FEHR PEERS

REVISED TECHNICAL MEMORANDUM

Date: January 10, 2013

To: Gina Natoli & Kevin Finkel, Los Angeles County Department of Regional Planning

From: Sarah Brandenberg & Michael Kennedy

Subject: ***Marina del Rey Mobility Plan***

Ref: LA13-2587

This technical memorandum:

- Documents the mobility goals for Marina del Rey
- Analyzes existing mobility conditions and identifies needs
- Proposes mobility recommendations to address the identified needs
- Recommends implementation strategies for the mobility recommendations

A variety of sources were reviewed to document mobility goals for the Marina, including public input and prior plans. Key goals focus on moving people in the Marina (rather than just cars), as well as improving accessibility, connectivity, and safety for all transportation modes.

Existing mobility conditions were documented for all transportation modes in the Marina, including bicycle, pedestrian, transit, parking, the needs of boaters, and motor vehicles; and mobility recommendations are provided to address identified mobility needs, including:

- ***Mobility Integration***: One of the key Mobility recommendations proposed to address the stand-alone nature of some of the Marina's mobility networks is the implementation of Mobility Hubs. Mobility Hubs would be locations where all modes come together to serve a key destination, and provide the opportunity for convenient transfers between modes, providing the Marina's residents and visitors with mobility options beyond just using their car.

- ***Park Once***: Marina del Rey has a substantial number of public parking lots. Existing lots are rarely full, so there are opportunities to repurpose portions of parking lots to provide Mobility Hubs and additional transportation options. Shared parking "Park Once" districts are recommended to operate district parking more efficiently (both public lots and private off-street facilities), and eventually move towards consolidated parking facilities to serve these districts.

- ***Transit***: Existing transit service in the Marina is infrequent, and transit stops are hard to find and have few amenities. Similar conditions are present with the Marina's WaterBus. Mobility recommendations include co-locating transit stops (both ground and water) at Mobility Hubs

(described below) with clear wayfinding and good schedule coordination to ensure easy transfers between transit modes. If financially feasible, improving service frequency is recommended so the beach shuttle can better serve public parking lots in the Marina.

- ***Pedestrian***: Existing pedestrian signalized crossings are generally spaced far apart, and the pedestrian environment is inhospitable due to narrow sidewalks and other impediments. Recommended mobility enhancements include the introduction of additional signalized pedestrian crossings, as well as wider sidewalks, and design treatments on shared-mode roads to improve the pedestrian experience in Marina del Rey. Recommendations to provide for a multi-use waterfront promenade that can serve the Marina are also provided.

- ***Bicycle***: Existing conditions for bicycle facilities found a mix of high-quality off-street bike facilities, with some conflict zone areas. Recommended Mobility Plan enhancements include a series of specific design treatments to improve visibility and safety at conflict locations, as well as strategies to fill in gaps in the system.

- ***Vehicles***: Existing parking lots and driveways are at times difficult to find and are confusing in their layout. Mobility recommendations include improved vehicle wayfinding and access to parking lots to ensure direct convenient connections to parking facilities. Because traffic level of service in the Marina generally operates at an acceptable level, additional roadway capacity enhancement projects are discouraged, as they will encourage additional regional cut-through traffic.

- ***Boaters***: Mobility recommendations for boaters are focused on providing high-quality dedicated facilities (such as parking), avoiding conflicts with other modes at boat launch areas and locations where privately-owned vehicles haul trailers, providing opportunities for using small watercraft for personal mobility within the Marina by providing dinghy docks, waterside wayfinding, and other improvements.

MOBILITY GOALS

The recommended mobility goals for Marina del Rey are based on public input, a review of relevant planning documents for the Marina, and best practices in transportation planning for similar areas. Each of these sources is discussed below.

Public Input

Over the summer of 2013, several Marina del Rey Visioning events were hosted by the Los Angeles County Department of Regional Planning. A separate report prepared by MIG documents these events and the community feedback received. Several key mobility themes are also provided below:

- Mobility and Accessibility – Mobility in Marina del Rey can be improved by providing better access and connectivity to the various modes of travel to ensure ease of movement through the Marina on foot, bicycle, car, and boat

- Promenade – Widen to the County's design standard and run uninterrupted around the Marina, including around Marina Beach, to improve connectivity and the pedestrian experience

- Conflicts – Resolve locations where pedestrians and bicycles conflict (e.g., on promenade and other pathways)
- Bicycle Parking – Make more bicycle parking available throughout Marina del Rey
- WaterBus – Improve frequency and service duration of water transit
- Dinghy Docks – Locate year-round dinghy docks near restaurants to promote travel within the Marina by boat
- Shuttles – Link parking lots to destinations with shuttles that run around the entire Marina
- Accessibility – The pedestrian environment can be improved throughout the Marina
- Signage/Wayfinding – Improve throughout Marina del Rey for vehicles, parking, pedestrians, cyclists

Marina del Rey Planning Documents

The following Marina del Rey planning documents were reviewed, and their mobility goals are summarized below:

- Marina del Rey Land Use Plan (2012)
    - Support public access to the shoreline through the coordination and enhancement of the following components of a public access system: pedestrian access, public transit, water transit, parking, bikeways, circulation network, public views and directional signs and promotional information." (Page 1-9)
    - Public transit – work with operators to provide high-quality transit service to the Marina, including light rail transit (LRT) from the airport (Page 1-10)
    - Shuttle buses – Provided an enhance shuttle with the introduction of LRT along the Lincoln Boulevard corridor; continue to operate summer shuttle; provide hotel shuttles to airport. (Page 1-11)
    - Consider implementing a car share service in the Marina (Page 1-11)
    - Pedestrian access – widen sidewalks to eight feet, which is the County's minimum standard. Provide new crosswalks with signal protection. Provide five-foot-wide sidewalks as a requirement along mole roads. (Page 1-11)
    - WaterBus – Currently only operates during summer months; shift to year-round operations (Page 1-11)
    - Signage – Provide directional signage, and outdoor interpretive maps and exhibits about the coast in the Marina (Page 1-11)

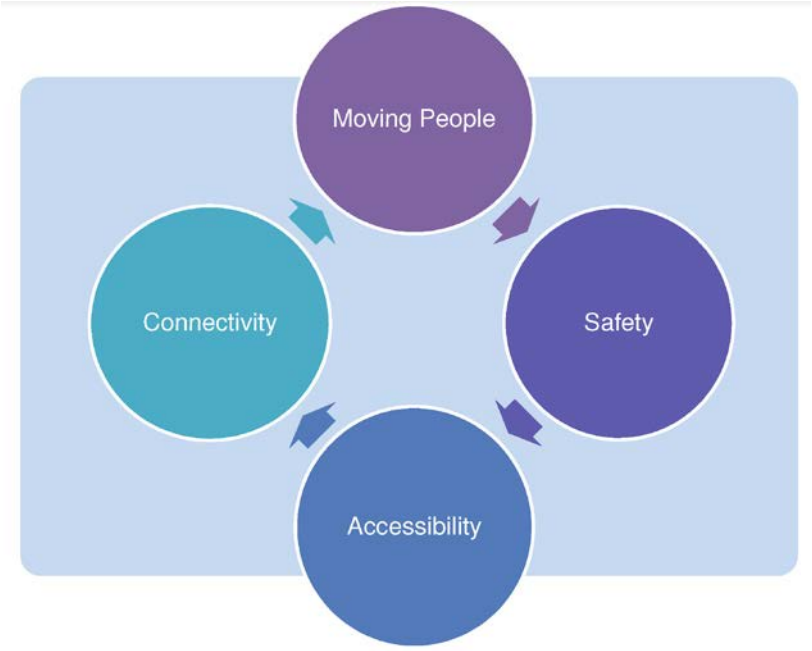
- Distribute parking facilities throughout the Marina to serve recreation and visitor-serving uses (Page 2-1)
- Do not allow use of public parking lots by private leaseholders to meet their private parking needs (Page 2-7)
- Establish short-term parking to allow price flexibility (Page 2-13)
- Provide non-auto circulation within new developments (Page 11-1)
- Provide adequate parking facilities in new developments, or provide substitute means of serving the development with public transportation (Page 11-1)
- To mitigate projected traffic increase from the Pipeline Projects, implement specific intersection modifications to increase capacity (Pages 11-13 to 11-12)

- Marina del Rey Specific Plan (2012)
  - Implement intersection modifications in anticipation of Pipeline Projects (Pages 17-18)
  - Expand beach shuttle to year-round service, ideally in conjunction with a future LRT line on Lincoln Boulevard (Page 18)
  - To reduce traffic, implement transportation demand management (TDM) strategies, including: carpooling, ridesharing, vanpooling, flex time, bicycles for transportation, bike racks and lockers at places of employment, preferential parking for TDM participants, incentives for TDM participants, disincentives. Shared use bikes and cars on-site (Page 17)
  - Parking lots may be used for bicycle and pedestrian right-of-way, boathouses, farmers markets (temporary), public parks and picnic areas.

Recommended Goals

Based on the input received from the community and goals from prior studies, the following goals are recommended for the Mobility Plan. These goals are meant to address four key mobility goals in the Marina: moving people, safety, accessibility and connectivity.

Figure 1 - Mobility Goals



- Mobility Hubs
    - Provide hubs in the Marina that integrate multiple travel modes, including water transit, bus transit, bicycle (parking and bike share), and provide seamless transfers between these modes with ample wayfinding to adjacent key destinations
- Mobility to Support Place Making
    - Parking and transportation should serve the overall community goals for Marina del Rey and the various uses and activities in the Marina
    - Parking and transportation policies should further the shared goals of Los Angeles County and the Coastal Commission to maximize public access to and along the coast, while simultaneously protecting, conserving, and restoring the coast for use by current and future generations with a mobility system that supports all modes
- Moving People
    - Focus on moving people (not just cars) efficiently and safely in the Marina
- Park Once
    - Operate parking in a common pool of shared, publically-available spaces
    - Provide parking for visitor-serving destinations within a ¼-mile walk distance

- Scale parking supply to meet documented parking demand plus 10 percent contingency to allow for parking space turnover
- Provide direct pedestrian access between destinations and parking lots with clear wayfinding and frequent pedestrian crossings
- Co-locate parking at mobility hub locations to provide easy transfers to transit shuttles and WaterBus

- Bicycles
  - Provide a direct separated facility through the Marina that links to regional bike facilities
  - Provide high-visibility treatments at locations where cyclists interact with other modes
  - Provide bike parking and bikesharing at key destinations
- Pedestrians
  - Enhance the quality of pedestrian crossings and improve directness of pedestrian travel
  - Provide a continuous high-quality pedestrian promenade around the Marina
- Shared Facilities
  - Communicate shared space through street or path design
  - Use shared facilities to provide pedestrian and bike connections between paths and activity centers
- Boaters
  - Minimize locations where boaters/trailers must interact with other modes
  - Provide convenient parking for boaters/trailers, focusing on short-term parking needs for loading/unloading supplies
- Transit
  - Better integrate the Marina into the regional transit network through improved span of service and service frequency on transit lines
- Water Transportation
  - Better integrate water transportation with internal mobility networks, including ground transit and bicycle facilities

EXISTING CONDITIONS AND MOBILITY NEEDS

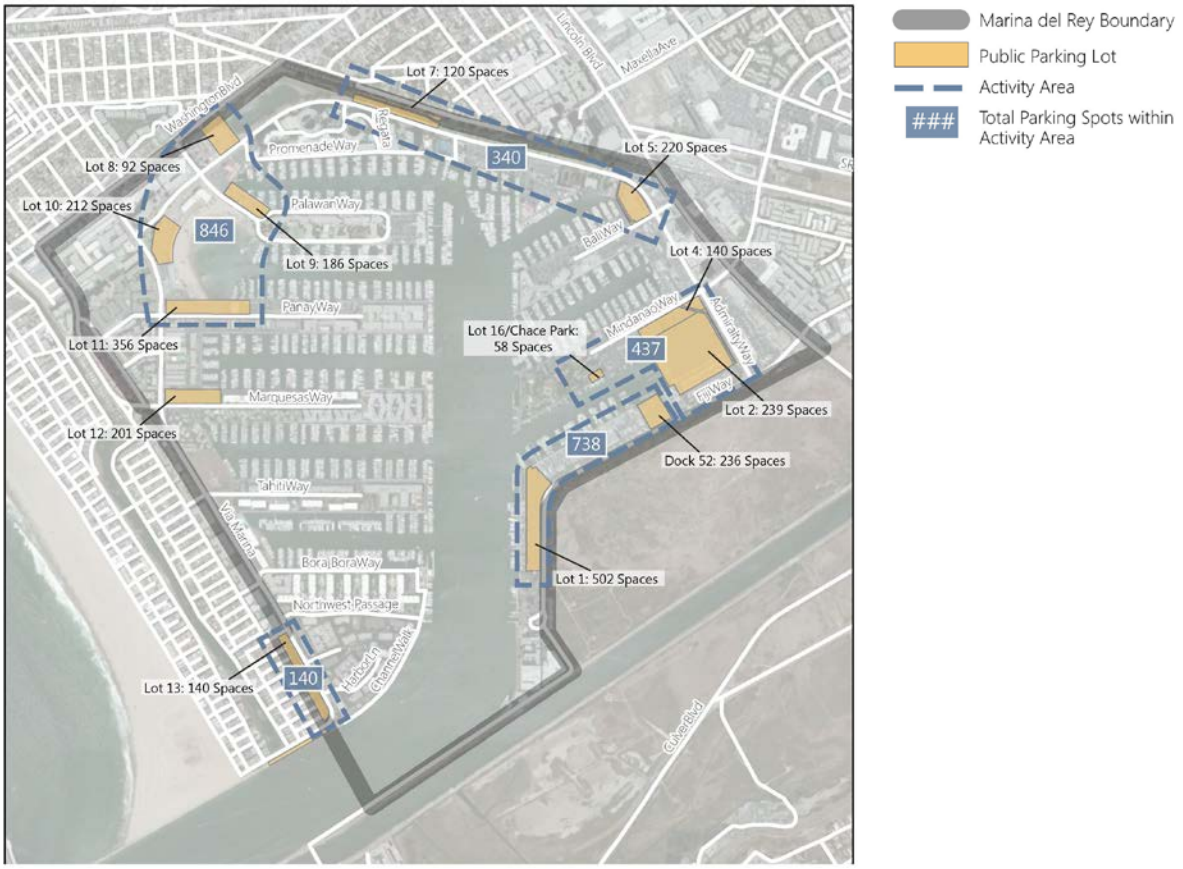
This section summarizes the field observations we conducted, as well as the mapping and analysis we prepared to document existing conditions and identify mobility needs in Marina del Rey.

Parking

Supply

Substantial parking supply is provided in the Marina in public lots and in private development projects. In 2010, a parking study (*Right Size Parking Study*, Raju Associates, 2010) was conducted for the public lots in the Marina. A total of 2,699 stalls were counted across the parking lots. Subsequent to the study, as part of the Senior Accommodations facility going in on Lot 8, 94 spaces have been relocated from Lot 8 into Lot 11 (Parcel 21), with 92 remaining spaces provided in Lot 8, for a total of 2,702 stalls. Aside from the southwestern portion of the Marina, which has few public parking lots, public lots are spaced throughout the other districts, with a particular concentration around Marina Beach (with a total of 846 spaces), Waterside Shopping Center vicinity (437 spaces in public lots), and Fisherman's Village area (738 spaces). Figure 2 illustrates the parking supply by location.

Figure 2 – 2010 Public Parking Supply



Accessibility

As shown in Figure 3, most of the Marina is located within a ¼-mile walking distance of one or more public parking lots, with the exception of some of the moles in the western portion of the Marina, which do not have as close proximity to public parking lots. Figure 3 also illustrates the location of public parking lots in relation to parcels that have been zoned with visitor-serving uses (retail, boating, etc.). Generally, the parcels that are zoned with visitor-serving uses have close access to public parking lots.

In terms of the public parking lots themselves, vehicle access may be confusing, and there is limited wayfinding signage, indicating a mobility need for improved vehicular wayfinding and access. Pedestrian access is limited as well. There are few sidewalks and other dedicated pedestrian access paths that provide access to and through parking lots, indicating a mobility need to accommodate pedestrians to and through parking lots.

Figure 3 – Public Parking Lot Accessibility

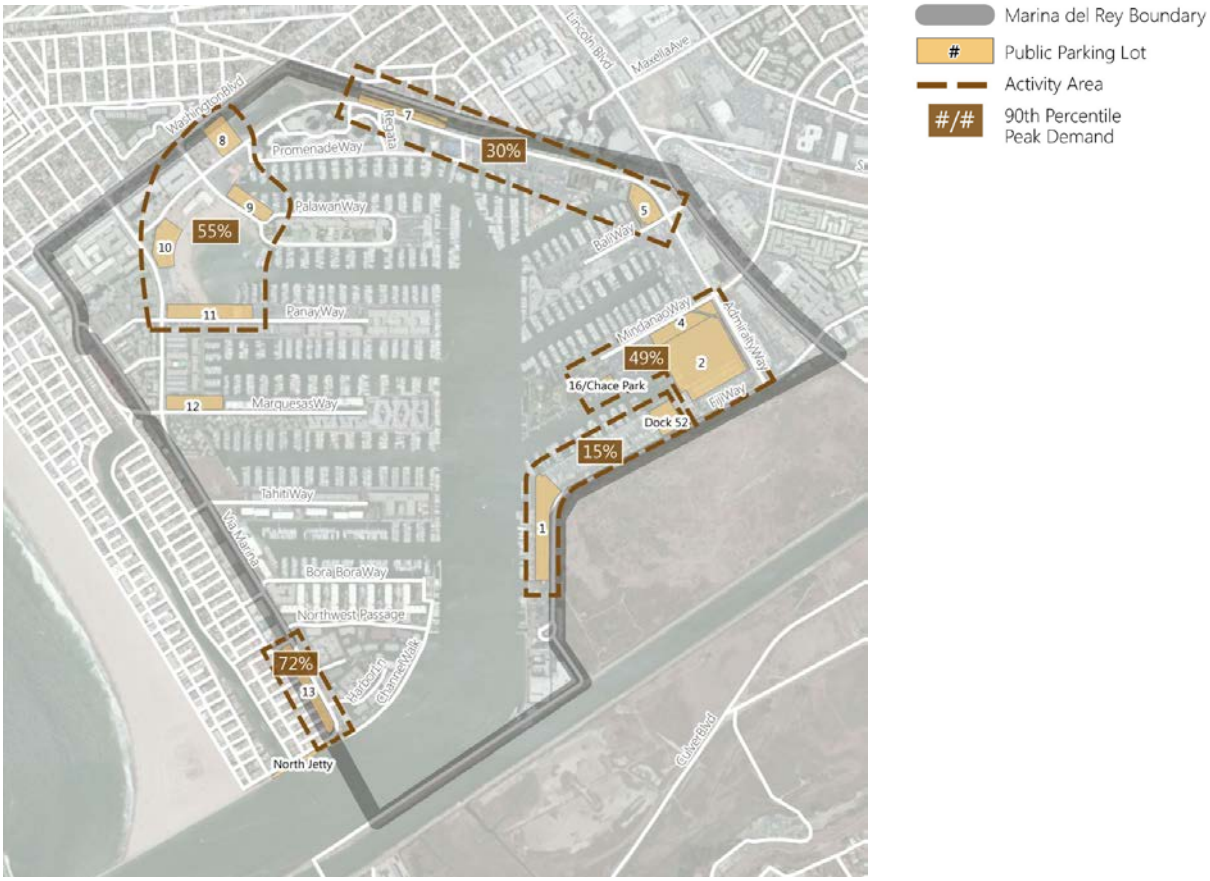
Land Use

- Boating Emphasis
- Residential Emphasis
- Visitor Emphasis
- # Public Parking Lots
- Quarter Mile Walk from Parking Lot
- Marina del Rey Boundary
- Signalized Bike/Pedestrian Crossing
- Signalized Intersection
- Signalized Pedestrian Crossing
- Uncontrolled Pedestrian Crossing

Demand

Existing parking demand counts were also collected as part of the 2010 parking study. Counts were collected on peak weekend days, and the 90th percentile of parking demand was mapped. Additionally, the study forecasted parking demand for several projects in the development pipeline, and included them in the demand estimates shown in Figure 4. On most days, the existing public parking supply is underutilized. As shown in the figure, all of the public parking areas identified were projected to have excess parking capacity available. Lot 13 was estimated to have the highest occupancy (72 percent occupied), but other areas ranged from 15 percent to 55 percent occupied, indicating that even on peak days, the Marina has a surplus public parking supply. Past surveys and ongoing observations have revealed that these lots are typically underutilized most days of the year. Although excess capacity remains in the overall public parking supply on even the busiest days, there are spot shortages and surpluses on these days. For example, the public parking facilities adjacent to Marina Beach are fully utilized on summer weekends, while less-convenient facilities remain underutilized.

Figure 4 – 90th Percentile Parking Demand



Even on the busiest days of the year (i.e., the Memorial Day, Fourth of July and Labor Day holiday weekends) and during special events (such as Halibut Derby event days and Boat Parade Day), excess capacity remains in the overall public parking supply. In addition, the County has permission, via a parking covenant, to use up to 860 parking spaces in the office building parking structure on Parcel 76 on weekends and holidays, and this parking capacity is largely unused on even the busiest holiday weekends and special event days. Event parking management is used to manage parking on busy event days. On occasions that draw major crowds, such as Fourth of July fireworks, December's annual Boat Parade Day, and concerts in the park, staff from the Department of Beaches and Harbors post "lot full" signs at the most popular public lots when they reach capacity, and then direct traffic to other nearby parking facilities.

Transit

A variety of transit service is provided in the Marina. Figure 5 illustrates the routes within the Marina (both ground bus transit and the WaterBus), the location of transit stop locations, and the weekday stop level ridership (for operators that track those data). Routes that serve the Marina include:

- Metro Route 108 operates on Via Marina and Admiralty Way in Marina del Rey, and travels eastward, generally along Slauson Avenue to Pico Rivera. Peak headways are approximately 30 minutes. Stop level ridership is generally 10 riders or less per day at each stop in Marina del Rey.

- Culver City Bus Route 1 operates along the perimeter of the Marina on Washington Boulevard, from Venice through Culver City to the West LA Transit Center. Peak headways are approximately 12 minutes. Stop level ridership data are not available for Culver City Bus lines.

- Culver City Bus Route 7 operates on Admiralty Way and Fiji Way in Marina del Rey, and travels eastward, on Culver Boulevard to Downtown Culver City, and the Metro Expo Light Rail Station. Peak headways are approximately 60 minutes. Stop level ridership data are not available for Culver City Bus lines.

- LADOT Commuter Express Route 437 operates on Admiralty Way and Fiji Way in Marina del Rey, and travels eastward on Culver Boulevard and the I-10 freeway to Downtown Los Angeles. This line operates during weekday peak periods only, with 30 minute headways. Stop level ridership data are not available for this line.

- Big Blue Bus Route 3 operates on Lincoln Boulevard along the eastern side of Marina del Rey, travelling from UCLA to Downtown Santa Monica, and south to the Metro Green Line Aviation Station near LAX. Peak headways are approximately 15 minutes. Stop level ridership are in the range of 50-100 riders per day at the stops on Lincoln Boulevard at Mindanao Way.

- Beach Shuttle is a summer season transit circulator that operates on Fridays, Saturdays, Sundays and holidays, serving Marina del Rey and the community of Playa Vista. The shuttle runs every 30 minutes, and has approximately 200 riders per day. It stops at Culver City Bus and Metro stops in the Marina. Round beach shuttle signs are provided at each stop, and at many of the stops, maps/bus schedules are provided, along with benches.

- WaterBus is a summer season water taxi that operates on weekends and holidays. The WaterBus operates from eight stops, without a defined schedule or route. Passengers indicate which stop they would like to go to, and the dock attendant will tell them when the WaterBus will arrive. Over the summer, the WaterBus averages about 1,075 passengers per day.

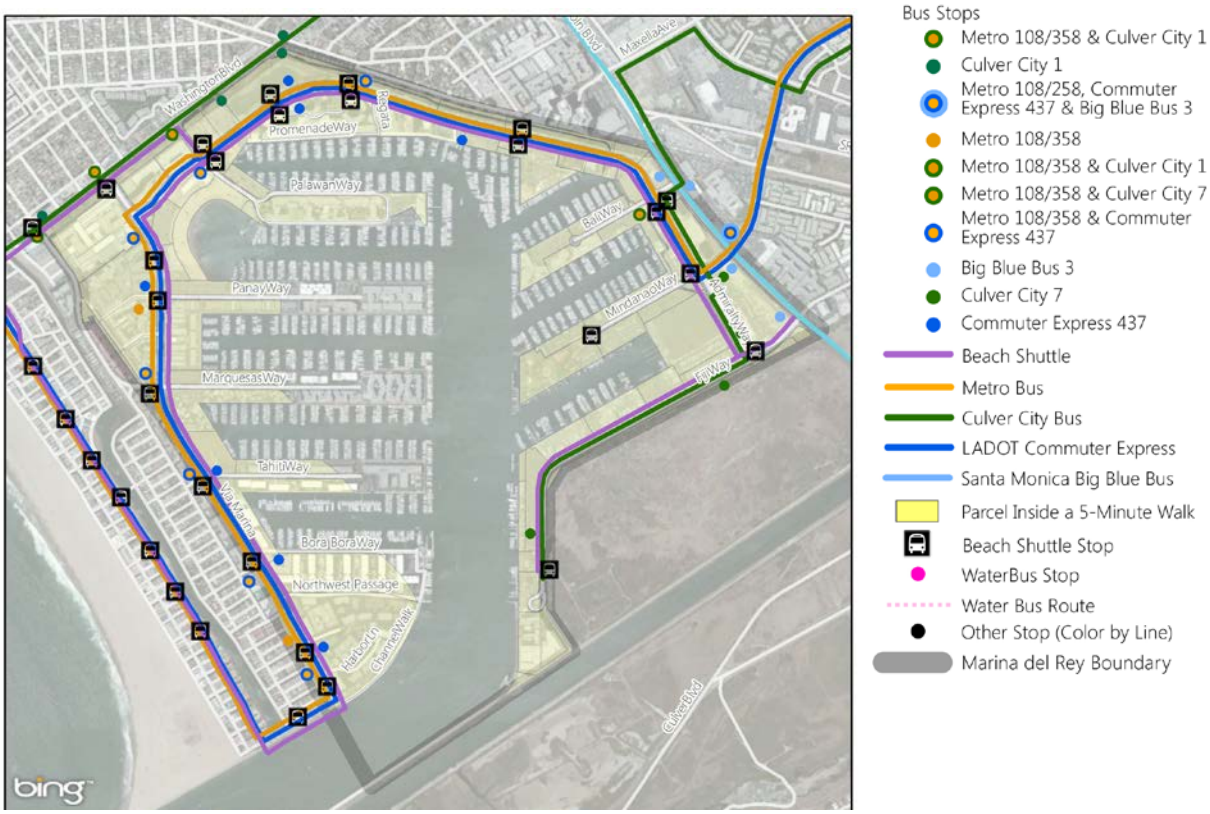
While the Marina is served by bus and water transit, transit service frequency is limited. The WaterBus and Beach Shuttle are seasonal operations only, and the bus transit that enters the Marina run relatively infrequently, underlying a mobility need for improved transit service. As shown in Figure 5, the location of WaterBus stops generally are not co-located near a bus transit stop, so transfers from water to bus transit are not particularly convenient. Because the WaterBus does not operate on a set schedule or route, it is difficult to coordinate a trip that would involve both the WaterBus and ground transit bus route.

Figure 5 – Transit Routes and Stop-Level Ridership

Transit Stop Accessibility and Quality

Figure 6 analyzes the accessibility to ground transit stops from Marina del Rey parcels. Most of Marina del Rey (80 percent) is located within a ¼-mile walking distance of bus transit stop, indicating good bus stop coverage. If WaterBus stops are included, 100 percent of parcels in Marina del Rey are within ¼ mile of a transit stop. While much of the Marina has bus stops, not all bus stops have a high level of amenity, such as bus shelters, that would increase the attractiveness of transit service.

Figure 6 – Transit Stop Accessibility



Pedestrian

Crossings and Path of Travel

There are relatively few signalized pedestrian crossings in Marina del Rey, either signalized pedestrian-only crossings or fully-signalized traffic intersections. Along the Admiralty Way and Via Marina loop, which are the two primary roadways that pedestrians need to cross, the signalized pedestrian crossing spacing between signals (both dedicated pedestrian signals and general traffic signals) is 560 feet to 2,100 feet, a walk time of approximately three to 10 minutes, as shown in Figure 7. This can result in significant out-of-direction travel time for pedestrians, indicating a mobility need for more frequent signalized pedestrian crossings. Figure 8 illustrates average crossing distance between signalized crossing locations on Admiralty Way in Marina del Rey and the average crossing distance in Downtown Santa Monica, a location considered to be very walkable. On average, signalized crossings are approximately 1,000 feet

apart on Admiralty Way. In Downtown Santa Monica, crossings, including signalized mid-block crossings, provide for controlled crossings every 350 feet—a third of the distance found in Marina del Rey.

Figure 7 - Pedestrian Crossing Distances in Walking Time

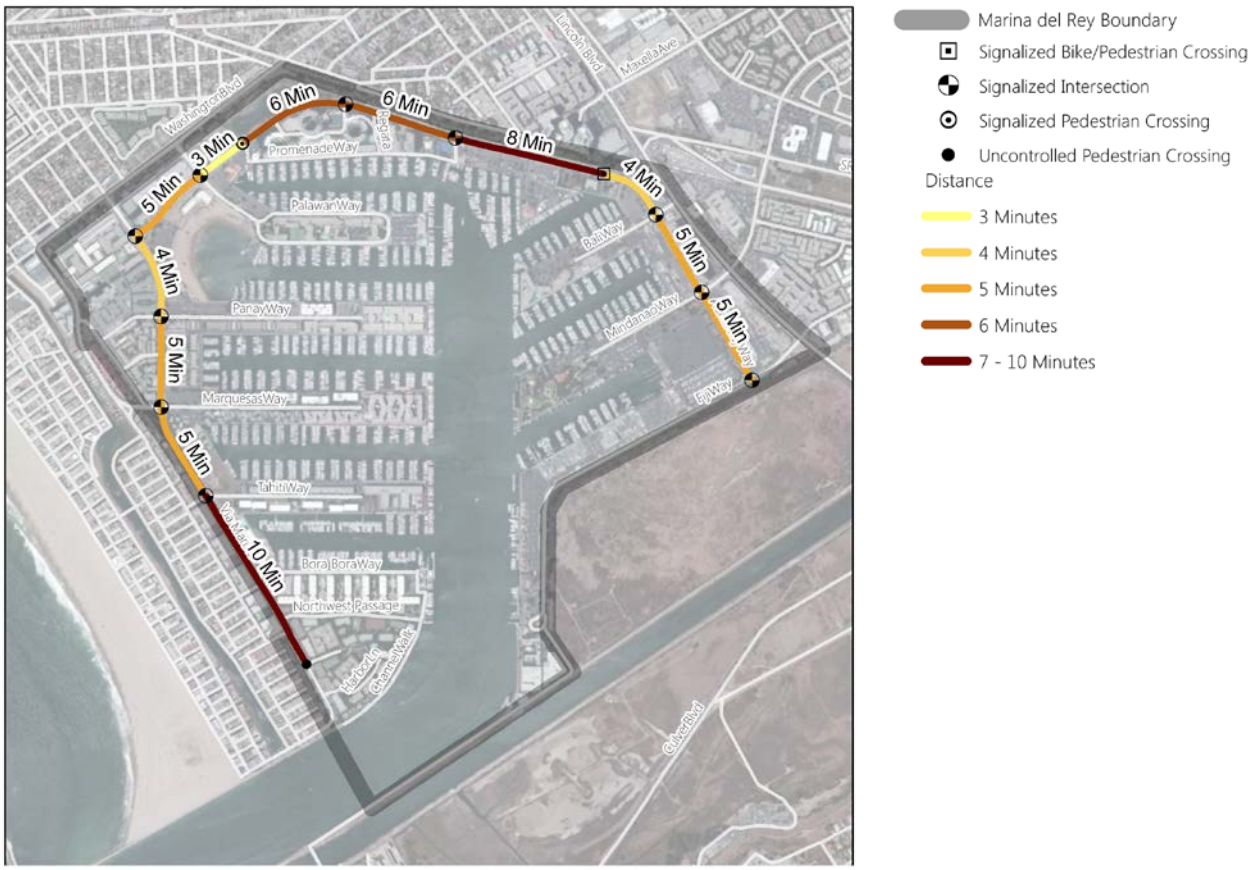
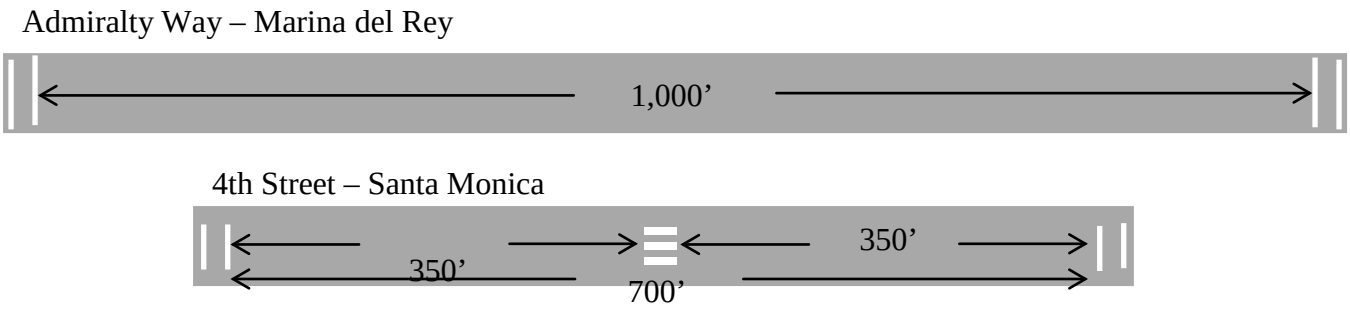
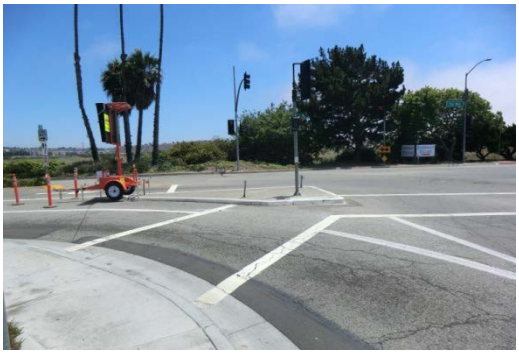


Figure 8 - Average Crossing Spacing Marina del Rey and Downtown Santa Monica



Pedestrian crossings within Marina del Rey are generally striped as white parallel crosswalks (as opposed to high-visibility crosswalks), arterials are wide with limited pedestrian refuge, and sidewalks tend to be narrow. Pedestrian barriers include locations where sidewalks are discontinuous, locations where

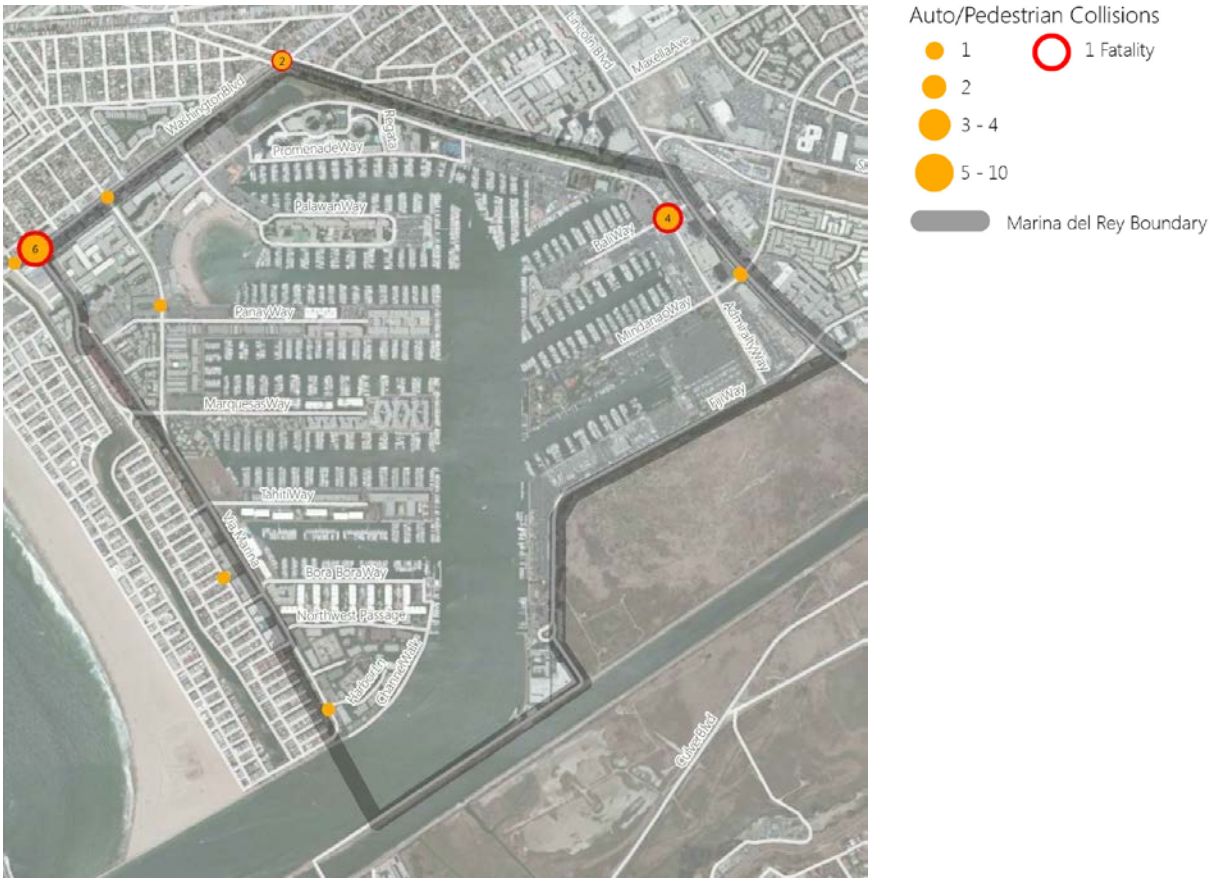
driveway curb cuts are very long, and locations where sidewalk impediments, such as street signs, lights, utility boxes, etc., hinder the pedestrian right-of-way on already-narrow sidewalks. Pedestrian facilities in Marina del Rey generally provide minimal pedestrian accommodation, indicating a mobility need for higher-quality pedestrian facilities, including wider sidewalks with fewer impediments and more visible pedestrian crossing treatments at intersections.



Pedestrian Collisions

Figure 9 illustrates the location of collisions involving vehicles and pedestrians in the same five-year (2006-2011) period documented above for collisions involving cyclists. Collision frequency for pedestrians was lower than that found for cyclists during the five-year period, with concentrations at the intersection of Washington Boulevard and Via Dolce (City of Los Angeles), and Admiralty Way and Bali Way with a fatality occurring at both locations.

Figure 9 - Pedestrian Collisions



Waterfront Promenade

A waterfront promenade is currently provided around much of the Marina, but is generally narrow. Figure 10 illustrates existing locations with the promenade. Aside from the sections along the California Yacht Club, sections along Basin H, and on the west side of the channel, there is a promenade along most sections of the Marina. However, much of the promenade is narrow, with nearly half (49 percent) of the promenade being 10 feet wide or less. Only 12 percent of the existing promenade meets the current design standard of 20 to 28 feet wide, indicating the mobility need for a wider, more continuous promenade to serve pedestrian (and potentially, bicycle) mobility in the Marina. The design, quality, and maintenance of the existing promenade vary throughout the Marina as shown in the photographs below.

Figure 10 - Waterfront Promenade Location and Width

Mole Roads

Marina del Rey's mole roads provide primary access for most of the residential developments in the Marina. They serve as the primary vehicular access points and primary or secondary pedestrian/bicycle access points, with the promenade serving as additional pedestrian access for some developments. Most

of the mole roads on the west side of the Marina, including Panay, Marquesas and Tahiti Way, are shared space. No separate pedestrian sidewalk is provided. While these moles are lined by the waterfront promenade, there is limited access to the promenade in-between buildings, which can lead to indirect pedestrian paths of travel. The mole roads themselves provide the most direct path of travel, but because they are shared space (with no designated area for pedestrians), they can discourage walking, indicating a mobility need to designate a pedestrian zone within the shared space of the mole roads.

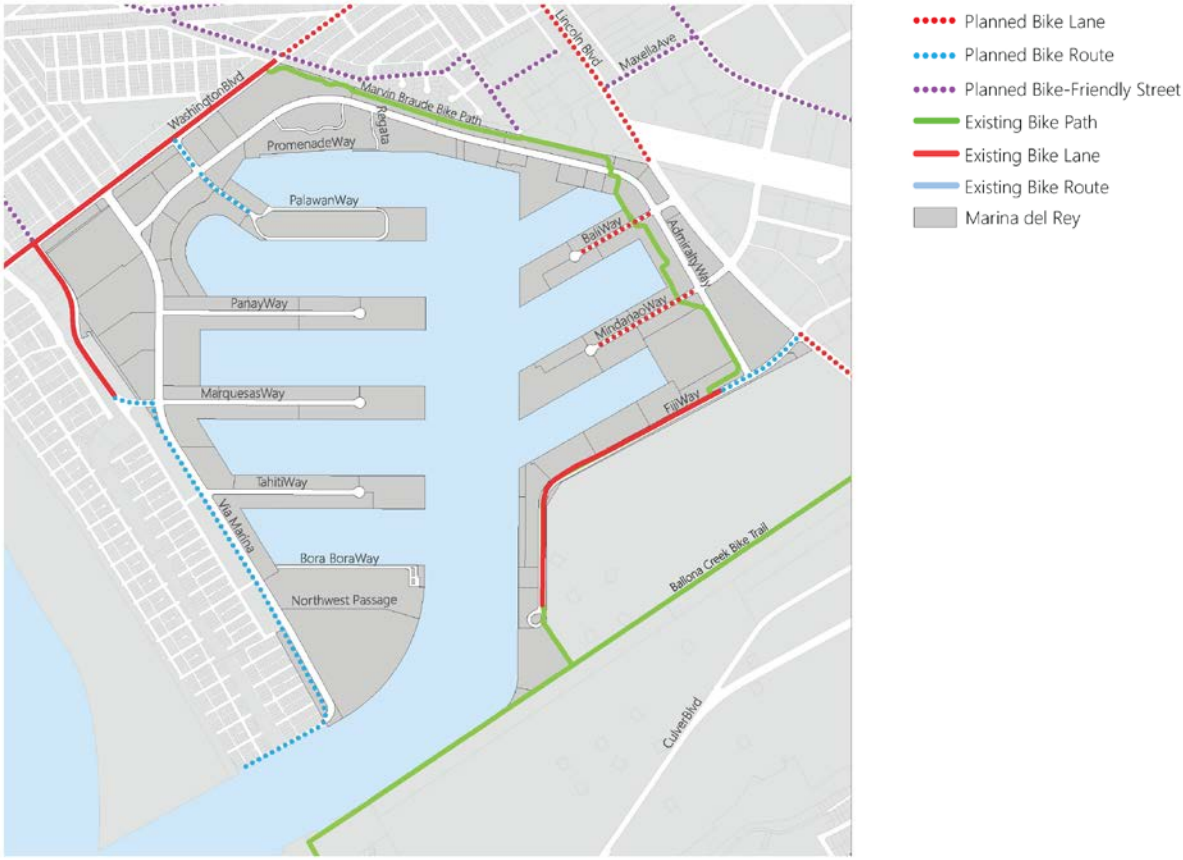
Bicycle

Existing Facilities

As shown in Figure 11, Marina del Rey has a variety of existing bikeways, including:

- Class I (Bicycle Paths)
    - Ballona Creek Bike Trail – This bike path runs along the southern end of the Marina, linking with Culver City to the east and the beach bike path to the south, with connections to Playa del Rey, El Segundo, and the Beach Cities.
    - Marvin Braude Bike Path – This bike path provides an important connection for the regional beach bike path, linking to the beach bike path to the south via bike lanes on Fiji Way, and the beach bike path to the north via bike lanes on Washington Boulevard. Within the Marina, the bike path runs along the west side of Admiralty Way between Mindanao Way and Fiji Way. Between Mindanao Way and Yvonne B. Burke Park, the bike path runs through the parking lots of Parcel 44 and Parcel UR, generally sharing space with the parking lot driveways, and not acting as a separated bike path. In Yvonne B. Burke Park, the path returns to a true Class I off-street bike facility. The path ends at Washington Boulevard, where it connects with on-street bike lanes in the City of Los Angeles.
- Class II (Bicycle Lanes)
    - Fiji Way – A Class II on-street buffered bike lane generally runs from the southern end of Fiji Way to the entrance to the Marvin Braude Bike Path, just west of Admiralty Way.
- Planned Facilities
    - The Los Angeles County Bicycle Master Plan (2012) designates the following planned facilities:
        - Class II (Bicycle Lanes)
            - Mindanao Way – Bike lanes are planned on Mindanao Way west of Admiralty Way
            - Bali Way – Bike lanes are planned on Bali Way west of Admiralty Way

Figure 11- Existing and Planned Bikeways



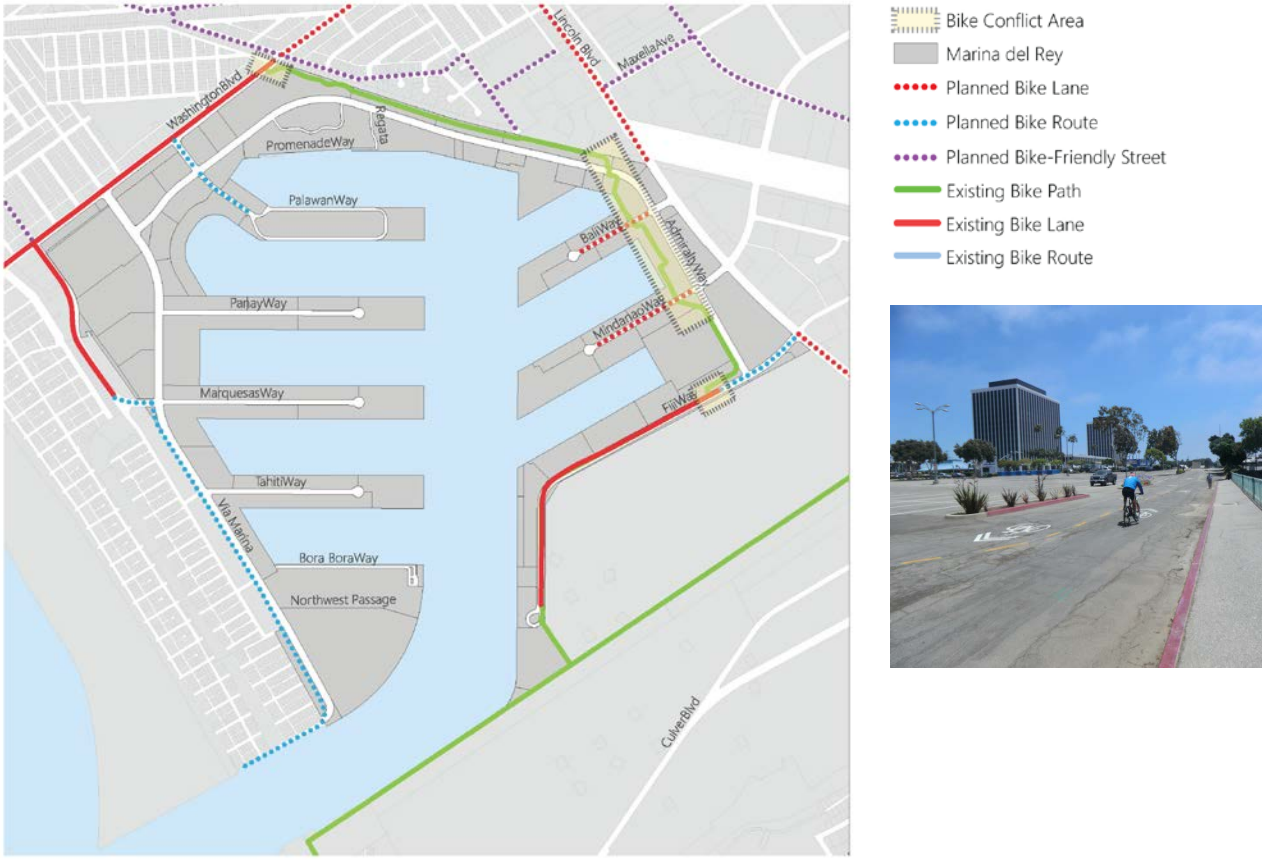
- Class III (Bicycle Routes)
  - Via Marina/Via Dolce – A bike route is planned on a portion of Via Marina, continuing on Via Dolce, between the channel and Washington Boulevard.
  - Fiji Way – A bike route is planned on Fiji Way from Admiralty Way to Lincoln Boulevard.

These existing facilities are used both by residents, employees, and visitors of Marina del Rey, as well as for cyclists traveling through the Marina because of the regional bicycle connections it provides.

Conflict Zones

As discussed, there are several locations where the Marvin Braude Bike Path shares space with vehicles through parking lots, cross roadways, and cross sidewalks. These zones are locations where there is greater opportunity for conflicts between cyclists, motorists, and pedestrians. Figure 12 illustrates the locations of the primary conflict zones within the Marina. The locations of these conflict zones provide opportunities for redesign to reduce conflicts and improve bicycle mobility in the Marina.

Figure 12 - Bicycle Conflict Zones



Collisions

Figure 13 illustrates the location of collisions involving vehicles and cyclists that occurred within the Marina during the most-recently-available five-year period of collisions from the California Highway Patrol Statewide Integrated Traffic Records System (SWITRS) data base (2006 through 2011). Collisions are mapped at the closest intersection. As shown in Figure 13, the intersections with the highest number of collisions during the five-year period were at the intersection of Washington Boulevard and Palawan Way (within the City of Los Angeles), as well as the intersections of Admiralty Way at Mindanao Way and Fiji Way.

Figure 13 - Auto/Bicycle Collision Locations (2006 – 2011)

Accessibility to Facilities

To evaluate the proximity of Marina del Rey's residential population to bike facilities, we used population data from the 2010 United States Census and analysis in ArcGIS to determine the percent of the population of Marina del Rey that live within a ¼-mile distance of an existing bicycle facility, as shown in Figure 14. This evaluation used Census blocks geography for this evaluation, modified to reflect the location of residential parcels in the Marina. Most of the residential population lives in the Marina's western portion, where there are few existing bike facilities. Roughly 68 percent of the population in the Marina does not have close access (¼ mile or less) to an existing bike facility, indicating a mobility need to improve access to bicycle facilities in the primary residential areas of the Marina. As described above, the bike facilities in the Marina provide important regional connections, so are well-used by residents located outside of Marina del Rey (such as residents that live in Playa Vista and the Silver Strand). However, this accessibility evaluation must be limited to the area covered under the Marina del Rey Local Coastal Program.

Figure 14 – Access to Bicycle Facilities

Bicycle Parking

As illustrated in Figure 15, bicycle parking is provided in a limited number of locations in the Marina, including bicycle racks at the library and bike lockers in Parking Lot 7 along Admiralty Way and in Parking Lot 5 near the intersection of Admiralty Way and Bali Way. Bike lockers are rented annually ($100 per year). Usage of the lockers appeared to be infrequent on the days field observations were conducted. A significant amount of informal bike parking was observed along the promenade on the north side of Marquesas Way. Bikes were locked to the promenade fence. Some of the bikes appeared to be abandoned, as they were rusted and were missing parts.

Figure 15 - Bicycle Parking Locations

Bike Rack
Bike Lockers
Planned Bike-Friendly Street
Planned Bike Lane
Planned Bike Path
Planned Bike Route
Existing Bike Lane
Existing Bike Path
Existing Bike Route
Marina del Rey Boundary

Vehicles

As shown in Figures 16 and 17, most of the peak hour traffic in the Marina occurs on Via Marina / Admiralty Way between Washington Boulevard and Mindanao / Fiji Way, indicating that some of the traffic through the Marina during peak hours could be regional cut-through traffic, likely as a bypass to a

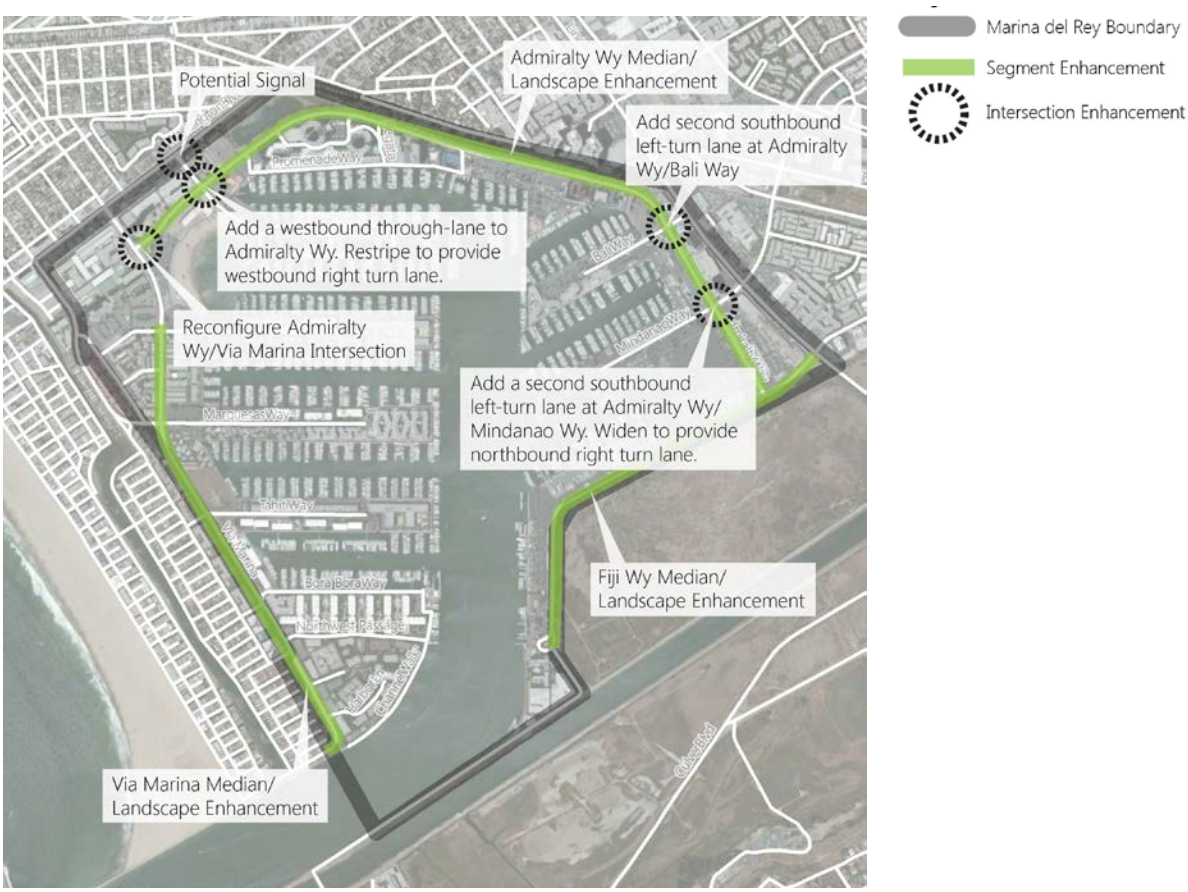
congested Lincoln Boulevard. Traffic volumes are generally higher during the PM peak hour, with two-way segment volumes on Admiralty Way peaking at approximately 2,900 vehicles per hour. Existing roadway capacities are sufficient to meet peak capacity. On Via Marina south of Panay Way, traffic volumes are sufficiently low that there is generally excess roadway capacity. Intersection level of service (LOS) was analyzed in the Marina in the *Traffic Study for the Marina del Rey Local Coast Program Amendment* (Raju Associates, 2010). It found that existing LOS is LOC C or better during both peak hours at all intersections within the Marina.

Figure 16 – AM Peak Hour Traffic Volumes and Level of Service

Figure 17 – PM Peak Hour Traffic Volumes and Level of Service

The 2012 Land Use Plan Update (LUP) indicated that traffic volumes have generally declined in the Marina, and have been below the traffic forecasts of the 1991/1995 traffic studies that outlined the trip cap and traffic mitigation measures for the Marina. The 2010 traffic studies forecast traffic conditions for future projects in the development pipeline and recommended an updated set of projects to increase roadway capacity. Figure 18 illustrates the location of these planned roadway capacity projects, as well as roadway landscaping/median enhancement projects.

Figure 18 – Location of Planned Roadway Projects

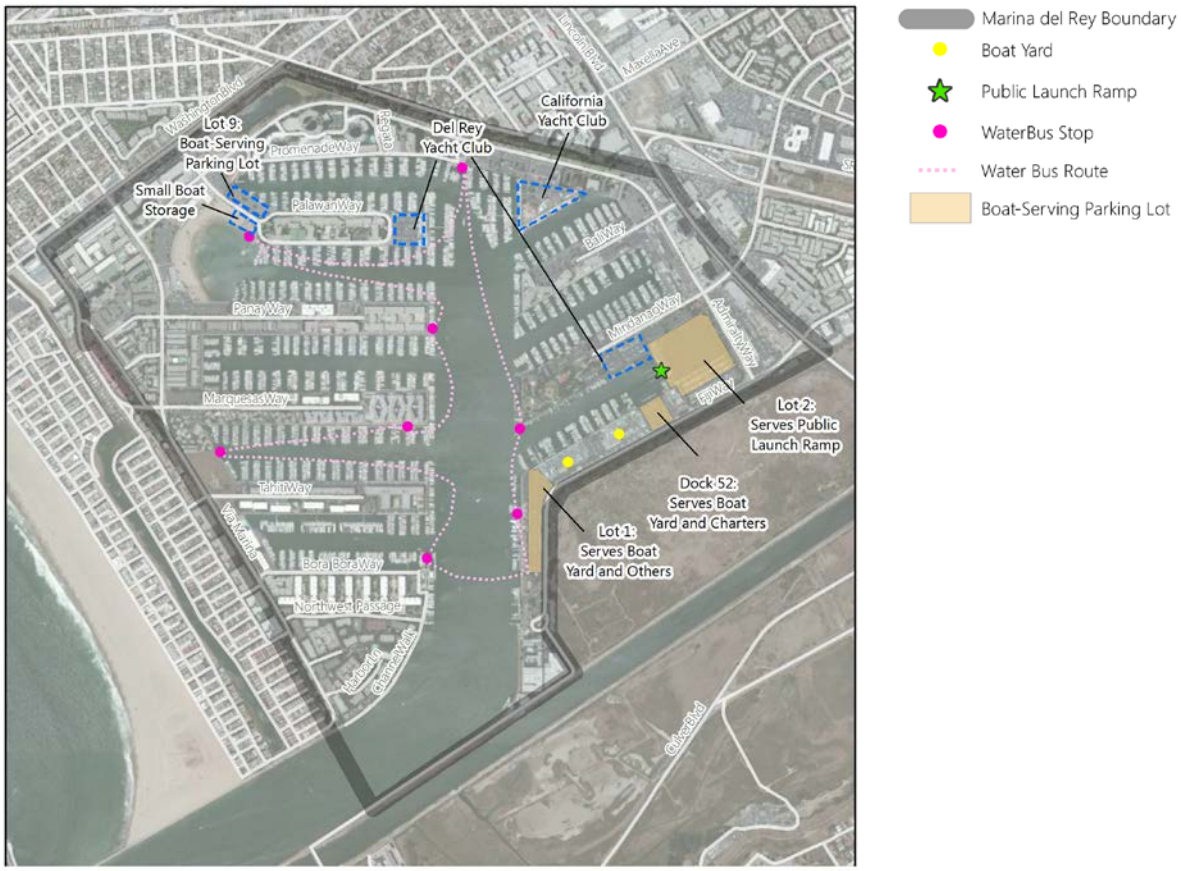


Boaters

In addition to the WaterBus, as illustrated in Figure 19, the Marina provides extensive water transportation resources including the public launch ramp on Parking Lot 2, boat storage facilities, and small craft non-motorized storage at Marina Beach. The public and private marinas provide 5,300 boat slips, and accessory support facilities. At many of these facilities, boaters must navigate potential conflicts with other modes, including pedestrians and cyclists who travel through spaces where boaters park.

Several dedicated parking facilities for boaters are provided, as illustrated in Figure 19.

Figure 19 – Water Transportation



MOBILITY PLAN RECOMMENDATIONS

Mobility Integration

One of the key mobility issues observed in the Marina is the disjointed nature of the different mobility networks: WaterBus stops don't necessarily correspond with ground transit bus stops; pedestrian access to and through parking lots is limited; wayfinding for all modes is difficult to locate; bike parking is generally non-existent at key destinations. While all of these different modes have some high-quality facilities in the Marina, as well as areas for improvement, they generally do not integrate well together, so transferring from one mode to another is difficult. Thus, mobility integration is the most fundamental of our mobility recommendations for Marina del Rey.

<u>Mobility Hub</u>

The key foundation for this integration is the Mobility Hubs concept. Mobility Hubs are clusters of transportation facilities at key destinations in Marina del Rey that provide residents, workers and visitors a

variety of convenient mobility choices, including both land-side and water-side mobility options. The ideal mobility hub would consist of the following components:

- Park Once Facilities – The Mobility Hub should be located in or adjacent to a centralized parking facility that can serve the adjacent uses. The Park Once facility could be a surface lot or parking structure. Clear and direct vehicular access to the facility should be provided, with visible wayfinding signage. Once parked, visitors would easily locate the mobility choices available at the Mobility Hub with clear wayfinding and pedestrian paths of travel through the parking facility. Parking pricing and connecting transit service and fare should be convenient and economical to encourage visitors to park once in the Marina, and use the Mobility Hubs and their connecting mobility choices to travel around the Marina without needing to use their personal motor vehicles during their visit. These facilities could provide dedicated spaces and electrical vehicle charging stations to encourage the use of neighborhood electric vehicles (NEV) and other emissions-free vehicles for mobility in the Marina.

- Boating Facilities

  - Co-located WaterBus Stop – The WaterBus stop would be located as close as possible to the land-side Mobility Hub amenities, linked with clear wayfinding. WaterBus stops should be demarcated by clear and visible signage or other branding/identifying elements on the dock. Schedule and fare information should also be provided.

  - Dinghy Dock – The Mobility Hub could provide, to the extent feasible, a co-located dinghy dock adjacent to the WaterBus stop, with clear waterside wayfinding signage directing boaters to the dinghy dock, including waterside signage that is visible to boaters to indicate what land-side destinations are accessible.

- Bus Transit/Shuttle Stop – The Mobility Hub should be co-located with a bus transit/Marina Shuttle bus stop with stop amenities that include a shelter, bench, wayfinding signage, and schedule and fare information. Shuttle service in the Marina should be reoriented to serve the Mobility Hubs, and provide mobility options for people after they park in Park Once facilities.

- Bicycle Facilities

  - Access to Marina Bicycle Network – The Mobility Hub should be located immediately adjacent to one of the Marina bicycle paths or on-street bicycle lanes. It should include destination wayfinding signage with mileage and/or average biking times to clearly indicate the Marina destinations in close biking distance from the Mobility Hub.

  - Bicycle Parking – The Mobility Hub should provide sufficient bike parking to meet demand during weekend summer conditions. Bike parking can be provided in a variety of configurations depending on the space available and overall bike parking demand. A bike corral, as shown in the adjacent photo is a cluster of bike racks typically the size of one vehicular parking space. One bike corral should be provided at a minimum.

  - Bicycle Share – Ideally part of a larger regional bike share system, bike share kiosks should be implemented at each Mobility Hub, allowing for short-term bike rental by visitors and residents.

- Pedestrian Facilities – Mobility Hubs should be linked by a network of high-quality, spacious pedestrian space, including the waterfront promenade, and sidewalks and pathways to/from adjacent destinations and parking facilities. Pedestrian wayfinding signage should also be provided to indicate the direction and walk distance/time of nearby destinations. Adjacent pedestrian crossings, at a minimum, should be enhanced to provide high-visibility crosswalk treatments.

- Car Share – Mobility Hubs should also provide access to car share vehicles, such as ZipCar service, to provide residents and visitors convenient access to vehicles should they need to travel from the Marina to an external destination.

Figure 20 illustrates potential locations for Mobility Hubs that would serve the key destinations and districts within the Marina. Mobility Hubs could be located in existing surface parking lots, or could be incorporated into new developments. Figure 21 provides a conceptual rendering of what a Mobility Hub might look like on one of the parking lots in the Marina Beach area. Given its importance as a primary destination, the Marina Beach area is a prime candidate for the implementation of the first Mobility Hub.

Figure 20 – Integrated Mobility Network and Mobility Hub Locations

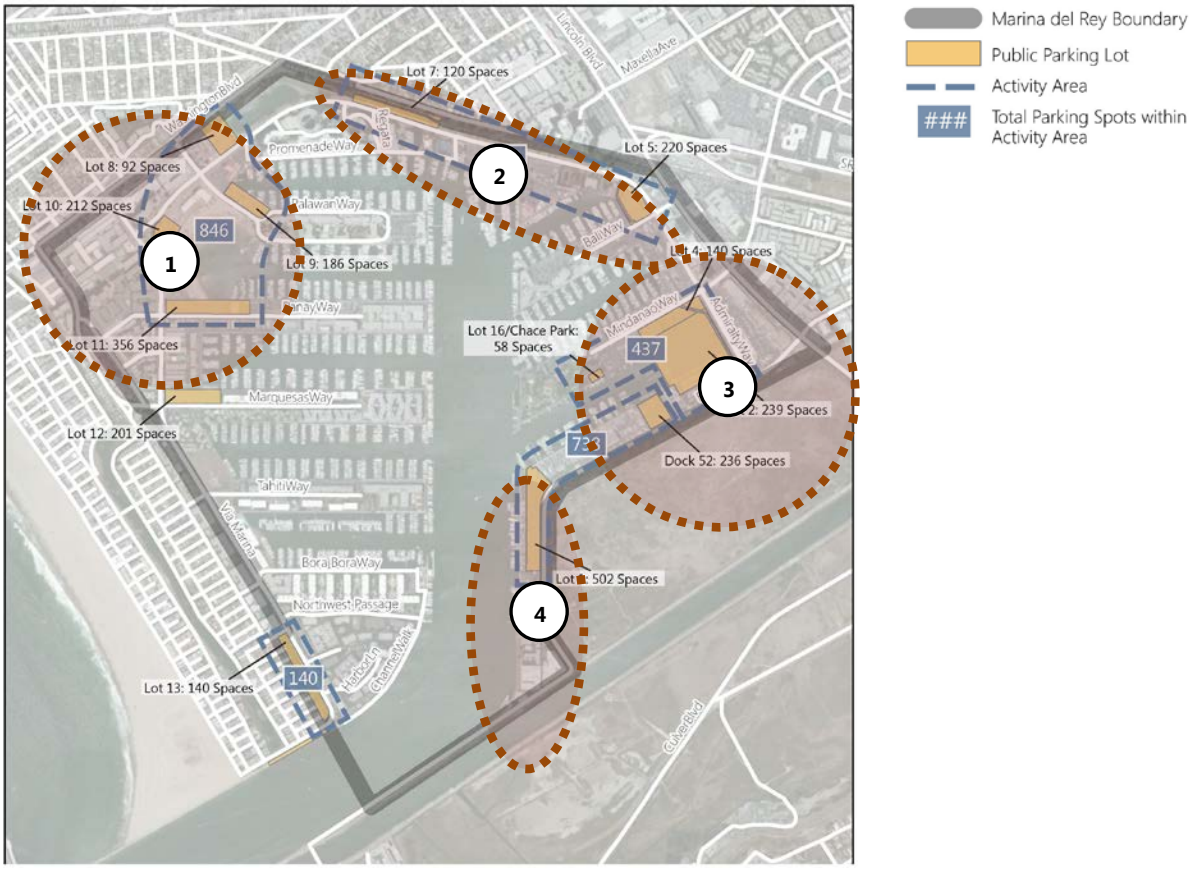
Figure 21 – Marina Beach Mobility Hub Conceptual Design

Park Once

To ensure that needed parking is used as efficiently as possible, we recommend adopting a district-based Park Once strategy for the Marina, which emphasizes operating as many parking spaces as possible in a common pool of shared, publicly-available spaces. Figure 22 illustrates our recommended locations for Park Once districts. They include the Marina Beach Area (District 1), the "Restaurant Row" area along Admiralty Way on the north side of the Marina (District 2), the Chace Park / Waterside Shopping Center area (District 3), and the Fisherman's Village area (District 4). These districts were selected because they

represent the primary destination areas within Marina del Rey that have a substantial amount of visitor-serving uses.

Figure 22 – Recommended Park Once Districts



These districts have several public parking lots, but they also have a substantial number of parking spaces in private off-street parking lots and structures. Many of these private parking facilities are dedicated to specific user groups (such as tenants of office buildings, etc.), and are frequently unavailable to the general public and, as a result, are often underused. This off-street supply represents a substantial amount of already-constructed parking which, if made available to the public, could support additional uses in the Marina as well as the repurposing of existing underutilized parking lots for Mobility Hubs and higher-value visitor-serving uses.

In the near term, we recommend working with existing lessees to determine if they are interested in opening their parking facilities to public parking. Over time, as parcels are reused or redeveloped and as leases come up for renewal, there is the opportunity to bring many of these parking supplies into the pool of shared, available-to-the-public parking.

Over time, parking facilities in these districts could be consolidated into one or more centralized parking facilities (such as above-grade parking structures) co-located with Mobility Hubs, to allow for the repurposing of some of the existing surface lots. These consolidated Park Once facilities would seamlessly link into all of the Marina's mobility networks with the Mobility Hubs to encourage people to park once and use other modes to get around the Marina.

To preserve the potential for consolidated Park Once facilities in each of these districts, planning for a location for additional parking supply, most likely in the form of an above-grade structure, should be considered. These potential sites could include one existing public surface parking lot in each district. However, constructing additional parking supply should only be pursued when all feasible opportunities for efficiently sharing existing parking resources (including both public and private supply) have been implemented, and once all cost-effective opportunities for utilization of transit, bicycle, and pedestrian modes have been implemented. To ensure that this can be provided when needed, the Marina should reserve well-located sites for potential future parking structures, institute a regular program for monitoring parking supply and demand, and ensure that parking fees are adequate to fund the construction of future parking structures when needed.

Parking Wayfinding

Clear wayfinding is a critical component of a successful Park Once district, especially if a district's parking needs are accommodated in a variety of parking facilities (both public and private). Good parking signs on the street, whether static (i.e., traditional street signs) or dynamic (i.e., electronic signs that point users to currently-available parking supplies) are an important measure for making a public parking supply work effectively. Ideally, good signage should be supplemented by making real-time parking supply and availability information on each public parking facility available online, where it can be accessed via a variety of devices, including desktop and laptop computers, tablet devices, smart phones, and in-vehicle navigation systems. San Francisco's SFpark.org website and smart phone applications, and Downtown Santa Monica's online real-time parking availability website both provide good examples of this approach.

Transit

Transit service, including both ground bus transit as well as the WaterBus, is critical to the success of a Park Once approach to ensure that people have mobility options within the Marina with stops conveniently located adjacent to parking facilities and frequent service that can efficiently take them to multiple destinations in the Marina.

Ground Transit

The Marina Beach Shuttle operates during the peak summer season on Fridays, Saturdays, Sundays and holidays. This service could allow the public to park in virtually any parking lot in the Marina and then visit key attractions via transit. However, the current service frequency limits this option, as few visitors could wait up to 30 minutes for a Beach Shuttle to arrive at their stop in lieu of driving to their next destination. To provide shuttle service that would support a Park Once Marina del Rey, we recommend a service standard of 15-minute headways or better during peak days to be implemented in the long term as the park once system is impleemnted. This would provide more convenient and usable service for Marina visitors and residents, and would have the secondary benefit of making existing, underutilized

parking supplies more convenient to access. To reduce the cost impacts of increasing service frequency, we recommend running some of the Beach Shuttle routes in the Marina only, rather than routing all shuttles to Playa Vista and Playa del Rey, unless ridership demand in those areas is sufficient to warrant the 15-minute service frequency.

Beach Shuttle stops should be located at Mobility Hubs and other key destinations, with higher level stop amenities, such as shelters, benches, and lighting.

While Los Angeles County does not fund or operate the other ground transit services that serve the Marina, ideally public transit stops would be co-located with Beach Shuttle stops and Mobility Hubs, with the same level of bus stop amenities and wayfinding elements that are recommended for Beach Shuttle stops.

WaterBus

As with the Beach Shuttle service, The WaterBus operates during the peak summer season on weekends and holidays. In contrast with the Beach Shuttle, the WaterBus does not follow a set schedule. Nominally, there is a service route, but it also functions as a water taxi, with passengers requesting a specific destination from a dock attendant in advance of being picked up by the service. While this service is convenient once a passenger is on the WaterBus (because it will take them to the stop of their choosing), the lack of a scheduled service makes connecting with ground transit difficult. For that reason, we recommend implementing a scheduled WaterBus service with defined routing and stop locations co-located with Mobility Hubs.

Figure 23 illustrates the existing WaterBus route in black (which is nominally followed since the service operates primarily as a water taxi), a proposed route in pink that corresponds with our recommended Mobility Hub locations, and potential additional route spurs to serve locations with potential future redevelopment. We also recommend using the WaterBus as a "bridge" across the Marina channel to improve pedestrian and bicycle connections for people wanting to travel south to Playa del Rey and Dockweiler Beach. Aside from the stop location at Marina Beach and the potential spurs to serve potential redevelopment sites, we recommend that the WaterBus primarily operate at the end of the moles to facilitate shorter travel time. To further improve the convenience of WaterBus service with this route option, we recommend implementing both a clockwise and counterclockwise service that would operate simultaneously so passengers don't need to backtrack through a full run to get to their destination if it happens to be a couple of stops behind the current stop that they use to board the service.

Figure 23 – WaterBus Route Option 1

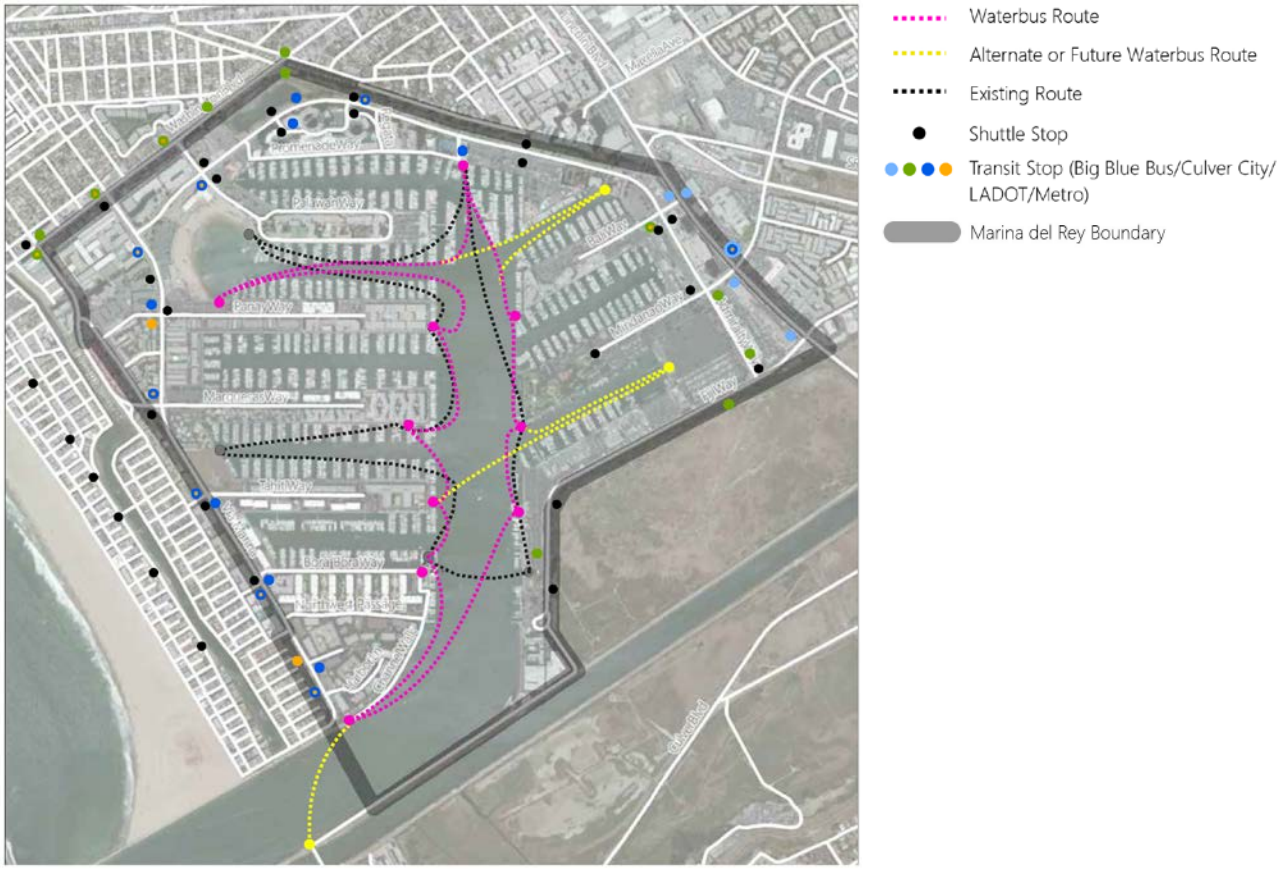
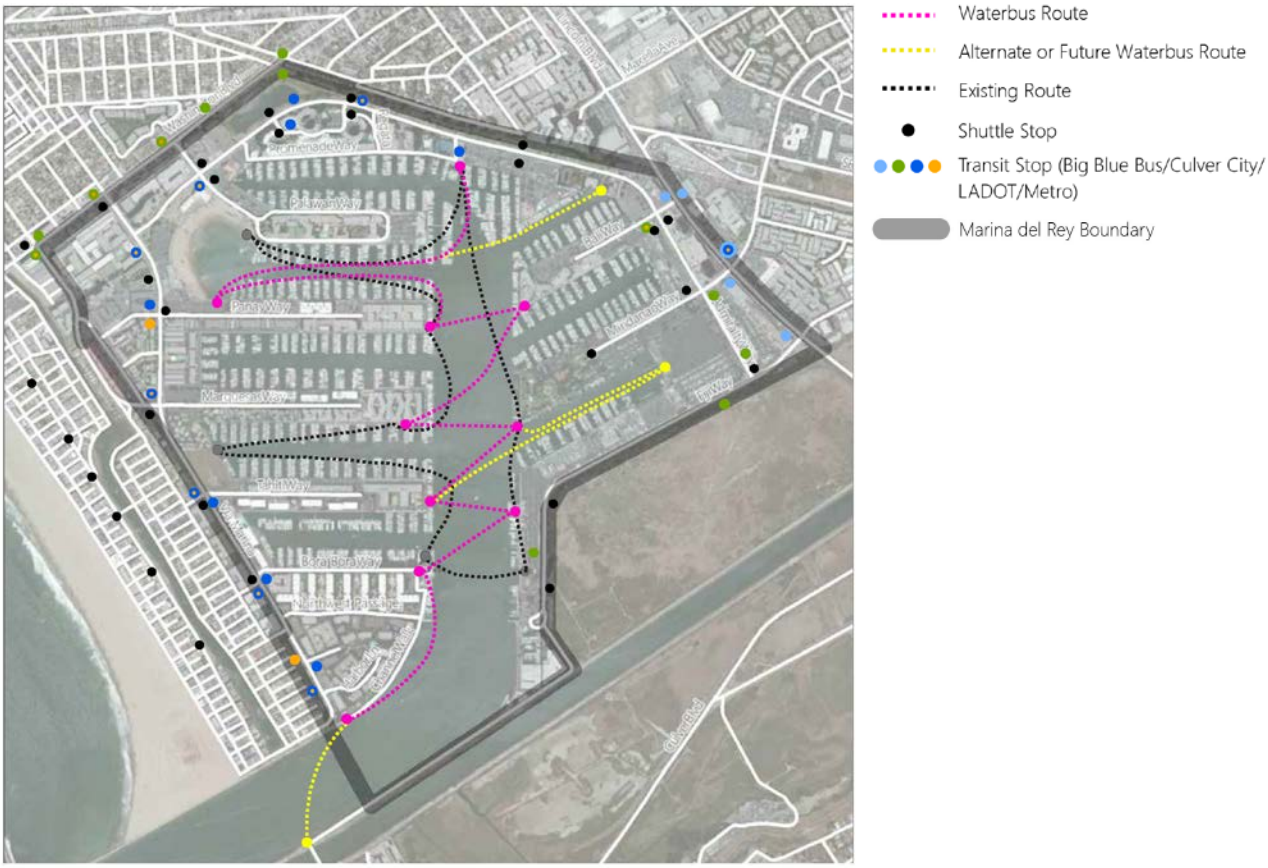


Figure 24 provides an alternative route option. Because the primary barrier to east-west travel in Marina del Rey is the channel itself, this route option zigzags across the channel to link the east and the west side more directly. This route is 13 percent shorter than the existing WaterBus route, so could operate more efficiently. With the additional spurs, the route would be 20 percent longer than existing.

Over time, as demand for the WaterBus service increases, we recommend improving service frequency eventually to reach 15-minute frequencies during peak weekend periods. Regardless of service frequency, schedules should be coordinated with the Beach Shuttle to provide opportunities for easy transfer.

Existing WaterBus stops have limited signage, so are difficult to find for visitors and residents who have not previously used the system. We recommend implementing signage and branding elements on the docks themselves, as well as pedestrian wayfinding signage from key destinations to WaterBus stops to improve the usability and efficiency of the service.

Figure 24 – WaterBus Route Option 2



Ideally, on-demand water taxi service could continue as a supplement to the regular routing and schedule of the WaterBus. To improve the usability of the water taxi service as a near-term measure, we recommend allowing passengers to reserve their trip over the phone, or using a smart phone app, so that a passenger does not need to walk down to a dock and find a dock attendant to know when their water taxi is going to arrive.

Pedestrian

Crossing Spacing and Treatments

As described, one of the key challenges of pedestrian mobility in Marina del Rey is the long spacing between signalized crossings of Via Marina and Admiralty Way. Because those two roads form the primary spine that circumnavigates the Marina, aside from uses accessed along the promenade, the likelihood is high that pedestrians will need to cross one of those streets. We recommend increasing the number of signalized crossings, via the introduction of new traffic signals located at frequently-used (but currently unsignalized) driveways, and/or pedestrian-only signals. On the southern end of Via Marina, we recommend implementing crossings with pedestrian-actuated rectangular rapid flashing beacons (RRFBs)

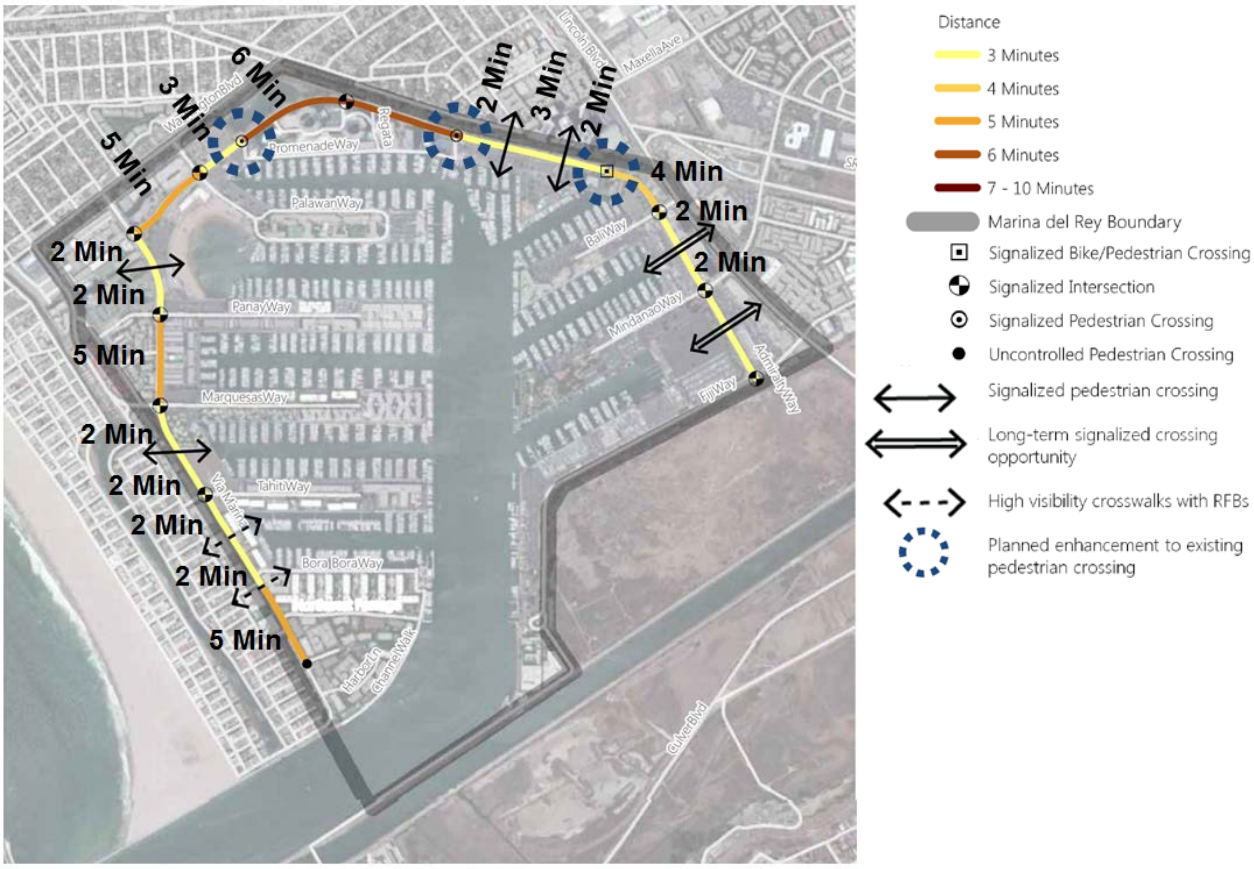
and high-visibility crosswalk striping, similar to the design concept illustrated in Figure 25. Figure 25 also provides a photograph of a pedestrian signal that could be implemented at additional crossings on Admiralty Way. However, we recommend implementing high-visibility crosswalk striping in addition to this treatment.

The implementation of new crossings should be evaluated as development and changes in circulation patterns occur in the Marina. New midblock pedestrian crossings on Admiralty Way and Via Marina should be based on the County's criteria, which includes the number of pedestrians crossing and the adjacent land uses that generate the pedestrian demand.

Figure 25 – Recommended Pedestrian Crossing Treatment Examples

Figure 26 illustrates recommended locations for additional enhanced pedestrian crossings, and the walk times between those crossings, which represent a substantial reduction in walk time between crossings compared with the existing times illustrated in Figure 7 above.

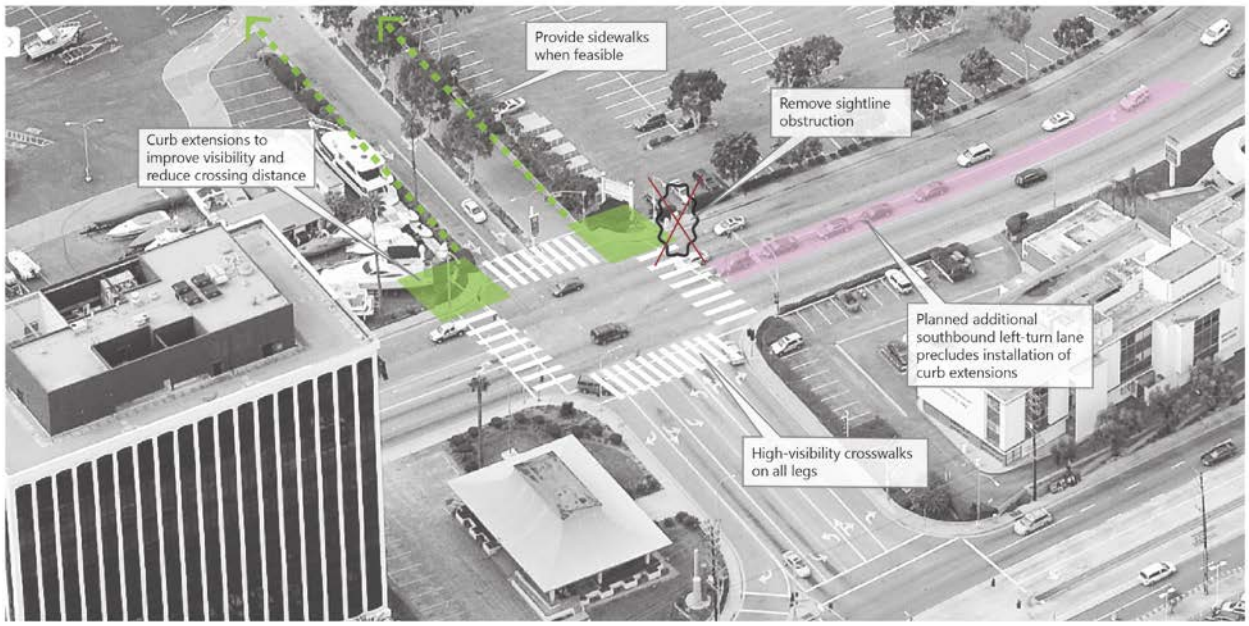
Figure 26 – Recommended Locations for Additional Protected Pedestrian Crossings



<u>Enhancements to Existing Crossings</u>

Beyond more frequent crossings, existing crossings in Marina del Rey could be enhanced to improve pedestrian safety and comfort. Potential enhancements to existing intersection crossings include reducing crossing distances by constructing curb extensions, narrowing travel and turn lanes to a maximum of 10 feet to 12 feet to facilitate curb extensions and/or sidewalk widening, removal of line-of-sight and other obstructions in sidewalks, especially at the approach to intersections, and the installation of high-visibility crosswalks on all legs of signalized intersections. Figure 27 illustrates these potential enhancements for the existing crossings at the intersection of Admiralty Way and Bali Way.

Figure 27 – Pedestrian Enhancements for Existing Crossings at Admiralty Way & Bali Way



Sidewalk Improvements

The sidewalks in Marina del Rey are generally very narrow, and are further impacted by barriers such as utility boxes, lighting standards, traffic signal poles, etc. We anticipate that Gruen Associates will be preparing street design standards and cross-sections for the roadways in Marina del Rey that will detail specific recommendations for street trees, street furnishings, etc. However, at a minimum, we recommend that Los Angeles County's minimum sidewalk standard of 8 feet be implemented throughout the Marina. Preferably, all sidewalks in the Marina would be a minimum of 10 feet wide. With parcel redevelopment, we recommend that this sidewalk minimum be required on all the perimeters streets adjacent to the redevelopment.

Mole Roads

The existing mole roads on the west side of the Marina provide a unique challenge for pedestrian mobility. Because the developments on the moles provide some level of waterfront promenade, the developments on Panay Way, Marquesas Way, and Tahiti Way generally do not provide sidewalks, so any pedestrians entering the developments from these mole roads must walk in the street. There is sufficient roadway width to provide dedicated pedestrian space and one vehicular travel lane in each direction on these roads; however, the Fire Department typically requires a 20-foot-wide clear zone so that vehicles can pass in an emergency, and installing a sidewalk on the mole roads would drop the clear zone below that minimum width. Mole roads, therefore, must remain a shared space. However, to differentiate the pedestrian space to improve safety and pedestrian comfort, we recommend implementing paving treatments in combination with striping treatments, as illustrated in Figure 28, to differentiate the pedestrian space from the shared vehicle/bicycle space.

Figure 28 – Mole Road Shared Space Pedestrian Enhancement

The differentiated paving in the pedestrian space could be partially raised with a rolled curb that could be mounted by fire trucks for a further enhancement.

Waterfront Promenade

The waterfront promenade is an important component of the pedestrian mobility network, and in locations where it is wider, can also serve bicycle mobility as well through the Marina. Conditions along the promenade vary widely, with several gaps in the network. Additionally, 65 percent of the promenade is 10 feet wide or less, making it narrow to serve as a multi-use path for both pedestrians and bicyclists, and in some of the narrowest sections, difficult to use even as a pedestrian. We recommend focusing on gap closure, and the portions of the promenade that are 10 feet wide or less to evaluate the feasibility of widening these sections of the promenade with redevelopment or other means. In addition to the sections of the promenade that are illustrated in green and red (10 feet wide or less), Figure 29 indicates key focus areas for gap closure and promenade widening to serve major Marina destinations. The promenade section from Marina Beach to the library is an especially important section to upgrade, because as described below, designing it as a multi-use promenade to serve both pedestrians and cyclists is likely to be the most feasible option to provide a bike linkage from the east side of the Marina to the west. Given space constraints, and the engineering and potential approval challenges of a cantilevered multi-use promenade along this constrained section, achieving the desired cross-section for the multi-use path may require the redevelopment of some of the parcels along the north side of Marina del Rey.

To safely allow for use of the promenade by both cyclists and pedestrians, we recommend that design standards be implemented. Any sections of the promenade that will be shared by both cyclists and

pedestrians should provide a minimum of 14 to 18 feet clear of benches, landscaping, and other furnishings. In shared spaces, the promenade should be treated with textured paving to help convey to cyclists that it is a shared space to be used by pedestrians and cyclists alike. In sections of the promenade that provide 20 feet or more clear space, a separate two-way striped bike path should be considered, minimum 10 feet wide, with a striped center line and striped edge-lines. The striped bike path portion should have at a minimum a 4-foot setback from any developments with access to the promenade. Figure 30 illustrates these recommendations.

Figure 29 – Pedestrian Promenade Recommended Focus Areas

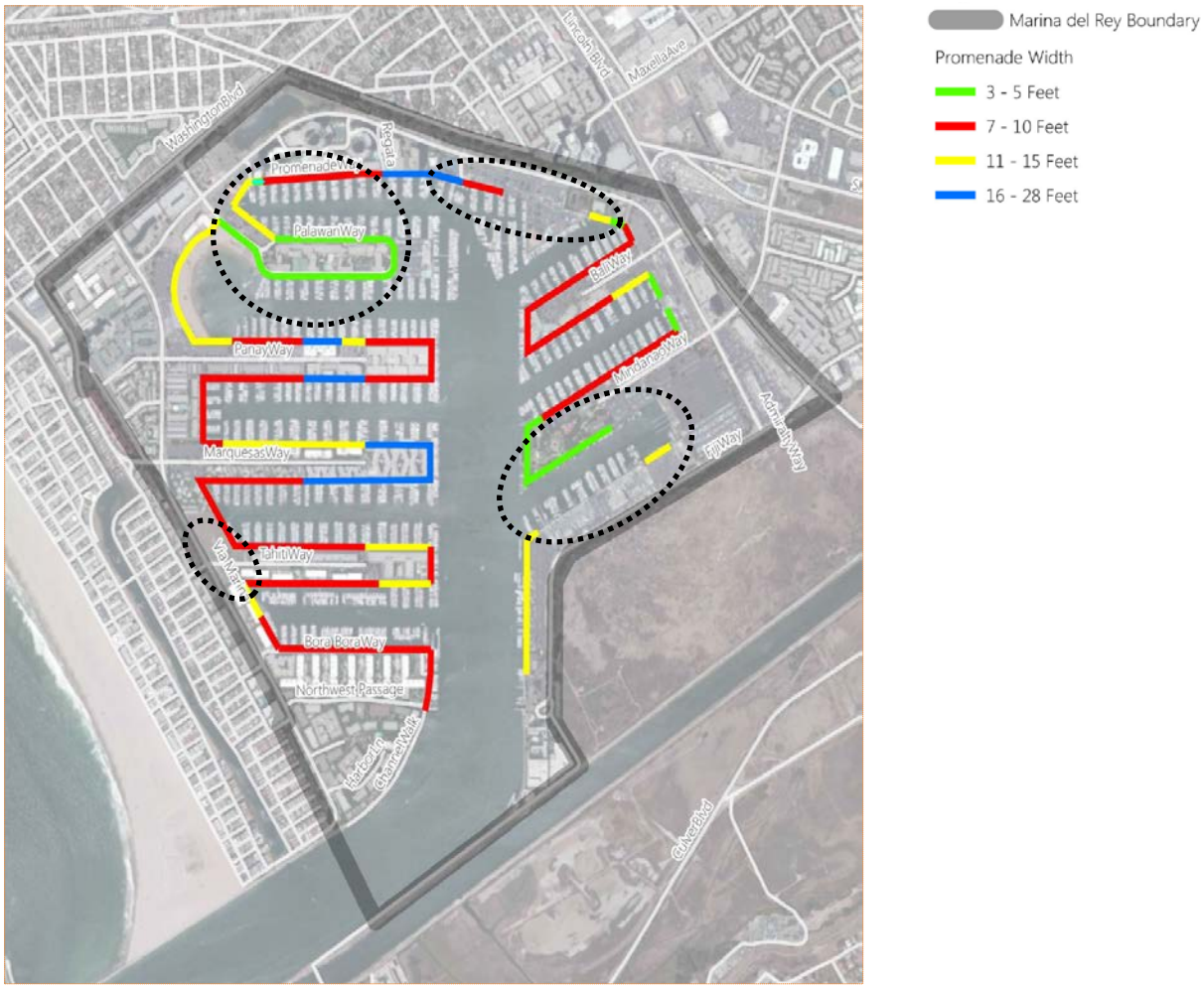
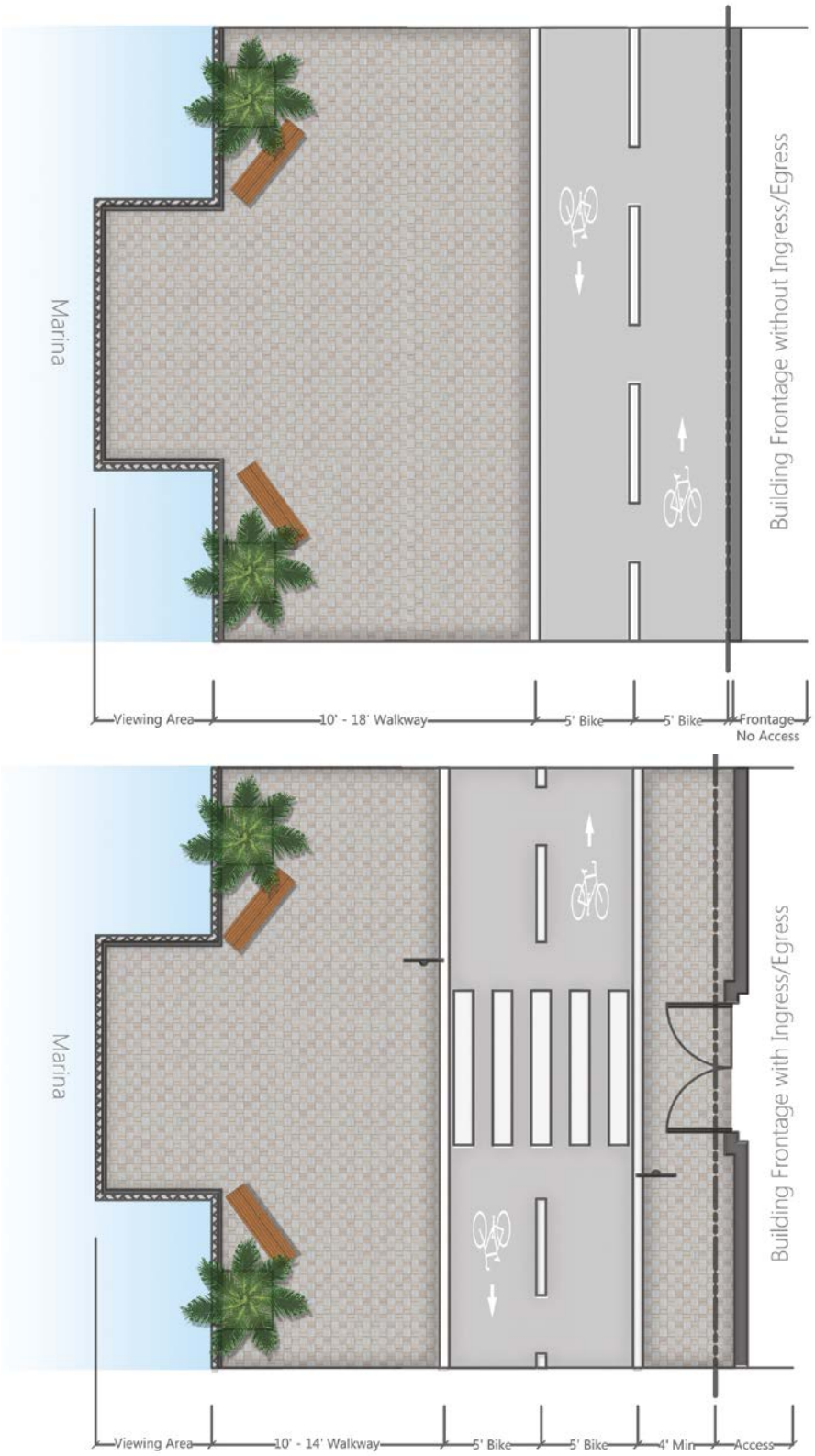


Figure 30 – Recommended Waterfront Promenade Treatments



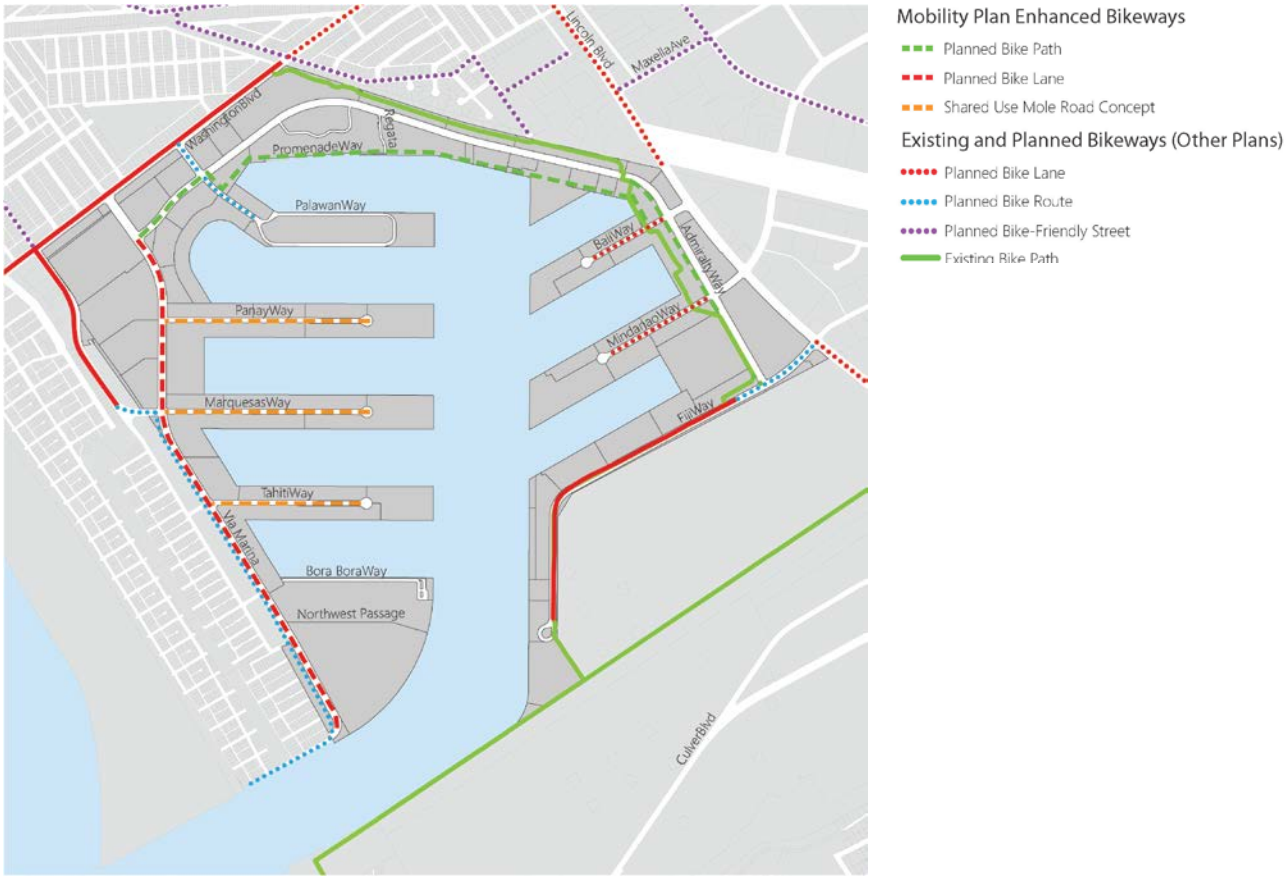
Bicycle

Based on the gaps in the bicycle network identified above, and the locations where bicycles conflict with other modes, we recommend carrying forward the proposed bicycle facilities in Los Angeles County's *Bicycle Master Plan*, with the additional enhancements described below.

Figure 31 illustrates the existing and recommended bicycle network, inclusive of planned bicycle facilities, and the proposed enhancements (lines with longer dashes) we recommend to be implemented in the context of the Mobility Plan. The network includes bike lanes on Via Marina, bike-friendly streets on several of the western mole roads, a multi-use promenade to provide bike and pedestrian connections from the west to the east side of the Marina, improvements to the Marvin Braude bike path on the east side of the Marina, and bike lanes on the eastern mole roads. The recommended network would provide bicycle facilities to link all key destinations in the Marina, serve both water and landside transit service, and link to Mobility Hubs.

As part of LADOT's *Westside Mobility Plan,* the widening of the Ballona Creek Bridge on Lincoln Boulevard is proposed to accommodate potential future bus rapid transit or light rail service, as well as a cycle track and sidewalks. Cyclists from the Marina could safely bike to Playa Vista via Fiji Way, and connect with the existing bike lanes on Lincoln Boulevard in the City of Los Angeles.

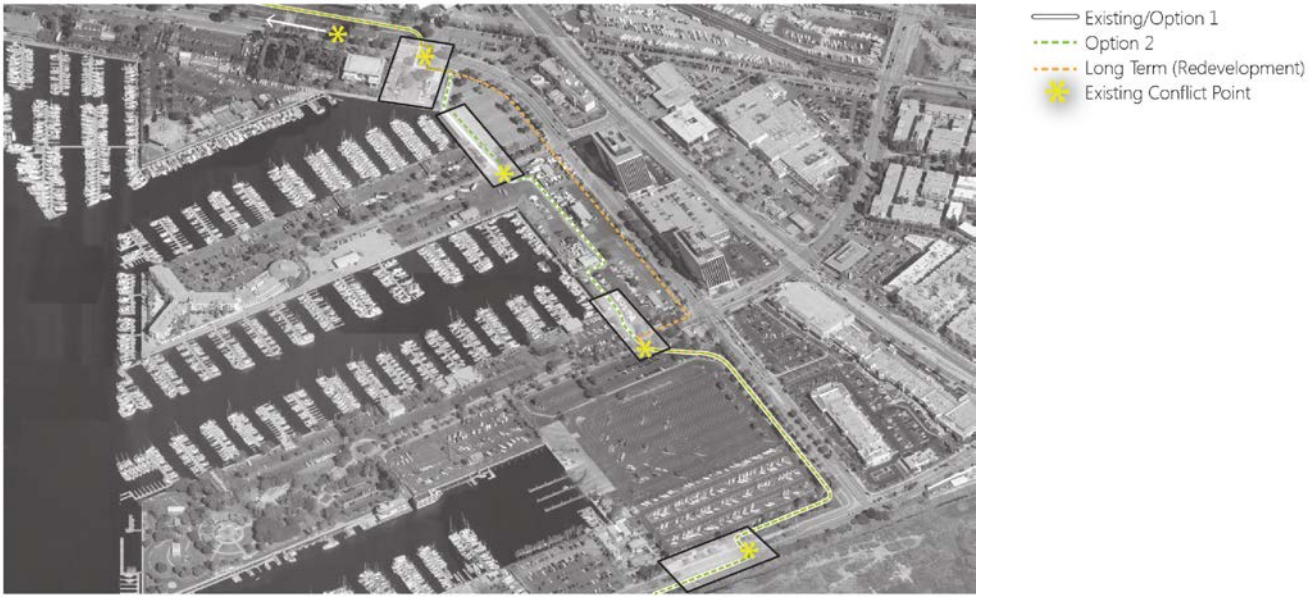
Figure 31 – Recommended Bicycle Network



Recommended Bicycle Network Enhancements

Figure 32 provides a detailed aerial map of recommended bicycle network enhancements on the east side of the Marina, and illustrates the locations where we have proposed bicycle enhancement design recommendations.

Figure 32 – East Marina Bicycle Enhancements Aerial Map



Figures 33 through 38 provide a series of design recommendations and options to enhance bicycle facilities on the east side of the Marina[1].

[1] Please note that the bicycle improvement concepts presented in this report are for illustrative purposes only. Prior to implementation, detailed design drawings prepared by a registered engineer should be developed, reviewed and approved by the County.

Figure 33 illustrates design recommendations to improve the bike facilities on Fiji Way and provide for an enhanced transition from the Fiji Way buffered bike lane to the Marvin Braude Bike Path.

Figure 33 – Recommended Fiji Way Bicycle Enhancements

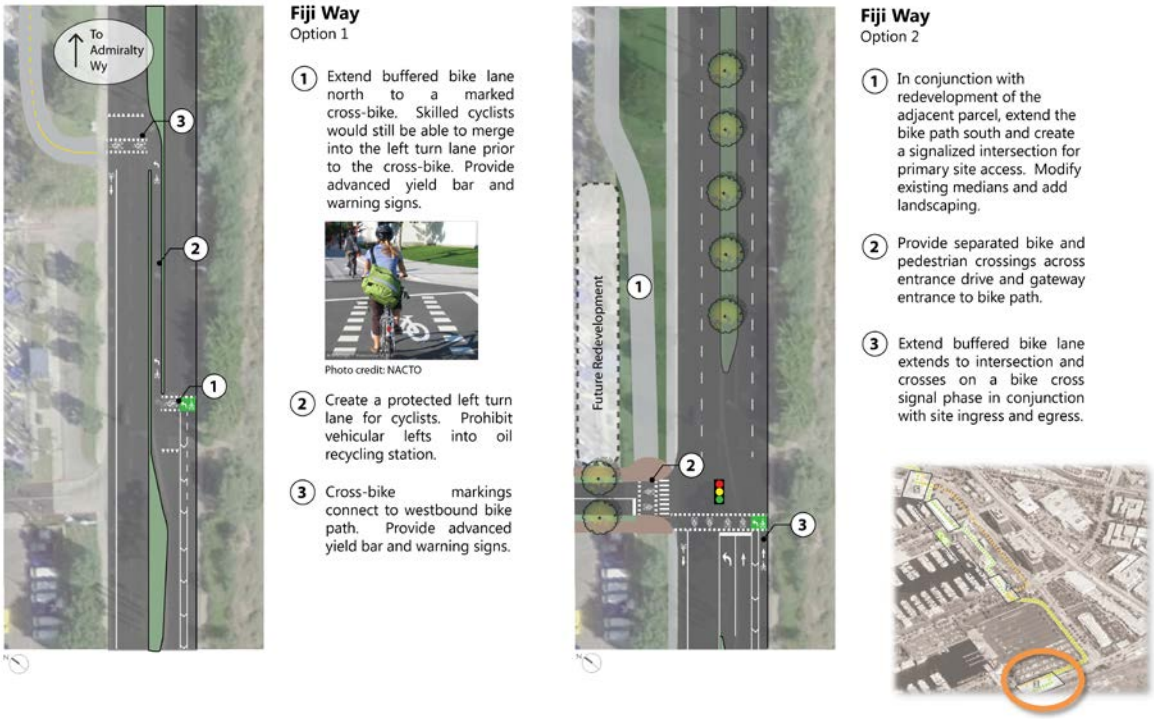
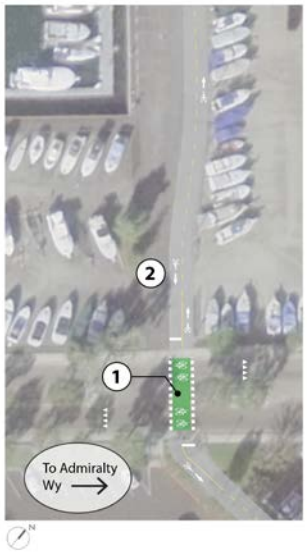


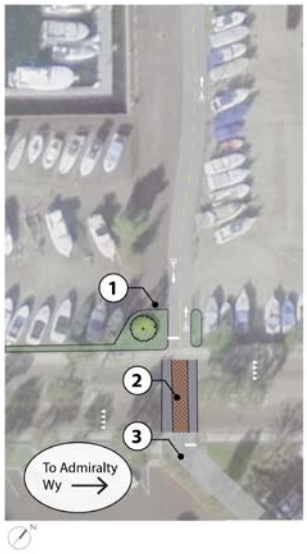
Figure 34 illustrates design options to improve the bike path's crossing of Mindanao Way. It should be noted that the proposed redevelopment of Parcel 44 may influence and/or preclude some of the design recommendations below. Since we developed these recommendations before the Parcel 44 site plan was released and since Parcel 44 is not yet an approved project, the improvement options below are still presented as part of the Mobility Plan. The improvement options can be modified to reflect the travel characteristics of Parcel 44 with new development, as needed.

Figure 34 – Mindanao Way Bicycle Crossing Enhancement Options



Mindanao Way Crossing
Option 1

1. Provide marked cross-bike at existing crossing. Place stop bar on bike path and add advanced yield bars and update pavement markings and warning signs on Mindanao Way.
2. Consider making drive aisle one way.

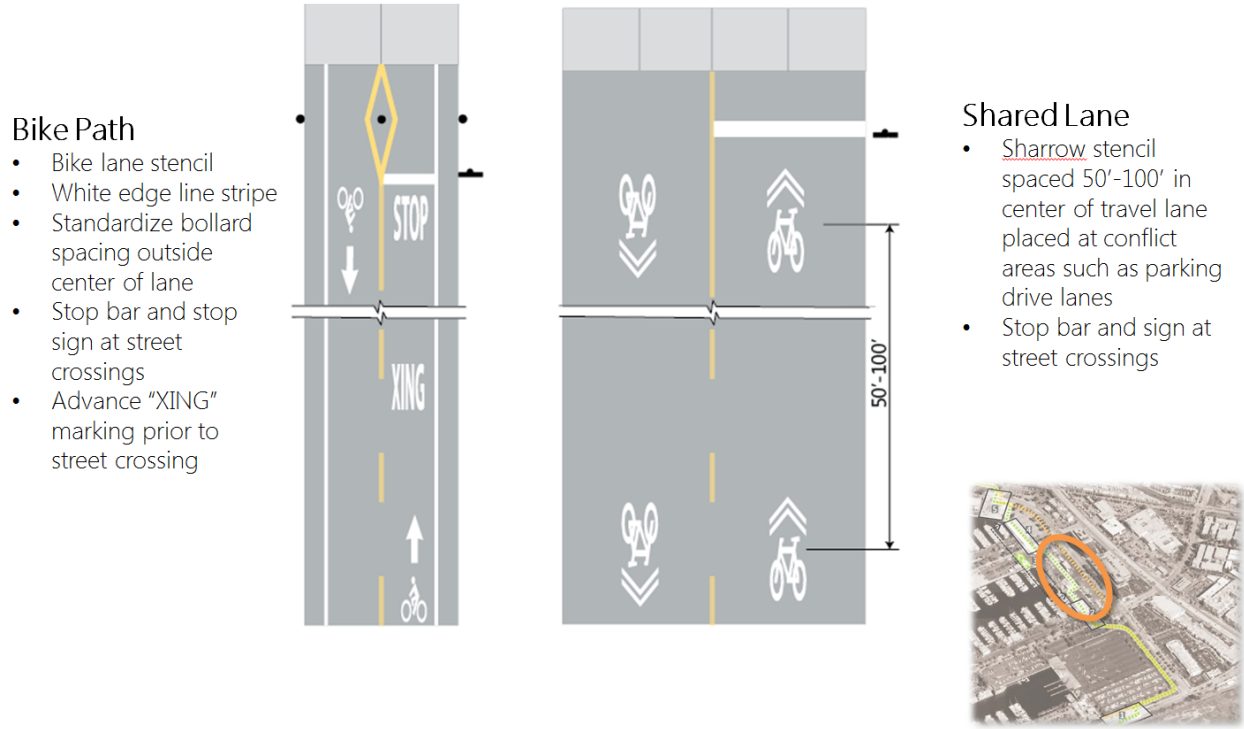


Mindanao Way Crossing
Option 2

1. Close drive aisle to create an exclusive bicycle access crossing. Reconfigure parking circulation and make drive asle adjacent to bike path one way.
2. Install a raised crosswalk with advanced yield bars and updated pavement markings and warning signs on Mindanao Way.
3. Realign path to allow for straight crossing.

Figure 35 illustrates two near-term striping treatment options for the Marvin Braude Bike Path as it travels through Parcel 44. This section of the bike path actually functions as a shared lane bike route because the path runs through the drive aisle of the parking lot vehicles use to circulate into and through the parking lot.

Figure 35 – Parcel 44 Bicycle Enhancements.



In the long term, we recommend preserving right-of-way to facilitate slower bicycle travel along a multi-use waterfront promenade, and a dedicated bicycle side path adjacent to Admiralty Way. These could be accomplished by providing a bicycle path immediately adjacent to Admiralty Way and designating a portion of the promenade path for bicyclists with textured pavement along with striping and signing treatments. The Admiralty Way path would connect the existing bicycle crossing on Admiralty (at the Library) to the path that currently runs along Admiralty Way between Mindanao Way and Fiji Way. This parallel path would help to decrease the number of bicyclists utilizing the promenade path, which could be desirable as pedestrian activity increases with redevelopment. The currently-proposed redevelopment project on Parcel 44 does not provide adequate right-of-way between Admiralty Way and the parking lot to provide this parallel path. In addition, the project driveway on Admiralty Way is not conducive to a bicycle crossing. Therefore, if the Parcel 44 site plan remains as proposed, the Admiralty Way bicycle path would no longer be an option to accommodate future bicycle circulation in the Marina. The promenade path would need to serve all bicyclists traveling through the Marina.

Figure 36 illustrates design recommendations for the bike crossing of Bali Way, and the treatment of the bike path through the parking lot of Parcel UR. As with Parcel 44, the bike path operates as a shared lane route in this section.

Figure 36 – Bali Way Crossing and Parcel UR Bicycle Enhancements

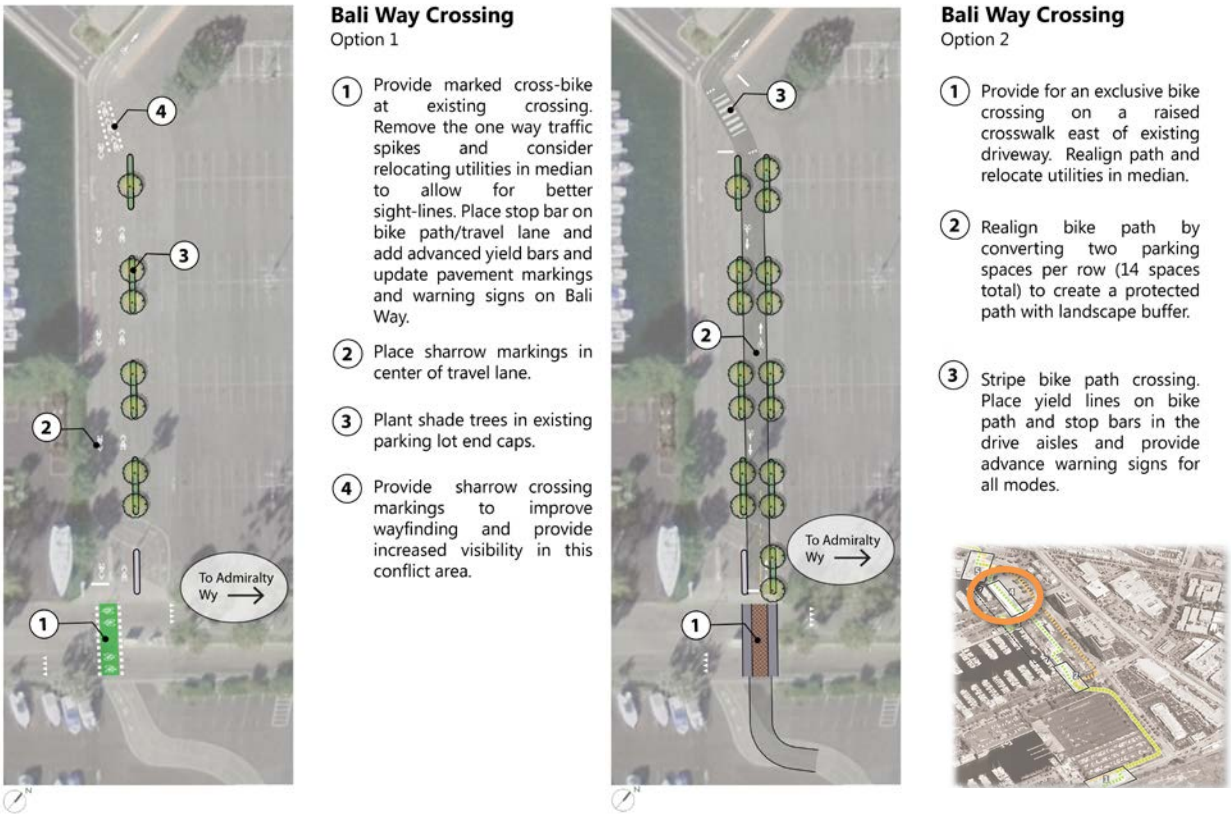
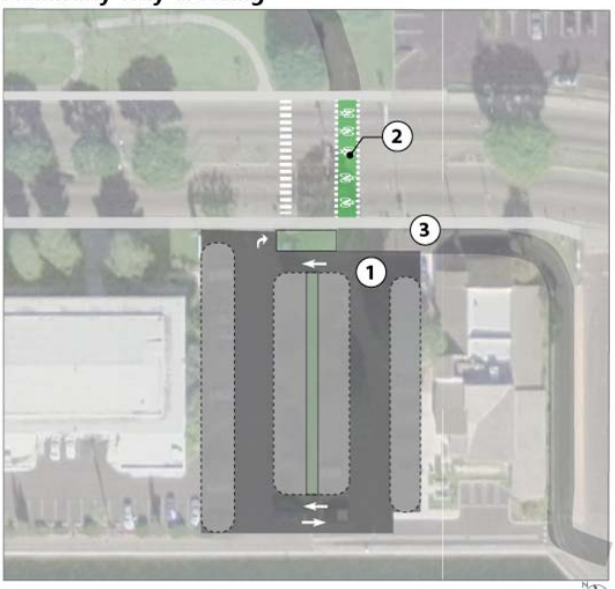


Figure 37 illustrates design recommendations for the bike crossing of Admiralty Way between Yvonne B. Burke Park and the library, as well as treatments for the library parking lot to minimize conflicts between bikes on the path and motorists using the parking lot.

Figure 37 – Admiralty Way Crossing Bicycle Enhancements

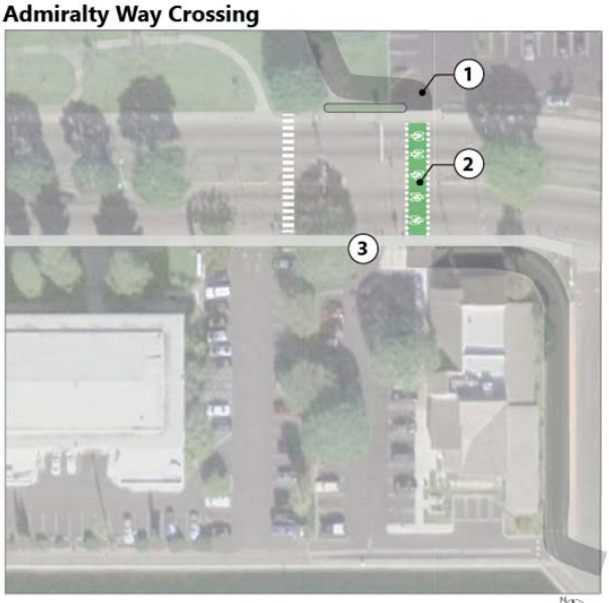
Admiralty Way Crossing



Option 1

1. Consolidate ingress/egress of adjacent parking lots in order to remove bike and vehicle conflicts at the bicycle crossing.
2. Stripe high-visibility crosswalk and provide separated marked cross-bike. Maintain existing bike/pedestrian crossing signal.
3. Improve wayfinding for bicycles and pedestrians through signs, pavement materials and pavement markings.

Admiralty Way Crossing

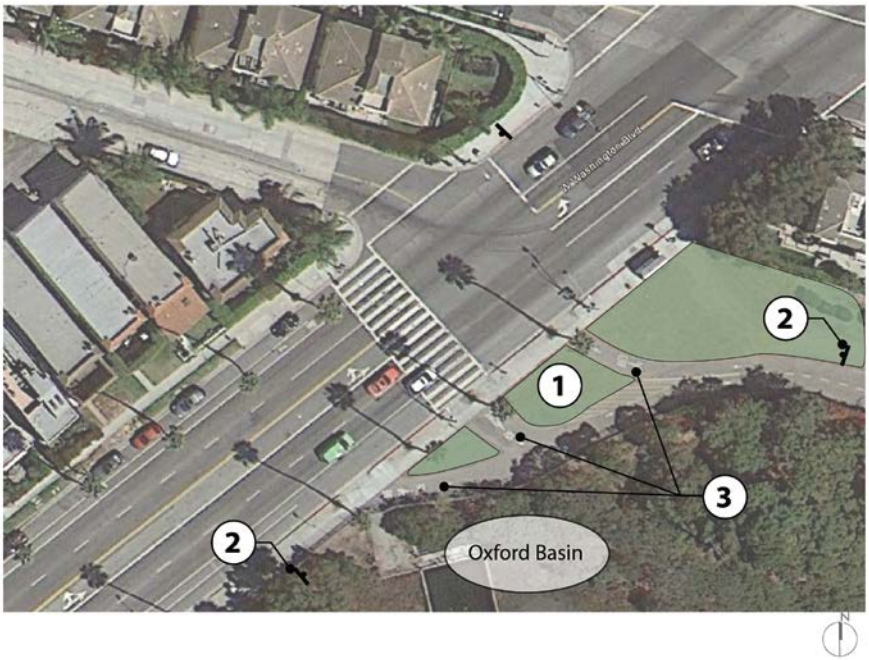


Option 2

1. Realign bike path to use adjacent medical facility parking drive (currently fenced off). Option does not remove any existing private parking spaces. Consider relocating signal boxes in front of library to minimize obstructions adjacent to the bike path.
2. Stripe high-visibility crosswalk and provide marked cross-bike. Relocate existing bike/pedestrian crossing signal push button.
3. Improve wayfinding for bicycles and pedestrians through signs, pavement materials and pavement markings.

Figure 38 illustrates design recommendations to improve the wayfindng and visibility of the gateway to the Marvin Braude Bike Path where it meets Washington Boulevard.

Figure 38 – Washington Boulevard Gateway Enhancements



(1) Create a gateway parklet by installing a gateway entrance feature, trail amenities and landscaping. Trail parklet could incorporate amenities such as benches, lighting, drinking fountain, and outdoor fitness equipment.

(2) Clarify pavement markings on path to reinforce wayfinding and use patterns. Markings should reflect multi-use path through this section.

(3) Provide advanced wayfinding signs prior to intersection to help cyclists position themselves at the crossing.

Figure 39 illustrates two potential concepts to create a bike link from the on-street bike lanes we recommend for Via Marina, to the Marvin Braude Bike Path on the east side of the Marina. Because implementing bike lanes on Admiralty Way would require the removal of a travel lane or median, we do not consider it feasible given the traffic volumes on that portion of the roadway. Thus, we recommend accomodating the bike connection via a multi-use promenade shared by both cyclists and pedestrians. Over time, as parcels redevelop, we recommend implementing a bicycle side path adjacent to Admiralty Way to accommodate this connection.

Figure 39 - East-West Bicycle Connection Recommendations

1 Bike path adjacent to Admiralty Way.

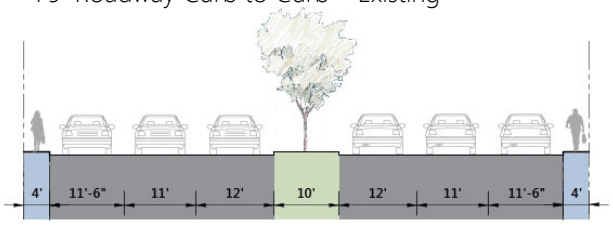
2 Shared bicycle and pedestrian promenade. Consider bike dismount zones prior to sections of promenade less than 14feet wide. Primarily a facility for local vs. regional bike traffic

On Via Marina, we recommend implementing on-street bike lanes, given that traffic volumes are lower than on Admiralty Way, as illustrated in Figures 16 and 17. South of Marquesas Way, Via Marina provides two vehicle travel lanes in each direction. East of Via Marina, Admiralty Way provides two vehicle travel lanes in each direction, and yet north of Marquesas Way, Via Marina provides three vehicle travel lanes in each direction. Because traffic volumes can be accommodated with two lanes in each direction in this section, we recommend eliminating one vehicle travel lane in each direction to provide for a consistent cross-section for the full length of Via Marina. This roadway striping change provides the opportunity to implement a buffered bike lane, or as an alternative, a standard bike lane and a wider sidewalk, as illustrated in Figure 40. South of Marquesas Way, we recommend implementing bike lanes, which can be accommodated in the existing roadway cross-section while maintaining two vehicle travel lanes in each direction. Given the roadway width south of Marquesas Way, a buffered bike lane can only be accommodated on the east side of the street. Alternatively (not illustrated), the sidewalk on the east side of the street could be widened, and the buffer for the bike lane could be reduced.

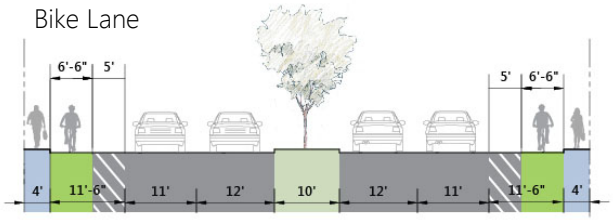
Figure 40 - Via Marina Recommended Bicycle Enhancements

Via Marina
North of Marquesas Way

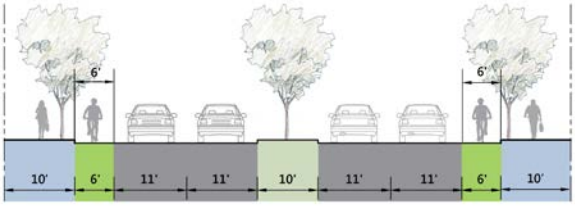
79' Roadway Curb to Curb – Existing



79' Roadway Curb to Curb – Buffered Bike Lane

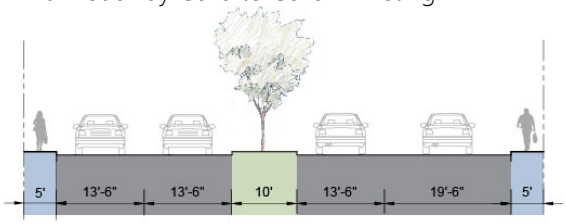


66' Roadway Curb to Curb – Wider Sidewalk & Bike Lane

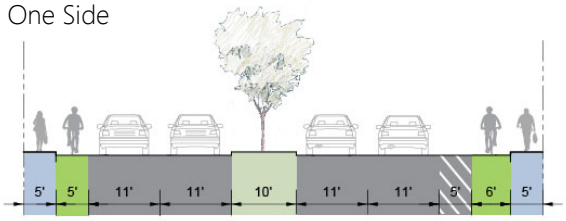


Via Marina
South of Marquesas Way

70' Roadway Curb to Curb – Existing



70' Roadway Curb to Curb – Buffered Bike Lane, One Side



<u>Bicycle Parking</u>

As described, bike parking should be provided at all Mobility Hubs to meet bike parking demand. We recommend providing at a minimum one bike corral the size of one standard motor vehicle parking stall at each Mobility Hub, with room to increase the bike parking available to meet demand. At other visitor and commercial destinations and at residential developments in the Marina, we recommend providing bike parking in as many locations as possible.

The City of Los Angeles recently adopted a bicycle parking ordinance that requires minimum bike parking standards with new development. We recommend that similar bike parking standards be adopted for Marina del Rey to ensure that adequate bike parking is provided throughout the Marina for both visitors and residents.

The City's ordinance includes minimum short-term and long-term bike parking space standards for a given unit of a designated land use. The ordinance defined short-term bike parking as bike racks that support the bike frame in two locations (racks that support the bike frame in only one location are not permissible). Long-term bike parking is defined as parking that is secured from the general public, and is enclosed on all sides to protect the bike from inclement weather. Examples include bike lockers, bike rooms, etc. The following table details the City's required bike parking space minimums for select uses.

Use	Short-Term Bike Parking Space Minimums	Long-Term Bike Parking Space Minimums
Residential	1 per 10 DU	1 per DU
Hotel	1 per 20 guest rooms (minimum of 2 spaces)	1 per 20 guest rooms (minimum of 2 spaces)
Retail	1 per 2,000 SF (minimum 2 spaces)	1 per 2,000 SF (minimum 2 spaces)
Restaurants	1 per 2,000 SF (minimum 2 spaces)	1 per 2,000 SF (minimum 2 spaces)
Office	1 per 10,000 SF (minimum 2 spaces)	1 per 5,000 SF (minimum 2 spaces)

DU = dwelling unit
SF = square feet

Vehicles

Roadway Capacity

As described, some of the traffic congestion in the Marina is caused by peak period regional cut-through traffic as a bypass to congestion on Lincoln Boulevard and limited north-south roadway connectivity on the Westside. Increasing roadway capacity in the Marina and improving traffic flow may encourage additional cut-through traffic (unless traffic congestion on Lincoln Boulevard improves significantly in the future). Therefore, we do not recommend implementing additional roadway capacity enhancements, unless updated traffic monitoring indicates that they are necessary, because the short-term benefits could be outweighed by additional regional cut-through traffic.

The County has several traffic capacity projects planned to serve traffic from future projects in the development pipeline. We recommend that roadway capacity projects only be pursued if they are considered to be vital to the operations of the roadway network in the Marina and enhance the transportation network for all users of the system. Because conservative traffic forecasts from prior studies have not been realized in the Marina (traffic volumes have been substantially lower than forecast), we recommend monitoring traffic conditions and implementing projects as needed based on documented traffic volumes, rather than on future traffic forecasts. If the level of development that occurs does not meet the level expected in recent traffic studies, further roadway capacity enhancements may no longer be necessary.

Vehicle Access

As described, vehicle access to many of the public parking facilities are confusing and poorly marked. Especially as the Marina moves to implement a Park Once system, clear wayfinding to parking access locations and well-marked driveways are important to facilitate direct vehicle access. Additionally, designing driveways at 90-degree angles to roadways, rather than designed as a loop or hook, minimize the impacts to sidewalks and pedestrian and bicycle circulation. We generally recommend that deceleration lanes and dedicated right-turn lanes into developments not be provided because of the impacts to pedestrian and bicycle networks, since Via Marina and Admiralty Way both have two lanes in each direction.

Electric Vehicles

Neighborhood electric vehicles (NEVs) may be an attractive mobility option for residents of Marina del Rey. They are much more compact than traditional cars (but are larger than typical golf carts); they can travel at 25 miles per hour, and can cover up to about 30 miles before needing to be recharged. Charging stations that can serve NEVs or other electric vehicles should be considered for Mobility Hubs and other primary destinations in the Marina, such as the Waterside Shopping Center.

Boaters

As described, we recommend that dinghy docks with clear water-side wayfinding signage be installed at Mobility Hubs, to the extent feasible, to provide opportunities for boaters to use small personal watercraft to travel in the Marina. In particular, dinghy docks should be installed adjacent to clusters of restaurants, shopping areas, and other visitor-serving uses so Marina residents can choose to use their own boats to travel across the Marina.

One of the challenges of boat launches is dealing with conflicts with pedestrians and bicyclists that may cross in front of the boat launch. If the boat launch remains in Parcel 49R or is shifted elsewhere in the Marina, the pedestrian and bicycle promenade should ideally be routed so it provides separation between the launch ramp and areas of pedestrian and bicycle activity, and boaters can have a clear and conflict-free path to the launch ramp.

Boaters have unique parking needs compared with other visitors to the Marina. They require larger parking stalls to accommodate trucks and vehicles with trailers. They need close proximity to slips or a direct pathway for carts to transport equipment from their vehicles to their boats. Some boaters may go on extended trips and require secured overnight parking for their vehicles. Access to shower facilities and

equipment wash areas is also important. For these reasons, we recommend providing boater parking in dedicated fully-reserved areas with key card access controls to ensure that parking facilities are used only by boaters. During certain special events, or in the evenings when fewer boaters are parked, the boater parking areas could be used for valet parking or other overflow parking needs as determined by the parking operators.

Small-craft boaters launch primarily from Marina Beach. Maintaining trailer and equipment drop-off access along Panay Way, with convenient day-use boater parking is critical for these boaters. Adding to the small-craft storage capacity in this location is also recommended.

PLAN IMPLEMENTATION

The following details implementation recommendations for the mobility enhancements described above.

Mobility Hubs

1. Prepare a design for the Mobility Hub that is ideally modular in nature, such that the design can be easily implemented in other locations in the Marina, and can easily be expanded over time as demand dictates.

2. Construct Mobility Hubs in tandem with pedestrian, bicycle, transit, and wayfinding improvements. Consider funding Mobility Hub construction costs through developer fees, or as transportation mitigation measures when implemented with a development project.

3. Expand the number of Mobility Hubs in tandem with pedestrian, bicycle, transit, and wayfinding improvements in other locations in the Marina.

4. Reserve a location adjacent to Marina Beach for the Marina's first Mobility Hub, either as part of a near-term proposed redevelopment or in one of the existing surface lots.

Park Once

1. Designate several Park Once districts in the Marina where parking can be shared to serve the parking needs of the given district.

2. Conduct a comprehensive parking inventory and occupancy study of all existing parking spaces in Marina del Rey, including both public and private spaces. Understanding the extent and usage of all existing parking resources is a key first step. In order to efficiently and effectively manage parking operations, it is important to identify how many parking spaces exist overall, which spaces are over- or underutilized and when, and then identify which spaces could be more effectively used if properly shared.

3. When funding permits, implement continuous monitoring of parking occupancy in order to be able to track usage of the existing parking supply by hour of the day, day of the week, and season. Implementing regular monitoring also allows the County to assess the effectiveness of transportation demand management programs in reducing parking demand, and allows the tracking of trends to help determine if and when new parking may be needed in the future.

Initially, conducting regular manual counts (e.g., using current parking operations staff) may be sufficient. Eventually, parking occupancy could be tracked using sensors at lot entries and exits.

4. As existing leases come up for renewal and as reuse or redevelopment of existing parcels is considered, aim to bring both existing and any additional parking supply into the shared, available-to-the-public pool of parking. The primary exception to this policy may be residential parking. However, residential parking may have visitor parking spaces that can be shared or excess supply that can be shared, and such sharing should be encouraged if not required. (Partial sharing of a parking supply generally involves limiting access to a secure, gated parking facility to a limited group of regular users, such as residents, and a limited number of regular parkers, such as employees, who typically lease parking at a monthly rate.)

5. Consider charging higher parking rates for the most convenient, premium lots, and lower rates for less-convenient and currently-underused lots to help balance parking supply and demand throughout the system. This pricing principle does not need to be applicable to lots that directly service Marina Beach or other sensitive coastal areas, due to their importance in supporting coastal access.

6. Consider a variety of institutional approaches to creating shared parking, which may vary depending on the specifics of any particular lease renewal, parcel reuse or redevelopment project. A Park Once approach may be used whether a particular parking facility is publicly-owned and operated or privately-owned and operated. The important principle to strive for is to operate as many parking facilities as possible in a manner which results in the spaces being available to the public and operated as a part of a commonly-shared pool.

7. Plan for additional parking when needed. In the long-term, once all feasible opportunities for efficiently sharing existing parking resources have been implemented, and once all cost-effective opportunities for transportation demand management have been adopted, additional parking may be needed. To ensure that this can be provided, the Marina should reserve well-located sites for potential future parking structures, institute a regular program for monitoring parking supply and demand, and ensure that parking fees are adequate to fund the construction of future parking structures when needed.

8. Provide dedicated parking facilities for boaters given their unique needs. To minimize conflicts with other modes and ensure convenience for boaters, provide key-card access-controlled parking facilities to ensure that dedicated boater-parking facilities are only used by boaters.

Transit

<u>Beach Shuttle</u>

1. Improve transit stops with more visible signage, wayfinding elements, and stop amenities as funding allows.

2. Reevaluate beach shuttle schedules and stop locations to ensure convenient transfers between other public transit service and the WaterBus. As Mobility Hubs are implemented, relocate shuttle stops as needed to ensure they are located as close as possible to Mobility Hubs. Evaluate beach

shuttle stop locations in terms of how well they serve bus stops in the Marina. Revise stop locations to better serve public parking lots with improved wayfinding signage.

3. Evaluate financial feasibility of improving the service frequency of the shuttle to achieve 15 minute frequency standards. Consider using parking revenue and/or development fees to help fund the service improvements.

WaterBus

1. Evaluate WaterBus stop locations to determine if stops can be located with more convenient transfers to beach shuttle and other surface transit stops.

2. Improve the wayfinding and identity elements for WaterBus stops.

3. Evaluate the financial feasibility of improving service frequency to operate on a set schedule service, ideally with both clockwise and counterclockwise service. Consider using parking revenue and/or an assessment on area hotels and visitor-oriented businesses to help fund the service improvements.

4. If operating on scheduled service is not determined to be financially feasible, improve the customer convenience of the WaterBus as a water taxi service by using phone and/or smart phone apps to reserve trips.

Pedestrian

1. Implement pedestrian improvements including wider sidewalks, improved crossings, mole road treatments, waterfront promenade extension and improvements with all new development projects, and as leases are renewed in the Marina.

2. As funding is available, implement near-term pedestrian improvements with particular focus on installing additional protected pedestrian crossings, retrofitting all pedestrian crossings with high visibility crosswalks, and widening sidewalks.

3. Reevaluate planned traffic capacity enhancements and consider repurposing or redesigning those projects towards pedestrian improvements instead.

Bicycle

1. Implement near-term capital improvement projects for the Marvin Braude bike path on the east side of the Marina to address conflict locations and bike crossings.

2. With redevelopment, implement a wider waterfront promenade that can serve as a multi-use path for cyclists and pedestrians. If feasible with redevelopment, implement an additional bicycle side path along Admiralty Way.

3. Restripe Via Marina to provide on-street bike lanes and two travel lanes in each direction as funding is available.

Vehicles

1. Conduct updated traffic counts to determine if traffic volumes in Marina del Rey have grown.
2. Evaluate projects in development pipeline to determine if planned roadway capacity improvements are needed to serve traffic. If development pipeline is less than anticipated in the 2010 traffic study, delay implementation of roadway capacity enhancements until such a time as traffic counts indicate the need for additional capacity.
3. With proposed redevelopment of surface parking lots evaluate parking lot/structure access to improve access design, as well as introduce vehicle wayfinding.
4. For parking lots that are likely to remain surface parking in the future, evaluate driveway access and wayfinding elements to determine if improvements are warranted.
5. Explore the interest of leasees in introducing electric vehicle charging stations in the Marina.

Boaters

1. Install additional dinghy docks with Mobility Hubs.
2. Incentivize visitor-serving uses on the water-front (such as restaurants) to fund the implementation of dinghy docks.
3. Evaluate pedestrian and bicycle circulation around the public boat launch area.
4. As boater parking facilities are relocated or redesigned, introduce additional amenities, such as secured parking, improved shower and changing facilities, etc.