WALKER CONSULTANTS

MEMORANDUM

TASK 4.6 ECONOMIC ANALYSIS

37-009377.00

DATE:	August 3, 2022
TO:	Alyson Stewart
COMPANY:	Department of Regional Planning County of Los Angeles
ADDRESS:	320 W Temple Street
CITY/STATE:	Los Angeles, CA
COPY TO:	Bruce Durbin
FROM:	Bernard Lee, Chrissy Mancini Nichols
PROJECT NAME:	LA County Residential Parking Study
PROJECT NUMBER:	37-009377.00

707 Wilshire Blvd., Suite 3650
Los Angeles, CA 90017

213.488.4911
walkerconsultants.com

The following memorandum summarizes the tasks associated with *Task 4.6 Economic Analysis* in the LA County Residential Parking Study. The memorandum provides an overview of the tasks, the Walker team's methodology utilized to complete the tasks, and findings and conclusions. To assist Walker with the economic analysis, Walker engaged Bay Area Economics ("BAE"), an award-winning urban economics and public-benefit real estate development consulting practice founded in 1986.

OVERVIEW

The purpose of Task 4.6 is to determine and quantify how potential changes to parking design requirements and the number of parking spaces provided for multi-family housing may translate into potential increases in the production of housing within the study areas and/or potential increases in affordability of the housing that is developed in the study areas.

The goals of the analysis are to determine:

- The impact of existing minimum parking requirements on potentially restricting or inhibiting the development of housing units. This may be due to parcel size constraints that impede functional parking layouts and/or the inability to fulfill the total code-required number of parking spaces, therefore leaving the site vacant or underdeveloped.
- The number of additional housing units that could be constructed as a result of reducing or eliminating the minimum number of required parking spaces.
- The cost savings associated with building fewer parking spaces and how these cost savings could reasonably translate into the construction of additional units or more affordable units.

The economic analysis considers the building envelope of each site and the density permitted under the zoning code compared to various parking provision scenarios to determine the potential for developing market-rate and Affordable housing units based on assumed land costs, rental rates, building construction costs, and parking construction costs.

METHODOLOGY

The Walker team's analysis encompassed the following specific tasks.

- **Site selection:** Identification of representative sites in unincorporated County areas
- **Scenario development**: Creation of housing and parking scenarios to analyze and assess the potential for additional housing production and/or improved housing affordability. Scenarios were analyzed based on the following factors:
    - Typical sites in the County that were identified during the site selection task

  - Hypothetical development scenarios that incorporated market conditions
  - A range of parking supply provision assumptions
- **Parking design**: Potential adjustments to current County parking design guidelines that would improve the feasibility of housing development on the typical sites and creation of illustrative parking supply concepts for the sites

These tasks culminated in an analysis of potential impacts on housing production and affordability under different site size, housing product type, and parking scenarios.

SITE SELECTION PROCESS

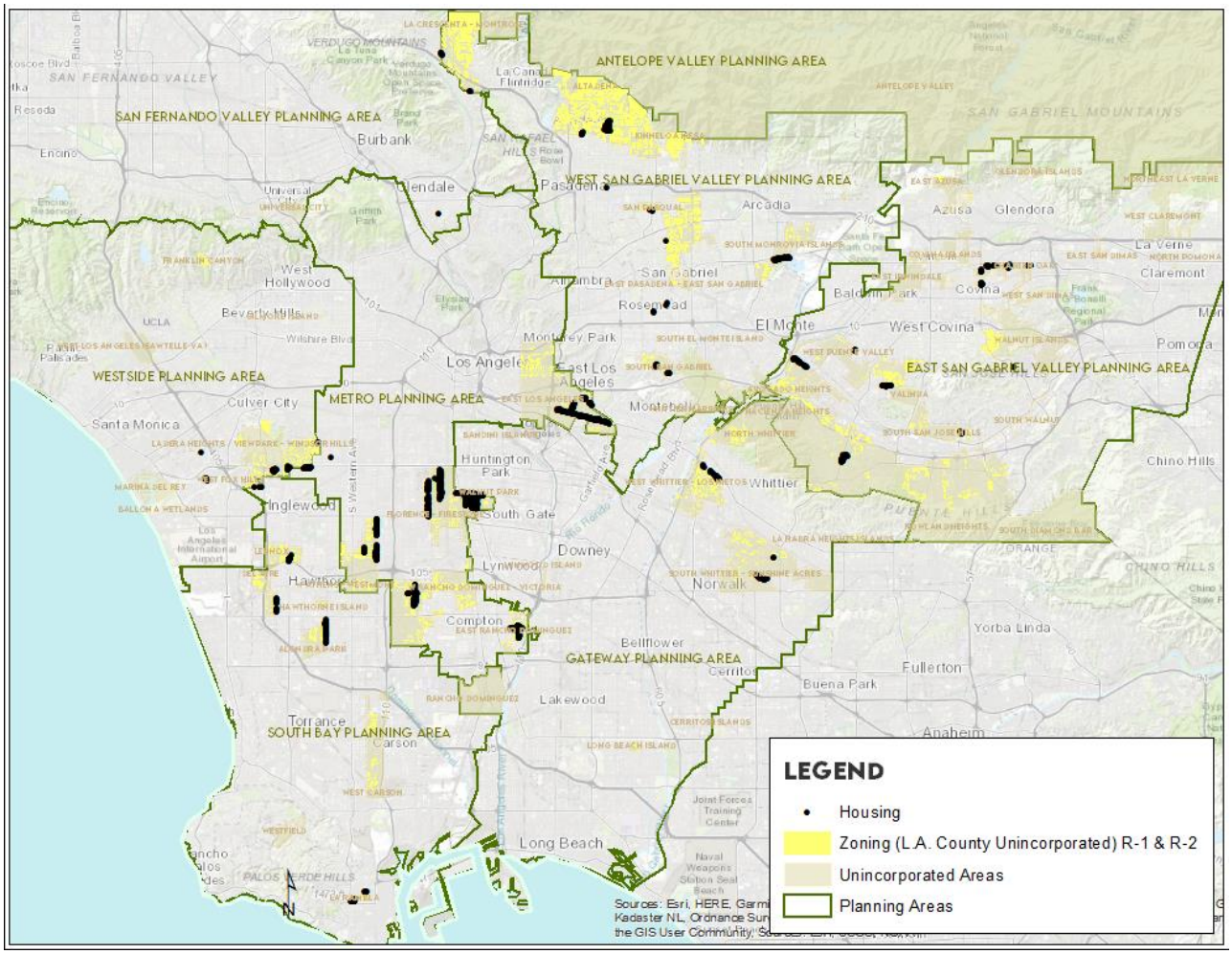
To bring a tangible element to the economic analysis, in which we look at the actual types, dimensions, and zoning of parcels from which developers of housing in the County typically must select, Walker identified vacant parcels in various communities across the County as case studies for the economic analysis. Walker selected ten sites to determine and quantify how changes to the County's parking design requirements and number of the parking spaces required for multi-family housing may translate into potentially increased housing production and/or housing affordability. To determine these sites, Walker conducted a multi-step process.

Step 1: High-Level Site Selection Criteria
The first step in determining sites for evaluation was to identify high-level site selection criteria. The criteria identified include:

- **Occupancy**: Whether the property is vacant or underutilized.
- **Zoning:** The property zoning permitted under Title 22 of the Los Angeles County Code.
- **Zoning Proximity:** The proximity to Zones R-1 and R-2, which are low-density residential zones. Later in the document we explain why the proximity to R-1 and R-2 zones is important for the analysis.
- **Transit Proximity:** The proximity to transit, which may impact both parking requirements and parking needs.
- **Parking Reduction:** Whether the site qualifies for reductions in the number of required parking spaces when based on the number of bicycle parking spaces provided.
- **Area:** What LA County Planning Area is the property located:
  - Santa Clarita Valley
  - Westside
  - Metro
  - West San Gabriel Valley
  - East San Gabriel Valley
  - South Bay
  - Gateway

Step 2: Site Selection Review: Multi-Family Zoning
Walker first reviewed the County's 111 public and privately held vacant parcels listed in LA County's Housing Element Appendix Table B to identify those parcels located in unincorporated areas zoned for multi-family residential use and suitable for evaluation. In total 93 vacant parcels were considered for review as shown in Figure 1 on page 3.

Figure 1: Los Angeles County Vacant Parcels Located in Areas Zoned for Multi-Family Housing Identified for Further Review



Source: LA County, Walker Consultants, 2022

Step 3: Defined Site Selection Criteria Metrics

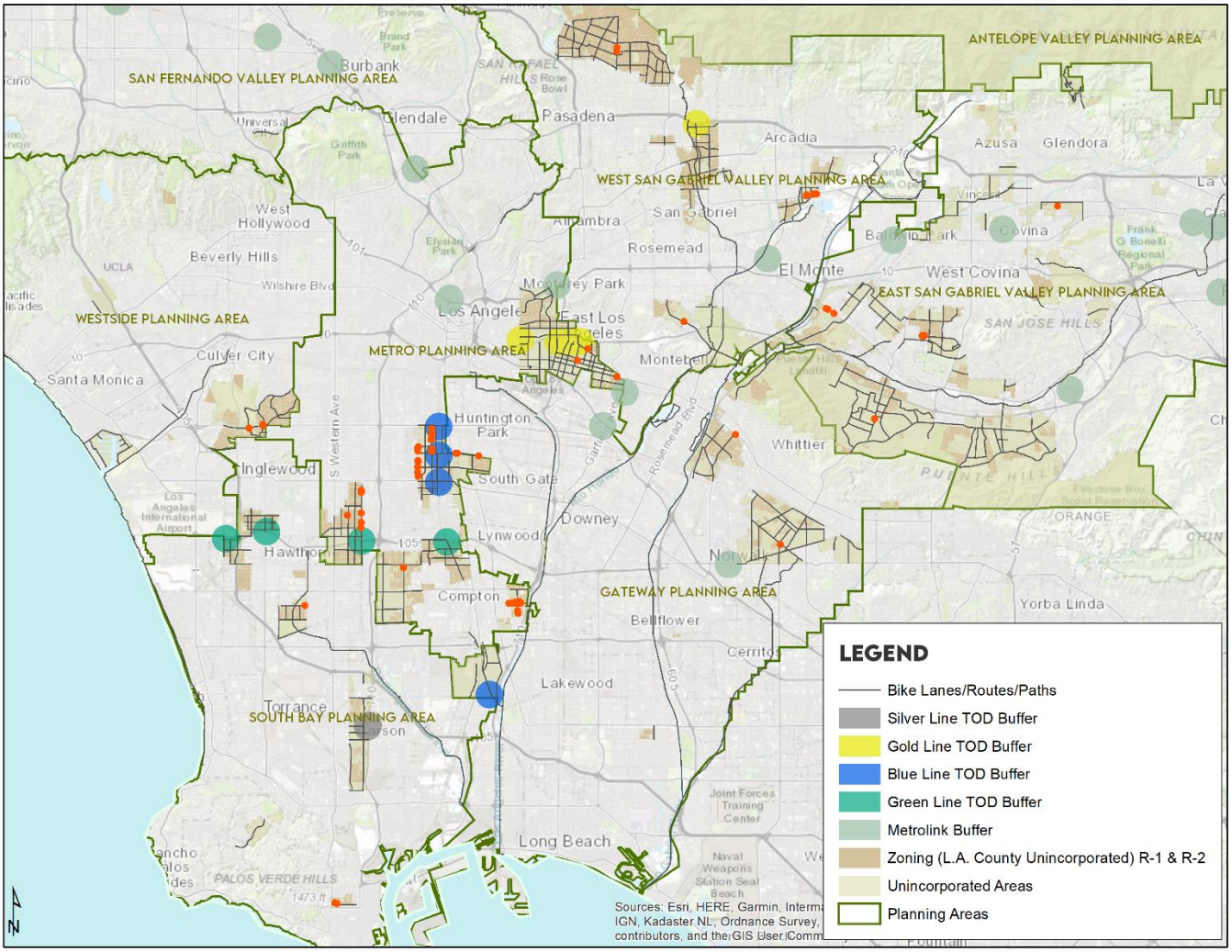
Walker then defined site selection criteria metrics for each of the high-level criteria and further refined the site selection based on the following:

- **Vacant or Underutilized Property:** Is the property vacant and available for development
- **Zoning:** What is the allowable Floor Area Ratio (FAR) under Title 22. The goal is to choose sites that permit higher FARs and have more development potential. The zoning designations included MXD, C-2, C-3, and R-4.
- **Zoning Proximity:** Is the site located adjacent to Zone R-1 and R-2, which are low-density residential zones and require larger setbacks on adjacent parcels. If the property is located within 1/16 of a mile in proximity to these zones, it was eliminated.
- **Transit Proximity:** Is the site located near high-capacity transit (i.e., Bus Rapid Transit stations, Metro Rail stations). This includes vacant parcels within a transit-oriented development area and within a half-mile of a Metrolink station.

- **Parking Reduction:** Is the site located 1/16 of a mile from an area eligible for a reduction in parking requirements when providing bicycle parking. The County allows for a parking reduction if a project is located
    a) On or adjoining a lot or lots containing an existing or proposed bicycle path, lane, route, or boulevard, as so designated in the County Bicycle Master Plan; and
    b) Within one-half mile of a transit stop for a fixed rail or bus rapid transit or local bus system along a major or secondary highway.

A review of the 93 vacant parcels identified as zoned for multi-family residential were mapped according to these defined site selection criteria metrics. In total, Walker identified 77 sites for additional review based on the criteria metrics as shown in Figure 2.

Figure 2: Los Angeles County Vacant Parcels Identified for Additional Review Based on Defined Criteria Metrics

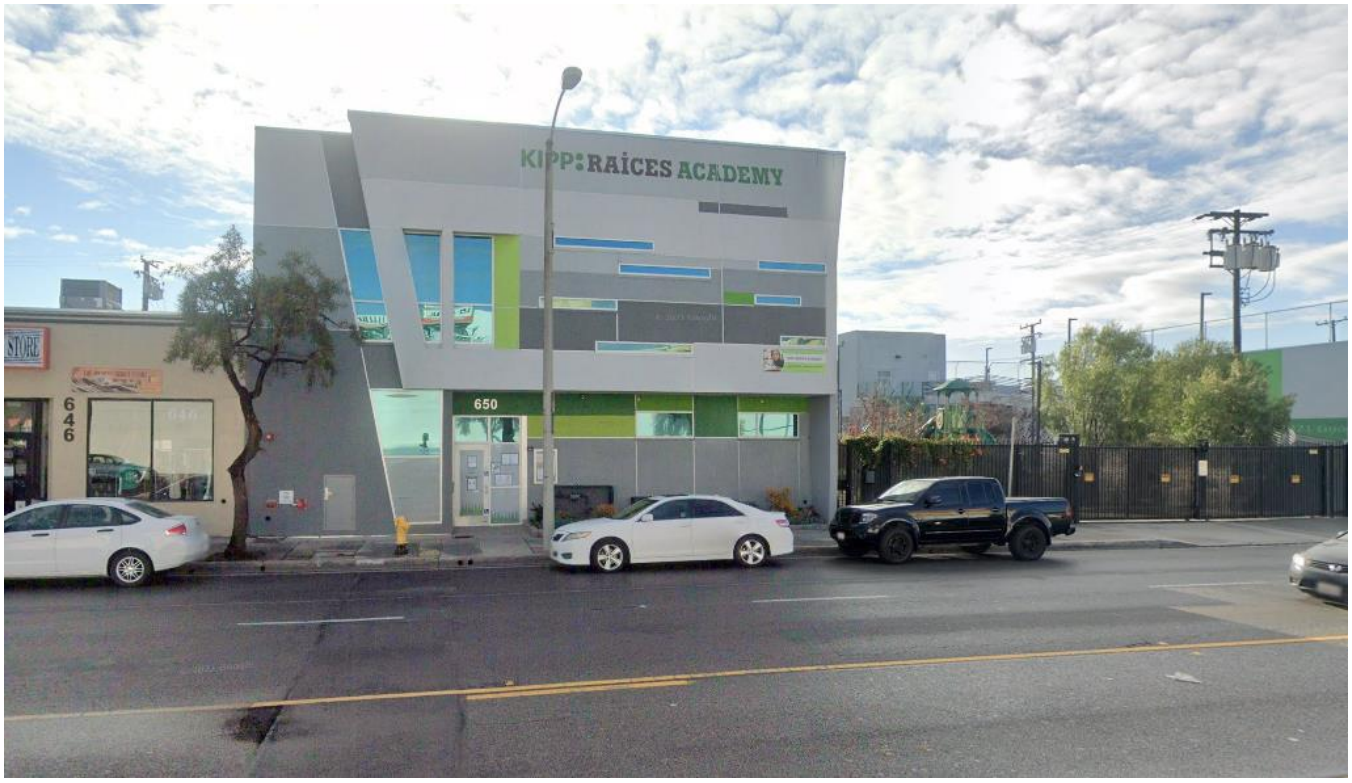


Source: LA County, Walker Consultants, 2022.

Step 4: Site Analysis
Walker then reviewed satellite images for the 77 sites to identify ten parcels suitable for economic evaluation. The goal was to identify a mix of parcel sizes, configurations, and locations. This review included confirmation that the properties were actually vacant, not adjacent to an area zoned for R-1 or R-2, proximity to walkable amenities (such as a grocery store, schools, and jobs), and proximity to transit (such as on a bus or Metro Rail stations).

A review of satellite images found that of the 77 sites, 29 were either not vacant or duplicates of one of the other 77 addresses. For example, 650 S. Atlantic Avenue is listed in the County's database as vacant, but the satellite image review shows that it is developed as shown in Figure 3.

Figure 3: 650 South Atlantic Avenue



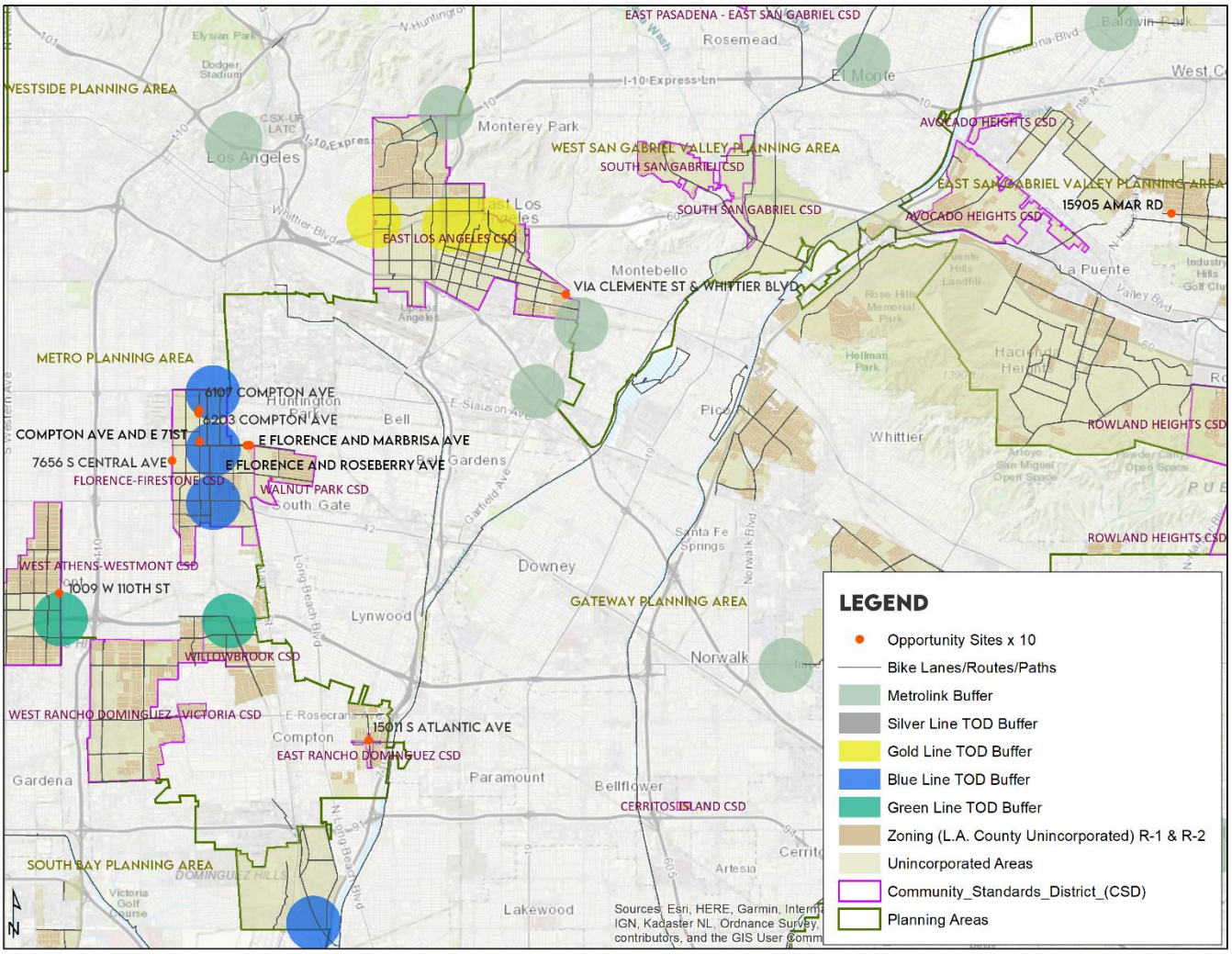
Source: Google Image Capture March 2021.

Based on this site analysis, ten sites were identified as case studies for economic evaluation. The ten sites are shown in the map and images in Figure 4 on page 6.

- **6203 Compton Avenue:** Smaller parcel with new multi-family development across the street
- **7656 and 7662 South Central Avenue:** Smaller parcel, on The Link – Florence Firestone route, walkable retail including a grocery store
- **East Florence Avenue and Roseberry Avenue:** Larger parcel with walkable retail amenities
- **6107 Compton Avenue:** Smaller parcel that provides an example of a challenging development, walkable to retail including a grocery store
- **Compton Avenue and East 71st Street:** Smaller parcel near several Metro transit lines

- **1009 West 110Th Street:** Smaller parcel near several Metro transit lines and walkable to retail including a grocery store
- **East Florence Avenue and Marbrisa Avenue:** Larger parcel near several Metro transit lines and walkable to retail including a grocery store
- **6554 Whittier Boulevard at Via Clemente:** Larger parcel near several Metro transit lines and walkable to retail including a grocery store and department store
- **15011 South Atlantic Avenue:** Larger parcel walkable to retail including a grocery store
- **15905 Amar Road:** Smaller parcel that provides an example of a challenging development, walkable to retail

Figure 4: Sites Identified for Economic Evaluation



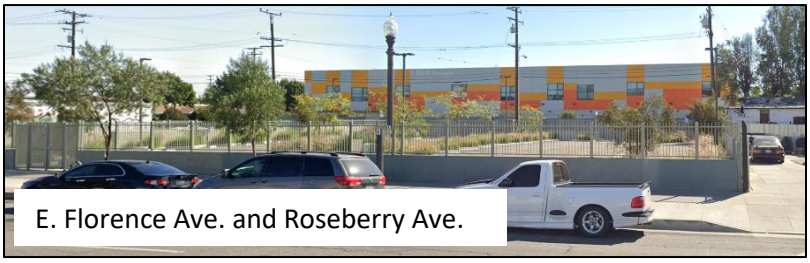
Source: LA County, Walker Consultants, 2022.

6203 Compton Ave.

15905 Amar Rd.

7656 S. Central Ave.

15011 Atlantic Ave.

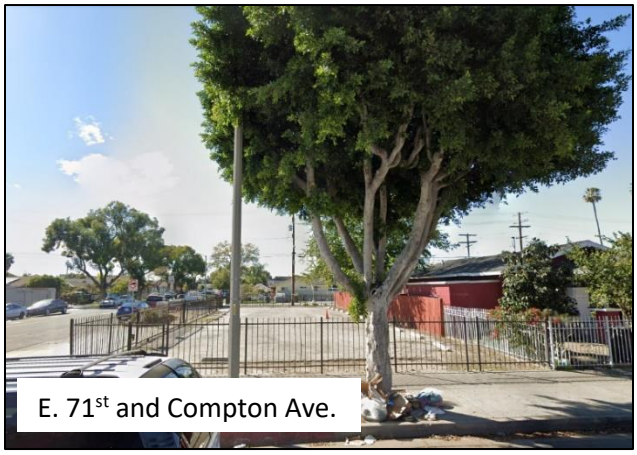


E. Florence Ave. and Roseberry Ave.

1009 W. 110th St.

6107 Compton Ave.

6554 Whittier Blvd. at Via Clemente



E. 71st and Compton Ave.

E. Florence Ave. & Marbrisa Ave.

Step 5: Typical Representative Sites
Based on this process, two typical site types were selected that are representative of the ten sites. The first site is 45 feet by 120 feet, totaling 5,400 square feet, and the other 85 feet by 170 feet, totaling 14,450 square feet. Each site is assumed to be located mid-block with alley access available.

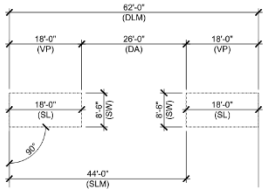
PARKING DESIGN CONCEPT EVALUATION

Three parking design concepts were developed for each site. Specific details of these concepts follow.

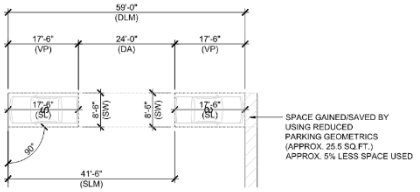
- These concepts all assumed a self-park configuration, which Walker strongly recommends. Walker only recommends automated/mechanical solutions to assist with moving parked vehicles if a site's geometry does not support a self-park design. Mechanical and some automated solutions may also be challenging for some residents to operate themselves.
- For each concept, layouts were developed using current County code parking standards as well as Walker recommended parking design standards (shown in Figure 5 on page 9).
- Note that applying Walker standards to these concept designs in some cases were more efficient, but due to the parcel sizes observed, did not increase the parking space count, for the most part. However, they do allow for more space to support aspects that are refined through the development process, such as vertical circulation, structural support, ADA-accessible parking spaces, and EV charging spaces. Utilizing the Walker standards can also create more space that may be dedicated to building amenities.
- For the small 45-foot by 120-foot site, all three parking design concepts only support a single level of parking, assumed to be at ground level. For the large 85-foot by 170-foot site, two parking design concepts only support a single level of parking, assumed to be at ground level, while one parking design concept supports multiple levels, which we've assumed as a ground level and second level above.

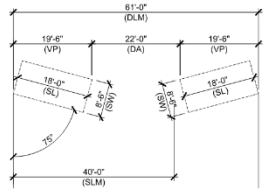
Figure 6 on page 10 details the three 45-foot by 120-foot site parking design concepts, using Walker parking design standards, which yield an estimated 16, 10, and 11 parking spaces from left to right and denoted as A, B, and C. Concept A would be a mix of nine standard and seven compact stalls, while concepts B and C would have all standard stalls. Note, that the estimated space counts indicated for concepts A, B, and C assume the removal of some parking to accommodate a small lobby and elevators/stairs for vertical circulation, denoted by the red blocked out areas.

Figure 5: Walker's Recommended Parking Design Standards

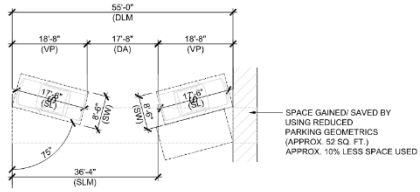


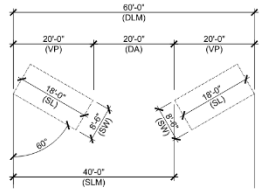
PARKING GEOMETRICS - COMPARISON 8'-6" 90° STANDARD SPACE			
	LA COUNTY	WALKER LOS 2020 (US TABLES)	LOS 85TH PERCENTILE DESIGN VEHICLE (6'-7" x 16'-10")
STALL WIDTH (SW)	8'-6" MIN.	8'-6" MIN.	C
STALL LENGTH (SL)	18'-0" MIN.	17'-6" MIN.	
PARKING ANGLE	90	90	
VEHICLE PROJECTION (VP)	18'-0" MIN.	17'-6" MIN.	
DRIVE AISLE WIDTH (DA)	26'-0" MIN.	24'-0" MIN.	C
SINGLE LOADED BAY MODULE (SLM)	44'-0" MIN.	41'-6" MIN.	C
DOUBLE LOADED BAY MODULE (DLM)	62'-0" MIN.	59'-0" MIN.	C



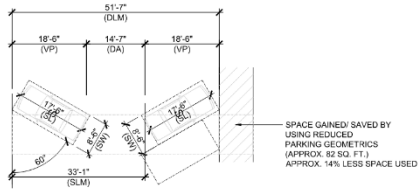


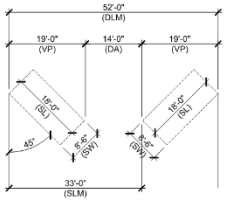
PARKING GEOMETRICS - COMPARISON 8'-6" 75° STANDARD SPACE			
	LA COUNTY	WALKER LOS 2020 (US TABLES)	LOS 85TH PERCENTILE DESIGN VEHICLE (6'-7" x 16'-10")
STALL WIDTH (SW)	8'-6" MIN.	8'-6" MIN.	C
STALL LENGTH (SL)	18'-0" MIN.	17'-6" MIN.	
PARKING ANGLE	75	75	
VEHICLE PROJECTION (VP)	.	18'-8" MIN.	
DRIVE AISLE WIDTH (DA)	.	17'-8" MIN.	C
SINGLE LOADED BAY MODULE (SLM)	.	36'-4" MIN.	C
DOUBLE LOADED BAY MODULE (DLM)	.	55'-0" MIN.	C



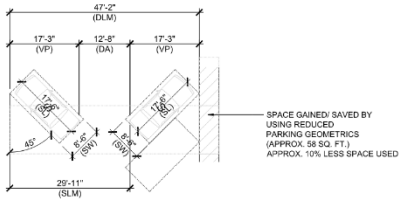


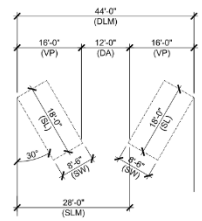
PARKING GEOMETRICS - COMPARISON 8'-6" 60° STANDARD SPACE			
	LA COUNTY	WALKER LOS 2020 (US TABLES)	LOS 85TH PERCENTILE DESIGN VEHICLE (6'-7" x 16'-10")
STALL WIDTH (SW)	8'-6" MIN.	8'-6" MIN.	C
STALL LENGTH (SL)	18'-0" MIN.	17'-6" MIN.	
PARKING ANGLE	60	60	
VEHICLE PROJECTION (VP)	20'-0" MIN.	18'-6" MIN.	
DRIVE AISLE WIDTH (DA)	20'-0" MIN.	14'-7" MIN.	C
SINGLE LOADED BAY MODULE (SLM)	40'-0" MIN.	33'-1" MIN.	C
DOUBLE LOADED BAY MODULE (DLM)	60'-0" MIN.	51'-7" MIN.	C



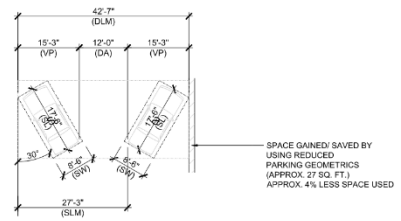


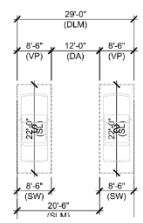
PARKING GEOMETRICS - COMPARISON 8'-6" 45° STANDARD SPACE			
	LA COUNTY	WALKER LOS 2020 (US TABLES)	LOS 85TH PERCENTILE DESIGN VEHICLE (6'-7" x 16'-10")
STALL WIDTH (SW)	8'-6" MIN.	8'-6" MIN.	C
STALL LENGTH (SL)	18'-0" MIN.	17'-6" MIN.	
PARKING ANGLE	45	45	
VEHICLE PROJECTION (VP)	19'-0" MIN.	17'-3" MIN.	
DRIVE AISLE WIDTH (DA)	14'-0" MIN.	12'-8" MIN.	C
SINGLE LOADED BAY MODULE (SLM)	33'-0" MIN.	33'-1" MIN.	C
DOUBLE LOADED BAY MODULE (DLM)	52'-0" MIN.	47'-2" MIN.	C



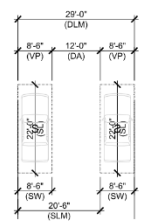


PARKING GEOMETRICS - COMPARISON 8'-6" 30° STANDARD SPACE			
	LA COUNTY	WALKER LOS 2020 (US TABLES)	LOS 85TH PERCENTILE DESIGN VEHICLE (6'-7" x 16'-10")
STALL WIDTH (SW)	8'-6" MIN.	8'-6" MIN.	C
STALL LENGTH (SL)	18'-0" MIN.	17'-6" MIN.	
PARKING ANGLE	30	30	
VEHICLE PROJECTION (VP)	16'-0" MIN.		
DRIVE AISLE WIDTH (DA)	12'-0" MIN.		C
SINGLE LOADED BAY MODULE (SLM)	28'-0" MIN.		C
DOUBLE LOADED BAY MODULE (DLM)	44'-0" MIN.		C



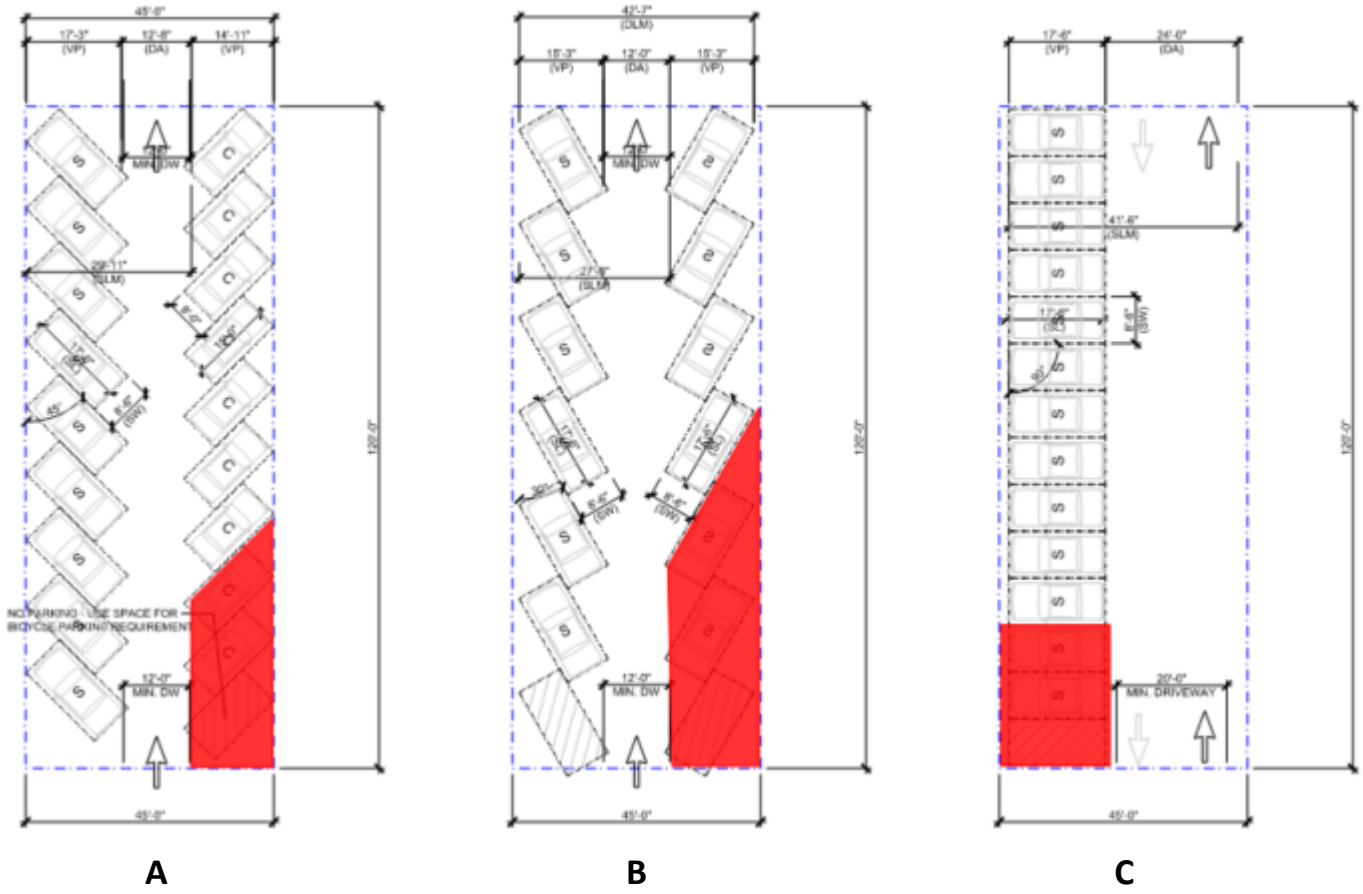


PARKING GEOMETRICS - COMPARISON 8'-6" 0° STANDARD SPACE			
	LA COUNTY	WALKER LOS 2020 (US TABLES)	LOS 85TH PERCENTILE DESIGN VEHICLE (6'-7" x 16'-10")
STALL WIDTH (SW)	8'-6" MIN.	8'-6" MIN.	C
STALL LENGTH (SL)	18'-0" MIN.	22'-0" MIN.	
PARKING ANGLE	0	0	
VEHICLE PROJECTION (VP)	8'-6" MIN.	8'-6" MIN.	
DRIVE AISLE WIDTH (DA)	.	12'-0" MIN.	C
SINGLE LOADED BAY MODULE (SLM)	.	20'-6" MIN.	C
DOUBLE LOADED BAY MODULE (DLM)	.	29'-0" MIN.	C



Source: Walker Consultants, 2022.

Figure 6: 45-foot by 120-foot Site Parking Design Concepts (with Walker Parking Design Standards)



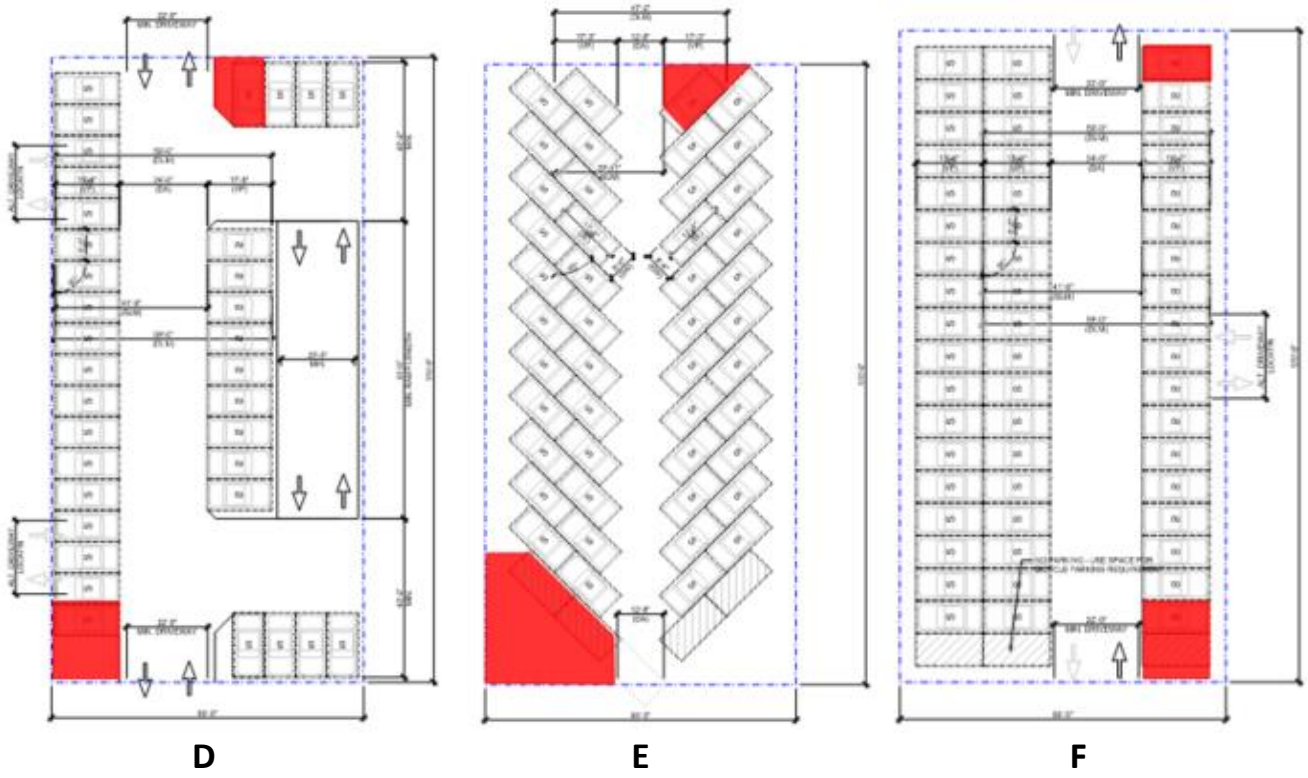
Source: Walker Consultants, 2022.

Figure 7 on page 11 details the 85-foot by 170-foot site parking design concepts, using Walker parking design standards, which yield an estimated 58, 45, and 52 parking spaces from left to right and denoted as D, E, and F.

- Concept D would support an estimated 33 standard spaces on ground level and 35 standard spaces on additional levels, either above or below.
- Concepts E and F both support only a single level of parking at ground level and have tandem spaces, limiting the flexibility in how spaces are allocated to residential units, or require a parking attendant to move vehicles. Concept E is estimated to serve up to 25 units without a parking attendant, while concept F is estimated to serve up to 34 units without a parking attendant.

Note, that the estimated space counts indicated for concepts D, E, and F assume the removal of some parking to accommodate a small lobby and elevators/stairs for vertical circulation, but given the conceptual nature of these designs, potential structural and ADA requirements were not specifically accounted for in this analysis.

Figure 7: 85-foot by 170-foot Site Parking Design Concepts (with Walker Parking Design Standards)



Source: Walker Consultants, 2022.

SCENARIOS ANALYZED

The Walker team's effort focused on analyzing the potential impacts on housing production and housing affordability for conceptual 100% market-rate and 100% Affordable housing developments on each of the two typical sites defined in the site selection process. Note the following regarding 80/20 market-rate/Affordable and senior housing.

- An 80/20 market-rate/Affordable mix ("80/20 mix") was not included as given the time and complexity associated with obtaining the bond financing for a project with an 80/20 mix, real estate developers only believe it is worthwhile to pursue an 80/20 mix for much larger projects, generally in the hundreds of units. Given the small site sizes identified in the site selection process, which are typical to vacant parcels in the County, the scale of projects on these sites is too small for developers to justify the effort required to obtain bond financing for an 80/20 mix.
- Senior housing was not specifically analyzed because the Walker team felt the most important consideration for housing targeted at an older market is the reduced parking need, which would be addressed in the 100% market-rate and 100% Affordable scenarios. In addition, senior housing is not a common housing type to develop, especially when considering the multiple sub-categories under senior housing such as assisted living, active adult, and Affordable.

Specific development, parking ratio, and program assumptions are detailed in the remainder of the section.

DEVELOPMENT ASSUMPTIONS

The housing developments modeled in the analysis followed County Mixed Use Development Zone (MXD) standards (code section 22.26.030) as the two sites are assumed to fall under MXD zoning (the sites are either zoned MXD currently or are slated to be zoned MXD per the Housing Element). The key assumptions utilized follow:

- No side or rear setback applied as property would not be immediately abutting an R-1 or R-2 property
- Height limit of 65 feet
- Maximum floor area ratio of 3.0, with parking areas not being considered floor area
- Minimum 10% of private or common recreational space within development
- Site needs like sidewalk and any required easement space in front along with garbage service considerations can be accommodated
- Housing units would be of wood frame construction on top of a concrete parking podium

PARKING RATIO ASSUMPTIONS

The Walker team developed a range of different assumptions about parking to be provided at market-rate and Affordable developments in the development scenarios. The intent was to model existing County code as well as reductions to the existing code. Note that the team did not explicitly incorporate the maximum 5% reduction allowed within the current code for bicycle parking as the reduction is minimal for the typical sites in this analysis and would not have an impact on the number of parking levels required. However, reductions for bicycle parking may be implied in some of the scenario assumptions. These parking ratio scenario assumptions are detailed below.

100% MARKET-RATE SCENARIOS

- **None** – no parking provided for any units
- **Low** – one (1.0) space per unit, regardless of unit type
- **Medium** – current County code (table 22.112.060-A) with reductions allowed in MXD
    - Studio: 1.125 per unit (1.5 with 25% reduction allowed in MXD)
    - 1-bed: 1.125 per unit (1.5 with 25% reduction allowed in MXD)
    - 2-bed or larger: 1.5 per unit (2.0 with 25% reduction allowed in MXD)
    - Visitor: 0.25 per unit (no reduction for MXD)
- **High** – current County code (table 22.112.060-A)
    - Studio: 1.5 per unit
    - 1-bed: 1.5 per unit
    - 2-bed or larger: 2.0 per unit
    - Visitor: 0.25 per unit

100% AFFORDABLE SCENARIOS

- **None** – no parking provided for any units
- **0.5 per unit** – 0.5 spaces per unit, consistent with Density Bonus assumptions

PROGRAM ASSUMPTIONS

The Walker team then developed a unit mix for each typical site (45-foot by 120-foot and 85-foot by 170-foot) – unit count by unit type and unit sizes for both the 100% market-rate and the 100% Affordable scenarios.

100% MARKET-RATE PROGRAM MIX

For the market-rate program mix, the team utilized available online data regarding apartment unit sizes and Census housing data to inform unit mix. As the smaller site was based on sites found largely in the Florence/Firestone area, the team utilized data from both unincorporated County and incorporated areas of South Los Angeles. The larger site was based on sites in unincorporated areas east of downtown Los Angeles and the team researched data from the San Gabriel Valley to inform the program on this site. The base market-rate program on each site maximized the building envelope available on each site as detailed in Table 1. Note that the average gross square feet per unit reflects a gross up of 20% applied to actual unit sizes to account for private or common recreational space as well as other common areas.

Table 1: Base Market-Rate Program for Each Site

	45' x 120' site			85' x 170' site		
Unit Counts/Sizes	**Number**	**Avg. Gross SF**	**Mix**	**Number**	**Avg. Gross SF**	**Mix**
Studios	2	540	13%	0	N/A	0%
1-Bedrooms	3	840	19%	8	900	22%
2-Bedrooms	11	1,140	69%	18	1,200	50%
3-Bedrooms	0	N/A	0%	10	1,440	28%
Total/Average	**16**	**1,009**	**100%**	**36**	**1,200**	**100%**

Source: Walker Consultants, 2022.

Adjustments were made to base market-rate programs based on the parking need for each parking ratio assumption (None, Low, Medium, and High) and the feasibility of providing the parking. These specific adjustments include the following:

- For the 45-foot by 120-foot site, the number of residential units was reduced for Medium and High parking ratio scenarios from 16 to ten and seven units, respectively, in order to support a project that only requires one level of parking because a second level is not feasible on this site. Parking concept A, with an estimated 16 spaces, was assumed.
- For the 85-foot by 170-foot site, the number of residential units was reduced by three units, from 36 to 33 units, for the Low parking ratio scenario to avoid building a second level of parking with only a small number of spaces.
    - Our interviews with market-rate developers clearly conveyed the reality that they will construct the number of parking levels needed to achieve financial feasibility. Therefore, this means constructing full levels of parking only if all parking spaces can support additional residential units. In this case, the floor area ratio limits the number of units to 36 so a developer would choose to provide just one level of parking, which would mean reducing the unit count based on the number of parking spaces on a single level of parking (i.e. 1.0 space per unit and 33 spaces total on the ground level of parking supports 33 residential units).
    - Similarly for the High parking ratio scenario, the number of residential units was reduced to 32 as any more units would require a third level of parking, which is not feasible. Parking concept D, with an estimated 58 spaces (33 spaces on the ground level and 35 spaces on a second level above ground level), was assumed.

PROGRAM ASSUMPTIONS: **AFFORDABLE**

The Walker team applied the same program assumptions used for the base market-rate program on each site to the Affordable program on each site, but scaled up the number of units by applying the density bonus to the extent possible. The team believes this is a reasonable assumption given the smaller unit sizes selected, which are suitable for both market-rate and Affordable housing resident needs. The initial goal was to increase the density bonus to 80%, in order to take full advantage of the program. However, doing so would push the construction type of Affordable housing into more costly steel/concrete construction type. Therefore, the density bonus was set to 68%, which maximized the number of Affordable units that could be built using wood frame construction. Note that a feasible parking configuration, where parking would only be on one level, was within the 68% density bonus assumption under the 0.5 per unit parking ratio scenario (i.e. parking did not factor into the density bonus adjustment).

The following tables detail the unit mix, total parking spaces, floors of residential structure, and floors of parking for the different parking ratio scenarios for 100% market-rate and 100% Affordable housing on each site.

Table 2: 45-foot by 120-foot Site Scenario Details

	100% Market-Rate				100% Affordable	
Unit Counts	**None**	**Low**	**Medium**	**High**	**None**	**0.5/Unit**
Studios	2	2	1	0	3	3
1-Bedrooms	3	3	2	1	5	5
2-Bedrooms	11	11	7	6	18	18
3-Bedrooms	0	0	0	0	0	0
Total Units	**16**	**16**	**10**	**7**	**26**	**26**
Total Parking Spaces	**0**	**16**	**16**	**15**	**0**	**13**
Floors of Residential	**4**	**4**	**4**	**4**	**5**	**5**
Floors of Parking	**0**	**1**	**1**	**1**	**0**	**1**

Source: Walker Consultants, 2022.

Table 3: 85-foot by 170-foot Site Scenario Details

	100% Market-Rate				100% Affordable	
Unit Counts	**None**	**Low**	**Medium**	**High**	**None**	**0.5/Unit**
Studios	0	0	0	0	0	0
1-Bedrooms	8	7	8	8	13	13
2-Bedrooms	18	17	18	16	30	30
3-Bedrooms	10	9	10	8	17	17
Total Units	**36**	**33**	**36**	**32**	**60**	**60**
Total Parking Spaces	**0**	**33**	**60**	**68**	**0**	**30**
Floors of Residential	**4**	**4**	**4**	**4**	**5**	**5**
Floors of Parking	**0**	**1**	**2**	**2**	**0**	**1**

Source: Walker Consultants, 2022.

ECONOMIC ANALYSIS FINDINGS

BAE incorporated the scenario assumptions into a financial feasibility analysis, which evaluated hypothetical multifamily rental prototypes on the two typical sites to test how changes in parking requirements on each site could affect the feasibility of developing market-rate and Affordable projects.

- Site 1, the 45-foot by 120-foot site, ("Florence-Firestone site") was assumed to be located in the Florence-Firestone area and measures 5,400 square feet.
- Site 2, the 85-foot by 170-foot site, ("Valinda area site") was assumed to be located slightly east of the City of La Puente in unincorporated Los Angeles County and measures 14,450 square feet.

The methodology used for this analysis involved preparation of static pro-forma financial feasibility models for six multifamily rental prototypes on each site. The static pro-forma models represent a form of financial feasibility analysis that developers often use at a conceptual level of planning for a development project, as an initial test of financial feasibility for a development concept to screen for viability. BAE developed the various modeling inputs and assumptions needed for the financial feasibility analysis based on data from industry publications and databases, experience with recent development projects in the local area, and other research.

For each site, the analysis tested the following residential development prototypes outlined on Table 2 and Table 3 on page 14:

- Market-rate rental with no parking provided
- Market-rate rental with a low parking requirement (1.0 space per unit)
- Market-rate rental with a medium parking requirement (1.6 to 1.7 spaces per unit)
- Market-rate rental with a high parking requirement (2.1 spaces per unit)
- Affordable rental with no parking provided (assuming 4% tax credit financing)
- Affordable rental with 0.5 parking spaces per unit (assuming 4% tax credit financing)

The analysis assumed a mix of studios, one-bedroom units, and two-bedroom units on the Florence-Firestone site and a mix of one-bedroom units, and two-bedroom units, and three-bedroom units on the Valinda area site.

MARKET-RATE RESIDENTIAL DEVELOPMENT FINDINGS

Market-rate development faces financial feasibility challenges in both the Florence-Firestone and Valinda areas. The financial feasibility analysis found that the market-rate prototypes were not financially feasible on either site, regardless of the parking requirements. These feasibility challenges are attributable to the low market-rate rents in the area coupled with the high cost of construction.

Lower parking ratios significantly improve the financial feasibility of market-rate development on both sites. To test the impact that reduced parking ratios would have on the financial feasibility of market-rate development, BAE adjusted the rent assumptions to determine the rents necessary to achieve financial feasibility in the market-rate no-parking scenario on each site. BAE then adjusted the rents to determine the extent to which market-rate rents would need to increase to achieve feasibility in the prototypes with higher parking ratios.

- For the prototype on the Florence-Firestone site to achieve financial feasibility, market-rate rents would need to be approximately 7% higher in the low-parking scenario, 13% higher in the medium-parking scenario, and 18% higher in the high-parking scenario, compared to the rent needed to achieve financial feasibility in the no-parking scenario.

- For the prototype on the Valinda area site to achieve financial feasibility, market-rate rents would need to be approximately 7% higher in the low-parking scenario, 11% higher in the medium-parking scenario, and 15% higher in the high-parking scenario, compared to the rent needed to achieve financial feasibility in the no-parking scenario.

Reduced parking ratios improve feasibility in part by reducing total per-unit development costs. Table 4 shows the total per-unit development costs for the prototypes projects on each site in each parking scenario. As shown, the total per-unit construction cost increases as the parking ratios increase on each site.

Table 4: Total Development Costs per Unit, Excluding Land

	Parking Scenario			
	None	Low	Medium	High
Florence-Firestone Site	$ 384,490	$ 424,151	$ 454,639	$ 483,818
La Puente Area Site	$ 450,628	$ 491,494	$ 516,728	$ 536,564

Source: BAE, 2022.

Reduced parking ratios also improve feasibility by allowing more units on parking-constrained sites, which can be particularly important for achieving financial feasibility on small sites. The number of units that each site can accommodate is somewhat constrained by the number of parking spaces that will fit on the site.

- The financial feasibility analysis assumed that the Florence-Firestone site could accommodate a maximum of 16 parking spaces in one level of podium parking, due to the small size of the site. To maintain the designated parking ratios, the number of units that the site could accommodate decreased as the parking ratios increased, from 16 units in the no-parking and low-parking scenarios to ten units in the medium-parking scenario and seven units in the high-parking scenario.
- Because the Valinda area site is slightly larger, the analysis assumed up to two levels of podium parking, enabling slightly more flexibility. However, the high-parking scenario on that site is somewhat constrained by the ability to provide the number of parking spaces necessary to serve the number of units on site. As a result, many of the fixed costs associated with developing each site, such as site acquisition and site preparation costs, are spread across fewer units, increasing the per-unit development cost as the parking ratios increase.

Reduced parking ratios may enable the construction of market-rate units in the Florence-Firestone and Valinda areas at a lower price point than would be possible with higher parking ratios. As discussed above, the rent necessary to achieve financial feasibility increases as the parking ratios increase. This means that a smaller increase in market-rate rents is necessary to achieve financial feasibility in the Low scenario, and more significant increases in market-rate rents are necessary to achieve financial feasibility as the parking ratios increase, with the highest rent increases required in the High scenario.

Note that market-rate developers set rents based on what the market will bear, and the feasibility of a project depends on whether market rents in an area are high enough to incentivize a developer to pursue a project there, given development costs. If there are excess profits, there is usually one of two outcomes, or a combination of the two:

1. The developer pockets the excess profit, or

2. Developers compete for development sites, driving up the cost of land, and the excess profit essentially accrues to the person selling the land.

Parking reductions can reduce the cost to construct projects, and that may result in lower rents being charged to make a project feasible, but a developer is not going to reduce rents on a property because it costs less to build if the market will support a higher rental rate. In other words, parking reductions can affect a developer's decision to build a project that would have lower rents, which could lead to the production of more affordable housing because rents do not have to be as high to encourage a developer to choose to build. But parking reductions will not affect the rents on a project that is already feasible.

AFFORDABLE RESIDENTIAL DEVELOPMENT FINDINGS

Reductions in parking requirements would improve the financial feasibility of Affordable residential development on both sites. This analysis assumed that Affordable developments on either site would be financed through a combination of four-percent Low-Income Housing Tax Credits (LIHTC), private debt, and other sources.

- The analysis found that a no-parking development scenario on the Florence-Firestone site would require approximately $6.64 million in financing from other sources, after accounting for LIHTC financing and private debt. In a scenario that would require 0.5 spaces per unit for the development on that site, the amount of financing from other sources would total approximately $7.02 million, or $381,000 more than in the no-parking scenario.
- On the Valinda area site, the no-parking development scenario would require approximately $19.95 million in financing from other sources while the scenario with 0.5 spaces per unit would require approximately $20.93 million in financing from other sources, an increase of approximately $983,000.

Because assembling a financing package to fully cover the cost of an Affordable housing development can be extremely challenging, reducing these costs, even if small relative to total financing need from other sources, can have a significant positive impact on the likelihood of construction for an Affordable project.

SUMMARY

In summary we note the following:

- Higher parking ratios drive up the cost of development and in our scenarios may require developers to charge market-rate rents nearly 20% higher compared to no on-site parking, or 10% higher compared to more limited parking of one space per unit, in order for developers to achieve financial feasibility.
- Higher parking ratios result in fewer market-rate units developed with fewer than 50% developed on the Florence-Firestone site when comparing high versus low parking ratio scenarios. While the Valinda area site was modeled with similar unit counts, the medium and high parking scenarios required a second level of parking, reducing financial feasibility and the likelihood of such a project being built.
- Reduced parking requirements improve the feasibility of Affordable housing development, requiring 5% less in financing from other sources, when comparing a project with no parking required to one with 0.5 spaces per unit.
- “Missing Middle” housing is small-scale housing development with typically 15 units or less. Reducing or eliminating parking requirements supports the goal of creating more “Missing Middle” housing.

The difficult to quantify, but very tangible benefit of lower parking requirements, and the associated reduction in development costs and complexity of pursuing a multifamily project, should not be underestimated. Some developers with whom we spoke stated that uncertainty regarding public approvals, costs to develop, political

opposition, and the associated unpredictable timelines for the completion of a project represented very real obstacles to development. In this respect, the lower parking requirements, lower costs, along with more objective and predictable public approval processes facilitate the construction of housing units.

AB 2097 (Friedman)[1], a bill that would prohibit municipalities from establishing minimum parking requirements for residential or commercial developments within one-half mile of transit, is currently under consideration at the state level. An opinion piece published in the Los Angeles Daily News[2] on April 18, 2022 highlights studies that are consistent with findings of our analysis. Should this bill pass, it could presage state-wide increases in housing production with market-rate units that are more affordable as well as Affordable units.

[1] https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB2097
[2] https://www.dailynews.com/2022/04/18/parking-mandates-are-a-top-barrier-to-affordable-housing/