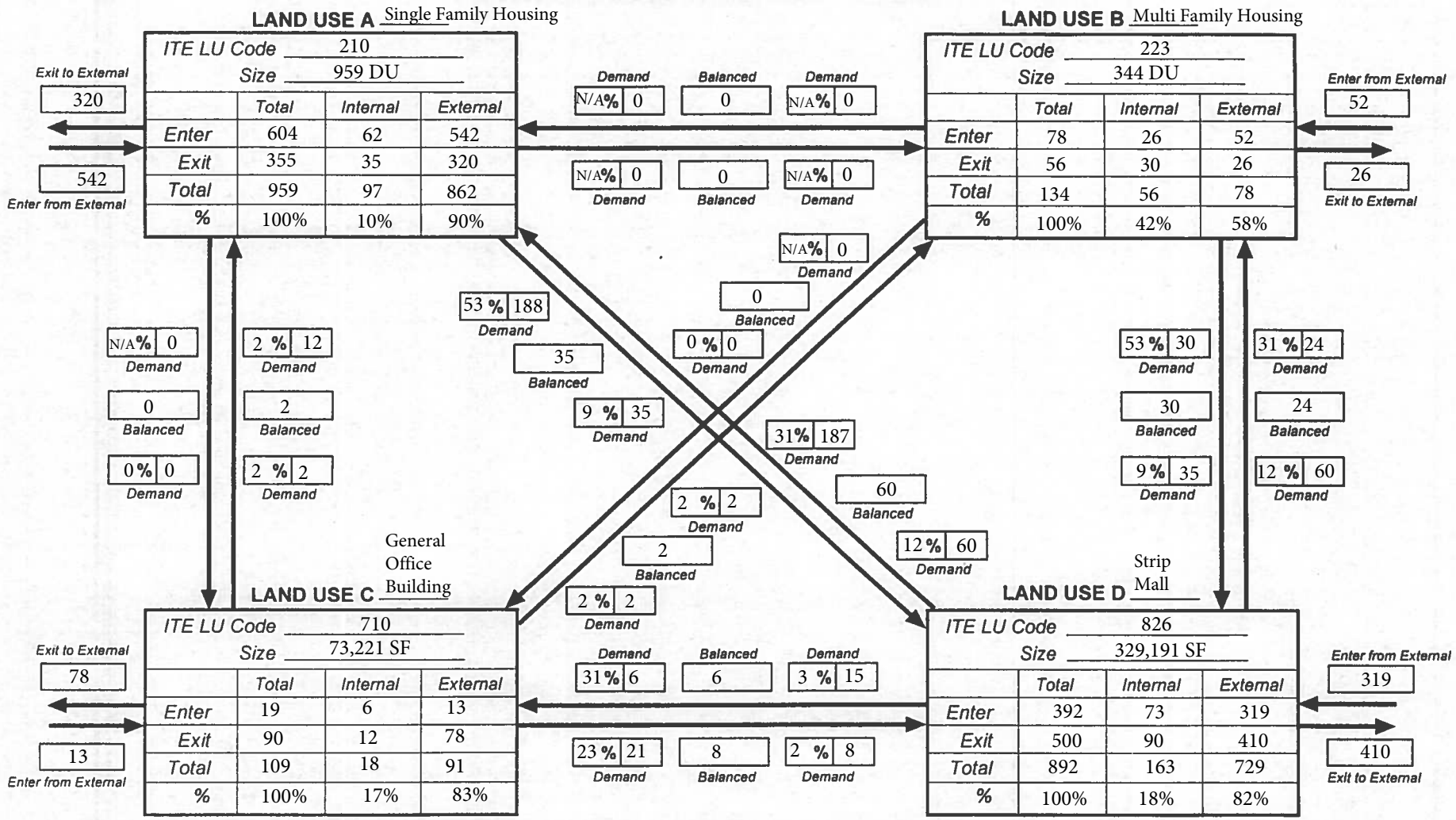
Source: Kaku Associates, Inc.

INTERNAL CAPTURE 18%

Analyst IBI Group
Date 5/01/17

MULTI- USE DEVELOPMENT TRIP GENERATION AND INTERNAL CAPTURE SUMMARY

Name of Dvlpt West Carson Existing Land Use Zoning
Time Period PM Peak Hour



Net External Trips for Multi-Use Development

	LAND USE A	LAND USE B	LAND USE C	LAND USE D	TOTAL
Enter	542	52	13	319	926
Exit	320	26	78	410	834
Total	862	78	91	729	1,760
Single-Use Trip Gen. Est.	959	134	109	892	2,094

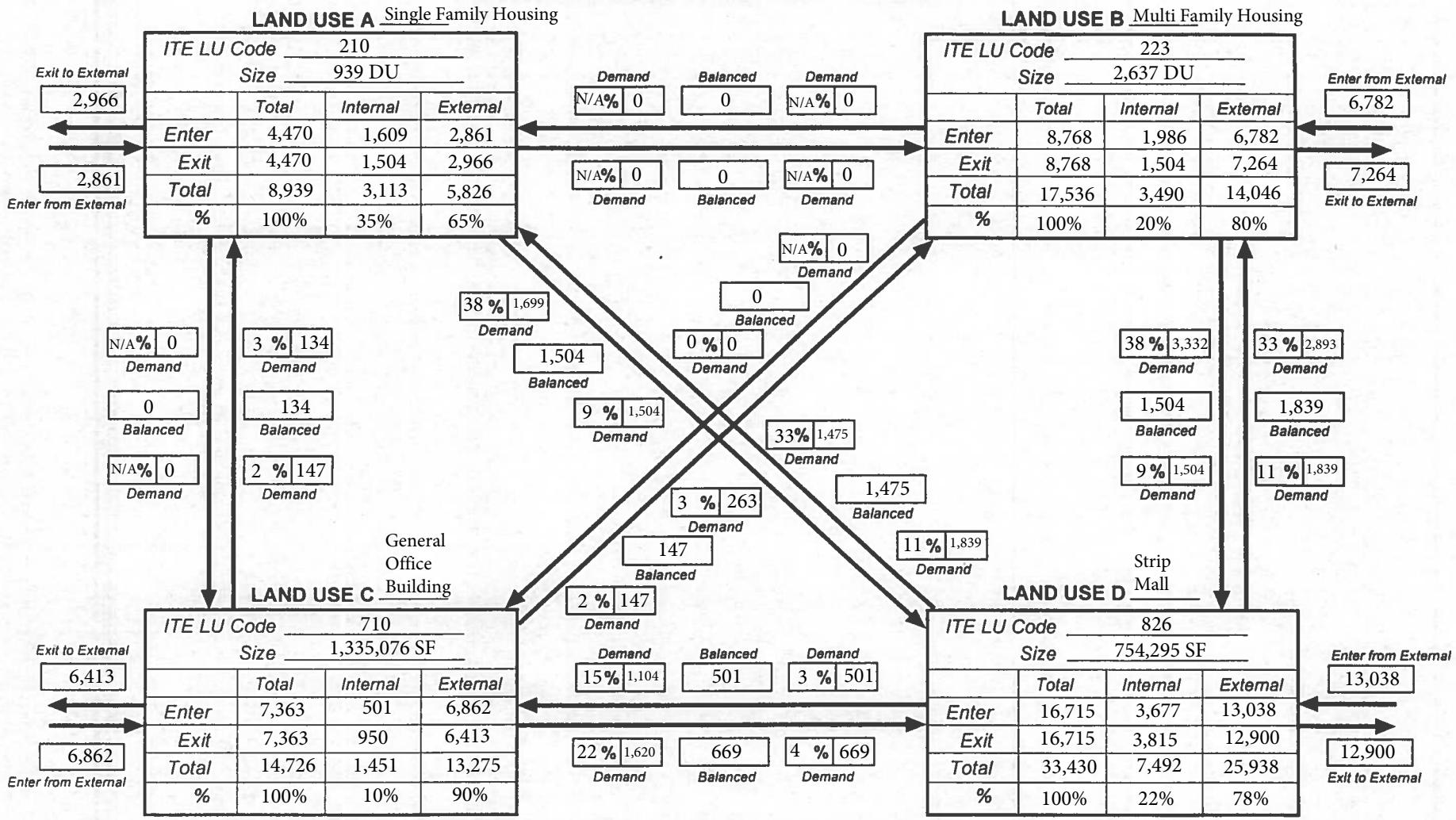
Source: Kaku Associates, Inc.

INTERNAL CAPTURE 12%

Analyst IBI Group
Date 5/01/17

MULTI- USE DEVELOPMENT TRIP GENERATION AND INTERNAL CAPTURE SUMMARY

Name of Dvlpt West Carson Proposed Land Use Zoning
Time Period Daily



Net External Trips for Multi-Use Development

	LAND USE A	LAND USE B	LAND USE C	LAND USE D	TOTAL
Enter	2,861	6,782	6,862	13,038	29,543
Exit	2,966	7,264	6,413	12,900	29,543
Total	5,826	14,046	13,275	25,938	59,086
Single-Use Trip Gen. Est.	8,939	17,536	14,726	33,430	74,631

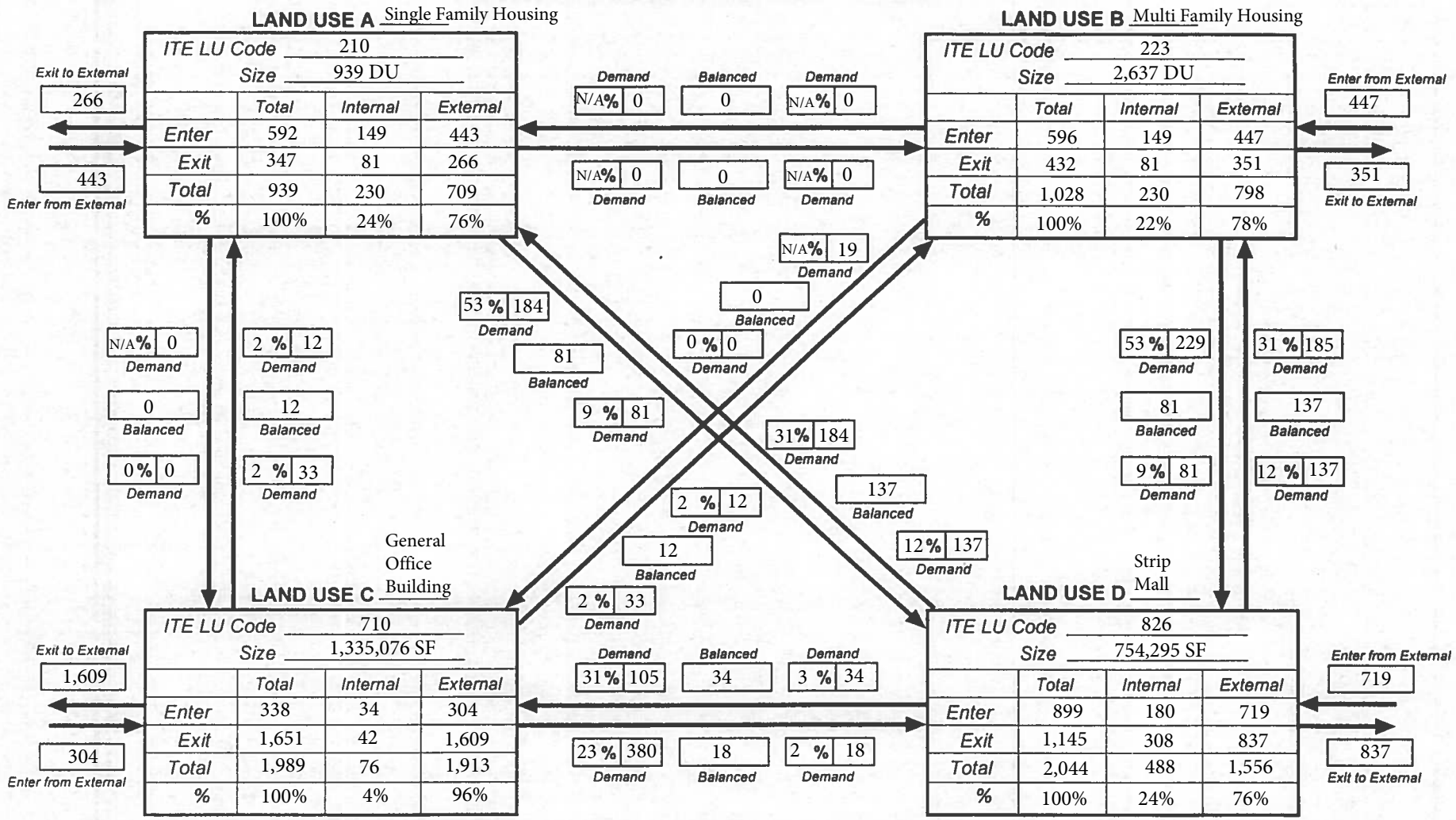
Source: Kaku Associates, Inc.

INTERNAL CAPTURE 21%

Analyst IBI Group
Date 5/01/17

MULTI- USE DEVELOPMENT TRIP GENERATION AND INTERNAL CAPTURE SUMMARY

Name of Dvlpt West Carson Proposed Land Use Zoning
Time Period PM Peak Hour



Net External Trips for Multi-Use Development

	LAND USE A	LAND USE B	LAND USE C	LAND USE D	TOTAL
Enter	443	447	304	719	1,913
Exit	266	351	1,609	837	3,063
Total	709	798	1,913	1,556	4,976
Single-Use Trip Gen. Est.	939	1,028	1,989	2,044	6,000

Source: Kaku Associates, Inc.

INTERNAL CAPTURE 17%

Appendix H
Link Volumes

Existing Year (2016) No Project

Link Volume Report

Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#1 Normandie/Torrance													
Base	907	561	1468	500	834	1334	1125	1750	2875	1692	1079	2771	8448
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	907	561	1468	500	834	1334	1125	1750	2875	1692	1079	2771	8448
#2 Vermont/Torrance													
Base	1046	795	1841	799	1056	1855	1239	1503	2742	1367	1097	2464	8902
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1046	795	1841	799	1056	1855	1239	1503	2742	1367	1097	2464	8902
#3 Figueroa/Torrance													
Base	659	460	1119	670	1235	1905	1164	864	2028	520	454	974	6026
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	659	460	1119	670	1235	1905	1164	864	2028	520	454	974	6026
#4 Vermont/Javelin													
Base	970	753	1723	826	1103	1929	74	17	91	189	186	375	4118
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	970	753	1723	826	1103	1929	74	17	91	189	186	375	4118
#5 Cabrillo/Cravens/Carson													
Base	563	214	777	305	701	1006	970	1174	2144	1223	972	2195	6122
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	563	214	777	305	701	1006	970	1174	2144	1223	972	2195	6122
#6 Western/Carson													
Base	1355	899	2254	946	1283	2229	859	1358	2217	1267	887	2154	8854
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1355	899	2254	946	1283	2229	859	1358	2217	1267	887	2154	8854
#7 Normandie/Carson													
Base	924	732	1656	597	942	1539	1047	1420	2467	1330	804	2134	7796
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	924	732	1656	597	942	1539	1047	1420	2467	1330	804	2134	7796
#8 Budlong/Carson													
Base	0	0	0	36	23	59	787	1368	2155	1357	789	2146	4360
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	36	23	59	787	1368	2155	1357	789	2146	4360
#9 Berendo/Carson													
Base	59	161	220	41	54	95	785	1351	2136	1449	768	2217	4668
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	59	161	220	41	54	95	785	1351	2136	1449	768	2217	4668
#10 Vermont/Carson													
Base	1083	911	1994	831	1028	1859	872	1592	2464	1637	892	2529	8846
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1083	911	1994	831	1028	1859	872	1592	2464	1637	892	2529	8846

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Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#11 SB I-110 Ramps/Carson													
Base	0	248	248	774	0	774	913	1658	2571	1131	912	2043	5636
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	248	248	774	0	774	913	1658	2571	1131	912	2043	5636
#12 Figueroa/Carson													
Base	952	855	1807	596	627	1223	889	1140	2029	749	564	1313	6372
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	952	855	1807	596	627	1223	889	1140	2029	749	564	1313	6372
#13 Moneta/Carson													
Base	183	214	397	179	90	269	568	716	1284	634	544	1178	3128
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	183	214	397	179	90	269	568	716	1284	634	544	1178	3128
#14 Main/Carson													
Base	962	683	1645	680	803	1483	469	644	1113	528	509	1037	5278
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	962	683	1645	680	803	1483	469	644	1113	528	509	1037	5278
#15 Dolores/Carson													
Base	241	267	508	218	219	437	496	493	989	493	469	962	2896
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	241	267	508	218	219	437	496	493	989	493	469	962	2896
#16 Grace/Carson													
Base	160	88	248	98	155	253	477	484	961	506	514	1020	2482
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	160	88	248	98	155	253	477	484	961	506	514	1020	2482
#17 Avalon/Carson													
Base	1206	1178	2384	873	868	1741	527	518	1045	942	984	1926	7096
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1206	1178	2384	873	868	1741	527	518	1045	942	984	1926	7096
#18 Bonita/Carson													
Base	379	449	828	220	200	420	994	932	1926	1096	1108	2204	5378
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	379	449	828	220	200	420	994	932	1926	1096	1108	2204	5378
#19 SB I-405 Ramps/Carson													
Base	267	584	851	0	7	7	1131	1114	2245	1140	833	1973	5076
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	267	584	851	0	7	7	1131	1114	2245	1140	833	1973	5076
#20 NB I-405 Ramps/Carson													
Base	14	49	63	451	354	805	832	1161	1993	1004	737	1741	4602
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	14	49	63	451	354	805	832	1161	1993	1004	737	1741	4602

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Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#21 Normandie/220th													
Base	968	576	1544	537	945	1482	166	143	309	262	269	531	3866
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	968	576	1544	537	945	1482	166	143	309	262	269	531	3866
#22 Meyler/220th													
Base	173	134	307	17	38	55	191	235	426	231	205	436	1224
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	173	134	307	17	38	55	191	235	426	231	205	436	1224
#23 Vermont/220th													
Base	1140	659	1799	850	1069	1919	246	468	714	76	116	192	4624
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1140	659	1799	850	1069	1919	246	468	714	76	116	192	4624
#24 Figueroa/220th and I-110 NB Ramps													
Base	1170	567	1737	895	961	1856	388	996	1384	420	349	769	5746
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1170	567	1737	895	961	1856	388	996	1384	420	349	769	5746
#25 Western/223rd													
Base	1421	1163	2584	940	1373	2313	487	1048	1535	1325	589	1914	8346
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1421	1163	2584	940	1373	2313	487	1048	1535	1325	589	1914	8346
#26 Normandie/223rd													
Base	978	604	1582	565	914	1479	741	1340	2081	1412	838	2250	7392
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	978	604	1582	565	914	1479	741	1340	2081	1412	838	2250	7392
#27 Meyler/223rd													
Base	103	198	301	165	147	312	816	1390	2206	1452	801	2253	5072
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	103	198	301	165	147	312	816	1390	2206	1452	801	2253	5072
#28 Vermont/223rd													
Base	1256	586	1842	648	1171	1819	817	1498	2315	1544	1010	2554	8530
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1256	586	1842	648	1171	1819	817	1498	2315	1544	1010	2554	8530
#29 SB I-110 Ramps/223rd													
Base	0	335	335	837	0	837	1052	1538	2590	1220	1236	2456	6218
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	335	335	837	0	837	1052	1538	2590	1220	1236	2456	6218
#30 Figueroa/223rd													
Base	840	522	1362	559	1152	1711	1230	1223	2453	1260	992	2252	7778
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	840	522	1362	559	1152	1711	1230	1223	2453	1260	992	2252	7778

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Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#31 Main/223rd													
Base	836	676	1512	805	802	1607	1030	1195	2225	1116	1114	2230	7574
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	836	676	1512	805	802	1607	1030	1195	2225	1116	1114	2230	7574
#32 Hamilton/SB I-110 Ramps													
Base	197	994	1191	448	339	787	0	0	0	1111	423	1534	3512
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	197	994	1191	448	339	787	0	0	0	1111	423	1534	3512
#33 Figueroa/NB I-110 Ramps													
Base	1224	666	1890	457	1188	1645	873	700	1573	0	0	0	5108
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1224	666	1890	457	1188	1645	873	700	1573	0	0	0	5108
#34 Avalon/NB I-405													
Base	1259	810	2069	939	1315	2254	0	514	514	441	0	441	5278
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1259	810	2069	939	1315	2254	0	514	514	441	0	441	5278
#35 Avalon/SB I-405													
Base	938	1058	1996	815	1263	2078	906	229	1135	0	109	109	5318
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	938	1058	1996	815	1263	2078	906	229	1135	0	109	109	5318
#36 Western/Torrance													
Base	1283	1093	2376	1216	1420	2636	1050	1637	2687	1517	916	2433	10132
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1283	1093	2376	1216	1420	2636	1050	1637	2687	1517	916	2433	10132
#37 Western/220th													
Base	1493	1019	2512	954	1427	2381	104	237	341	197	65	262	5496
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1493	1019	2512	954	1427	2381	104	237	341	197	65	262	5496

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Link Volume Report

Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#1 Normandie/Torrance													
Base	700	974	1674	1035	664	1699	1600	1200	2800	1064	1561	2625	8798
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	700	974	1674	1035	664	1699	1600	1200	2800	1064	1561	2625	8798
#2 Vermont/Torrance													
Base	758	1011	1769	1096	766	1862	1517	949	2466	823	1468	2291	8388
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	758	1011	1769	1096	766	1862	1517	949	2466	823	1468	2291	8388
#3 Figueroa/Torrance													
Base	446	689	1135	970	1039	2009	1437	742	2179	474	857	1331	6654
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	446	689	1135	970	1039	2009	1437	742	2179	474	857	1331	6654
#4 Vermont/Javelin													
Base	653	1015	1668	1080	708	1788	48	34	82	64	88	152	3690
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	653	1015	1668	1080	708	1788	48	34	82	64	88	152	3690
#5 Cabrillo/Cravens/Carson													
Base	330	613	943	848	456	1304	1244	1335	2579	1316	1334	2650	7476
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	330	613	943	848	456	1304	1244	1335	2579	1316	1334	2650	7476
#6 Western/Carson													
Base	1140	1557	2697	1774	1033	2807	1212	1242	2454	1058	1352	2410	10368
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1140	1557	2697	1774	1033	2807	1212	1242	2454	1058	1352	2410	10368
#7 Normandie/Carson													
Base	679	976	1655	875	739	1614	1439	1238	2677	1158	1198	2356	8302
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	679	976	1655	875	739	1614	1439	1238	2677	1158	1198	2356	8302
#8 Budlong/Carson													
Base	0	0	0	31	37	68	1195	1129	2324	1129	1189	2318	4710
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	31	37	68	1195	1129	2324	1129	1189	2318	4710
#9 Berendo/Carson													
Base	74	53	127	43	47	90	1201	1143	2344	1158	1233	2391	4952
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	74	53	127	43	47	90	1201	1143	2344	1158	1233	2391	4952
#10 Vermont/Carson													
Base	751	1063	1814	1091	705	1796	1332	1242	2574	1180	1344	2524	8708
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	751	1063	1814	1091	705	1796	1332	1242	2574	1180	1344	2524	8708

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Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#11 SB I-110 Ramps/Carson													
Base	0	353	353	727	0	727	1300	1253	2553	825	1246	2071	5704
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	353	353	727	0	727	1300	1253	2553	825	1246	2071	5704
#12 Figueroa/Carson													
Base	539	1061	1600	737	429	1166	1157	896	2053	655	702	1357	6176
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	539	1061	1600	737	429	1166	1157	896	2053	655	702	1357	6176
#13 Moneta/Carson													
Base	129	186	315	109	88	197	725	633	1358	613	669	1282	3152
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	129	186	315	109	88	197	725	633	1358	613	669	1282	3152
#14 Main/Carson													
Base	750	1047	1797	1151	627	1778	574	659	1233	573	715	1288	6096
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	750	1047	1797	1151	627	1778	574	659	1233	573	715	1288	6096
#15 Dolores/Carson													
Base	186	214	400	164	170	334	718	555	1273	552	681	1233	3240
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	186	214	400	164	170	334	718	555	1273	552	681	1233	3240
#16 Grace/Carson													
Base	154	139	293	134	164	298	666	574	1240	619	696	1315	3146
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	154	139	293	134	164	298	666	574	1240	619	696	1315	3146
#17 Avalon/Carson													
Base	1255	1353	2608	1177	1012	2189	749	607	1356	927	1136	2063	8216
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1255	1353	2608	1177	1012	2189	749	607	1356	927	1136	2063	8216
#18 Bonita/Carson													
Base	470	318	788	162	133	295	1177	880	2057	1030	1508	2538	5678
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	470	318	788	162	133	295	1177	880	2057	1030	1508	2538	5678
#19 SB I-405 Ramps/Carson													
Base	106	858	964	0	6	6	1515	1057	2572	1156	856	2012	5554
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	106	858	964	0	6	6	1515	1057	2572	1156	856	2012	5554
#20 NB I-405 Ramps/Carson													
Base	84	53	137	486	448	934	885	1143	2028	987	798	1785	4884
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	84	53	137	486	448	934	885	1143	2028	987	798	1785	4884

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Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#21 Normandie/220th													
Base	601	969	1570	989	628	1617	176	83	259	206	292	498	3944
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	601	969	1570	989	628	1617	176	83	259	206	292	498	3944
#22 Meyler/220th													
Base	89	76	165	56	5	61	273	146	419	131	322	453	1098
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	89	76	165	56	5	61	273	146	419	131	322	453	1098
#23 Vermont/220th													
Base	577	1244	1821	1060	776	1836	452	119	571	92	42	134	4362
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	577	1244	1821	1060	776	1836	452	119	571	92	42	134	4362
#24 Figueroa/220th and I-110 NB Ramps													
Base	695	696	1391	1074	544	1618	422	898	1320	210	263	473	4802
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	695	696	1391	1074	544	1618	422	898	1320	210	263	473	4802
#25 Western/223rd													
Base	1206	1725	2931	1647	1094	2741	1077	731	1808	784	1164	1948	9428
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1206	1725	2931	1647	1094	2741	1077	731	1808	784	1164	1948	9428
#26 Normandie/223rd													
Base	555	1058	1613	939	538	1477	1260	864	2124	916	1210	2126	7340
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	555	1058	1613	939	538	1477	1260	864	2124	916	1210	2126	7340
#27 Meyler/223rd													
Base	68	284	352	124	142	266	1204	948	2152	1048	1070	2118	4888
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	68	284	352	124	142	266	1204	948	2152	1048	1070	2118	4888
#28 Vermont/223rd													
Base	780	1235	2015	1153	582	1735	1074	1044	2118	1315	1461	2776	8644
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	780	1235	2015	1153	582	1735	1074	1044	2118	1315	1461	2776	8644
#29 SB I-110 Ramps/223rd													
Base	0	331	331	960	0	960	1550	1241	2791	914	1852	2766	6848
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	331	331	960	0	960	1550	1241	2791	914	1852	2766	6848
#30 Figueroa/223rd													
Base	478	630	1108	671	714	1385	1848	923	2771	897	1627	2524	7788
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	478	630	1108	671	714	1385	1848	923	2771	897	1627	2524	7788

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Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#31 Main/223rd													
Base	735	881	1616	986	725	1711	1489	949	2438	917	1572	2489	8254
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	735	881	1616	986	725	1711	1489	949	2438	917	1572	2489	8254
#32 Hamilton/SB I-110 Ramps													
Base	418	525	943	711	185	896	0	0	0	545	964	1509	3348
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	418	525	943	711	185	896	0	0	0	545	964	1509	3348
#33 Figueroa/NB I-110 Ramps													
Base	1042	921	1963	982	720	1702	444	827	1271	0	0	0	4936
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1042	921	1963	982	720	1702	444	827	1271	0	0	0	4936
#34 Avalon/NB I-405													
Base	1110	1313	2423	1587	1106	2693	0	702	702	424	0	424	6242
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1110	1313	2423	1587	1106	2693	0	702	702	424	0	424	6242
#35 Avalon/SB I-405													
Base	1032	1262	2294	1319	1110	2429	625	365	990	0	239	239	5952
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1032	1262	2294	1319	1110	2429	625	365	990	0	239	239	5952
#36 Western/Torrance													
Base	1127	1761	2888	1902	1168	3070	1309	1277	2586	1102	1234	2336	10880
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1127	1761	2888	1902	1168	3070	1309	1277	2586	1102	1234	2336	10880
#37 Western/220th													
Base	1110	1656	2766	1506	1126	2632	381	141	522	112	186	298	6218
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1110	1656	2766	1506	1126	2632	381	141	522	112	186	298	6218

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Future Year (2035) No Project

Link Volume Report

Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#1 Normandie/Torrance													
Base	1022	631	1653	563	940	1503	1267	1972	3239	1906	1215	3121	9516
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1022	631	1653	563	940	1503	1267	1972	3239	1906	1215	3121	9516
#2 Vermont/Torrance													
Base	1177	895	2072	900	1189	2089	1396	1693	3089	1539	1235	2774	10024
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1177	895	2072	900	1189	2089	1396	1693	3089	1539	1235	2774	10024
#3 Figueroa/Torrance													
Base	742	518	1260	754	1391	2145	1311	973	2284	586	511	1097	6786
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	742	518	1260	754	1391	2145	1311	973	2284	586	511	1097	6786
#4 Vermont/Javelin													
Base	1093	848	1941	930	1242	2172	84	19	103	212	210	422	4638
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1093	848	1941	930	1242	2172	84	19	103	212	210	422	4638
#5 Cabrillo/Cravens/Carson													
Base	634	241	875	344	790	1134	1093	1323	2416	1378	1095	2473	6898
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	634	241	875	344	790	1134	1093	1323	2416	1378	1095	2473	6898
#6 Western/Carson													
Base	1526	1013	2539	1066	1444	2510	967	1530	2497	1427	999	2426	9972
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1526	1013	2539	1066	1444	2510	967	1530	2497	1427	999	2426	9972
#7 Normandie/Carson													
Base	1041	825	1866	672	1061	1733	1180	1599	2779	1498	906	2404	8782
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1041	825	1866	672	1061	1733	1180	1599	2779	1498	906	2404	8782
#8 Budlong/Carson													
Base	0	0	0	41	26	67	886	1541	2427	1529	889	2418	4912
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	41	26	67	886	1541	2427	1529	889	2418	4912
#9 Berendo/Carson													
Base	67	181	248	46	61	107	884	1522	2406	1632	865	2497	5258
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	67	181	248	46	61	107	884	1522	2406	1632	865	2497	5258
#10 Vermont/Carson													
Base	1220	1026	2246	936	1157	2093	982	1793	2775	1843	1005	2848	9962
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1220	1026	2246	936	1157	2093	982	1793	2775	1843	1005	2848	9962

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Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#11 SB I-110 Ramps/Carson													
Base	0	280	280	871	0	871	1029	1867	2896	1274	1027	2301	6348
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	280	280	871	0	871	1029	1867	2896	1274	1027	2301	6348
#12 Figueroa/Carson													
Base	1073	963	2036	671	707	1378	1002	1284	2286	843	635	1478	7178
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1073	963	2036	671	707	1378	1002	1284	2286	843	635	1478	7178
#13 Moneta/Carson													
Base	206	241	447	202	101	303	640	807	1447	714	613	1327	3524
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	206	241	447	202	101	303	640	807	1447	714	613	1327	3524
#14 Main/Carson													
Base	1083	769	1852	766	904	1670	529	725	1254	594	574	1168	5944
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1083	769	1852	766	904	1670	529	725	1254	594	574	1168	5944
#15 Dolores/Carson													
Base	271	300	571	246	247	493	559	556	1115	555	528	1083	3262
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	271	300	571	246	247	493	559	556	1115	555	528	1083	3262
#16 Grace/Carson													
Base	181	99	280	110	175	285	537	545	1082	570	579	1149	2796
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	181	99	280	110	175	285	537	545	1082	570	579	1149	2796
#17 Avalon/Carson													
Base	1359	1327	2686	983	977	1960	594	584	1178	1061	1109	2170	7994
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1359	1327	2686	983	977	1960	594	584	1178	1061	1109	2170	7994
#18 Bonita/Carson													
Base	427	506	933	247	225	472	1120	1050	2170	1235	1248	2483	6058
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	427	506	933	247	225	472	1120	1050	2170	1235	1248	2483	6058
#19 SB I-405 Ramps/Carson													
Base	301	657	958	0	8	8	1274	1255	2529	1284	939	2223	5718
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	301	657	958	0	8	8	1274	1255	2529	1284	939	2223	5718
#20 NB I-405 Ramps/Carson													
Base	16	55	71	508	399	907	937	1308	2245	1131	830	1961	5184
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	16	55	71	508	399	907	937	1308	2245	1131	830	1961	5184

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Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#21 Normandie/220th													
Base	1090	649	1739	605	1065	1670	188	162	350	296	303	599	4358
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1090	649	1739	605	1065	1670	188	162	350	296	303	599	4358
#22 Meyler/220th													
Base	195	151	346	19	44	63	216	265	481	261	231	492	1382
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	195	151	346	19	44	63	216	265	481	261	231	492	1382
#23 Vermont/220th													
Base	1284	742	2026	957	1203	2160	277	527	804	85	131	216	5206
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1284	742	2026	957	1203	2160	277	527	804	85	131	216	5206
#24 Figueroa/220th and I-110 NB Ramps													
Base	1318	639	1957	1009	1082	2091	437	1122	1559	473	394	867	6474
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1318	639	1957	1009	1082	2091	437	1122	1559	473	394	867	6474
#25 Western/223rd													
Base	1600	1310	2910	1059	1546	2605	549	1181	1730	1492	663	2155	9400
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1600	1310	2910	1059	1546	2605	549	1181	1730	1492	663	2155	9400
#26 Normandie/223rd													
Base	1102	680	1782	637	1030	1667	834	1510	2344	1591	944	2535	8328
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1102	680	1782	637	1030	1667	834	1510	2344	1591	944	2535	8328
#27 Meyler/223rd													
Base	117	223	340	185	165	350	919	1566	2485	1635	902	2537	5712
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	117	223	340	185	165	350	919	1566	2485	1635	902	2537	5712
#28 Vermont/223rd													
Base	1414	660	2074	730	1319	2049	920	1688	2608	1740	1137	2877	9608
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1414	660	2074	730	1319	2049	920	1688	2608	1740	1137	2877	9608
#29 SB I-110 Ramps/223rd													
Base	0	377	377	942	0	942	1185	1732	2917	1374	1392	2766	7002
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	377	377	942	0	942	1185	1732	2917	1374	1392	2766	7002
#30 Figueroa/223rd													
Base	946	589	1535	630	1298	1928	1386	1377	2763	1420	1118	2538	8764
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	946	589	1535	630	1298	1928	1386	1377	2763	1420	1118	2538	8764

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Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#31 Main/223rd													
Base	942	762	1704	907	904	1811	1161	1346	2507	1257	1255	2512	8534
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	942	762	1704	907	904	1811	1161	1346	2507	1257	1255	2512	8534
#32 Hamilton/SB I-110 Ramps													
Base	222	1120	1342	505	382	887	0	0	0	1251	476	1727	3956
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	222	1120	1342	505	382	887	0	0	0	1251	476	1727	3956
#33 Figueroa/NB I-110 Ramps													
Base	1379	750	2129	515	1338	1853	983	789	1772	0	0	0	5754
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1379	750	2129	515	1338	1853	983	789	1772	0	0	0	5754
#34 Avalon/NB I-405													
Base	1418	913	2331	1058	1481	2539	0	579	579	497	0	497	5946
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1418	913	2331	1058	1481	2539	0	579	579	497	0	497	5946
#35 Avalon/SB I-405													
Base	1057	1192	2249	918	1423	2341	1021	258	1279	0	123	123	5992
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1057	1192	2249	918	1423	2341	1021	258	1279	0	123	123	5992
#36 Western/Torrance													
Base	1445	1231	2676	1369	1599	2968	1183	1844	3027	1709	1032	2741	11412
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1445	1231	2676	1369	1599	2968	1183	1844	3027	1709	1032	2741	11412
#37 Western/220th													
Base	1682	1149	2831	1075	1608	2683	118	267	385	222	73	295	6194
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1682	1149	2831	1075	1608	2683	118	267	385	222	73	295	6194

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Link Volume Report

Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#1 Normandie/Torrance													
Base	788	1096	1884	1165	748	1913	1802	1351	3153	1198	1758	2956	9906
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	788	1096	1884	1165	748	1913	1802	1351	3153	1198	1758	2956	9906
#2 Vermont/Torrance													
Base	854	1139	1993	1235	863	2098	1710	1069	2779	926	1654	2580	9450
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	854	1139	1993	1235	863	2098	1710	1069	2779	926	1654	2580	9450
#3 Figueroa/Torrance													
Base	502	777	1279	1093	1170	2263	1619	836	2455	534	965	1499	7496
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	502	777	1279	1093	1170	2263	1619	836	2455	534	965	1499	7496
#4 Vermont/Javelin													
Base	736	1144	1880	1217	797	2014	54	39	93	72	99	171	4158
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	736	1144	1880	1217	797	2014	54	39	93	72	99	171	4158
#5 Cabrillo/Cravens/Carson													
Base	372	691	1063	955	513	1468	1401	1503	2904	1482	1503	2985	8420
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	372	691	1063	955	513	1468	1401	1503	2904	1482	1503	2985	8420
#6 Western/Carson													
Base	1284	1754	3038	1999	1164	3163	1365	1399	2764	1192	1523	2715	11680
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1284	1754	3038	1999	1164	3163	1365	1399	2764	1192	1523	2715	11680
#7 Normandie/Carson													
Base	765	1099	1864	985	833	1818	1622	1394	3016	1304	1350	2654	9352
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	765	1099	1864	985	833	1818	1622	1394	3016	1304	1350	2654	9352
#8 Budlong/Carson													
Base	0	0	0	35	42	77	1346	1272	2618	1272	1339	2611	5306
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	35	42	77	1346	1272	2618	1272	1339	2611	5306
#9 Berendo/Carson													
Base	83	60	143	49	53	102	1352	1288	2640	1305	1388	2693	5578
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	83	60	143	49	53	102	1352	1288	2640	1305	1388	2693	5578
#10 Vermont/Carson													
Base	846	1198	2044	1229	793	2022	1500	1399	2899	1329	1514	2843	9808
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	846	1198	2044	1229	793	2022	1500	1399	2899	1329	1514	2843	9808

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Volume Type	NB Link In	Out	Total	SB Link In	Out	Total	EB Link In	Out	Total	WB Link In	Out	Total	Total Volume
#11 SB I-110 Ramps/Carson													
Base	0	398	398	819	0	819	1464	1412	2876	930	1403	2333	6426
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	398	398	819	0	819	1464	1412	2876	930	1403	2333	6426
#12 Figueroa/Carson													
Base	607	1195	1802	831	483	1314	1303	1010	2313	738	791	1529	6958
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	607	1195	1802	831	483	1314	1303	1010	2313	738	791	1529	6958
#13 Moneta/Carson													
Base	145	210	355	123	99	222	817	714	1531	691	753	1444	3552
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	145	210	355	123	99	222	817	714	1531	691	753	1444	3552
#14 Main/Carson													
Base	844	1179	2023	1297	705	2002	646	742	1388	645	806	1451	6864
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	844	1179	2023	1297	705	2002	646	742	1388	645	806	1451	6864
#15 Dolores/Carson													
Base	210	242	452	185	192	377	809	625	1434	622	767	1389	3652
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	210	242	452	185	192	377	809	625	1434	622	767	1389	3652
#16 Grace/Carson													
Base	173	157	330	151	185	336	751	646	1397	697	784	1481	3544
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	173	157	330	151	185	336	751	646	1397	697	784	1481	3544
#17 Avalon/Carson													
Base	1414	1524	2938	1326	1139	2465	843	684	1527	1044	1280	2324	9254
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1414	1524	2938	1326	1139	2465	843	684	1527	1044	1280	2324	9254
#18 Bonita/Carson													
Base	530	359	889	183	150	333	1326	991	2317	1160	1699	2859	6398
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	530	359	889	183	150	333	1326	991	2317	1160	1699	2859	6398
#19 SB I-405 Ramps/Carson													
Base	119	967	1086	0	7	7	1707	1190	2897	1302	964	2266	6256
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	119	967	1086	0	7	7	1707	1190	2897	1302	964	2266	6256
#20 NB I-405 Ramps/Carson													
Base	95	59	154	547	505	1052	997	1288	2285	1112	899	2011	5502
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	95	59	154	547	505	1052	997	1288	2285	1112	899	2011	5502

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Volume Type	NB Link In	Out	Total	SB Link In	Out	Total	EB Link In	Out	Total	WB Link In	Out	Total	Total Volume
#21 Normandie/220th													
Base	677	1092	1769	1114	707	1821	198	93	291	232	329	561	4442
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	677	1092	1769	1114	707	1821	198	93	291	232	329	561	4442
#22 Meyler/220th													
Base	100	86	186	63	6	69	307	165	472	149	362	511	1238
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	100	86	186	63	6	69	307	165	472	149	362	511	1238
#23 Vermont/220th													
Base	650	1401	2051	1194	874	2068	509	135	644	104	47	151	4914
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	650	1401	2051	1194	874	2068	509	135	644	104	47	151	4914
#24 Figueroa/220th and I-110 NB Ramps													
Base	783	785	1568	1210	613	1823	476	1012	1488	237	296	533	5412
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	783	785	1568	1210	613	1823	476	1012	1488	237	296	533	5412
#25 Western/223rd													
Base	1359	1943	3302	1855	1232	3087	1213	823	2036	883	1312	2195	10620
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1359	1943	3302	1855	1232	3087	1213	823	2036	883	1312	2195	10620
#26 Normandie/223rd													
Base	625	1191	1816	1057	606	1663	1419	973	2392	1032	1363	2395	8266
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	625	1191	1816	1057	606	1663	1419	973	2392	1032	1363	2395	8266
#27 Meyler/223rd													
Base	77	319	396	139	160	299	1356	1068	2424	1180	1205	2385	5504
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	77	319	396	139	160	299	1356	1068	2424	1180	1205	2385	5504
#28 Vermont/223rd													
Base	879	1391	2270	1298	656	1954	1210	1176	2386	1481	1645	3126	9736
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	879	1391	2270	1298	656	1954	1210	1176	2386	1481	1645	3126	9736
#29 SB I-110 Ramps/223rd													
Base	0	373	373	1081	0	1081	1746	1398	3144	1030	2086	3116	7714
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	373	373	1081	0	1081	1746	1398	3144	1030	2086	3116	7714
#30 Figueroa/223rd													
Base	539	709	1248	756	804	1560	2081	1040	3121	1010	1833	2843	8772
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	539	709	1248	756	804	1560	2081	1040	3121	1010	1833	2843	8772

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Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#31 Main/223rd													
Base	827	992	1819	1111	817	1928	1678	1069	2747	1033	1771	2804	9298
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	827	992	1819	1111	817	1928	1678	1069	2747	1033	1771	2804	9298
#32 Hamilton/SB I-110 Ramps													
Base	471	592	1063	801	208	1009	0	0	0	614	1086	1700	3772
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	471	592	1063	801	208	1009	0	0	0	614	1086	1700	3772
#33 Figueroa/NB I-110 Ramps													
Base	1174	1038	2212	1107	811	1918	500	932	1432	0	0	0	5562
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1174	1038	2212	1107	811	1918	500	932	1432	0	0	0	5562
#34 Avalon/NB I-405													
Base	1250	1479	2729	1787	1246	3033	0	790	790	478	0	478	7030
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1250	1479	2729	1787	1246	3033	0	790	790	478	0	478	7030
#35 Avalon/SB I-405													
Base	1163	1422	2585	1486	1251	2737	704	411	1115	0	269	269	6706
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1163	1422	2585	1486	1251	2737	704	411	1115	0	269	269	6706
#36 Western/Torrance													
Base	1269	1983	3252	2142	1316	3458	1475	1438	2913	1241	1390	2631	12254
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1269	1983	3252	2142	1316	3458	1475	1438	2913	1241	1390	2631	12254
#37 Western/220th													
Base	1250	1865	3115	1696	1268	2964	430	159	589	126	210	336	7004
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1250	1865	3115	1696	1268	2964	430	159	589	126	210	336	7004

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Existing Year (2016) With Project

Scenario Report

Scenario:	Existing With Project AM
Command:	Default Command
Volume:	10Red_Existing With Project AM
Geometry:	Default Geometry
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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Link Volume Report

Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#1 Normandie/Torrance													
Base	907	561	1468	522	843	1365	1125	1750	2875	1701	1101	2802	8510
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	907	561	1468	522	843	1365	1125	1750	2875	1701	1101	2802	8510
#2 Vermont/Torrance													
Base	1193	1188	2381	799	1056	1855	1261	1512	2773	1738	1235	2973	9982
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1193	1188	2381	799	1056	1855	1261	1512	2773	1738	1235	2973	9982
#3 Figueroa/Torrance													
Base	659	460	1119	670	1373	2043	1302	864	2166	520	454	974	6302
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	659	460	1119	670	1373	2043	1302	864	2166	520	454	974	6302
#4 Vermont/Javelin													
Base	1185	1078	2263	1220	1251	2471	91	61	152	255	361	616	5502
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1185	1078	2263	1220	1251	2471	91	61	152	255	361	616	5502
#5 Cabrillo/Cravens/Carson													
Base	563	214	777	305	701	1006	1188	1256	2444	1305	1190	2495	6722
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	563	214	777	305	701	1006	1188	1256	2444	1305	1190	2495	6722
#6 Western/Carson													
Base	1427	1040	2467	1034	1317	2351	1078	1440	2518	1342	1084	2426	9762
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1427	1040	2467	1034	1317	2351	1078	1440	2518	1342	1084	2426	9762
#7 Normandie/Carson													
Base	924	732	1656	606	964	1570	1244	1493	2737	1425	1010	2435	8398
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	924	732	1656	606	964	1570	1244	1493	2737	1425	1010	2435	8398
#8 Budlong/Carson													
Base	0	0	0	70	111	181	993	1464	2457	1510	998	2508	5146
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	70	111	181	993	1464	2457	1510	998	2508	5146
#9 Berendo/Carson													
Base	174	467	641	107	229	336	994	1506	2500	1963	1036	2999	6476
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	174	467	641	107	229	336	994	1506	2500	1963	1036	2999	6476
#10 Vermont/Carson													
Base	1197	1217	2414	1194	1446	2640	1139	2105	3244	2423	1185	3608	11906
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1197	1217	2414	1194	1446	2640	1139	2105	3244	2423	1185	3608	11906

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Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#11 SB I-110 Ramps/Carson													
Base	0	289	289	1145	0	1145	1206	2443	3649	1545	1164	2709	7792
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	289	289	1145	0	1145	1206	2443	3649	1545	1164	2709	7792
#12 Figueroa/Carson													
Base	1105	1010	2115	596	627	1223	1142	1555	2697	1011	662	1673	7708
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1105	1010	2115	596	627	1223	1142	1555	2697	1011	662	1673	7708
#13 Moneta/Carson													
Base	183	214	397	179	90	269	666	978	1644	896	642	1538	3848
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	183	214	397	179	90	269	666	978	1644	896	642	1538	3848
#14 Main/Carson													
Base	993	714	1707	724	821	1545	569	906	1475	746	591	1337	6064
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	993	714	1707	724	821	1545	569	906	1475	746	591	1337	6064
#15 Dolores/Carson													
Base	241	267	508	218	219	437	578	711	1289	711	551	1262	3496
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	241	267	508	218	219	437	578	711	1289	711	551	1262	3496
#16 Grace/Carson													
Base	160	88	248	98	155	253	559	702	1261	724	596	1320	3082
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	160	88	248	98	155	253	559	702	1261	724	596	1320	3082
#17 Avalon/Carson													
Base	1228	1187	2415	917	885	1802	610	737	1347	1095	1041	2136	7700
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1228	1187	2415	917	885	1802	610	737	1347	1095	1041	2136	7700
#18 Bonita/Carson													
Base	379	449	828	220	200	420	1051	1085	2136	1249	1165	2414	5798
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	379	449	828	220	200	420	1051	1085	2136	1249	1165	2414	5798
#19 SB I-405 Ramps/Carson													
Base	267	601	868	0	7	7	1189	1267	2456	1293	874	2167	5498
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	267	601	868	0	7	7	1189	1267	2456	1293	874	2167	5498
#20 NB I-405 Ramps/Carson													
Base	14	49	63	495	354	849	873	1314	2187	1113	778	1891	4990
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	14	49	63	495	354	849	873	1314	2187	1113	778	1891	4990

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Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#21 Normandie/220th													
Base	968	576	1544	537	945	1482	275	184	459	303	378	681	4166
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	968	576	1544	537	945	1482	275	184	459	303	378	681	4166
#22 Meyler/220th													
Base	279	181	460	124	354	478	301	277	578	393	285	678	2194
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	279	181	460	124	354	478	301	277	578	393	285	678	2194
#23 Vermont/220th													
Base	1289	754	2043	1108	1204	2312	326	630	956	135	270	405	5716
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1289	754	2043	1108	1204	2312	326	630	956	135	270	405	5716
#24 Figueroa/220th and I-110 NB Ramps													
Base	1317	707	2024	1051	1114	2165	628	1294	1922	486	367	853	6964
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1317	707	2024	1051	1114	2165	628	1294	1922	486	367	853	6964
#25 Western/223rd													
Base	1443	1172	2615	1032	1464	2496	553	1074	1627	1359	677	2036	8774
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1443	1172	2615	1032	1464	2496	553	1074	1627	1359	677	2036	8774
#26 Normandie/223rd													
Base	1000	613	1613	565	914	1479	829	1373	2202	1454	948	2402	7696
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1000	613	1613	565	914	1479	829	1373	2202	1454	948	2402	7696
#27 Meyler/223rd													
Base	103	198	301	255	453	708	975	1563	2538	1810	929	2739	6286
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	103	198	301	255	453	708	975	1563	2538	1810	929	2739	6286
#28 Vermont/223rd													
Base	1256	586	1842	807	1494	2301	970	1856	2826	2133	1230	3363	10332
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1256	586	1842	807	1494	2301	970	1856	2826	2133	1230	3363	10332
#29 SB I-110 Ramps/223rd													
Base	0	376	376	1208	0	1208	1272	2127	3399	1438	1415	2853	7836
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	376	376	1208	0	1208	1272	2127	3399	1438	1415	2853	7836
#30 Figueroa/223rd													
Base	840	522	1362	699	1320	2019	1409	1442	2851	1370	1034	2404	8636
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	840	522	1362	699	1320	2019	1409	1442	2851	1370	1034	2404	8636

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Volume	NB Link			SB Link			EB Link			WB Link			Total
Type	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	Volume
#31 Main/223rd													
Base	880	694	1574	836	833	1669	1073	1305	2378	1182	1139	2321	7942
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	880	694	1574	836	833	1669	1073	1305	2378	1182	1139	2321	7942
#32 Hamilton/SB I-110 Ramps													
Base	197	1365	1562	448	339	787	0	0	0	1482	423	1905	4254
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	197	1365	1562	448	339	787	0	0	0	1482	423	1905	4254
#33 Figueroa/NB I-110 Ramps													
Base	1362	666	2028	457	1188	1645	873	838	1711	0	0	0	5384
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1362	666	2028	457	1188	1645	873	838	1711	0	0	0	5384
#34 Avalon/NB I-405													
Base	1259	854	2113	939	1315	2254	0	514	514	485	0	485	5366
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1259	854	2113	939	1315	2254	0	514	514	485	0	485	5366
#35 Avalon/SB I-405													
Base	955	1102	2057	859	1263	2122	906	229	1135	0	126	126	5440
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	955	1102	2057	859	1263	2122	906	229	1135	0	126	126	5440
#36 Western/Torrance													
Base	1317	1181	2498	1238	1429	2667	1116	1662	2778	1517	916	2433	10376
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1317	1181	2498	1238	1429	2667	1116	1662	2778	1517	916	2433	10376
#37 Western/220th													
Base	1584	1111	2695	1095	1499	2594	104	237	341	239	175	414	6044
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1584	1111	2695	1095	1499	2594	104	237	341	239	175	414	6044

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Scenario Report

Scenario:	Existing With Project PM
Command:	Default Command
Volume:	10Red_Existing With Project PM
Geometry:	Default Geometry
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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Link Volume Report

Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#1 Normandie/Torrance													
Base	700	974	1674	1044	684	1728	1600	1200	2800	1084	1570	2654	8856
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	700	974	1674	1044	684	1728	1600	1200	2800	1084	1570	2654	8856
#2 Vermont/Torrance													
Base	1105	1161	2266	1096	766	1862	1526	969	2495	964	1795	2759	9382
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1105	1161	2266	1096	766	1862	1526	969	2495	964	1795	2759	9382
#3 Figueroa/Torrance													
Base	446	689	1135	970	1366	2336	1764	742	2506	474	857	1331	7308
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	446	689	1135	970	1366	2336	1764	742	2506	474	857	1331	7308
#4 Vermont/Javelin													
Base	945	1219	2164	1230	1055	2285	87	51	138	218	155	373	4960
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	945	1219	2164	1230	1055	2285	87	51	138	218	155	373	4960
#5 Cabrillo/Cravens/Carson													
Base	330	613	943	848	456	1304	1327	1527	2854	1508	1417	2925	8026
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	330	613	943	848	456	1304	1327	1527	2854	1508	1417	2925	8026
#6 Western/Carson													
Base	1265	1628	2893	1808	1111	2919	1296	1435	2731	1233	1428	2661	11204
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1265	1628	2893	1808	1111	2919	1296	1435	2731	1233	1428	2661	11204
#7 Normandie/Carson													
Base	679	976	1655	895	748	1643	1514	1411	2925	1340	1293	2633	8856
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	679	976	1655	895	748	1643	1514	1411	2925	1340	1293	2633	8856
#8 Budlong/Carson													
Base	0	0	0	109	71	180	1291	1312	2603	1317	1334	2651	5434
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	109	71	180	1291	1312	2603	1317	1334	2651	5434
#9 Berendo/Carson													
Base	344	170	514	198	114	312	1346	1332	2678	1419	1691	3110	6614
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	344	170	514	198	114	312	1346	1332	2678	1419	1691	3110	6614
#10 Vermont/Carson													
Base	1021	1180	2201	1472	1042	2514	1789	1502	3291	1479	2037	3516	11522
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1021	1180	2201	1472	1042	2514	1789	1502	3291	1479	2037	3516	11522

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Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#11 SB I-110 Ramps/Carson													
Base	0	449	449	868	0	868	1991	1551	3542	982	1841	2823	7682
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	449	449	868	0	868	1991	1551	3542	982	1841	2823	7682
#12 Figueroa/Carson													
Base	597	1426	2023	737	429	1166	1753	1054	2807	755	933	1688	7684
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	597	1426	2023	737	429	1166	1753	1054	2807	755	933	1688	7684
#13 Moneta/Carson													
Base	129	186	315	109	88	197	956	733	1689	713	900	1613	3814
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	129	186	315	109	88	197	956	733	1689	713	900	1613	3814
#14 Main/Carson													
Base	779	1076	1855	1169	667	1836	806	760	1566	656	907	1563	6820
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	779	1076	1855	1169	667	1836	806	760	1566	656	907	1563	6820
#15 Dolores/Carson													
Base	186	214	400	164	170	334	910	638	1548	635	873	1508	3790
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	186	214	400	164	170	334	910	638	1548	635	873	1508	3790
#16 Grace/Carson													
Base	154	139	293	134	164	298	858	657	1515	702	888	1590	3696
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	154	139	293	134	164	298	858	657	1515	702	888	1590	3696
#17 Avalon/Carson													
Base	1264	1373	2637	1194	1051	2245	943	691	1634	985	1271	2256	8772
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1264	1373	2637	1194	1051	2245	943	691	1634	985	1271	2256	8772
#18 Bonita/Carson													
Base	470	318	788	162	133	295	1312	938	2250	1088	1643	2731	6064
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	470	318	788	162	133	295	1312	938	2250	1088	1643	2731	6064
#19 SB I-405 Ramps/Carson													
Base	106	897	1003	0	6	6	1650	1115	2765	1214	952	2166	5940
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	106	897	1003	0	6	6	1650	1115	2765	1214	952	2166	5940
#20 NB I-405 Ramps/Carson													
Base	84	53	137	503	448	951	981	1202	2183	1029	894	1923	5194
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	84	53	137	503	448	951	981	1202	2183	1029	894	1923	5194

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Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#21 Normandie/220th													
Base	601	969	1570	989	628	1617	218	179	397	302	334	636	4220
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	601	969	1570	989	628	1617	218	179	397	302	334	636	4220
#22 Meyler/220th													
Base	163	143	306	307	143	450	316	243	559	210	467	677	1992
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	163	143	306	307	143	450	316	243	559	210	467	677	1992
#23 Vermont/220th													
Base	667	1378	2045	1192	1005	2197	596	198	794	228	102	330	5366
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	667	1378	2045	1192	1005	2197	596	198	794	228	102	330	5366
#24 Figueroa/220th and I-110 NB Ramps													
Base	1042	767	1809	1441	603	2044	514	1561	2075	237	303	540	6468
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1042	767	1809	1441	603	2044	514	1561	2075	237	303	540	6468
#25 Western/223rd													
Base	1215	1745	2960	1731	1178	2909	1103	790	1893	862	1198	2060	9822
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1215	1745	2960	1731	1178	2909	1103	790	1893	862	1198	2060	9822
#26 Normandie/223rd													
Base	564	1078	1642	939	538	1477	1294	941	2235	1013	1253	2266	7620
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	564	1078	1642	939	538	1477	1294	941	2235	1013	1253	2266	7620
#27 Meyler/223rd													
Base	68	284	352	336	259	595	1363	1095	2458	1201	1330	2531	5936
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	68	284	352	336	259	595	1363	1095	2458	1201	1330	2531	5936
#28 Vermont/223rd													
Base	780	1235	2015	1440	738	2178	1391	1197	2588	1539	1980	3519	10300
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	780	1235	2015	1440	738	2178	1391	1197	2588	1539	1980	3519	10300
#29 SB I-110 Ramps/223rd													
Base	0	427	427	1101	0	1101	2069	1465	3534	997	2275	3272	8334
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	427	427	1101	0	1101	2069	1465	3534	997	2275	3272	8334
#30 Figueroa/223rd													
Base	478	630	1108	741	1069	1810	2271	1007	3278	940	1724	2664	8860
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	478	630	1108	741	1069	1810	2271	1007	3278	940	1724	2664	8860

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Volume	NB Link			SB Link			EB Link			WB Link			Total
Type	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	Volume
#31 Main/223rd													
Base	753	921	1674	1015	754	1769	1587	992	2579	942	1630	2572	8594
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	753	921	1674	1015	754	1769	1587	992	2579	942	1630	2572	8594
#32 Hamilton/SB I-110 Ramps													
Base	418	666	1084	711	185	896	0	0	0	686	964	1650	3630
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	418	666	1084	711	185	896	0	0	0	686	964	1650	3630
#33 Figueroa/NB I-110 Ramps													
Base	1369	921	2290	982	720	1702	444	1154	1598	0	0	0	5590
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1369	921	2290	982	720	1702	444	1154	1598	0	0	0	5590
#34 Avalon/NB I-405													
Base	1110	1330	2440	1587	1106	2693	0	702	702	441	0	441	6276
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1110	1330	2440	1587	1106	2693	0	702	702	441	0	441	6276
#35 Avalon/SB I-405													
Base	1071	1279	2350	1336	1110	2446	625	365	990	0	278	278	6064
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1071	1279	2350	1336	1110	2446	625	365	990	0	278	278	6064
#36 Western/Torrance													
Base	1205	1795	3000	1911	1188	3099	1334	1335	2669	1102	1234	2336	11104
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1205	1795	3000	1911	1188	3099	1334	1335	2669	1102	1234	2336	11104
#37 Western/220th													
Base	1194	1740	2934	1576	1251	2827	381	141	522	209	228	437	6720
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1194	1740	2934	1576	1251	2827	381	141	522	209	228	437	6720

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Scenario Report

Scenario:	Future WIth Project AM
Command:	Default Command
Volume:	10Red_Future With Project AM
Geometry:	Default Geometry
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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Link Volume Report

Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#1 Normandie/Torrance													
Base	1022	631	1653	585	949	1534	1267	1972	3239	1915	1237	3152	9578
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1022	631	1653	585	949	1534	1267	1972	3239	1915	1237	3152	9578
#2 Vermont/Torrance													
Base	1324	1288	2612	900	1189	2089	1418	1702	3120	1910	1373	3283	11104
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1324	1288	2612	900	1189	2089	1418	1702	3120	1910	1373	3283	11104
#3 Figueroa/Torrance													
Base	742	518	1260	754	1529	2283	1449	973	2422	586	511	1097	7062
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	742	518	1260	754	1529	2283	1449	973	2422	586	511	1097	7062
#4 Vermont/Javelin													
Base	1308	1173	2481	1324	1390	2714	101	63	164	278	385	663	6022
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1308	1173	2481	1324	1390	2714	101	63	164	278	385	663	6022
#5 Cabrillo/Cravens/Carson													
Base	634	241	875	344	790	1134	1311	1405	2716	1460	1313	2773	7498
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	634	241	875	344	790	1134	1311	1405	2716	1460	1313	2773	7498
#6 Western/Carson													
Base	1598	1154	2752	1154	1478	2632	1186	1612	2798	1502	1196	2698	10880
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1598	1154	2752	1154	1478	2632	1186	1612	2798	1502	1196	2698	10880
#7 Normandie/Carson													
Base	1041	825	1866	681	1083	1764	1377	1672	3049	1593	1112	2705	9384
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1041	825	1866	681	1083	1764	1377	1672	3049	1593	1112	2705	9384
#8 Budlong/Carson													
Base	0	0	0	75	114	189	1092	1637	2729	1682	1098	2780	5698
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	75	114	189	1092	1637	2729	1682	1098	2780	5698
#9 Berendo/Carson													
Base	182	487	669	112	236	348	1093	1677	2770	2146	1133	3279	7066
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	182	487	669	112	236	348	1093	1677	2770	2146	1133	3279	7066
#10 Vermont/Carson													
Base	1334	1332	2666	1299	1575	2874	1249	2306	3555	2629	1298	3927	13022
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1334	1332	2666	1299	1575	2874	1249	2306	3555	2629	1298	3927	13022

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Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#11 SB I-110 Ramps/Carson													
Base	0	321	321	1242	0	1242	1322	2652	3974	1688	1279	2967	8504
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	321	321	1242	0	1242	1322	2652	3974	1688	1279	2967	8504
#12 Figueroa/Carson													
Base	1226	1118	2344	671	707	1378	1255	1699	2954	1105	733	1838	8514
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1226	1118	2344	671	707	1378	1255	1699	2954	1105	733	1838	8514
#13 Moneta/Carson													
Base	206	241	447	202	101	303	738	1069	1807	976	711	1687	4244
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	206	241	447	202	101	303	738	1069	1807	976	711	1687	4244
#14 Main/Carson													
Base	1114	800	1914	810	922	1732	629	987	1616	812	656	1468	6730
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1114	800	1914	810	922	1732	629	987	1616	812	656	1468	6730
#15 Dolores/Carson													
Base	271	300	571	246	247	493	641	774	1415	773	610	1383	3862
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	271	300	571	246	247	493	641	774	1415	773	610	1383	3862
#16 Grace/Carson													
Base	181	99	280	110	175	285	619	763	1382	788	661	1449	3396
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	181	99	280	110	175	285	619	763	1382	788	661	1449	3396
#17 Avalon/Carson													
Base	1381	1336	2717	1027	994	2021	677	803	1480	1214	1166	2380	8598
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1381	1336	2717	1027	994	2021	677	803	1480	1214	1166	2380	8598
#18 Bonita/Carson													
Base	427	506	933	247	225	472	1177	1203	2380	1388	1305	2693	6478
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	427	506	933	247	225	472	1177	1203	2380	1388	1305	2693	6478
#19 SB I-405 Ramps/Carson													
Base	301	674	975	0	8	8	1332	1408	2740	1437	980	2417	6140
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	301	674	975	0	8	8	1332	1408	2740	1437	980	2417	6140
#20 NB I-405 Ramps/Carson													
Base	16	55	71	552	399	951	978	1461	2439	1240	871	2111	5572
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	16	55	71	552	399	951	978	1461	2439	1240	871	2111	5572

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Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#21 Normandie/220th													
Base	1090	649	1739	605	1065	1670	297	203	500	337	412	749	4658
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1090	649	1739	605	1065	1670	297	203	500	337	412	749	4658
#22 Meyler/220th													
Base	301	198	499	126	360	486	326	307	633	423	311	734	2352
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	301	198	499	126	360	486	326	307	633	423	311	734	2352
#23 Vermont/220th													
Base	1433	837	2270	1215	1338	2553	357	689	1046	144	285	429	6298
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1433	837	2270	1215	1338	2553	357	689	1046	144	285	429	6298
#24 Figueroa/220th and I-110 NB Ramps													
Base	1465	779	2244	1165	1235	2400	677	1420	2097	539	412	951	7692
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1465	779	2244	1165	1235	2400	677	1420	2097	539	412	951	7692
#25 Western/223rd													
Base	1622	1319	2941	1151	1637	2788	615	1207	1822	1526	751	2277	9828
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1622	1319	2941	1151	1637	2788	615	1207	1822	1526	751	2277	9828
#26 Normandie/223rd													
Base	1124	689	1813	637	1030	1667	922	1543	2465	1633	1054	2687	8632
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1124	689	1813	637	1030	1667	922	1543	2465	1633	1054	2687	8632
#27 Meyler/223rd													
Base	117	223	340	275	471	746	1078	1739	2817	1993	1030	3023	6926
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	117	223	340	275	471	746	1078	1739	2817	1993	1030	3023	6926
#28 Vermont/223rd													
Base	1414	660	2074	889	1642	2531	1073	2046	3119	2329	1357	3686	11410
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1414	660	2074	889	1642	2531	1073	2046	3119	2329	1357	3686	11410
#29 SB I-110 Ramps/223rd													
Base	0	418	418	1313	0	1313	1405	2321	3726	1592	1571	3163	8620
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	418	418	1313	0	1313	1405	2321	3726	1592	1571	3163	8620
#30 Figueroa/223rd													
Base	946	589	1535	770	1466	2236	1565	1596	3161	1530	1160	2690	9622
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	946	589	1535	770	1466	2236	1565	1596	3161	1530	1160	2690	9622

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Volume	NB Link			SB Link			EB Link			WB Link			Total
Type	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	Volume
#31 Main/223rd													
Base	986	780	1766	938	935	1873	1204	1456	2660	1323	1280	2603	8902
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	986	780	1766	938	935	1873	1204	1456	2660	1323	1280	2603	8902
#32 Hamilton/SB I-110 Ramps													
Base	222	1491	1713	505	382	887	0	0	0	1622	476	2098	4698
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	222	1491	1713	505	382	887	0	0	0	1622	476	2098	4698
#33 Figueroa/NB I-110 Ramps													
Base	1517	750	2267	515	1338	1853	983	927	1910	0	0	0	6030
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1517	750	2267	515	1338	1853	983	927	1910	0	0	0	6030
#34 Avalon/NB I-405													
Base	1418	957	2375	1058	1481	2539	0	579	579	541	0	541	6034
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1418	957	2375	1058	1481	2539	0	579	579	541	0	541	6034
#35 Avalon/SB I-405													
Base	1074	1236	2310	962	1423	2385	1021	258	1279	0	140	140	6114
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1074	1236	2310	962	1423	2385	1021	258	1279	0	140	140	6114
#36 Western/Torrance													
Base	1479	1319	2798	1391	1608	2999	1249	1869	3118	1709	1032	2741	11656
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1479	1319	2798	1391	1608	2999	1249	1869	3118	1709	1032	2741	11656
#37 Western/220th													
Base	1773	1241	3014	1216	1680	2896	118	267	385	264	183	447	6742
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1773	1241	3014	1216	1680	2896	118	267	385	264	183	447	6742

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Scenario Report

Scenario:	Future WIth Project PM
Command:	Default Command
Volume:	10Red_Future With Project PM
Geometry:	Default Geometry
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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Link Volume Report

Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#1 Normandie/Torrance													
Base	788	1096	1884	1174	768	1942	1802	1351	3153	1218	1767	2985	9964
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	788	1096	1884	1174	768	1942	1802	1351	3153	1218	1767	2985	9964
#2 Vermont/Torrance													
Base	1201	1289	2490	1235	863	2098	1719	1089	2808	1067	1981	3048	10444
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1201	1289	2490	1235	863	2098	1719	1089	2808	1067	1981	3048	10444
#3 Figueroa/Torrance													
Base	502	777	1279	1093	1497	2590	1946	836	2782	534	965	1499	8150
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	502	777	1279	1093	1497	2590	1946	836	2782	534	965	1499	8150
#4 Vermont/Javelin													
Base	1028	1348	2376	1367	1144	2511	93	56	149	226	166	392	5428
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1028	1348	2376	1367	1144	2511	93	56	149	226	166	392	5428
#5 Cabrillo/Cravens/Carson													
Base	372	691	1063	955	513	1468	1484	1695	3179	1674	1586	3260	8970
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	372	691	1063	955	513	1468	1484	1695	3179	1674	1586	3260	8970
#6 Western/Carson													
Base	1409	1825	3234	2033	1242	3275	1449	1592	3041	1367	1599	2966	12516
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1409	1825	3234	2033	1242	3275	1449	1592	3041	1367	1599	2966	12516
#7 Normandie/Carson													
Base	765	1099	1864	1005	842	1847	1697	1567	3264	1486	1445	2931	9906
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	765	1099	1864	1005	842	1847	1697	1567	3264	1486	1445	2931	9906
#8 Budlong/Carson													
Base	0	0	0	113	76	189	1442	1455	2897	1460	1484	2944	6030
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	113	76	189	1442	1455	2897	1460	1484	2944	6030
#9 Berendo/Carson													
Base	353	177	530	204	120	324	1497	1477	2974	1566	1846	3412	7240
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	353	177	530	204	120	324	1497	1477	2974	1566	1846	3412	7240
#10 Vermont/Carson													
Base	1116	1315	2431	1610	1130	2740	1957	1659	3616	1628	2207	3835	12622
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1116	1315	2431	1610	1130	2740	1957	1659	3616	1628	2207	3835	12622

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Volume Type	NB Link In	Out	Total	SB Link In	Out	Total	EB Link In	Out	Total	WB Link In	Out	Total	Total Volume
#11 SB I-110 Ramps/Carson													
Base	0	494	494	960	0	960	2155	1710	3865	1087	1998	3085	8404
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	494	494	960	0	960	2155	1710	3865	1087	1998	3085	8404
#12 Figueroa/Carson													
Base	665	1560	2225	831	483	1314	1899	1168	3067	838	1022	1860	8466
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	665	1560	2225	831	483	1314	1899	1168	3067	838	1022	1860	8466
#13 Moneta/Carson													
Base	145	210	355	123	99	222	1048	814	1862	791	984	1775	4214
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	145	210	355	123	99	222	1048	814	1862	791	984	1775	4214
#14 Main/Carson													
Base	873	1208	2081	1315	745	2060	878	843	1721	728	998	1726	7588
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	873	1208	2081	1315	745	2060	878	843	1721	728	998	1726	7588
#15 Dolores/Carson													
Base	210	242	452	185	192	377	1001	708	1709	705	959	1664	4202
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	210	242	452	185	192	377	1001	708	1709	705	959	1664	4202
#16 Grace/Carson													
Base	173	157	330	151	185	336	943	729	1672	780	976	1756	4094
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	173	157	330	151	185	336	943	729	1672	780	976	1756	4094
#17 Avalon/Carson													
Base	1423	1544	2967	1343	1178	2521	1037	768	1805	1102	1415	2517	9810
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1423	1544	2967	1343	1178	2521	1037	768	1805	1102	1415	2517	9810
#18 Bonita/Carson													
Base	530	359	889	183	150	333	1461	1049	2510	1218	1834	3052	6784
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	530	359	889	183	150	333	1461	1049	2510	1218	1834	3052	6784
#19 SB I-405 Ramps/Carson													
Base	119	1006	1125	0	7	7	1842	1248	3090	1360	1060	2420	6642
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	119	1006	1125	0	7	7	1842	1248	3090	1360	1060	2420	6642
#20 NB I-405 Ramps/Carson													
Base	95	59	154	564	505	1069	1093	1347	2440	1154	995	2149	5812
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	95	59	154	564	505	1069	1093	1347	2440	1154	995	2149	5812

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Volume Type	NB Link In	Out	Total	SB Link In	Out	Total	EB Link In	Out	Total	WB Link In	Out	Total	Total Volume
#21 Normandie/220th													
Base	677	1092	1769	1114	707	1821	240	189	429	328	371	699	4718
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	677	1092	1769	1114	707	1821	240	189	429	328	371	699	4718
#22 Meyler/220th													
Base	174	153	327	314	144	458	350	262	612	228	507	735	2132
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	174	153	327	314	144	458	350	262	612	228	507	735	2132
#23 Vermont/220th													
Base	740	1535	2275	1326	1103	2429	653	214	867	240	107	347	5918
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	740	1535	2275	1326	1103	2429	653	214	867	240	107	347	5918
#24 Figueroa/220th and I-110 NB Ramps													
Base	1130	856	1986	1577	672	2249	568	1675	2243	264	336	600	7078
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1130	856	1986	1577	672	2249	568	1675	2243	264	336	600	7078
#25 Western/223rd													
Base	1368	1963	3331	1939	1316	3255	1239	882	2121	961	1346	2307	11014
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1368	1963	3331	1939	1316	3255	1239	882	2121	961	1346	2307	11014
#26 Normandie/223rd													
Base	634	1211	1845	1057	606	1663	1453	1050	2503	1129	1406	2535	8546
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	634	1211	1845	1057	606	1663	1453	1050	2503	1129	1406	2535	8546
#27 Meyler/223rd													
Base	77	319	396	351	277	628	1515	1215	2730	1333	1465	2798	6552
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	77	319	396	351	277	628	1515	1215	2730	1333	1465	2798	6552
#28 Vermont/223rd													
Base	879	1391	2270	1585	812	2397	1527	1329	2856	1705	2164	3869	11392
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	879	1391	2270	1585	812	2397	1527	1329	2856	1705	2164	3869	11392
#29 SB I-110 Ramps/223rd													
Base	0	469	469	1222	0	1222	2265	1622	3887	1113	2509	3622	9200
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	469	469	1222	0	1222	2265	1622	3887	1113	2509	3622	9200
#30 Figueroa/223rd													
Base	539	709	1248	826	1159	1985	2504	1124	3628	1053	1930	2983	9844
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	539	709	1248	826	1159	1985	2504	1124	3628	1053	1930	2983	9844

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Volume Type	NB Link In	NB Link Out	NB Link Total	SB Link In	SB Link Out	SB Link Total	EB Link In	EB Link Out	EB Link Total	WB Link In	WB Link Out	WB Link Total	Total Volume
#31 Main/223rd													
Base	845	1032	1877	1140	846	1986	1776	1112	2888	1058	1829	2887	9638
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	845	1032	1877	1140	846	1986	1776	1112	2888	1058	1829	2887	9638
#32 Hamilton/SB I-110 Ramps													
Base	471	733	1204	801	208	1009	0	0	0	755	1086	1841	4054
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	471	733	1204	801	208	1009	0	0	0	755	1086	1841	4054
#33 Figueroa/NB I-110 Ramps													
Base	1501	1038	2539	1107	811	1918	500	1259	1759	0	0	0	6216
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1501	1038	2539	1107	811	1918	500	1259	1759	0	0	0	6216
#34 Avalon/NB I-405													
Base	1250	1496	2746	1787	1246	3033	0	790	790	495	0	495	7064
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1250	1496	2746	1787	1246	3033	0	790	790	495	0	495	7064
#35 Avalon/SB I-405													
Base	1202	1439	2641	1503	1251	2754	704	411	1115	0	308	308	6818
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1202	1439	2641	1503	1251	2754	704	411	1115	0	308	308	6818
#36 Western/Torrance													
Base	1347	2017	3364	2151	1336	3487	1500	1496	2996	1241	1390	2631	12478
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1347	2017	3364	2151	1336	3487	1500	1496	2996	1241	1390	2631	12478
#37 Western/220th													
Base	1334	1949	3283	1766	1393	3159	430	159	589	223	252	475	7506
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1334	1949	3283	1766	1393	3159	430	159	589	223	252	475	7506

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Appendix I
Freeway Mainline Reports (HCS 2010 Methodology)

SR-91 Eastbound at Avalon Boulevard

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*at Avalon Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5219*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*990*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*14.1*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*at Avalon Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7709*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1463*	pc/h/ln
S	*69.2*	mph
D = v_p / S	*21.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*at Avalon Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8543*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1621*	pc/h/ln
S	*67.9*	mph
D = v_p / S	*23.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*at Avalon Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6072*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1152*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*at Avalon Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan076706-00-54344*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5341*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1013*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*14.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*at Avalon Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7997*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1517*	pc/h/ln
S	*68.8*	mph
D = v_p / S	*22.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*Yonathan Esquivel*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*IBI Group*	From/To	*at Avalon Boulevard*
Date Performed	*5/5/2017*	Jurisdiction	*County of Los Angeles*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8870*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1683*	pc/h/ln
S	*67.3*	mph
D = v_p / S	*25.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*at Avalon Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6196*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1175*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.8*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*at Avalon Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5879*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1115*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*at Avalon Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8683*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1647*	pc/h/ln
S	*67.7*	mph
D = v_p / S	*24.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*at Avalon Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*9623*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1826*	pc/h/ln
S	*65.5*	mph
D = v_p / S	*27.9*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*at Avalon Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6839*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1297*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*at Avalon Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6001*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1138*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*at Avalon Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8971*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1702*	pc/h/ln
S	*67.1*	mph
D = v_p / S	*25.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*at Avalon Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*9950*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1888*	pc/h/ln
S	*64.5*	mph
D = v_p / S	*29.3*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*at Avalon Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6963*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1321*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*18.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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I-110 Northbound at SR-1 (PCH)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Northbound*
From/To	*at SR-1 (PCH)*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5852*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1650*	pc/h/ln
S	*67.7*	mph
D = v_p / S	*24.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*Yonathan Esquivel*	Highway/Direction of Travel	*I-110 Northbound*
Agency or Company	*IBI Group*	From/To	*at SR-1 (PCH)*
Date Performed	*5/5/2017*	Jurisdiction	*County of Los Angeles*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4009*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1130*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.1*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at SR-1 (PCH)*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4290*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1209*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at SR-1 (PCH)*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5803*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1636*	pc/h/ln
S	*67.8*	mph
D = v_p / S	*24.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Northbound*
From/To	*at SR-1 (PCH)*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6070*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1711*	pc/h/ln
S	*67.0*	mph
D = v_p / S	*25.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Northbound*
From/To	*at SR-1 (PCH)*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4092*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1154*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at SR-1 (PCH)*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4371*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1232*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at SR-1 (PCH)*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5995*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1690*	pc/h/ln
S	*67.2*	mph
D = v_p / S	*25.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Northbound*
From/To	*at SR-1 (PCH)*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6592*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1858*	pc/h/ln
S	*65.0*	mph
D = v_p / S	*28.6*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Northbound*
From/To	*at SR-1 (PCH)*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4516*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1273*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at SR-1 (PCH)*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4832*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1362*	pc/h/ln
S	*69.7*	mph
D = v_p / S	*19.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at SR-1 (PCH)*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6536*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1843*	pc/h/ln
S	*65.2*	mph
D = v_p / S	*28.3*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Northbound*
From/To	*at SR-1 (PCH)*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6810*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1920*	pc/h/ln
S	*64.0*	mph
D = v_p / S	*30.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Northbound*
From/To	*at SR-1 (PCH)*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4599*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1297*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at SR-1 (PCH)*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4913*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1385*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*19.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at SR-1 (PCH)*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6728*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1897*	pc/h/ln
S	*64.4*	mph
D = v_p / S	*29.5*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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I-110 Northbound at Sepulveda Boulevard

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Northbound*
From/To	*at Sepulveda Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6984*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1950*	pc/h/ln
S	*63.5*	mph
D = v_p / S	*30.7*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Northbound*
From/To	*at Sepulveda Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4867*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1359*	pc/h/ln
S	*69.7*	mph
D = v_p / S	*19.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at Sepulveda Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5140*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1435*	pc/h/ln
S	*69.4*	mph
D = v_p / S	*20.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at Sepulveda Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6720*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1877*	pc/h/ln
S	*64.7*	mph
D = v_p / S	*29.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Northbound*
From/To	*at Sepulveda Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7202*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2011*	pc/h/ln
S	*62.4*	mph
D = v_p / S	*32.2*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Northbound*
From/To	*at Sepulveda Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4950*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1382*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*19.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at Sepulveda Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5221*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1458*	pc/h/ln
S	*69.2*	mph
D = v_p / S	*21.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at Sepulveda Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6912*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1930*	pc/h/ln
S	*63.8*	mph
D = v_p / S	*30.2*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Northbound*
From/To	*at Sepulveda Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7867*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2197*	pc/h/ln
S	*58.5*	mph
D = v_p / S	*37.6*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Northbound*
From/To	*at Sepulveda Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5482*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1531*	pc/h/ln
S	*68.7*	mph
D = v_p / S	*22.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at Sepulveda Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5790*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1617*	pc/h/ln
S	*68.0*	mph
D = v_p / S	*23.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at Sepulveda Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7569*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2114*	pc/h/ln
S	*60.3*	mph
D = v_p / S	*35.1*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Northbound*
From/To	*at Sepulveda Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8085*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2258*	pc/h/ln
S	*57.0*	mph
D = v_p / S	*39.6*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Northbound*
From/To	*at Sepulveda Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5565*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1554*	pc/h/ln
S	*68.5*	mph
D = v_p / S	*22.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at Sepulveda Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5871*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1640*	pc/h/ln
S	*67.8*	mph
D = v_p / S	*24.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at Sepulveda Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7761*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2167*	pc/h/ln
S	*59.2*	mph
D = v_p / S	*36.6*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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I-110 Northbound at El Segundo Boulevard

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Northbound*
From/To	*at El Segundo Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8642*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1609*	pc/h/ln
S	*68.1*	mph
D = v_p / S	*23.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Northbound*
From/To	*at El Segundo Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8388*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1562*	pc/h/ln
S	*68.5*	mph
D = v_p / S	*22.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at El Segundo Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*10372*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1931*	pc/h/ln
S	*63.8*	mph
D = v_p / S	*30.3*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at El Segundo Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*10241*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1907*	pc/h/ln
S	*64.2*	mph
D = v_p / S	*29.7*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Northbound*
From/To	*at El Segundo Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8764*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1632*	pc/h/ln
S	*67.8*	mph
D = v_p / S	*24.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Northbound*
From/To	*at El Segundo Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8676*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1615*	pc/h/ln
S	*68.0*	mph
D = v_p / S	*23.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at El Segundo Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*10699*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1992*	pc/h/ln
S	*62.7*	mph
D = v_p / S	*31.8*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at El Segundo Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*10365*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1930*	pc/h/ln
S	*63.8*	mph
D = v_p / S	*30.2*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Northbound*
From/To	*at El Segundo Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*9734*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1812*	pc/h/ln
S	*65.7*	mph
D = v_p / S	*27.6*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Northbound*
From/To	*at El Segundo Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*9448*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1759*	pc/h/ln
S	*66.4*	mph
D = v_p / S	*26.5*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at El Segundo Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*11683*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2175*	pc/h/ln
S	*59.0*	mph
D = v_p / S	*36.9*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at El Segundo Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*11535*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2147*	pc/h/ln
S	*59.6*	mph
D = v_p / S	*36.0*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Northbound*
From/To	*at El Segundo Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*9856*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1835*	pc/h/ln
S	*65.3*	mph
D = v_p / S	*28.1*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Northbound*
From/To	*at El Segundo Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*9736*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1813*	pc/h/ln
S	*65.6*	mph
D = v_p / S	*27.6*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at El Segundo Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*12010*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2236*	pc/h/ln
S	*57.5*	mph
D = v_p / S	*38.9*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-110 Southbound*
From/To	*at El Segundo Boulevard*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*11659*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2171*	pc/h/ln
S	*59.1*	mph
D = v_p / S	*36.8*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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I-405 Northbound at I-710

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Northbound*
From/To	*at I-710*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*10916*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2415*	pc/h/ln
S	*52.9*	mph
D = v_p / S	*45.7*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Northbound*
From/To	*at I-710*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*9678*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2142*	pc/h/ln
S	*59.7*	mph
D = v_p / S	*35.9*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Southbound*
From/To	*at I-710*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*9972*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2207*	pc/h/ln
S	*58.2*	mph
D = v_p / S	*37.9*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Southbound*
From/To	*at I-710*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*12725*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2816*	pc/h/ln
S	*39.7*	mph
D = v_p / S	*70.9*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Northbound*
From/To	*at I-710*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*11134*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2464*	pc/h/ln
S	*51.5*	mph
D = v_p / S	*47.9*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Northbound*
From/To	*at I-710*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*9761*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2160*	pc/h/ln
S	*59.3*	mph
D = v_p / S	*36.4*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Southbound*
From/To	*at I-710*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*10053*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2224*	pc/h/ln
S	*57.8*	mph
D = v_p / S	*38.5*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Southbound*
From/To	*at I-710*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*12917*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2858*	pc/h/ln
S	*38.1*	mph
D = v_p / S	*75.0*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Northbound*
From/To	*at I-710*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*12296*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2721*	pc/h/ln
S	*43.2*	mph
D = v_p / S	*63.0*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Northbound*
From/To	*at I-710*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*10901*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2412*	pc/h/ln
S	*53.0*	mph
D = v_p / S	*45.5*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Southbound*
From/To	*at I-710*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*11232*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2485*	pc/h/ln
S	*50.8*	mph
D = v_p / S	*48.9*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Southbound*
From/To	*at I-710*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*14333*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*3172*	pc/h/ln
S	*24.9*	mph
D = v_p / S	*127.4*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Northbound*
From/To	*at I-710*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*12514*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2769*	pc/h/ln
S	*41.4*	mph
D = v_p / S	*66.8*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Northbound*
From/To	*at I-710*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*10984*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2431*	pc/h/ln
S	*52.4*	mph
D = v_p / S	*46.4*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Southbound*
From/To	*at I-710*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*11313*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2503*	pc/h/ln
S	*50.3*	mph
D = v_p / S	*49.8*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Southbound*
From/To	*at I-710*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*14525*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*3214*	pc/h/ln
S	*22.9*	mph
D = v_p / S	*140.1*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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I-405 Northbound south of I-110 (Carson Scales)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*Yonathan Esquivel*	Highway/Direction of Travel	*I-405 Northbound*
Agency or Company	*IBI Group*	From/To	*south of I-110 (Carson Scales)*
Date Performed	*5/5/2017*	Jurisdiction	*County of Los Angeles*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*9121*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1682*	pc/h/ln
S	*67.3*	mph
D = v_p / S	*25.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Northbound*
From/To	*south of I-110 (Carson Scales)*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8301*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1531*	pc/h/ln
S	*68.7*	mph
D = v_p / S	*22.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*Yonathan Esquivel*	Highway/Direction of Travel	*I-405 Southbound*
Agency or Company	*IBI Group*	From/To	*south of I-110 (Carson Scales)*
Date Performed	*5/5/2017*	Jurisdiction	*County of Los Angeles*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7484*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1380*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*19.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*Yonathan Esquivel*	Highway/Direction of Travel	*I-405 Southbound*
Agency or Company	*IBI Group*	From/To	*south of I-110 (Carson Scales)*
Date Performed	*5/5/2017*	Jurisdiction	*County of Los Angeles*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*9467*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1746*	pc/h/ln
S	*66.5*	mph
D = v_p / S	*26.2*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*Yonathan Esquivel*	Highway/Direction of Travel	*I-405 Northbound*
Agency or Company	*IBI Group*	From/To	*south of I-110 (Carson Scales)*
Date Performed	*5/5/2017*	Jurisdiction	*County of Los Angeles*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*9339*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1722*	pc/h/ln
S	*66.8*	mph
D = v_p / S	*25.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*Yonathan Esquivel*	Highway/Direction of Travel	*I-405 Northbound*
Agency or Company	*IBI Group*	From/To	*south of I-110 (Carson Scales)*
Date Performed	*5/5/2017*	Jurisdiction	*County of Los Angeles*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8384*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1546*	pc/h/ln
S	*68.6*	mph
D = v_p / S	*22.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*Yonathan Esquivel*	Highway/Direction of Travel	*I-405 Southbound*
Agency or Company	*IBI Group*	From/To	*south of I-110 (Carson Scales)*
Date Performed	*5/5/2017*	Jurisdiction	*County of Los Angeles*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7565*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1395*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*20.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*Yonathan Esquivel*	Highway/Direction of Travel	*I-405 Southbound*
Agency or Company	*IBI Group*	From/To	*south of I-110 (Carson Scales)*
Date Performed	*5/5/2017*	Jurisdiction	*County of Los Angeles*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*9659*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1781*	pc/h/ln
S	*66.1*	mph
D = v_p / S	*27.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*Yonathan Esquivel*	Highway/Direction of Travel	*I-405 Northbound*
Agency or Company	*IBI Group*	From/To	*south of I-110 (Carson Scales)*
Date Performed	*5/5/2017*	Jurisdiction	*County of Los Angeles*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*10274*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1894*	pc/h/ln
S	*64.4*	mph
D = v_p / S	*29.4*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*Yonathan Esquivel*	Highway/Direction of Travel	*I-405 Northbound*
Agency or Company	*IBI Group*	From/To	*south of I-110 (Carson Scales)*
Date Performed	*5/5/2017*	Jurisdiction	*County of Los Angeles*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*9350*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1724*	pc/h/ln
S	*66.8*	mph
D = v_p / S	*25.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*Yonathan Esquivel*	Highway/Direction of Travel	*I-405 Southbound*
Agency or Company	*IBI Group*	From/To	*south of I-110 (Carson Scales)*
Date Performed	*5/5/2017*	Jurisdiction	*County of Los Angeles*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8340*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1538*	pc/h/ln
S	*68.7*	mph
D = v_p / S	*22.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*Yonathan Esquivel*	Highway/Direction of Travel	*I-405 Southbound*
Agency or Company	*IBI Group*	From/To	*south of I-110 (Carson Scales)*
Date Performed	*5/5/2017*	Jurisdiction	*County of Los Angeles*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*10664*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1966*	pc/h/ln
S	*63.2*	mph
D = v_p / S	*31.1*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*Yonathan Esquivel*	Highway/Direction of Travel	*I-405 Northbound*
Agency or Company	*IBI Group*	From/To	*south of I-110 (Carson Scales)*
Date Performed	*5/5/2017*	Jurisdiction	*County of Los Angeles*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*10492*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1935*	pc/h/ln
S	*63.7*	mph
D = v_p / S	*30.4*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*Yonathan Esquivel*	Highway/Direction of Travel	*I-405 Northbound*
Agency or Company	*IBI Group*	From/To	*south of I-110 (Carson Scales)*
Date Performed	*5/5/2017*	Jurisdiction	*County of Los Angeles*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*9433*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1739*	pc/h/ln
S	*66.6*	mph
D = v_p / S	*26.1*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Southbound*
From/To	*south of I-110 (Carson Scales)*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8511*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1569*	pc/h/ln
S	*68.4*	mph
D = v_p / S	*22.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*Yonathan Esquivel*	Highway/Direction of Travel	*I-405 Southbound*
Agency or Company	*IBI Group*	From/To	*south of I-110 (Carson Scales)*
Date Performed	*5/5/2017*	Jurisdiction	*County of Los Angeles*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*10856*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2002*	pc/h/ln
S	*62.5*	mph
D = v_p / S	*32.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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I-405 Northbound at Western Avenue

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Northbound*
From/To	*at Western Avenue*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7871*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1742*	pc/h/ln
S	*66.6*	mph
D = v_p / S	*26.2*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Northbound*
From/To	*at Western Avenue*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8297*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1836*	pc/h/ln
S	*65.3*	mph
D = v_p / S	*28.1*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Southbound*
From/To	*at Western Avenue*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8167*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1807*	pc/h/ln
S	*65.7*	mph
D = v_p / S	*27.5*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Southbound*
From/To	*at Western Avenue*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*9023*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1997*	pc/h/ln
S	*62.6*	mph
D = v_p / S	*31.9*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Northbound*
From/To	*at Western Avenue*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7993*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1769*	pc/h/ln
S	*66.2*	mph
D = v_p / S	*26.7*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Northbound*
From/To	*at Western Avenue*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8585*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1900*	pc/h/ln
S	*64.3*	mph
D = v_p / S	*29.5*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Southbound*
From/To	*at Western Avenue*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8494*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1880*	pc/h/ln
S	*64.6*	mph
D = v_p / S	*29.1*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Southbound*
From/To	*at Western Avenue*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2016 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*9147*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2024*	pc/h/ln
S	*62.1*	mph
D = v_p / S	*32.6*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Northbound*
From/To	*at Western Avenue*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8866*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1962*	pc/h/ln
S	*63.3*	mph
D = v_p / S	*31.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Northbound*
From/To	*at Western Avenue*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*9346*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2068*	pc/h/ln
S	*61.3*	mph
D = v_p / S	*33.8*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Southbound*
From/To	*at Western Avenue*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*9199*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2036*	pc/h/ln
S	*61.9*	mph
D = v_p / S	*32.9*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Southbound*
From/To	*at Western Avenue*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 No Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*10163*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2249*	pc/h/ln
S	*57.2*	mph
D = v_p / S	*39.3*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Northbound*
From/To	*at Western Avenue*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8988*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1989*	pc/h/ln
S	*62.8*	mph
D = v_p / S	*31.7*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Northbound*
From/To	*at Western Avenue*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*9634*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2132*	pc/h/ln
S	*59.9*	mph
D = v_p / S	*35.6*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Southbound*
From/To	*at Western Avenue*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*9526*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2108*	pc/h/ln
S	*60.4*	mph
D = v_p / S	*34.9*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*Yonathan Esquivel*
Agency or Company	*IBI Group*
Date Performed	*5/5/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-405 Southbound*
From/To	*at Western Avenue*
Jurisdiction	*County of Los Angeles*
Analysis Year	*2035 With Project*

Project Description *West Carson TOD Specific Plan*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*10287*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*2.0*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2276*	pc/h/ln
S	*56.6*	mph
D = v_p / S	*40.2*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Appendix J
LOS Analysis (CMA Methodology)

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Normandie Avenue	Year of Count:	2016	Ambient Growth: (%):	0.6284	Conducted by:	IBI Group	Date:	5/12/2017
1	East-West Street:	Torrance Boulevard	Projection Year:	2035	Peak Hour:	AM	Reviewed by:	IBI Group	Project:	West Carson

No. of Phases			4			4			4			4			4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB--	0
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			0			0			0			0			0				2
Override Capacity			0			0			0			0			0				0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	132	1	132	0	132	132	0	149	1	149	0	149	1	149	0	149	1	149
	Left-Through		0							0				0				0	
	Through	669	1	**388**	0	669	**388**	0	754	1	**437**	0	754	1	**437**	0	754	1	**437**
	Through-Right		1							1				1				1	
	Right	106	0	106	0	106	106	0	119	0	119	0	119	0	119	0	119	0	119
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	25	1	**25**	22	47	**47**	0	28	1	**28**	22	50	1	**50**	0	50	1	**50**
	Left-Through		0							0				0				0	
	Through	373	1	238	0	373	238	0	420	1	268	0	420	1	268	0	420	1	268
	Through-Right		1							1				1				1	
	Right	102	0	102	0	102	102	0	115	0	115	0	115	0	115	0	115	0	115
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	94	1	**94**	0	94	**94**	0	106	1	**106**	0	106	1	**106**	0	106	1	**106**
	Left-Through		0							0				0				0	
	Through	948	1	516	0	948	516	0	1068	1	581	0	1068	1	581	0	1068	2	534
	Through-Right		1							1				1				0	
	Right	83	0	83	0	83	83	0	93	0	93	0	93	0	93	0	93	1	19
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	105	1	105	0	105	105	0	118	1	118	0	118	1	118	0	118	1	118
	Left-Through		0							0				0				0	
	Through	1516	1	**794**	0	1516	**798**	0	1708	1	**894**	0	1708	1	**899**	0	1708	2	**599**
	Through-Right		1							1				1				1	
	Right	71	0	71	9	80	80	0	80	0	80	9	89	0	89	0	89	0	89
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		413	*North-South:*		435	*North-South:*			465	*North-South:*			487	*North-South:*			487
		East-West:		888	*East-West:*		892	*East-West:*			1000	*East-West:*			1005	*East-West:*			705
		SUM:		1301	*SUM:*		1327	*SUM:*			1465	*SUM:*			1492	*SUM:*			1192
VOLUME/CAPACITY *(V/C)* RATIO:				0.946			0.965				1.065				1.085				0.867
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.946			0.965				1.065				1.085				**0.767**
LEVEL OF SERVICE (LOS):				**E**			**E**				**F**				**F**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.020	Δ*v/c* after mitigation:	-0.298
Significant impacted?	YES	Fully mitigated?	YES

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Normandie Avenue	Year of Count:	2016	Ambient Growth: (%):	0.6284	Conducted by:	IBI Group	Date:	5/12/2017
1	East-West Street:	Torrance Boulevard	Projection Year:	2035	Peak Hour:	PM	Reviewed by:	IBI Group	Project:	West Carson

No. of Phases			4			4			4			4			4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB--	0
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			0			0			0			0			0				2
Override Capacity			0			0			0			0			0				0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	95	1	**95**	0	95	**95**	0	107	1	**107**	0	107	1	**107**	0	107	1	**107**
	Left-Through		0							0				0				0	
	Through	508	1	303	0	508	303	0	572	1	341	0	572	1	341	0	572	1	341
	Through-Right		1							1				1				1	
	Right	97	0	97	0	97	97	0	109	0	109	0	109	0	109	0	109	0	109
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	127	1	127	9	136	136	0	143	1	143	9	152	1	152	0	152	1	152
	Left-Through		0							0				0				0	
	Through	755	1	**454**	0	755	**454**	0	850	1	**511**	0	850	1	**511**	0	850	1	**511**
	Through-Right		1							1				1				1	
	Right	153	0	153	0	153	153	0	172	0	172	0	172	0	172	0	172	0	172
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	109	1	109	0	109	109	0	123	1	123	0	123	1	123	0	123	1	123
	Left-Through		0							0				0				0	
	Through	1337	1	**746**	0	1337	**746**	0	1506	1	**840**	0	1506	1	**840**	0	1506	2	**753**
	Through-Right		1							1				1				0	
	Right	154	0	154	0	154	154	0	173	0	173	0	173	0	173	0	173	1	120
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	65	1	**65**	0	65	**65**	0	73	1	**73**	0	73	1	**73**	0	73	1	**73**
	Left-Through		0							0				0				0	
	Through	952	1	500	0	952	510	0	1072	1	563	0	1072	1	573	0	1072	2	382
	Through-Right		1							1				1				1	
	Right	47	0	47	20	67	67	0	53	0	53	20	73	0	73	0	73	0	73
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		549	*North-South:*		549	*North-South:*			618	*North-South:*			618	*North-South:*			618
		East-West:		811	*East-West:*		811	*East-West:*			913	*East-West:*			913	*East-West:*			826
		SUM:		1360	*SUM:*		1360	*SUM:*			1531	*SUM:*			1531	*SUM:*			1444
VOLUME/CAPACITY *(V/C)* RATIO:				0.989			0.989				1.113				1.113				1.050
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.989			0.989				1.113				1.113				**0.950**
LEVEL OF SERVICE (LOS):				E			E				F				F				E

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.000	Δ*v/c* after mitigation:	-0.163
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Western Avenue	Year of Count:	2016	Ambient Growth: (%):	0.6284	Conducted by:	IBI Group	Date:	5/12/2017
6	East-West Street:	Carson Street	Projection Year:	2035	Peak Hour:	AM	Reviewed by:	IBI Group	Project:	West Carson

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			4			4			4				4					4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0					0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			0			0			0				0					2
	Override Capacity			0			0			0				0					0
NORTHBOUND	Left	142	1	142	33	175	175	0	160	1	160	33	193	1	193	0	193	1	193
	Left-Through		0							0				0				0	
	Through	1095	2	**548**	17	1112	**556**	0	1233	2	**617**	17	1250	2	**625**	0	1250	2	**625**
	Through-Right		0							0				0				0	
	Right	118	1	83	22	140	101	0	133	1	94	22	155	1	111	0	155	1	111
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	61	1	**61**	44	105	**105**	0	69	1	**69**	44	113	1	**113**	0	113	1	**113**
	Left-Through		0							0				0				0	
	Through	737	2	369	44	781	391	0	830	2	415	44	874	2	437	0	874	2	437
	Through-Right		0							0				0				0	
	Right	148	1	119	0	148	119	0	167	1	134	0	167	1	134	0	167	1	134
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	59	1	**59**	0	59	**59**	0	66	1	**66**	0	66	1	**66**	0	66	1	**66**
	Left-Through		0							0				0				0	
	Through	708	2	354	131	839	420	0	797	2	399	131	928	2	464	0	928	2	464
	Through-Right		0							0				0				0	
	Right	92	1	21	88	180	93	0	104	1	24	88	192	1	96	0	192	1	96
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	70	1	70	9	79	79	0	79	1	79	9	88	1	88	0	88	1	88
	Left-Through		0							0				0				0	
	Through	1068	2	**534**	49	1117	**559**	0	1203	2	**602**	49	1252	2	**626**	0	1252	2	**626**
	Through-Right		0							0				0				0	
	Right	129	1	99	17	146	94	0	145	1	111	17	162	1	106	0	162	1	106
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	North-South:		609	North-South:		661	North-South:			686	North-South:			738	North-South:			738
		East-West:		593	East-West:		618	East-West:			668	East-West:			692	East-West:			692
		SUM:		1202	SUM:		1279	SUM:			1354	SUM:			1430	SUM:			1430
	VOLUME/CAPACITY (*V/C*) RATIO:			0.874			0.930				0.985				1.040				1.040
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.874			0.930				0.985				1.040				**0.940**
	LEVEL OF SERVICE (LOS):			D			E				E				F				E

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.055 **Δ*v/c* after mitigation:** -0.045

Significant impacted? YES **Fully mitigated?** YES

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Western Avenue	Year of Count:	2016	Ambient Growth: (%):	0.6284	Conducted by:	IBI Group	Date:	5/12/2017
6	East-West Street:	Carson Street	Projection Year:	2035	Peak Hour:	AM	Reviewed by:	IBI Group	Project:	West Carson

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			4			4			4				4					4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0					0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			0			0			0				0					2
	Override Capacity			0			0			0				0					0
NORTHBOUND	Left	137	1	**137**	77	214	**214**	0	154	1	**154**	77	231	1	**231**	0	231	1	**231**
	Left-Through		0							0				0				0	
	Through	861	2	431	39	900	450	0	970	2	485	39	1009	2	505	0	1009	2	505
	Through-Right		0							0				0				0	
	Right	142	1	115	9	151	114	0	160	1	129	9	169	1	128	0	169	1	128
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	202	1	202	17	219	219	0	228	1	228	17	245	1	245	0	245	1	245
	Left-Through		0							0				0				0	
	Through	1353	2	**677**	17	1370	**685**	0	1524	2	**762**	17	1541	2	**771**	0	1541	2	**771**
	Through-Right		0							0				0				0	
	Right	219	1	192	0	219	192	0	247	1	216	0	247	1	216	0	247	1	216
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	55	1	55	0	55	55	0	62	1	62	0	62	1	62	0	62	1	62
	Left-Through		0							0				0				0	
	Through	1008	2	**504**	50	1058	**529**	0	1135	2	**568**	50	1185	2	**593**	0	1185	2	**593**
	Through-Right		0							0				0				0	
	Right	149	1	81	34	183	76	0	168	1	91	34	202	1	87	0	202	1	87
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	55	1	**55**	20	75	**75**	0	62	1	**62**	20	82	1	**82**	0	82	1	**82**
	Left-Through		0							0				0				0	
	Through	886	2	443	116	1002	501	0	998	2	499	116	1114	2	557	0	1114	2	557
	Through-Right		0							0				0				0	
	Right	117	1	16	39	156	47	0	132	1	18	39	171	1	49	0	171	1	49
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		814	*North-South:*		899	*North-South:*			916	*North-South:*			1002	*North-South:*			1002
		East-West:		559	*East-West:*		604	*East-West:*			630	*East-West:*			675	*East-West:*			675
		SUM:		1373	*SUM:*		1503	*SUM:*			1546	*SUM:*			1677	*SUM:*			1677
	VOLUME/CAPACITY *(V/C)* RATIO:			0.999			1.093				1.124				1.220				1.220
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.999			1.093				1.124				1.220				**1.120**
	LEVEL OF SERVICE (LOS):			**E**			**F**				**F**				**F**				**F**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.096 **Δ*v/c* after mitigation:** -0.004

Significant impacted? YES **Fully mitigated?** YES

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Normandie Avenue	Year of Count:	2016	Ambient Growth: (%):	0.6284	Conducted by:	IBI Group	Date:	5/12/2017
7	East-West Street:	Carson Street	Projection Year:	2035	Peak Hour:	AM	Reviewed by:	IBI Group	Project:	West Carson

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			4			4			4				4				4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0		NB-- 0	SB--	0		NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0		EB-- 0	WB--	0		EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			0			0			0				0				2	
Override Capacity			0			0			0				0				0	

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	174	1	**174**	0	174	**174**	0	196	1	**196**	0	196	1	**196**	0	196	1	**196**
	Left-Through		0							0				0				0	
	Through	666	2	333	0	666	333	0	750	2	375	0	750	2	375	0	750	2	375
	Through-Right		0							0				0				0	
	Right	84	1	7	0	84	7	0	95	1	8	0	95	1	8	0	95	1	8
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	41	1	41	9	50	50	0	46	1	46	9	55	1	55	0	55	1	55
	Left-Through		0							0				0				0	
	Through	405	1	**278**	0	405	**278**	0	456	1	**313**	0	456	1	**313**	0	456	1	**313**
	Through-Right		1							1				1				1	
	Right	151	0	151	0	151	151	0	170	0	170	0	170	0	170	0	170	0	170
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	196	1	**196**	0	196	**196**	0	221	1	**221**	0	221	1	**221**	0	221	1	**221**
	Left-Through		0							0				0				0	
	Through	679	2	340	197	876	438	0	765	2	383	197	962	2	481	0	962	2	481
	Through-Right		0							0				0				0	
	Right	172	1	85	0	172	85	0	194	1	96	0	194	1	96	0	194	1	96
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	155	1	155	0	155	155	0	175	1	175	0	175	1	175	0	175	1	175
	Left-Through		0							0				0				0	
	Through	1095	2	**548**	73	1168	**584**	0	1233	2	**617**	73	1306	2	**653**	0	1306	2	**473**
	Through-Right		0							0				0				1	
	Right	80	1	60	22	102	77	0	90	1	67	22	112	1	85	0	112	0	112
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*	452		*North-South:*	452		*North-South:*	509			*North-South:*	509			*North-South:*	509		
		East-West:	744		*East-West:*	780		*East-West:*	838			*East-West:*	874			*East-West:*	694		
		SUM:	1196		*SUM:*	1232		*SUM:*	1347			*SUM:*	1383			*SUM:*	1203		
VOLUME/CAPACITY *(V/C)* RATIO:			0.870			0.896			0.980				1.006				0.875		
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.870			0.896			0.980				1.006				**0.775**		
LEVEL OF SERVICE (LOS):			**D**			**D**			**E**				**F**				**C**		

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.026 **Δ*v/c* after mitigation:** -0.205

Significant impacted? YES **Fully mitigated?** YES

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Normandie Avenue	Year of Count:	2016	Ambient Growth: (%):	0.6284	Conducted by:	IBI Group	Date:	5/12/2017
7	East-West Street:	Carson Street	Projection Year:	2035	Peak Hour:	PM	Reviewed by:	IBI Group	Project:	West Carson

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			4			4			4				4				4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0		NB-- 0	SB--	0		NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0		EB-- 0	WB--	0		EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			0			0			0				0				2	
Override Capacity			0			0			0				0				0	

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	145	1	**145**	0	145	**145**	0	163	1	**163**	0	163	1	**163**	0	163	1	**163**
	Left-Through		0							0				0				0	
	Through	434	2	217	0	434	217	0	489	2	245	0	489	2	245	0	489	2	245
	Through-Right		0							0				0				0	
	Right	100	1	32	0	100	32	0	113	1	36	0	113	1	36	0	113	1	36
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	89	1	89	20	109	109	0	100	1	100	20	120	1	120	0	120	1	120
	Left-Through		0							0				0				0	
	Through	636	1	**393**	0	636	**393**	0	716	1	**443**	0	716	1	**443**	0	716	1	**443**
	Through-Right		1							1				1				1	
	Right	150	0	150	0	150	150	0	169	0	169	0	169	0	169	0	169	0	169
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	227	1	**227**	0	227	**227**	0	256	1	**256**	0	256	1	**256**	0	256	1	**256**
	Left-Through		0							0				0				0	
	Through	109	2	55	75	184	92	0	123	2	62	75	198	2	99	0	198	2	99
	Through-Right		0							0				0				0	
	Right	203	1	131	0	203	131	0	229	1	148	0	229	1	148	0	229	1	148
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	137	1	137	0	137	137	0	154	1	154	0	154	1	154	0	154	1	154
	Left-Through		0							0				0				0	
	Through	943	2	**472**	173	1116	**558**	0	1062	2	**531**	173	1235	2	**618**	0	1235	2	**444**
	Through-Right		0							0				0				1	
	Right	78	1	34	9	87	33	0	88	1	38	9	97	1	37	0	97	0	97
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*	538		*North-South:*	538		*North-South:*	606			*North-South:*	606			*North-South:*	606		
		East-West:	699		*East-West:*	785		*East-West:*	787			*East-West:*	874			*East-West:*	700		
		SUM:	1237		*SUM:*	1323		*SUM:*	1393			*SUM:*	1480			*SUM:*	1306		
VOLUME/CAPACITY *(V/C)* RATIO:			0.900			0.962			1.013				1.076				0.950		
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.900			0.962			1.013				1.076				**0.850**		
LEVEL OF SERVICE (LOS):			**D**			**E**			**F**				**F**				**D**		

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.063 **Δ*v/c* after mitigation:** -0.163

Significant impacted? YES **Fully mitigated?** YES

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Normandie Avenue	Year of Count:	2016	Ambient Growth: (%):	0.6284	Conducted by:	IBI Group	Date:	5/12/2017
21	East-West Street:	220th Street	Projection Year:	2035	Peak Hour:	AM	Reviewed by:	IBI Group	Project:	West Carson

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			2			2			2				2					2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0					0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			0			0			0				0					0
	Override Capacity			0			0			0				0					0
NORTHBOUND	Left	29	1	29	0	29	29	0	33	1	33	0	33	1	33	0	33	1	33
	Left-Through		0							0				0				0	
	Through	810	2	**405**	0	810	**405**	0	912	2	**456**	0	912	2	**456**	0	912	2	**456**
	Through-Right		0							0				0				0	
	Right	129	1	129	0	129	129	0	145	1	145	0	145	1	145	0	145	1	145
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	55	1	**55**	0	55	**55**	0	62	1	**62**	0	62	1	**62**	0	62	1	**62**
	Left-Through		0							0				0				0	
	Through	459	1	241	0	459	241	0	517	1	272	0	517	1	272	0	517	1	272
	Through-Right		1							1				1				1	
	Right	23	0	23	0	23	23	0	26	0	26	0	26	0	26	0	26	0	26
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	36	0	**36**	0	36	36	0	41	0	**41**	0	41	0	41	0	41	0	41
	Left-Through		1							1				1				1	
	Through	85	0	121	109	194	**230**	0	96	0	137	109	205	0	**246**	0	205	0	**246**
	Through-Right		0							0				0				0	
	Right	45	1	31	0	45	31	0	51	1	35	0	51	1	35	0	51	1	35
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	72	0	72	0	72	**72**	0	81	0	81	0	81	0	**81**	0	81	0	**81**
	Left-Through		1							1				1				1	
	Through	91	0	**163**	41	132	204	0	103	0	**184**	41	144	0	225	0	144	0	225
	Through-Right		0							0				0				0	
	Right	99	1	72	0	99	72	0	112	1	81	0	112	1	81	0	112	1	81
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		460	*North-South:*		460	*North-South:*		518		*North-South:*		518		*North-South:*		518	
		East-West:		199	*East-West:*		302	*East-West:*		225		*East-West:*		327		*East-West:*		327	
		SUM:		659	*SUM:*		762	*SUM:*		743		*SUM:*		845		*SUM:*		845	
	VOLUME/CAPACITY *(V/C)* RATIO:			0.439			0.508			0.495				0.563					0.563
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.439			0.508			0.495				0.563					0.563
	LEVEL OF SERVICE (LOS):			A			A			A				A					A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.068 **Δ*v/c* after mitigation:** 0.068

Significant impacted? NO **Fully mitigated?** N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Normandie Avenue	Year of Count:	2016	Ambient Growth: (%):	0.6284	Conducted by:	IBI Group	Date:	5/12/2017
21	East-West Street:	220th Street	Projection Year:	2035	Peak Hour:	PM	Reviewed by:	IBI Group	Project:	West Carson

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			2			2			2				2					2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0					0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			0			0			0				0					0
	Override Capacity			0			0			0				0					0
NORTHBOUND	Left	18	1	**18**	0	18	**18**	0	20	1	**20**	0	20	1	**20**	0	20	1	**20**
	Left-Through		0							0				0				0	
	Through	514	2	257	0	514	257	0	579	2	290	0	579	2	290	0	579	2	290
	Through-Right		0							0				0				0	
	Right	69	1	69	0	69	69	0	78	1	78	0	78	1	78	0	78	1	78
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	111	1	111	0	111	111	0	125	1	125	0	125	1	125	0	125	1	125
	Left-Through		0							0				0				0	
	Through	847	1	**439**	0	847	**439**	0	954	1	**495**	0	954	1	**495**	0	954	1	**495**
	Through-Right		1							1				1				1	
	Right	31	0	31	0	31	31	0	35	0	35	0	35	0	35	0	35	0	35
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	18	0	18	0	18	18	0	20	0	20	0	20	0	20	0	20	0	20
	Left-Through		1							1				1				1	
	Through	112	0	**130**	42	154	**172**	0	126	0	**146**	42	168	0	**188**	0	168	0	**188**
	Through-Right		0							0				0				0	
	Right	46	1	37	0	46	37	0	52	1	42	0	52	1	42	0	52	1	42
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	76	0	**76**	0	76	**76**	0	86	0	**86**	0	86	0	**86**	0	86	0	**86**
	Left-Through		1							1				1				1	
	Through	34	0	110	96	130	206	0	38	0	124	96	134	0	220	0	134	0	220
	Through-Right		0							0				0				0	
	Right	96	1	41	0	96	41	0	108	1	46	0	108	1	46	0	108	1	46
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		457	*North-South:*		457	*North-South:*			515	*North-South:*			515	*North-South:*			515
		East-West:		206	*East-West:*		248	*East-West:*			232	*East-West:*			274	*East-West:*			274
		SUM:		663	*SUM:*		705	*SUM:*			747	*SUM:*			789	*SUM:*			789
	VOLUME/CAPACITY *(V/C)* RATIO:			0.442			0.470				0.498				0.526				0.526
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.442			0.470				0.498				0.526				0.526
	LEVEL OF SERVICE (LOS):			A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.028 **Δ*v/c* after mitigation:** 0.028

Significant impacted? NO **Fully mitigated?** N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Western Avenue	Year of Count:	2016	Ambient Growth: (%):	0.6284	Conducted by:	IBI Group	Date:	5/12/2017
25	East-West Street:	223rd Street	Projection Year:	2035	Peak Hour:	AM	Reviewed by:	IBI Group	Project:	West Carson

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			4			4			4				4					4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0					0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 3 WB--		0	EB-- 3 WB--		0	EB-- 3 WB--		0		EB-- 3 WB--		0		EB-- 3 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			0			0			0				0					2
	Override Capacity			0			0			0				0					0
NORTHBOUND	Left	117	1	117	0	117	117	0	132	1	132	0	132	1	132	0	132	1	132
	Left-Through		0							0				0				0	
	Through	1143	2	**572**	22	1165	**583**	0	1287	2	**644**	22	1309	2	**655**	0	1309	2	**655**
	Through-Right		0							0				0				0	
	Right	161	1	38	0	161	38	0	181	1	43	0	181	1	43	0	181	1	43
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	62	1	**62**	66	128	**128**	0	70	1	**70**	66	136	1	**136**	0	136	1	**136**
	Left-Through		0							0				0				0	
	Through	833	2	417	9	842	421	0	938	2	469	9	947	2	474	0	947	2	474
	Through-Right		0							0				0				0	
	Right	45	1	27	17	62	22	0	51	1	30	17	68	1	25	0	68	1	25
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	37	1	**37**	44	81	**81**	0	42	1	**42**	44	86	1	**86**	0	86	1	**86**
	Left-Through		0							0				0				0	
	Through	366	2	183	22	388	194	0	412	2	206	22	434	2	217	0	434	2	217
	Through-Right		0							0				0				0	
	Right	84	1	0	0	84	0	0	95	1	0	0	95	1	0	0	95	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	246	1	246	0	246	246	0	277	1	277	0	277	1	277	0	277	1	277
	Left-Through		0							0				0				0	
	Through	886	1	**540**	9	895	**557**	0	998	1	**608**	9	1007	1	**625**	0	1007	1	**625**
	Through-Right		1							1				1				1	
	Right	193	0	193	25	218	218	0	217	0	217	25	242	0	242	0	242	0	242
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		634	*North-South:*		711	*North-South:*			714	*North-South:*			791	*North-South:*			791
		East-West:		577	*East-West:*		638	*East-West:*			650	*East-West:*			711	*East-West:*			711
		SUM:		1211	*SUM:*		1349	*SUM:*			1364	*SUM:*			1502	*SUM:*			1502
	VOLUME/CAPACITY *(V/C)* RATIO:			0.881			0.981				0.992				1.092				1.092
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.881			0.981				0.992				1.092				**0.992**
	LEVEL OF SERVICE (LOS):			D			E				E				F				E

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.100 **Significant impacted?** YES

Δ*v/c* after mitigation: 0.000 **Fully mitigated?** YES

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Western Avenue	Year of Count:	2016	Ambient Growth: (%):	0.6284	Conducted by:	IBI Group	Date:	5/12/2017
25	East-West Street:	223rd Street	Projection Year:	2035	Peak Hour:	PM	Reviewed by:	IBI Group	Project:	West Carson

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			4			4			4				4					4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0					0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 3 WB--		0	EB-- 3 WB--		0	EB-- 3 WB--		0		EB-- 3 WB--		0		EB-- 3 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			0			0			0				0					2
	Override Capacity			0			0			0				0					0
NORTHBOUND	Left	93	1	**93**	0	93	**93**	0	105	1	**105**	0	105	1	**105**	0	105	1	**105**
	Left-Through		0							0				0				0	
	Through	934	2	467	9	943	472	0	1052	2	526	9	1061	2	531	0	1061	2	531
	Through-Right		0							0				0				0	
	Right	179	1	132	0	179	132	0	202	1	149	0	202	1	149	0	202	1	149
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	203	1	203	25	228	228	0	229	1	229	25	254	1	254	0	254	1	254
	Left-Through		0							0				0				0	
	Through	1402	2	**701**	20	1422	**711**	0	1579	2	**790**	20	1599	2	**800**	0	1599	2	**800**
	Through-Right		0							0				0				0	
	Right	42	1	9	39	81	40	0	47	1	10	39	86	1	41	0	86	1	41
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	66	1	66	17	83	83	0	74	1	74	17	91	1	91	0	91	1	91
	Left-Through		0							0				0				0	
	Through	782	2	**391**	9	791	**396**	0	881	2	**441**	9	890	2	**445**	0	890	2	**445**
	Through-Right		0							0				0				0	
	Right	229	1	136	0	229	136	0	258	1	153	0	258	1	153	0	258	1	153
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	94	1	**94**	0	94	**94**	0	106	1	**106**	0	106	1	**106**	0	106	1	**106**
	Left-Through		0							0				0				0	
	Through	596	1	345	20	616	384	0	671	1	389	20	691	1	428	0	691	1	428
	Through-Right		1							1				1				1	
	Right	94	0	94	58	152	152	0	106	0	106	58	164	0	164	0	164	0	164
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	North-South:		794	North-South:		804	North-South:			895	North-South:			905	North-South:			905
		East-West:		485	East-West:		490	East-West:			547	East-West:			551	East-West:			551
		SUM:		1279	SUM:		1294	SUM:			1442	SUM:			1456	SUM:			1456
	VOLUME/CAPACITY (*V/C*) RATIO:			0.930			0.941				1.049				1.059				1.059
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.930			0.941				1.049				1.059				**0.959**
	LEVEL OF SERVICE (LOS):			E			E				F				F				E

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.010	Δ*v/c* after mitigation:	-0.090
Significant impacted?	YES	Fully mitigated?	YES

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Normandie Avenue	Year of Count:	2016	Ambient Growth: (%):	0.6284	Conducted by:	IBI Group	Date:	5/12/2017
26	East-West Street:	223rd Street	Projection Year:	2035	Peak Hour:	AM	Reviewed by:	IBI Group	Project:	West Carson

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			2			2			2				2					2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0					0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			0			0			0				0					2
	Override Capacity			0			0			0				0					0
NORTHBOUND	Left	86	1	86	0	86	86	0	97	1	97	0	97	1	97	0	97	1	97
	Left-Through		0							0				0				0	
	Through	749	2	**375**	0	749	**375**	0	844	2	**422**	0	844	2	**422**	0	844	2	**422**
	Through-Right		0							0				0				0	
	Right	143	1	71	22	165	88	0	161	1	80	22	183	1	97	0	183	1	97
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	69	1	**69**	0	69	**69**	0	78	1	**78**	0	78	1	**78**	0	78	1	**78**
	Left-Through		0							0				0				0	
	Through	410	1	248	0	410	248	0	462	1	280	0	462	1	280	0	462	1	280
	Through-Right		1							1				1				1	
	Right	86	0	86	0	86	86	0	97	0	97	0	97	0	97	0	97	0	97
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	66	1	**66**	0	66	**66**	0	74	1	**74**	0	74	1	**74**	0	74	1	**74**
	Left-Through		0							0				0				0	
	Through	626	2	313	88	714	357	0	705	2	353	88	793	2	397	0	793	2	283
	Through-Right		0							0				0				1	
	Right	49	1	6	0	49	6	0	55	1	7	0	55	1	7	0	55	0	55
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	145	1	145	9	154	154	0	163	1	163	9	172	1	172	0	172	1	172
	Left-Through		0							0				0				0	
	Through	1168	2	**584**	33	1201	**601**	0	1316	2	**658**	33	1349	2	**675**	0	1349	2	**675**
	Through-Right		0							0				0				0	
	Right	99	1	65	0	99	65	0	112	1	73	0	112	1	73	0	112	1	73
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		444	*North-South:*		444	*North-South:*			500	*North-South:*			500	*North-South:*			500
		East-West:		650	*East-West:*		667	*East-West:*			732	*East-West:*			749	*East-West:*			749
		SUM:		1094	*SUM:*		1111	*SUM:*			1232	*SUM:*			1249	*SUM:*			1249
	VOLUME/CAPACITY *(V/C)* RATIO:			0.729			0.741				0.821				0.833				0.833
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.729			0.741				0.821				0.833				**0.733**
	LEVEL OF SERVICE (LOS):			C			C				D				D				C

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.012 **Δ*v/c* after mitigation:** -0.088

Significant impacted? NO **Fully mitigated?** N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Normandie Avenue	Year of Count:	2016	Ambient Growth: (%):	0.6284	Conducted by:	IBI Group	Date:	5/12/2017
26	East-West Street:	223rd Street	Projection Year:	2035	Peak Hour:	PM	Reviewed by:	IBI Group	Project:	West Carson

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases		2			2			2				2					2	
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0			0			0				0					0	
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- EB-- 0 WB--	0		NB-- 0 SB-- EB-- 0 WB--	0		NB-- 0 SB-- EB-- 0 WB--	0			NB-- 0 SB-- EB-- 0 WB--	0			NB-- 0 SB-- EB-- 0 WB--	0		
	ATSAC-1 or ATSAC+ATCS-2?		0			0			0				0					2	
	Override Capacity		0			0			0				0					0	
NORTHBOUND	Left	39	1	**39**	0	39	**39**	0	44	1	**44**	0	44	1	**44**	0	44	1	**44**
	Left-Through		0							0				0				0	
	Through	380	2	190	0	380	190	0	428	2	214	0	428	2	214	0	428	2	214
	Through-Right		0							0				0				0	
	Right	136	1	84	9	145	83	0	153	1	94	9	162	1	93	0	162	1	93
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	102	1	102	0	102	102	0	115	1	115	0	115	1	115	0	115	1	115
	Left-Through		0							0				0				0	
	Through	755	1	**419**	0	755	**419**	0	850	1	**471**	0	850	1	**471**	0	850	1	**471**
	Through-Right		1							1				1				1	
	Right	82	0	82	0	82	82	0	92	0	92	0	92	0	92	0	92	0	92
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	90	1	90	0	90	90	0	101	1	101	0	101	1	101	0	101	1	101
	Left-Through		0							0				0				0	
	Through	972	2	**486**	34	1006	**503**	0	1095	2	**548**	34	1129	2	**565**	0	1129	2	**565**
	Through-Right		0							0				0				0	
	Right	198	1	179	0	198	179	0	223	1	201	0	223	1	201	0	223	1	201
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	105	1	**105**	20	125	**125**	0	118	1	**118**	20	138	1	**138**	0	138	1	**138**
	Left-Through		0							0				0				0	
	Through	743	2	372	77	820	410	0	837	2	419	77	914	2	457	0	914	2	330
	Through-Right		0							0				0				1	
	Right	68	1	17	0	68	17	0	77	1	20	0	77	1	20	0	77	0	77
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*	458		*North-South:*	458		*North-South:*	515			*North-South:*	515			*North-South:*	515		
		East-West:	591		*East-West:*	628		*East-West:*	666			*East-West:*	703			*East-West:*	703		
		SUM:	1049		*SUM:*	1086		*SUM:*	1181			*SUM:*	1218			*SUM:*	1218		
	VOLUME/CAPACITY *(V/C)* RATIO:		0.699			0.724			0.787				0.812				0.812		
	V/C LESS ATSAC/ATCS ADJUSTMENT:		0.699			0.724			0.787				0.812				**0.712**		
	LEVEL OF SERVICE (LOS):		**B**			**C**			**C**				**D**				**C**		

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.025 **Δ*v/c* after mitigation:** -0.075

Significant impacted? YES **Fully mitigated?** YES

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Western Avenue	Year of Count:	2016	Ambient Growth: (%):	0.6284	Conducted by:	IBI Group	Date:	5/12/2017
36	East-West Street:	Torrance Boulevard	Projection Year:	2035	Peak Hour:	AM	Reviewed by:	IBI Group	Project:	West Carson

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			4			4			4				4					4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0					0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 2	SB--	0	NB-- 2	SB--	0	NB-- 2	SB--	0		NB-- 2	SB--	0		NB-- 2	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0		EB-- 0	WB--	0		EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			0			0			0				0					2
Override Capacity			0			0			0				0					0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	125	1	125	25	150	150	0	141	1	141	25	166	1	166	0	166	1	166
	Left-Through		0							0				0				0	
	Through	1064	2	**532**	9	1073	**537**	0	1198	2	**599**	9	1207	2	**604**	0	1207	2	**604**
	Through-Right		0							0				0				0	
	Right	94	1	94	0	94	94	0	106	1	106	0	106	1	106	0	106	1	106
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	55	1	**55**	0	55	**55**	0	62	1	**62**	0	62	1	**62**	0	62	1	**62**
	Left-Through		0							0				0				0	
	Through	882	3	294	22	904	301	0	993	3	331	22	1015	3	338	0	1015	3	338
	Through-Right		0							0				0				0	
	Right	279	1	173	0	279	173	0	314	1	195	0	314	1	195	0	314	1	195
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	212	1	**212**	0	212	**212**	0	239	1	**239**	0	239	1	**239**	0	239	1	**239**
	Left-Through		0							0				0				0	
	Through	767	2	279	0	767	301	0	864	2	315	0	864	2	337	0	864	2	337
	Through-Right		1							1				1				1	
	Right	71	0	71	66	137	137	0	80	0	80	66	146	0	146	0	146	0	146
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	140	1	140	0	140	140	0	158	1	158	0	158	1	158	0	158	1	158
	Left-Through		0							0				0				0	
	Through	1233	3	**411**	0	1233	**411**	0	1389	3	**463**	0	1389	3	**463**	0	1389	3	**463**
	Through-Right		0							0				0				0	
	Right	144	1	117	0	144	117	0	162	1	131	0	162	1	131	0	162	1	131
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		587	North-South:		592	North-South:			661	North-South:			666	North-South:			666
		East-West:		623	East-West:		623	East-West:			702	East-West:			702	East-West:			702
		SUM:		1210	SUM:		1215	SUM:			1363	SUM:			1368	SUM:			1368
VOLUME/CAPACITY (*V/C*) RATIO:				0.880			0.884				0.991				0.995				0.995
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.880			0.884				0.991				0.995				**0.895**
LEVEL OF SERVICE (LOS):				D			D				E				E				D

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.004	Δ*v/c* after mitigation:	-0.096
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Western Avenue	Year of Count:	2016	Ambient Growth: (%):	0.6284	Conducted by:	IBI Group	Date:	5/12/2017
36	East-West Street:	Torrance Boulevard	Projection Year:	2035	Peak Hour:	PM	Reviewed by:	IBI Group	Project:	West Carson

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			4			4			4				4					4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0					0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 2	SB--	0	NB-- 2	SB--	0	NB-- 2	SB--	0		NB-- 2	SB--	0		NB-- 2	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0		EB-- 0	WB--	0		EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			0			0			0				0					2
Override Capacity			0			0			0				0					0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	80	1	80	58	138	138	0	90	1	90	58	148	1	148	0	148	1	148
	Left-Through		0							0				0				0	
	Through	912	2	**456**	20	932	**466**	0	1027	2	**514**	20	1047	2	**524**	0	1047	2	**524**
	Through-Right		0							0				0				0	
	Right	135	1	135	0	135	135	0	152	1	152	0	152	1	152	0	152	1	152
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	159	1	**159**	0	159	**159**	0	179	1	**179**	0	179	1	**179**	0	179	1	**179**
	Left-Through		0							0				0				0	
	Through	1426	3	475	9	1435	478	0	1606	3	535	9	1615	3	538	0	1615	3	538
	Through-Right		0							0				0				0	
	Right	317	1	231	0	317	231	0	357	1	260	0	357	1	260	0	357	1	260
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	172	1	172	0	172	172	0	194	1	194	0	194	1	194	0	194	1	194
	Left-Through		0							0				0				0	
	Through	940	2	**379**	0	940	**387**	0	1059	2	**427**	0	1059	2	**435**	0	1059	2	**435**
	Through-Right		1							1				1				1	
	Right	197	0	197	25	222	222	0	222	0	222	25	247	0	247	0	247	0	247
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	138	1	**138**	0	138	**138**	0	155	1	**155**	0	155	1	**155**	0	155	1	**155**
	Left-Through		0							0				0				0	
	Through	880	3	293	0	880	293	0	991	3	330	0	991	3	330	0	991	3	330
	Through-Right		0							0				0				0	
	Right	84	1	5	0	84	5	0	95	1	6	0	95	1	6	0	95	1	6
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*	615		*North-South:*	625		*North-South:*	693			*North-South:*	703			*North-South:*	703		
		East-West:	517		*East-West:*	525		*East-West:*	582			*East-West:*	590			*East-West:*	590		
		SUM:	1132		*SUM:*	1150		*SUM:*	1275			*SUM:*	1293			*SUM:*	1293		
VOLUME/CAPACITY *(V/C)* RATIO:			0.823			0.836			0.927				0.940					0.940
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.823			0.836			0.927				0.940					**0.840**
LEVEL OF SERVICE (LOS):			D			D			E				E					D

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.013 **Significant impacted?** YES

Δ*v/c* after mitigation: -0.087 **Fully mitigated?** YES

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Western Avenue	Year of Count:	2016	Ambient Growth: (%):	0.6284	Conducted by:	IBI Group	Date:	5/12/2017
37	East-West Street:	220th Street	Projection Year:	2035	Peak Hour:	AM	Reviewed by:	IBI Group	Project:	West Carson

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
No. of Phases			2			2				2				2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--			0	NB-- 0 SB--			0	NB-- 0 SB--			0
	EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--			0	EB-- 0 WB--			0	EB-- 0 WB--			0
ATSAC-1 or ATSAC+ATCS-2?			0			0				0				0				2
Override Capacity			0			0				0				0				0
Left	95	1	95	0	95	95	0	107	1	107	0	107	1	107	0	107	1	107
Left-Through		0							0				0				0	
Through	1367	2	**684**	47	1414	**707**	0	1540	2	**770**	47	1587	2	**794**	0	1587	2	**794**
Through-Right		0							0				0				0	
Right	31	1	31	44	75	75	0	35	1	35	44	79	1	79	0	79	1	79
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	10	1	**10**	66	76	**76**	0	11	1	**11**	66	77	1	**77**	0	77	1	**77**
Left-Through		0							0				0				0	
Through	898	2	449	75	973	487	0	1012	2	506	75	1087	2	544	0	1087	2	544
Through-Right		0							0				0				0	
Right	46	1	46	0	46	46	0	52	1	52	0	52	1	52	0	52	1	52
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	28	0	**28**	0	28	**28**	0	32	0	**32**	0	32	0	**32**	0	32	0	**32**
Left-Through		0							0				0				0	
Through	24	0	104	0	24	104	0	27	0	118	0	27	0	118	0	27	0	118
Through-Right		0							0				0				0	
Right	52	0	0	0	52	0	0	59	0	0	0	59	0	0	0	59	0	0
Left-Through-Right		1							1				1				1	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	69	0	69	17	86	86	0	78	0	78	17	95	0	95	0	95	0	95
Left-Through		1							1				1				1	
Through	96	0	**165**	0	96	**182**	0	108	0	**186**	0	108	0	**203**	0	108	0	**203**
Through-Right		0							0				0				0	
Right	32	1	27	25	57	19	0	36	1	31	25	61	1	23	0	61	1	23
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	North-South:		694	North-South:		783	North-South:			781	North-South:			871	North-South:			871
	East-West:		193	East-West:		210	East-West:			218	East-West:			235	East-West:			235
	SUM:		887	SUM:		993	SUM:			999	SUM:			1106	SUM:			1106
VOLUME/CAPACITY (*V/C*) RATIO:			0.591			0.662				0.666				0.737				0.737
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.591			0.662				0.666				0.737				**0.637**
LEVEL OF SERVICE (LOS):			A			B				B				C				B

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.071 **Δ*v/c* after mitigation:** -0.029

Significant impacted? YES **Fully mitigated?** YES

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Western Avenue	Year of Count:	2016	Ambient Growth: (%):	0.6284	Conducted by:	IBI Group	Date:	5/12/2017
37	East-West Street:	220th Street	Projection Year:	2035	Peak Hour:	PM	Reviewed by:	IBI Group	Project:	West Carson

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			2			2				2				2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--			0	NB-- 0 SB--			0	NB-- 0 SB--			0
	EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--			0	EB-- 0 WB--			0	EB-- 0 WB--			0
ATSAC-1 or ATSAC+ATCS-2?			0			0				0				0				2
Override Capacity			0			0				0				0				0

MOVEMENT		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	68	1	**68**	0	68	**68**	0	77	1	**77**	0	77	1	**77**	0	77	1	**77**
	Left-Through		0							0				0				0	
	Through	1016	2	508	67	1083	542	0	1144	2	572	67	1211	2	606	0	1211	2	606
	Through-Right		0							0				0				0	
	Right	26	1	26	17	43	43	0	29	1	29	17	46	1	46	0	46	1	46
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	29	1	29	25	54	54	0	33	1	33	25	58	1	58	0	58	1	58
	Left-Through		0							0				0				0	
	Through	1458	2	**729**	45	1503	**752**	0	1642	2	**821**	45	1687	2	**844**	0	1687	2	**844**
	Through-Right		0							0				0				0	
	Right	19	1	19	0	19	19	0	21	1	21	0	21	1	21	0	21	1	21
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	84	0	84	0	84	84	0	95	0	95	0	95	0	95	0	95	0	95
	Left-Through		0							0				0				0	
	Through	131	0	**381**	0	131	**381**	0	148	0	**430**	0	148	0	**430**	0	148	0	**430**
	Through-Right		0							0				0				0	
	Right	166	0	0	0	166	0	0	187	0	0	0	187	0	0	0	187	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	32	0	**32**	39	71	**71**	0	36	0	**36**	39	75	0	**75**	0	75	0	**75**
	Left-Through		1							1				1				1	
	Through	54	0	86	0	54	125	0	61	0	97	0	61	0	136	0	61	0	136
	Through-Right		0							0				0				0	
	Right	26	1	12	58	84	57	0	29	1	13	58	87	1	58	0	87	1	58
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		797	*North-South:*		820	*North-South:*			898	*North-South:*			921	*North-South:*			921
		East-West:		413	*East-West:*		452	*East-West:*			466	*East-West:*			505	*East-West:*			505
		SUM:		1210	*SUM:*		1272	*SUM:*			1364	*SUM:*			1426	*SUM:*			1426
VOLUME/CAPACITY *(V/C)* RATIO:				0.807			0.848				0.909				0.951				0.951
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.807			0.848				0.909				0.951				**0.851**
LEVEL OF SERVICE (LOS):				**D**			**D**				**E**				**E**				**D**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.042 **Δ*v/c* after mitigation:** -0.058

Significant impacted? YES **Fully mitigated?** YES

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	West Carson		
1	North-South Street:	Normandie Avenue	East-West Street:	Torrance Boulevard
	Scenario:	Existing Year (2016) With Project + Mitigation		
	Count Date:	5/24/2016	Analyst: IBI Group	Date: 6/6/2017

	AM PEAK HOUR			PM PEAK HOUR		
No. of Phases			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
	EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	132	1	132	95	1	**95**
	Left-Through		0			0	
	Through	669	1	**388**	508	1	303
	Through-Right		1			1	
	Right	106	0	106	97	0	97
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	47	1	**47**	136	1	136
	Left-Through		0			0	
	Through	373	1	238	755	1	**454**
	Through-Right		1			1	
	Right	102	0	102	153	0	153
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	94	1	**94**	109	1	109
	Left-Through		0			0	
	Through	948	1	516	1337	1	**746**
	Through-Right		1			1	
	Right	83	0	83	154	0	154
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	105	1	105	65	1	**65**
	Left-Through		0			0	
	Through	1516	1	**798**	952	1	510
	Through-Right		1			1	
	Right	80	0	80	67	0	67
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	435		*North-South:*	549
			East-West:	892		*East-West:*	811
			SUM:	1327		*SUM:*	1360
VOLUME/CAPACITY *(V/C)* RATIO:				0.965			0.989
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.865**			**0.889**
LEVEL OF SERVICE (LOS):				**D**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	West Carson		
6	North-South Street:	Western Avenue	East-West Street:	Carson Street
	Scenario:	Existing Year (2016) With Project + Mitigation		
	Count Date:	5/24/2016	Analyst: IBI Group	Date: 6/6/2017

		AM PEAK HOUR			PM PEAK HOUR		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	175	1	175	214	1	**214**
	Left-Through		0			0	
	Through	1112	2	**556**	900	2	450
	Through-Right		0			0	
	Right	140	1	101	151	1	114
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	105	1	**105**	219	1	219
	Left-Through		0			0	
	Through	781	2	391	1370	2	**685**
	Through-Right		0			0	
	Right	148	1	119	219	1	192
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	59	1	**59**	55	1	55
	Left-Through		0			0	
	Through	839	2	420	1058	2	**529**
	Through-Right		0			0	
	Right	180	1	93	183	1	76
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	79	1	79	75	1	**75**
	Left-Through		0			0	
	Through	1117	2	**559**	1002	2	501
	Through-Right		0			0	
	Right	146	1	94	156	1	47
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	661		*North-South:*	899
			East-West:	618		*East-West:*	604
			SUM:	1279		*SUM:*	1503
	VOLUME/CAPACITY *(V/C)* RATIO:			0.930			1.093
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.830**			**0.993**
	LEVEL OF SERVICE (LOS):			**D**			**E**

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Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	West Carson		
7	North-South Street:	Normandie Avenue	East-West Street:	Carson Street
	Scenario:	Existing Year (2016) With Project + Mitigation		
	Count Date:	5/24/2016	Analyst: IBI Group	Date: 6/6/2017

		AM PEAK HOUR			PM PEAK HOUR		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	174	1	**174**	145	1	**145**
	Left-Through		0			0	
	Through	666	2	333	434	2	217
	Through-Right		0			0	
	Right	84	1	7	100	1	32
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	50	1	50	109	1	109
	Left-Through		0			0	
	Through	405	1	**278**	636	1	**393**
	Through-Right		1			1	
	Right	151	0	151	150	0	150
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	196	1	**196**	227	1	**227**
	Left-Through		0			0	
	Through	876	2	438	184	2	92
	Through-Right		0			0	
	Right	172	1	85	203	1	131
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	155	1	155	137	1	137
	Left-Through		0			0	
	Through	1168	2	**584**	1116	2	**558**
	Through-Right		0			0	
	Right	102	1	77	87	1	33
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	452		*North-South:*	538
			East-West:	780		*East-West:*	785
			SUM:	1232		*SUM:*	1323
VOLUME/CAPACITY *(V/C)* RATIO:				0.896			0.962
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.796**			**0.862**
LEVEL OF SERVICE (LOS):				**C**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	West Carson		
25	North-South Street:	Western Avenue	East-West Street:	223rd Street
	Scenario:	Existing Year (2016) With Project + Mitigation		
	Count Date:	5/24/2016	Analyst: IBI Group	Date: 6/6/2017

		AM PEAK HOUR			PM PEAK HOUR		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	117	1	117	93	1	**93**
	Left-Through		0			0	
	Through	1165	2	**583**	943	2	472
	Through-Right		0			0	
	Right	161	1	38	179	1	132
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	128	1	**128**	228	1	228
	Left-Through		0			0	
	Through	842	2	421	1422	2	**711**
	Through-Right		0			0	
	Right	62	1	22	81	1	40
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	81	1	**81**	83	1	83
	Left-Through		0			0	
	Through	388	2	194	791	2	**396**
	Through-Right		0			0	
	Right	84	1	26	229	1	183
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	246	1	246	94	1	**94**
	Left-Through		0			0	
	Through	895	1	**557**	616	1	384
	Through-Right		1			1	
	Right	218	0	218	152	0	152
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	711		*North-South:*	804
			East-West:	638		*East-West:*	490
			SUM:	1349		*SUM:*	1294
	VOLUME/CAPACITY *(V/C)* RATIO:			0.981			0.941
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.881**			**0.841**
	LEVEL OF SERVICE (LOS):			**D**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	West Carson		
36	North-South Street:	Western Avenue	East-West Street:	Torrance Boulevard
	Scenario:	Existing Year (2016) With Project + Mitigation		
	Count Date:	5/24/2016	Analyst: IBI Group	Date: 6/6/2017

		AM PEAK HOUR			PM PEAK HOUR		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	150	1	150	138	1	138
	Left-Through		0			0	
	Through	1073	2	**537**	932	2	**466**
	Through-Right		0			0	
	Right	94	1	24	135	1	66
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	55	1	**55**	159	1	**159**
	Left-Through		0			0	
	Through	904	3	301	1435	3	478
	Through-Right		0			0	
	Right	279	1	173	317	1	231
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	212	1	**212**	172	1	172
	Left-Through		0			0	
	Through	767	2	301	940	2	**387**
	Through-Right		1			1	
	Right	137	0	137	222	0	222
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	140	1	140	138	1	**138**
	Left-Through		0			0	
	Through	1233	3	**411**	880	3	293
	Through-Right		0			0	
	Right	144	1	117	84	1	5
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	592		*North-South:*	625
			East-West:	623		*East-West:*	525
			SUM:	1215		*SUM:*	1150
VOLUME/CAPACITY *(V/C)* RATIO:				0.884			0.836
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.784**			**0.736**
LEVEL OF SERVICE (LOS):				**C**			**C**

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Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	West Carson		
37	North-South Street:	Western Avenue	East-West Street:	220th Street
	Scenario:	Existing Year (2016) With Project + Mitigation		
	Count Date:	5/24/2016	Analyst: IBI Group	Date: 6/6/2017

		AM PEAK HOUR			PM PEAK HOUR		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --		0	NB -- 0	SB --	0
	EB -- 0	WB --		0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	95	1	95	68	1	**68**
	Left-Through		0			0	
	Through	1414	2	**707**	1083	2	542
	Through-Right		0			0	
	Right	75	1	75	43	1	43
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	76	1	**76**	54	1	54
	Left-Through		0			0	
	Through	973	2	487	1503	2	**752**
	Through-Right		0			0	
	Right	46	1	46	19	1	19
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	28	0	**28**	84	0	84
	Left-Through		0			0	
	Through	24	0	104	131	0	**381**
	Through-Right		0			0	
	Right	52	0	0	166	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
WESTBOUND	Left	86	0	86	71	0	**71**
	Left-Through		1			1	
	Through	96	0	**182**	54	0	125
	Through-Right		0			0	
	Right	57	1	19	84	1	57
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	783		*North-South:*	820
			East-West:	210		*East-West:*	452
			SUM:	993		*SUM:*	1272
VOLUME/CAPACITY *(V/C)* RATIO:				0.662			0.848
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.562**			**0.748**
LEVEL OF SERVICE (LOS):				**A**			**C**

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Appendix K Sewer Area Study

Appendices

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Report

West Carson TOD Sewer Area Study

West Carson TOD Specific Plan – PC 12386AS



IBI

Prepared by IBI Group

February 2, 2018

1 Sewer System

1.1 Introduction

The sewer infrastructure study is an analysis of the existing and planned sewer utilities/infrastructure within the West Carson Transit Oriented Development (TOD) Specific Plan area. Analysis of the existing sewer infrastructure in comparison to a proposed buildout condition is intended to identify areas of concern where existing infrastructure has the potential to be inadequate based on a full "build-out" of the Specific Plan. Recommended upgrades and mitigation measures are based on this comparison and regulatory requirements included in the report. The analysis of the existing sewer network is based on information compiled from existing data researched and retrieved from Los Angeles County Department of Public Works (LACDPW), Los Angeles County Sanitation District (LACSD), private utility purveyors, discussion with these agencies, as well as public information presented from each.

The existing area is developed with residential and commercial properties, two public schools, a hospital and associated offices, and an industrial zone. The available infrastructure has no constraints regarding redevelopment and property usage plans.

1.2 Site Description

West Carson is an unincorporated area of Los Angeles County located 2 miles west of the City of Carson. The TOD study area is centered on the Metro Silver Line bus station, located at the I-110/Carson Street interchange. The Harbor UCLA Medical Center is located adjacent to the Specific Plan area and within the station area. The medical center is expected to increase the square footage of its facilities as part of a separate master plan. This proposed increase in square footage is included in this analysis as part of growth without the Specific Plan. Two elementary schools are in the area, as well as nearly 140 acres of residential zones. Near the hospital are zones of mixed use – industry, retail, food, etc. The Specific Plan area is bounded on the North by the 208th Street Channel and Torrance Boulevard; bounded on the East by the California 110 Freeway; Bounded by the South by 223rd Street; and bounded by the West by Normandie Avenue.

1.3 Description of Existing Sewer System

The City of West Carson is currently serviced by two sanitary systems. The Los Angeles County Sewer Maintenance District services local collection lines, while trunk sewers and treatment facilities are serviced by Los Angeles County Sanitation Districts (LACSD). Local collection lines are primarily 8" in diameter and composed of Vitrified Clay Pipe (VCP). These are routinely assessed through CCTV inspection, and repaired and replaced as part of a continuous improvement plan maintained by the Department of Public Works. The 8" sanitary collection lines are sufficient size to collect sanitary waste from houses and shops in the area and transport them to the main collection trunks.

There are four main segments of LACSD trunk lines collecting the sewage from the Specific Plan area. The northeast corner of the Specific Plan area is served by a 12" VCP Trunk. Another trunk line runs east on Desford, south on Berendo, and east on Carson Street before connecting with the large trunk that runs south on Vermont Avenue. A third trunk line, 54" in diameter, runs east on Carson Street at the Specific Plan boundary, cutting south through the Harbor-UCLA Medical Center campus along the same center line as Meyler Street, continuing south past the Specific Plan boundary. The final trunk line runs east on 223rd Street, connecting with the second trunk and continuing south on Vermont Avenue. There are three segments of trunk line that are out of service – 1) 63" trunk running east along South Avenue connecting at Vermont Avenue, 2) 66" to 78" trunk running south along Vermont Avenue from Carson Street to 223rd Street, 3) The continuation of the first unused trunk running south from 220th Street to 223rd Street. The majority of these lines are reinforced concrete with linings.

The Specific Plan Area was delineated into 14 sewer main tributary areas which connect into the trunks of the Los Angeles County Sewer Maintenance Districts. These are detailed below and illustrated in Section 3 of the Appendix:

223rd Street West of Meyler (Tributary Area 1) – Existing 8" pipe on the west side of Meyler Street in the southwestern portion of the Specific Plan area. Collects from proposed zones: Residential 1, Residential 3, Public (as Meyler Street Elementary) and additional flow from Residential 1 zones south of the Specific Plan area. The zone connects to the trunk from manhole 232 into manhole 402 along 223rd Street.

223rd Street East of Meyler (Tributary Area 2) – Existing 8" pipe on the east side Meyler Street in the southern portion of the Specific Plan area. Collects from proposed zones: Residential 1, Unlimited Commercial, Industrial Flex, and additional flow from Residential 1 zones south of the Specific Plan area. The zone connects to the trunk from manhole 195 into manhole 402 along 223rd Street.

Jay Street West of Meyler (Tributary Area 3) – Existing 8" pipe west of Meyler Street along Jay Street. Collects Residential 1 development. Connects to the No. 5 Main Trunk from manhole 973 into manhole 403.

Jay Street East of Meyler (Tributary Area 4) – Existing 8" pipe east of Meyler Street along Jay Street. Collects Residential 1 development. Connects to the No. 5 Main Trunk from manhole 203 into manhole 403.

220th Street (Tributary Area 5) – Existing 8" pipe on the east side of Meyler Street collecting. Collects Residential 1, Residential 3, and Residential Planned development. Connects to the Meyler Street Trunk at 223rd Street from manhole 395 to manhole 396.

Vermont Avenue at 220th Street (Tributary Area 6) – Existing 8" pipe on the east side of Vermont Avenue in the southeastern portion of the Specific Plan area. Collects from proposed zones: Mixed Use Development 2, Industrial Flex, Residential 3, and Residential 4. Connects to Sanitation District Trunk Sewer 659 from manhole 1082.

Medical Center (Tributary Area 7) – The Harbor-UCLA Medical Center is a collection of existing 8" to 15" pipes bound by Normandie Avenue, Vermont Avenue, 220th Street, and Carson Street. Manhole 1056 appears to connect some of this area to the trunk sewer. It is unknown the exact configuration of collection lines nor which trunk system they ultimately connect to because they are privately owned.

Vermont Avenue South of Carson (Tributary Area 8) – Existing 8" pipe on the south side of Carson Street that collects sewage in the eastern portion of the plan. Collects from Mixed Use Development 2. Connects to the Joint Outfall D sewer from manhole 130 to manhole 131.

Vermont Avenue North of Carson (Tributary Area 9) – Existing 8" pipe on the north side of Carson Street that collects a small area north of Carson Street and west of Vermont Avenue. It collects sewage from Residential 4 and Mixed Use Development 1. Connects to the Joint Outfall D sewer from Manhole 132 to manhole 131.

West Carson Street (Tributary Area 10) – Existing 8" pipe on Carson Street east of Berendo Avenue. Collects a small area of Mixed Use Development 1 zoning. Connects to the Joint Outfall D sewer from manhole 432 to manhole 433.

Berendo and Broadwell Avenue (Tributary Area 11) – Existing 8" line collecting Residential 1 along Berendo Avenue and Broadwell, extending as far north as the back end of properties on Budlong and Meyler Courts. Collects from zones Mixed Use 1 and Residential 1. Connects to the Joint Outfall D sewer from manhole 271.

Desford Avenue (Tributary Area 12) – Existing 8" line collecting all sewage in the northwest portion of the plan through both a force main and gravity fed lines. Collects from zones: Residential 1, Mixed Use Development 1, and Residential 4. It also collects from zones outside of the plan area: Residential 1 north of the 208th Street Drain, and a collection line from the City of Los Angeles. Connects to the Joint Outfall D sewer from Manhole 436.

Van Deene Avenue (Tributary Area 13) – Existing 10" line collecting all lines east of Vermont Avenue and north of Carson Street with exception to the Greenhedge cul-de-sac. This collection zone was delineated into 13A and 13B. 13A collects from Mixed Use Development 1 and Mixed Use Development 2 east of Vermont and north of Carson, all Residential 1 east of Vermont, Planned Development east of Vermont, and the entirety of Van Deene Avenue Elementary School (as Public). 13B is an 8" line that collects Residential 1 from Doble Avenue and continues to the Torrance Avenue Trunk. It connects with 13A at manhole 96.

Once it combines 13A and 13B into a 10" sewer, it also collects the Neighborhood Commercial Zone on the North end of the Plan Area. Connects to the Torrance Boulevard Trunk from manhole 100.

Greenhedge Avenue (Tributary Area 14) – Existing 8" line collecting the Greenhedge cul-de-sacs of Residential 1. Connects with Torrance Boulevard Trunk at Conradi Avenue from manhole 101.

1.4 Methodology

The analysis conducted in this section for sewer systems assesses the potential impact of the proposed Specific Plan in terms of the system's physical capacity to transport wastewater through collection mains. There is an increase in land use density in the proposed build-out, with a corresponding increase in water and wastewater demand anticipated. While strictly single-family residential areas are minimally affected, the increases in other zones warrants analysis. Collection areas were delineated from collection line locations. Sewage effluent in each collection area was calculated using the Zoning Coefficient for runoff for a typical sewer area study developed by Los Angeles County Department of Public Works Land Development Division. Each planned development zone's acreage in collection zones was used with the Zoning Coefficient to determine total flow through the lines.

All existing sewer mains in the Specific Plan area are 8" or above in diameter. Using the minimum allowable slope of 0.24% (0.12% for 15" or above), the design capacity for the existing sewer pipes is 0.265 cfs for 8" mains and 0.455 cfs for 10" pipes. Design capacity for lines below 15" diameter, defined by LA County Sanitation District, is half of the diameter of the pipe to be filled.

One of the purposes of this study is to determine the deficiencies in existing utilities when using the future development of the Plan Area. Based on this analysis, four (4) of the existing tributary areas have the potential to exceed the existing sewage capacity defined by LA County. Tributary Areas 2, 8, 12, and 13 have the potential to exceed the existing sewage capacity of their connecting sewer mains. The remaining tributary areas, based on zoning coefficients from Los Angeles County, should remain below the designed sewage capacity.

- Tributary Area 2 has an estimated cumulative sewage flow of 0.404 cfs which is 150% of the design capacity of 0.27 cfs allowed by an 8" collection line. This area includes flow from Residential 1, Unlimited Commercial, Industrial Flex, and additional Residential 1 from outside the TOD Plan Area.
- Tributary Area 8 has an estimated cumulative sewage flow of 0.378 cfs which is 140% of the design capacity of 0.27 cfs allowed by an 8" collection line. This area includes flow from Mixed use Development 2.
- Tributary Area 12 has an estimated cumulative sewage flow of 0.651 cfs which is 241% of the design capacity of 0.27 cfs allowed by an 8" collection line. This area includes flow from Residential 1, Mixed Use Development 1, and Residential 4 in the Plan Area. This area also includes flow from Residential 1 outside of the plan area, as well as additional flow from a City of Los Angeles sewer that connects to manhole 329. Communications with the City have indicated the peak flow from that 8" sewer to be 0.124 cfs.
- Tributary Area 13 has an estimated cumulative flow of 0.551 cfs which is 110% of the design capacity of 0.50 cfs allowed by a 10" collection line. This area includes flow from two 8" lines in the Plan Area and collects from Residential 1, Mixed Use Development 1, Mixed Use Development 2, Residential Planned Development, Neighborhood Commercial, and a public elementary school.

Due to the preliminary nature of this analysis, final buildout, including building layout and schedule is unknown at this time. As such, exact flows cannot be determined. The purpose of this study was to identify locations where existing infrastructure could potentially be inadequate to service final buildout conditions.

1.5 Mitigation and Conclusion

A more detailed analysis of types of buildings and historical flows in areas where little to no build-out will occur can mitigate some of the issues in collection mains. For example, Tributary Area 12, using the attached spreadsheet and zoning, would be over capacity. However, communication with LACDPW has indicated they have had no known issues with lines in the existing West Carson area, and Tributary Area 12 is not expecting to change much in full build out.

Since the design identifies full “build out” condition, there is no immediate need for upgrades to the existing sewer mains. A detailed study – with projected building and consumer flows – around the existing tributary areas of potential will identify the required upgrades to the tributaries. In general, new or upgraded sewer laterals are required for new buildings. This is paid for by the developers. All new sewer infrastructure development and upgrades will have to be reviewed by the County’s Department of Public Works.

1.6 Attachments and Exhibits

- Sewer Area Calculation
- Estimated Average Daily Sewage Flows
- Tributary Areas for Calculating Sewer Demand
- Collection Points for Sewer Tributary Areas (2 total)
- LA County Consolidated Sewer Maintenance District (CSMD) Index Maps (2 total)
- LA County Zoning Map

Sewer Area Study Table

* Calculated using Kutter's Formula with n=0.013 (as in S-C4 graph in PC Procedural Manual)

** Based on current land use and coefficients per LA County, (Attach supporting calculations)

*** For pipes > 15" % Full should be calculated by taking the flow depth divided by 0.75 times the pipe diameter

Street Name	Segment		Pipe		*Capacity		Area (Acres)	Zoning Coeff.	Calculated Flow (cfs)	**Cumulative Calculated Flow (cfs)	PC orCI Construction Plan #	Comment	% Full
	M.H. #	M.H. #	Size (in.)	Slope (%)	1/2 Full(<15")	3/4 Full(>15")							Cumulative Flow / Capacity
Tributary Area 1 (223rd Street West of Meyler)	**232**	**402**	**8**	**0.24**	**0.27**								**57.98%**
Residential 1							6.6	0.004	0.026	0.026			9.80%
Residential 3							2	0.012	0.024	0.050			18.71%
Public - Meyler Street Elementary - 1050 Students * 10 gallons/student/day*2.5 peak flow									0.041	0.091		1,050 student capacity	33.93%
Additional Area (Residential 1)							16.2	0.004	0.065	0.156			57.98%
Tributary Area 2 (223rd Street East of Meyler)	**195**	**402**	**8**	**0.24**	**0.27**								**150.00%**
Residential 1							4.1	0.004	0.016	0.016			6.09%
Unlimited Commercial							6.8	0.015	0.102	0.118		Higher zoning coefficient than estimated zion evangelical	43.95%
Industrial Flex							4.9	0.021	0.103	0.221			82.14%
Additional Area (Residential 1)							45.7	0.004	0.183	0.404			150.00%
Tributary Area 3 (Jay Street West of Meyler)	**973**	**403**	**8**	**0.24**	**0.27**								**9.21%**
Residential 1							6.2	0.004	0.025	0.025			9.21%
Tributary Area 4 (Jay Street East of Meyler)	**203**	**403**	**8**	**0.24**	**0.27**								**6.53%**
Residential 1							4.4	0.004	0.018	0.018			6.53%
Tributary Area 5 (200 th Street)	**395**	**396**	**8**	**0.24**	**0.27**								**48.11%**
Residential 1							20.4	0.004	0.082	0.082			30.29%
Residential 3							2.1	0.012	0.025	0.107			39.64%
Residential Planned Development							1.9	0.012	0.023	0.130			48.11%
Tributary Area 6 (Vermont Ave. at 220th Street)	**1082**	**Trunk**	**8**	**0.24**	**0.27**								**64.55%**
Mixed Use Development 2							3.1	0.015	0.047	0.047			17.26%
Residential 4							5.9	0.016	0.094	0.141			52.30%
Industrial Flex							18.8	0.04	0.021	0.162			60.10%
Residential 3							3.7	0.04	0.012	0.174			64.55%
Tributary Area 7 (Medical Center)	**1056**	**Trunk**											
Medical Center (NOT USED)													
Tributary Area 8 (Vermont Ave. South of Carson)	**130**	**131**	**8**	**0.24**	**0.27**								**140.31%**
Mixed Use Development 2							25.2	0.015	0.378	0.378			140.31%
Tributary Area 9 (Vermont Ave. North of Carson)	**132**	**131**	**8**	**0.24**	**0.27**								**53.60%**
Residential 4							4.9	0.016	0.078	0.078			29.10%
Mixed Use Development 1							4.4	0.015	0.066	0.144			53.60%

Tributary Area 10 (West Carson Street)	**432**	**433**	**8**	**0.24**	**0.27**								**8.91%**
Mixed Use Development 1							1.6	0.015	0.024	0.024			8.91%
Tributary Area 11 (Berendo and Broadwell Ave.)	**271**	**Trunk**	**8**	**0.24**	**0.27**								**12.03%**
Residential 1							5.1	0.004	0.020	0.020			7.57%
Mixed Use Development 1							0.8	0.015	0.012	0.032			12.03%
Tributary Area 12 (Desford Ave.)	**436**	**Trunk**	**8**	**0.24**	**0.27**								**241.68%**
Residential 1							64.3	0.004	0.257	0.257			95.47%
Mixed Use Development 1							9	0.015	0.135	0.392			145.58%
Residential 4							3	0.016	0.048	0.440			163.40%
Additional Area (Residential 1)							21.8	0.004	0.087	0.527			195.77%
Additional Flow From City of LA							1	0.1237	0.124	0.651		Connects to Manhole 329	241.68%
Tributary Area 13A	**94**	**95**	**10**	**0.24**	**0.50**								**92.89%**
Residential 1							35.8	0.004	0.143	0.143			28.65%
Mixed Use Development 1							5.8	0.015	0.087	0.230			46.06%
Mixed Use Development 2							9.2	0.015	0.138	0.368			73.68%
Residential Planned Development							6	0.012	0.072	0.440			88.09%
Public - Van Deene Elementary - 625 students * 10 gallons/student/day * 2.5 peak flow									0.024	0.464		625 student capacity	92.89%
Tributary Area 13B	**95**	**96**	**8**	**0.24**	**0.27**								**24.35%**
Residential 1							16.4	0.004	0.066	0.066			24.35%
Tributary Area 13 (Van Deene Ave.)	**99**	**100**	**10**	**0.24**	**0.50**								**110.22%**
Residential 1							52.2	0.004	0.209	0.209			41.78%
Mixed Use Development 1							5.8	0.015	0.087	0.296			59.19%
Mixed Use Development 2							9.2	0.015	0.138	0.434			86.80%
Residential Planned Development							6	0.012	0.072	0.506			101.21%
Public - Van Deene Elementary - 625 students * 10 gallons/student/day									0.024	0.530			106.01%
Neighborhood Commercial							1.4	0.015	0.021	0.551			110.22%
Tributary Area 14 (Greenhedge Ave.)	**101**	**Trunk**	**8**	**0.24**	**0.27**								**13.81%**
Residential 1							9.3	0.004	0.037	0.037			13.81%

Estimated Average Daily Sewage Flows for Various Occupancies

Occupancy	Abbreviation	*Average daily flow	
Apartment Buildings:			
Bachelor or Single dwelling units	Apt	~~100~~	gal/D.U. → 150
1 bedroom dwelling units	Apt	~~150~~	gal/D.U. → 200
2 bedroom dwelling units	Apt	~~200~~	gal/D.U. → 250
3 bedroom or more dwelling units	Apt	~~250~~	gal/D.U. → use 300 GPD per SMD
Auditoriums, churches, etc.	Aud	5	gal/seat
Automobile parking	P	25	gal/1000 sq ft gross floor area
Bars, cocktails lounges, etc.	Bar	20	gal/seat
Commercial Shops & Stores	CS	100	gal/1000 sq ft gross floor area
Hospitals (surgical)	HS	500	gal/bed
Hospitals (convalescent)	HC	85	gal/bed
Hotels	H	150	gal/room
Medical Buildings	MB	300	gal/1000 sq ft gross floor area
Motels	M	150	gal/unit
Office Buildings	Off	200	gal/1000 sq ft gross floor area
Restaurants, cafeterias, etc.	R	50	gal/seat
Schools:			
Elementary or Jr. High	S	10	gal/student
High Schools	HS	15	gal/student
Universities or Colleges	U	20	gal/student
College Dormitories	CD	85	gal/student

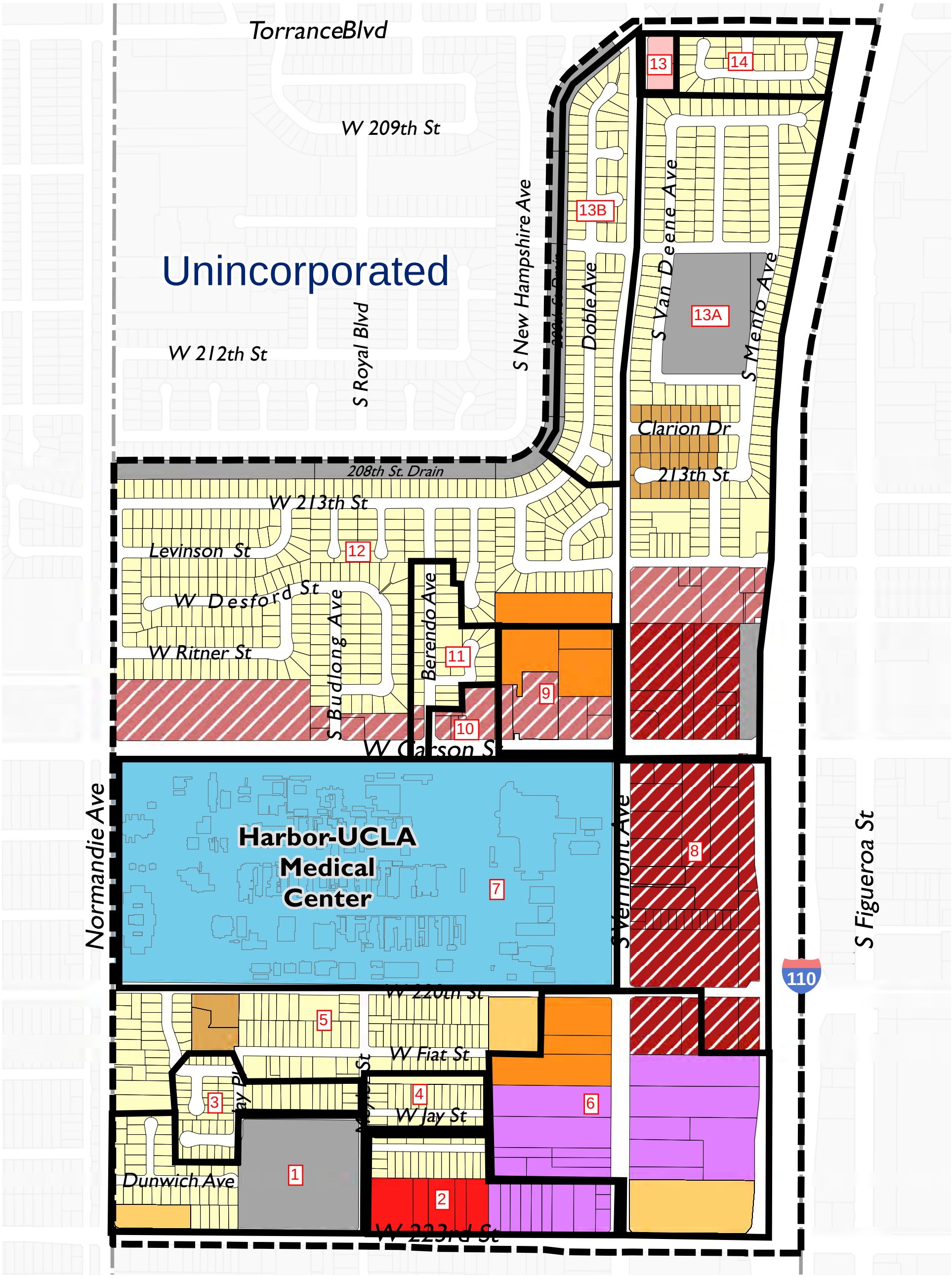
*Multiply the average daily flow by 2.5 to obtain the peak flow

Zoning Coefficients

Zone	Coefficient (cfs/Acre)
Agriculture	**0.001**
Residential+:	
R-1	**0.004**
R-2	**0.008**
R-3	**0.012**
R-4	**0.016***
Commercial:	
C-1 through C-4	**0.015***
Heavy Industrial:	
M1 through M-4	**0.021***

***Individual building, commercial or industrial plant capacities shall be the determining factor when they exceed the coefficients shown**

+ Use 0.001 (cfs/unit) for condominiums only



Proposed Zoning

- West Carson Residential 1
- West Carson Residential 3
- West Carson Residential 4
- Residential Planned Development
- Neighborhood Commercial
- Unlimited Commercial
- Industrial Flex
- Harbor UCLA Medical Zone
- Mixed Use Development 1
- Mixed Use Development 2
- Public
- Specific Plan Boundary
- City Boundary

0 500

Scale: 1 in = 500 Feet 4/18/2016

SEE SHT. NO. S-1703

C-37
C-38
C-43

SAN DIEGO F R W Y

CITY OF LOS ANGELES COUNTY

CITY OF CARSON

LOS ANGELES COUNTY

VICTORIA REGIONAL PARK

VICTORIA GOLF COURSE

HARBOR CHANNEL

THIS MAP IS INTENDED FOR USE ONLY AS OPERATIONS MAP BY LOS ANGELES COUNTY SEWER MAINTENANCE DISTRICTS. LOS ANGELES COUNTY EXPRESSLY DISCLAIMS ANY LIABILITY FOR ANY INACCURACIES WHICH MAY BE PRESENT IN THIS MAP.

SEE SHT. NO. S-1759

AUTOMATED GRAPHICS

METERS
0 50 100 200 250
0 200 400 600 800
FEET

LEGEND

- CLAY SEWERS MAINTAINED BY SMD. 8" UNLESS OTHERWISE NOTED
- PLASTIC SEWERS
- CONCRETE SEWERS
- CLAY SEWERS, LINED
- CEMENT SEWERS, LINED
- FORCE MAINS
- SEWERS NOT MAINTAINED BY SMD
- TRUNK SEWERS
- CITY BOUNDARY
- STANDARD MANHOLE
- DROP MANHOLE
- SHALLOW MANHOLE
- TRAP MANHOLE
- WEIR MANHOLE
- C.O. CLEANOUT
- L.H. LAMP HOLE
- PUMP STATION

TOTAL MH'S THIS MAP: 259

SEE SHT. NO. S-1705

E 4,197,000
N 4,054,000

MAP REV
02-14-05

DATA BASE REV
01-30-86

CONSOLIDATED S.M.D.

T: 764 A-5

0519.0519.1704

SEE SHT. NO. S-1704

C-33
C-34
C-36
C-37

THIS MAP IS INTENDED FOR USE ONLY AS OPERATIONS MAP BY LOS ANGELES COUNTY SEWER MAINTENANCE DISTRICTS. LOS ANGELES COUNTY EXPRESSLY DISCLAIMS ANY LIABILITY FOR ANY INACCURACIES WHICH MAY BE PRESENT IN THIS MAP.

SEE SHT. NO. S-1650

SEE SHT. NO. S-1760

SEE SHT. NO. S-1706

N 4,046,500

E 4,197,000

AUTOMATED GRAPHICS

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0 50 100 200 250
0 200 400 600 800
FEET

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- SHALLOW MANHOLE
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TOTAL MH'S THIS MAP: 1133

MAP REV
10-09-07

DATA BASE REV
06-10-86

CONSOLIDATED S.M.D.

T: 764 A-5

0219.0319.1705

SEE SHT. NO. S-1703

C-37
C-38
C-43

SAN DIEGO F R W Y

CITY OF LOS ANGELES COUNTY

CITY OF CARSON

VICTORIA REGIONAL PARK

VICTORIA GOLF COURSE

NORMANDIE S D 685 SEWER RECONS.

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SEE SHT. NO. S-1759

SEE SHT. NO. S-1705

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0 200 400 600 800
FEET

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MAP REV
02-14-05

DATA BASE REV
01-30-86

CONSOLIDATED S.M.D.

S-1704

T: 764 A-5

0519.0519.1704

SEE SHT. NO. S-1704

C-33
C-34
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C-37

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SEE SHT. NO. S-1706

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E 4,046,500

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TOTAL MH'S THIS MAP: 1133

MAP REV
10-09-07

DATA BASE REV
06-10-86

CONSOLIDATED S.M.D.

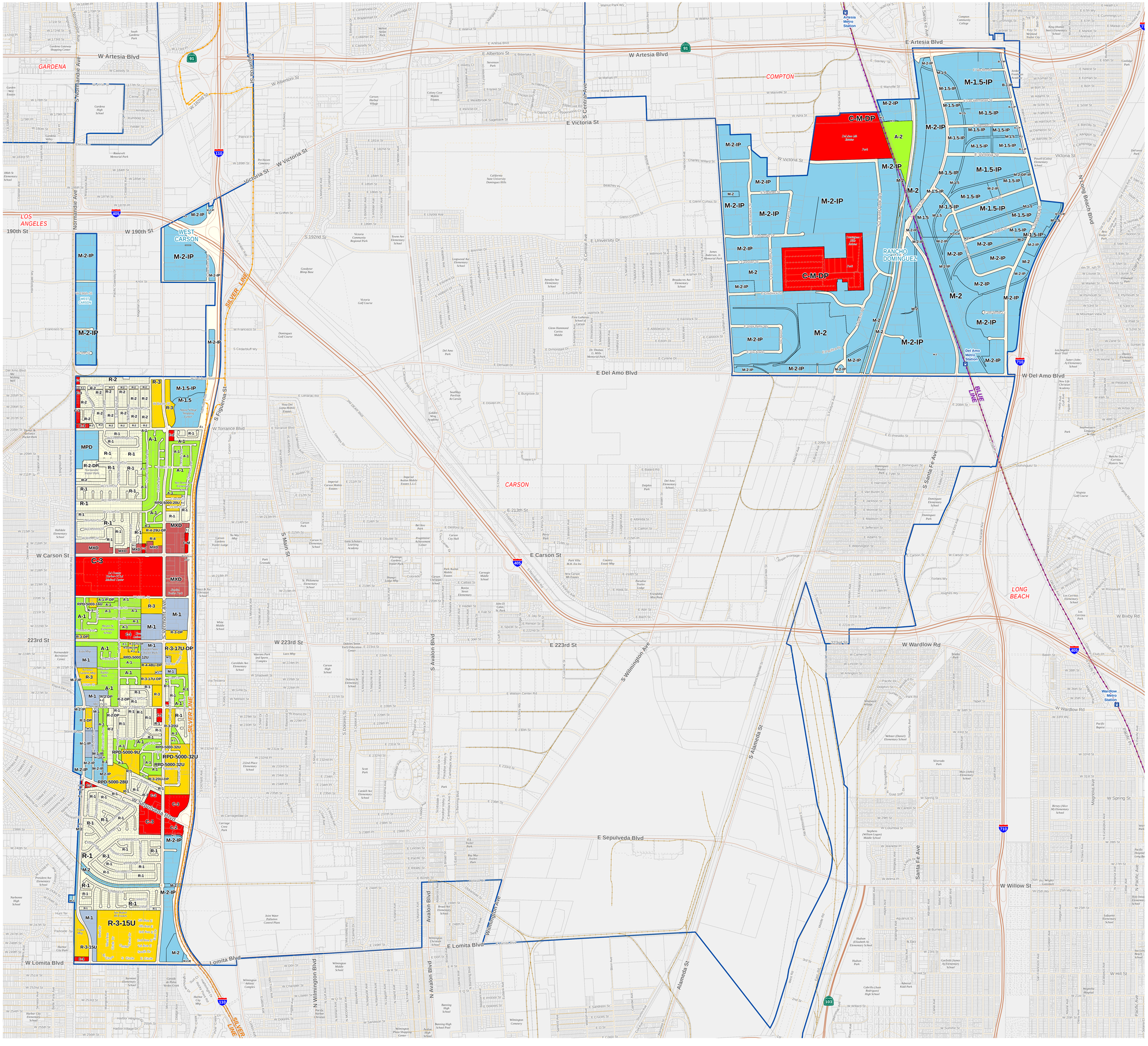
T: 764 A-5

0219.0319.1705

Los Angeles County

Zoning

West Carson & Rancho Dominguez


GARDENA
COMPTON
LOS ANGELES
CARSON
LONG BEACH
WEST CARSON
RANCHO DOMINGUEZ
W Artesia Blvd
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E Victoria St
W Victoria St
Victoria St
190th St
W 190th St
E Del Amo Blvd
W Del Amo Blvd
W Torrance Blvd
W Carson St
E Carson St
223rd St
E 223rd St
W 223rd St
E Sepulveda Blvd
W Sepulveda Blvd
W Lomita Blvd
E Lomita Blvd
W Wardlow Rd
W Willow St
E 213th St
S Normandie Ave
S Vermont Ave
S Western Ave
S Figueroa St
S Main St
S Avalon Blvd
S Wilmington Ave
S Alameda St
S Central Ave
S Santa Fe Ave
N Long Beach Blvd
Santa Fe Ave
Magnolia Ave
Pacific Ave
N Pacific Ave
N Wilmington Blvd
N Avalon Blvd
Alameda St
Wilmington Ave
Del Amo Metro Station
Artesia Metro Station
Wardlow Metro Station
BLUE LINE
SILVER LINE
C-M-DP
A-2
M-2-IP
M-2
M-1.5-IP
R-1
R-2
R-3
M-1.5
M-1
MXD
C-3
A-1
R-3-15U
R-3-17U-DP
RPD-5000-32U
RPD-5000-28U
RPD-5000-9U
RPD-5000-20U
R-2-DP
R-2-29U-DP
R-4-48U-DP
R-3-20U-DP
MPD
R-2-DP
RPD-5000-12U
RPD-5000-15U
R-3-DP
M-1-IP
M-2-DP
M-1.5-DP
M-2.5
M-2-2U
M-1.5-2U
M-2-DP
M-1.5-DP
M-2-2U
M-1.5-2U
M-2.5

Appendix L Water Area Study

Appendices

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Report

West Carson Water Area Study

West Carson TOD Specific Plan

Prepared
by IBI Group

August 13, 2017

1 Water Services

1.1 Introduction

This technical memorandum analyzes potential environmental impacts on utilities and water service systems for the West Carson Transit Oriented Development (TOD) Specific Plan area. It documents the results of the analysis, as well as recommended infrastructure upgrades and proposed mitigation measures in order to support the proposed land use changes identified in the West Carson TOD Specific Plan. The results of the analysis are based on data obtained from the West Carson TOD Specific Plan, as well as from the Los Angeles County Department of Public Works (DPW), Los Angeles County Sanitation District (LACSD), and private utility purveyors.

1.2 Site Description

The Specific Plan area encompasses the Harbor-UCLA Medical Center and is bounded by Torrance Boulevard and the 208th Street flood control channel to the north, the Interstate 110 (I-110) freeway to the east, Normandie Avenue to the west, and 223rd Street to the south. The Specific Plan area covers approximately 418 acres in West Carson, including land within a half-mile radius to the west of the Carson Metro Bus Station, a bus rapid transit stop. Two elementary schools are in the area, as well as approximately 140 acres of residential uses.

1.3 Water Providers

Dominguez Water

The Rancho Dominguez District (the District) of the California Water Service is the provider of potable water within the boundary of the West Carson TOD Specific Plan. The customer needs are met by a combination of local groundwater and surface water purchased from the Metropolitan Water District of Southern California. The 2015 water usage for the Rancho Dominguez Water District was roughly 25 million gallons of water per day (MGD).

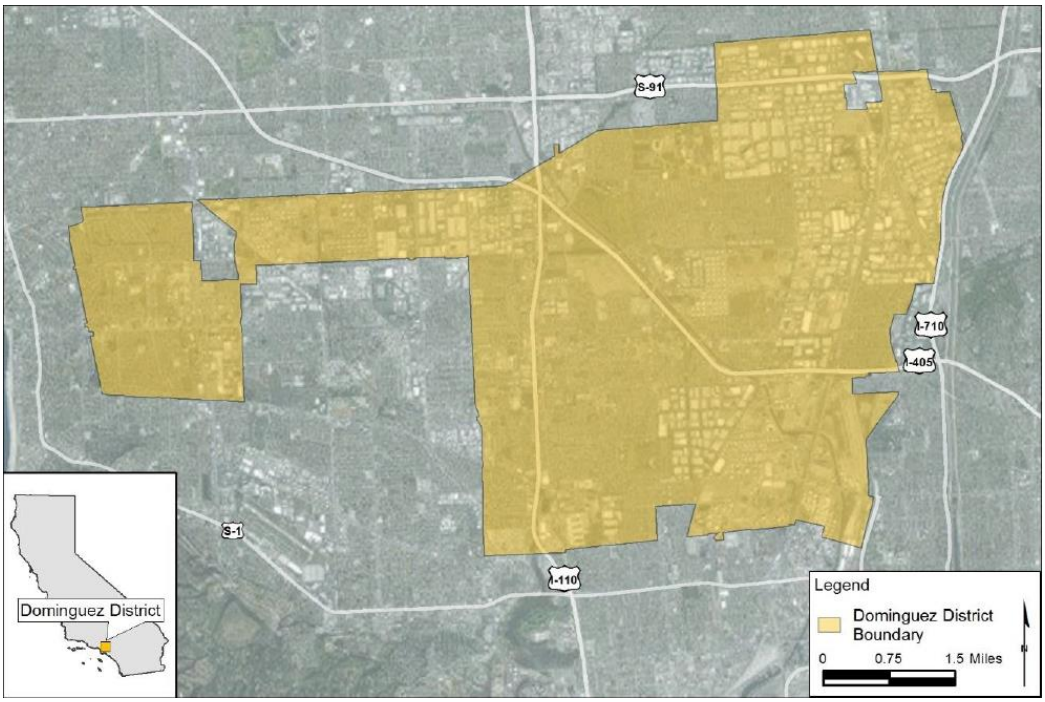

Figure 1.1 Taken From Dominguez District Conservation Master Plan: 2016-2020 (2015). Figure shows Service Area for Rancho Dominguez District.

Figure 1.1 shows the District boundaries. The district encompasses a total of 35 square miles. The 0.63 square miles that make up the Specific Plan Area are fully encompassed within this boundary (California Water Service, 2015). Information regarding the source of water provided by the District is described below.

1.4 Water Resources

The breakdown of water supply for the Rancho Dominguez District of the California Water Service is shown below in Figure 1.2.

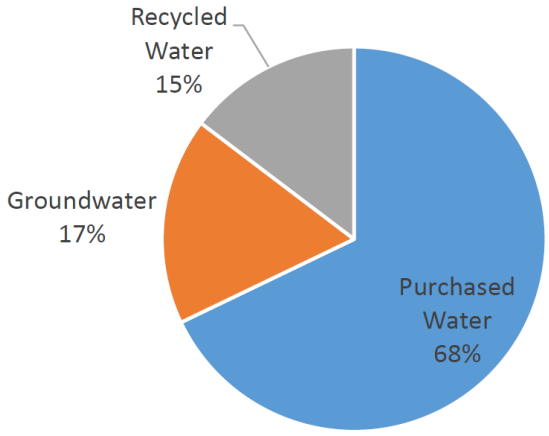

Figure 1.2 Taken from 2015 Urban Water Management Plan (2016). Figure shows breakdown of provided water from the past 5 years.

Historical yearly water usage for the District and the breakdown of the water source are shown in Figure 1.3. Historical demand is shown in acre-feet, but the range of usage since 1992 is between 26 and 36 MGD.

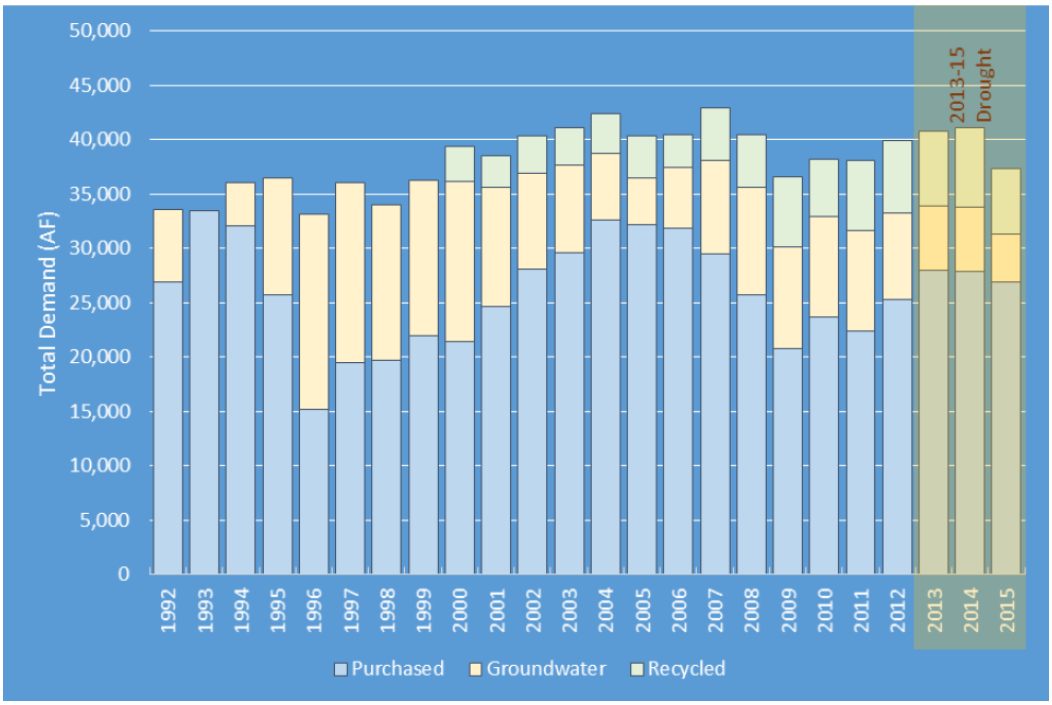

Figure 1.3 Taken From Dominguez District Conservation Master Plan: 2016-2020 (2015). Figure shows breakdown, by year, of supplied water by source.

Groundwater

Groundwater represented 17% of all water distributed in the District between the years of 2011 to 2015. Nine active wells provide water supply for the District. The California Water Service Urban Water Management Plan relies on groundwater to supply 10 – 25% of all supplied water. Reliance on groundwater has decreased in the most recent years due to drought conditions

Purchased Water

Purchased water represented 68% of all water distributed in the District between the years of 2011 to 2015. Purchased water was provided from treated water sourced from the Colorado River through four feeders of the West Basin Municipal Water District. The rated capacity of the purchased water feeders totals 72,000 gpm or 103.68 MGD.

Recycled Water

Recycled water represented 15% of all water distributed in the District between the years of 2011 to 2015. The recycled water was provided through West Basin, a separate water supplier. Although no recycled water lines are located in the Specific Plan Area, as shown in Figure 1.4, West Basin does provide water to the District, so future expansion efforts to use recycled water to mitigate potable water use could be explored.

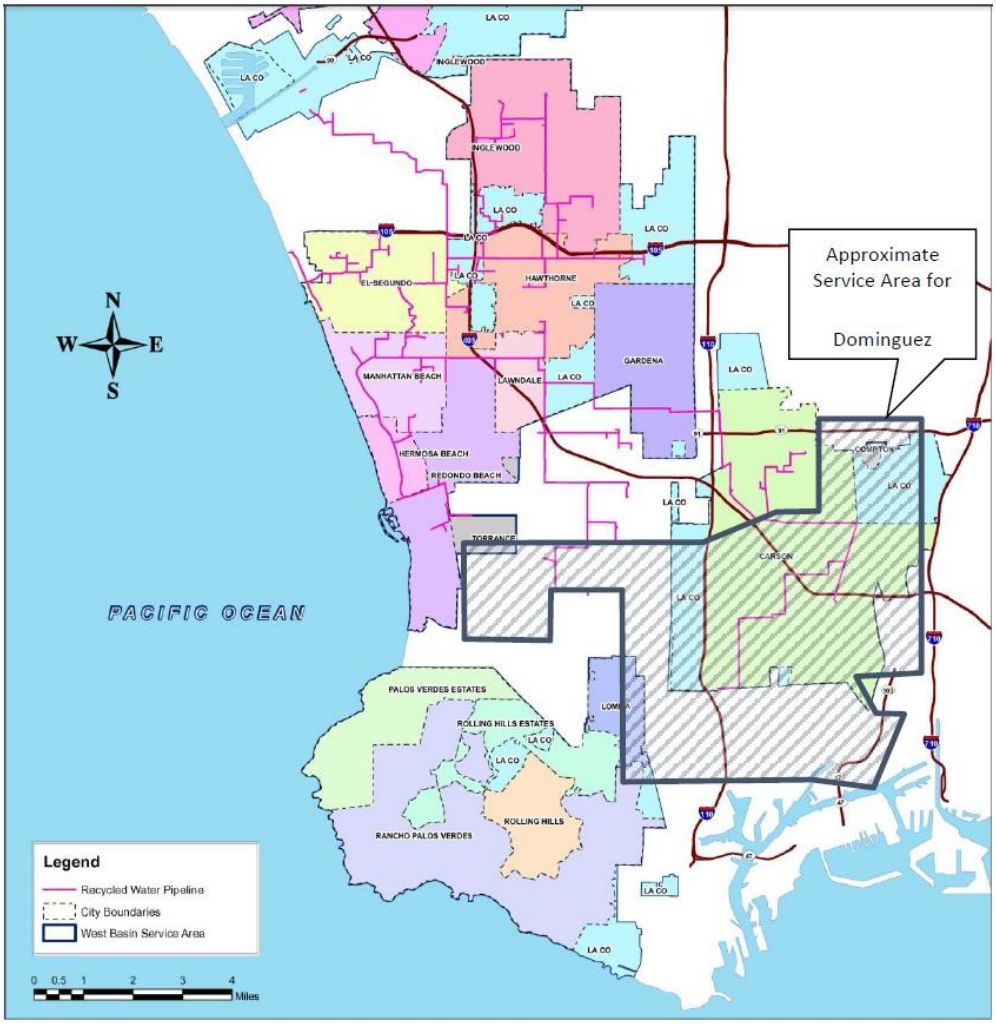

Figure 1.4 Taken From Dominguez District Conservation Plan 2016-2020 (2015). Figure shows recycled water pipelines (purple) from West Basin overlapped with the Dominguez District Service Area. The West Carson Area (Light Blue on the West side of Highway 110) does not have service currently but could be used for planning purposes in the future.

1.5 Methodology

The water systems analysis evaluates the impact of the proposed Specific Plan on both the supply of water for the Specific Plan area, as well as the water distribution system and its physical capacity to transport and supply water to the new proposed development identified in the Specific Plan.

Water demand levels were calculated using the demand forecasts identified in the 2015 Urban Water Management Plan. The forecast water demand considers changes in development and population within the Specific Plan area for single-family residences and multi-family residences, as well as for commercial, industrial, and institutional land uses.

The proposed land use changes from the Specific Plan include an influx of new households on the north end of Carson Street and the east side of Vermont Avenue around the Harbor-UCLA Medical Center, causing an increase in water flow. Additionally, an increase in water flow is also expected as a result of the proposed development on both sides of Vermont Avenue south of 220th Street.

The water systems analysis also included an evaluation of pipeline flow, which considered current pipe sizes and conditions within the Specific Plan Area. The water main service line in the area is the 33" and 24" pipe along Carson Street coming from the east. Using the design criteria from similar water services in the area, The Design Criteria for Water Distribution Systems from Western Municipal Water District, a worst case scenario for water service demand with buildout of the Specific Plan land uses was determined following these guidelines:

- 200 gallons per day (GPD) per person
- Maximum Daily Demand (MDD) of 1.75x Average Daily Demand (ADD)
- Peak factor of 3x ADD
- Maximum headloss in the pipe not to exceed 3.5 feet per 1000 feet of water pipeline

The pipeline flow was analyzed against these parameters. The ADD increases from 911,500 gallons with an MDD of 1,595,125 gallons to an ADD of 2,133,900 gallons with an MDD of 3,734,325 gallons. The two largest areas associated with planning zone West Carson Residential 1 have no need to increase capacity of service lines because the changes associated with these zones decrease flow to the areas.

The 14" pipe from West Carson Street to West 220th Street along Vermont Avenue is forecast to incur a dramatic increase in flow and would require resizing per these parameters. To meet the requirements of these parameters, the pipeline would require resizing to at minimum a 20" pipe. South from 220th Street to 223rd Street along Vermont Avenue, the 14" pipeline is near the headloss threshold. The flow rate north from West Carson Street to West 214th Street is split between two lines: an 8" pipe along Vermont Avenue, and a 16" along Menlo Avenue. Depending on the locations of the planned households and which distribution line supplies the water, one or both of these lines will need to be replaced. Without knowing flow into each pipeline, exact sizing cannot be recommended at this time.

Figure 1.5 highlights the general location of these water system impacts.

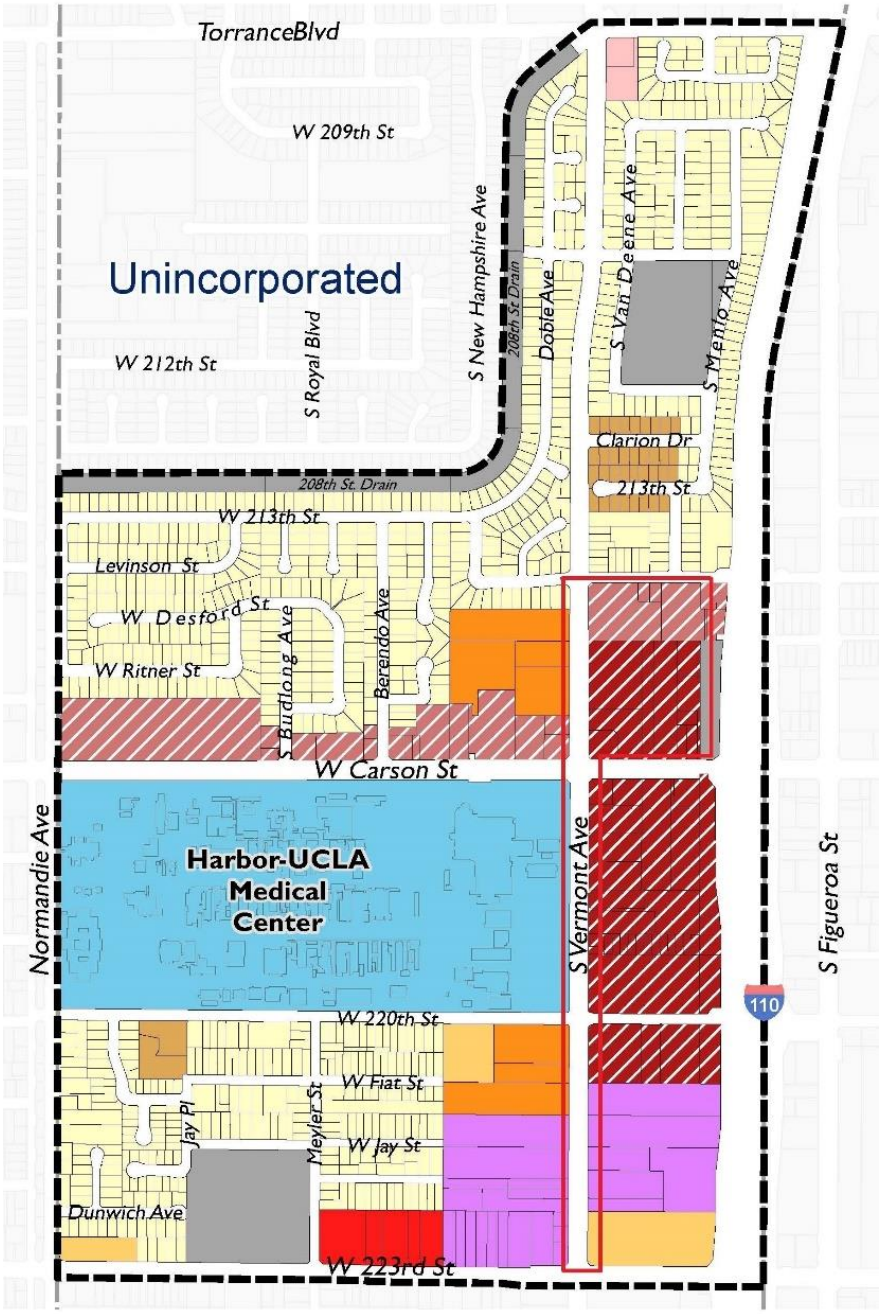

Figure 1.5 Water system impact locations.

A recent fact sheet from the California Water Board titled “August 2015 Statewide Conservation Data” shows that the average flow in the South Coast Hydrologic Region has decreased significantly to roughly 100 gallons per capita per day. Using this flow, with an assumption that water conservation measures such as low water use toilets, low flow showerheads, watering lawns and gardens in morning or evening hours, improved leak detection and repair, etc., are in place to maintain a low average daily demand, there is no pipe that exceeds the threshold of headloss per 1,000 feet noted above. The water provider, California Water Service, will have to holistically analyze and confirm the recommendations on a project-by-project basis as new development occurs.

The implementation of the proposed Specific Plan would have a potentially significant impact on water delivery systems within the Specific Plan area. Specific locations, the level of impact, and potential mitigations are identified below. Proposed mitigation measures to respond to these significant impacts would reduce potential impacts to water facilities to a level that is less than significant.

- Vermont Avenue – 14" pipe running between West Carson Street and West 220th Street – suggested to replace with a 20" pipe
- Vermont Avenue – 14" pipe running between 220th Street and 223rd Street – near headloss threshold, suggested to monitor for potential need for upsizing to 20" pipe
- Vermont Avenue – 8" pipe running between West 214th Street and West Carson Street – specific – suggested to monitor for potential upsizing depending on location of new development north of West Carson Street
- Menlo Avenue - 16" pipe running between West 214th Street and West Carson Street – suggested to monitor for potential upsizing depending on location of new development north of West Carson Street

The observed conservation measures in place would reduce the anticipated impact resulting from implementation the Specific Plan to a level that is less than significant. However, because these measures are voluntary and not mandatory, this analysis cannot assume that the measures will be implemented or maintained throughout the duration of the plan horizon.

1.6 Current and Projected Water Supply and Demand

Current and Projected Water Supply

Table 1-1 summarizes the estimated amount of water available by source for the District from 2020 through 2040. Data from this table comes from the Urban Water Management Plan.

Reasonably Available Water (acre feet)					
	2020	**2025**	**2030**	**2035**	**2040**
Purchased	16,897	16,897	16,897	16,897	16,897
Groundwater	17,899	17,804	17,919	18,074	18,274
Recycled Water	7,950	8,800	9,700	10,700	11,800
Total Water Available	42,746	43,501	44,516	45,671	46,971

Table 1-1: Available Water Supply Taken From 2015 Urban Water Management Plan. The Table lists available water in the district by water type.

The water supply information shown in Table 1.1 results in a total supply by year of the following:

- 2020 – 42,746 acre feet
- 2025 – 43,501 acre feet
- 2030 – 44,516 acre feet
- 2035 – 45,671 acre feet
- 2040 – 46,971 acre feet

Current and Projected Water Demand

Table 1-2 summarizes the estimated amount of water demand for the District from 2020 through 2040. Data from this table comes from the Urban Water Management Plan.

Retail Water Demand (acre feet)					
	2020	2025	2030	2035	2040
Potable and Raw Water	31,508	31,413	31,528	31,683	31,883
Recycled Water Demand	11,238	12,088	12,988	13,988	15,088
Total Water Demand	42,746	43,501	44,516	45,671	46,971

Table 1-2: Retail Water Demand in Acre Feet taken from 2015 Urban Water Management Plan.

1.7 Conclusion

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

XVII-b Would require or result in the construction of new water or wastewater facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

XVII-d Would not have sufficient water supplies available to serve the project from existing entitlements and resources and new and/or expanded entitlements would be needed.

(California Environmental Quality Act, 1970, updated 2016)

1.7.1 Water Facilities Impact Assessment

Per CEQA, this analysis seeks to assess the potential for the proposed plan to cause a significant environmental impact under the regulation noted below:

XVII-b Would require or result in the construction of new water or wastewater facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

The analysis highlighted four water mains which have the potential to be over capacity based on the design criteria listed above. At this time, the final layout of the Specific Plan area with regards to exact flows is not known and can be monitored and evaluated during design stages of the full buildout.

1.7.2 Water Supply Impact Assessment

Per CEQA, this analysis seeks to assess the potential for the proposed plan to cause a significant environmental impact under the regulation noted below:

XVII-d Would not have sufficient water supplies available to serve the project from existing entitlements and resources and new and/or expanded entitlements would be needed.

The analysis considers the full buildout of the Specific Plan area, which is anticipated to occur over a 20 year time period, aligning with a projected buildout year of 2035, which still remains within the bounds of the anticipated growth in overall demand for the District between 2015 and 2035.

Population within the Specific Plan area is forecast to grow from 3,878 to 9,990 people due to the proposed land use changes identified in the Specific Plan. The growth in population is expected to impact overall water demand. Under the current 20x2020 reduction program, using an overall demand of 173 gallons per capita per day (GPCD) would result in an increase in water demand of 1,164 acre feet per year.

Within the Specific Plan area, annual water demand would increase from 739 to 1,903 acre feet. This amount is within the growth range expected for water demand in the 2015-2035 water table listed above. If the 20x2020 reduction is not met and water demand remains at the 2015 target levels (200 GPCD), new growth resulting from the Specific Plan would result in an increase in demand of 1,283 acre feet per year.

Both of these demand growth figures fall within the anticipated demand growth shown in the 2015 Urban Water Management Plan. The increase in flow could require an increase in purchased water supplied compared to future demand plans. Infrastructure is in place to deliver purchased water, however, it would

require a new contract to purchase larger amounts. Impacts to water supply resulting from the proposed Specific Plan are anticipated to be less than significant.