3.11

TRANSPORTATION AND CIRCULATION (GROUND)

3.11.1 Introduction

This section describes the environmental setting (existing conditions and regulatory setting) for transportation relating to the proposed Project, the impacts on transportation that would result from the proposed Project, and mitigation measures that would reduce these impacts.

A key source of data and information used in the preparation of this section is the traffic study that was prepared separately for the proposed Project by Fehr & Peers; this report is included as Appendix M of this draft EIS/EIR.

3.11.2 Environmental Setting

This section discusses the existing conditions relating to transportation in the study area, as well as federal, state, and local regulations relating to transportation that would apply to the proposed Project and its alternatives. The assessment of conditions relevant to this study includes roadway, transit, rail, and nonmotorized infrastructure and operations.

3.11.2.1 Existing Street System

Primary regional access to the study area is provided by the Harbor Freeway (I-110) northwest of the proposed project site and by the Vincent Thomas Bridge and Seaside Avenue (State Route [SR] (SR-47) northeast of the proposed project site. Year 2006 data from Caltrans show that the average daily traffic (ADT) volume on the Harbor Freeway to the north of Channel Street was approximately 89,000 vehicles per day (vpd), and the ADT on the Vincent Thomas Bridge was approximately 47,500 vpd. Access to the site from I-110 is provided via the freeway terminus at Gaffey Street or

ramps at Harbor Boulevard. From SR-47, the proposed project site can be accessed via ramps on Harbor Boulevard.

Local access to the proposed project site is provided by a well-defined grid of arterial and collector roads. The primary roadway facilities in the proposed project study area are as follows.

- **Gaffey Street** is classified by the City of Los Angeles as a Major Class II Highway that runs north-south in the study area. This arterial provides a connection for local and regional travel from San Pedro to other parts of Los Angeles and the South Bay region. Gaffey Street is a major commercial corridor within San Pedro.
- **Pacific Avenue** is classified as a Secondary Highway that provides north-south access within San Pedro. It is a major commercial corridor within San Pedro consisting of strip commercial, auto repair, and restaurants. The four-lane roadway's northern terminus is at Channel Street, where the roadway continues as John S. Gibson Boulevard. Its southern terminus is at the Pacific Ocean where it intersects with Shepard Street and Bluff Place.
- **Harbor Boulevard** is classified as a Major Class II Highway and provides north-south access along the eastern side of the community of San Pedro. Harbor Boulevard forms the western edge of the proposed project site. It continues as Front Street north of Regan Street, as John S. Gibson Boulevard north of Pacific Avenue, and as Miner Street south of Crescent Avenue.
- **7th Street** is classified as a Secondary Highway between Weymouth Avenue and Harbor Boulevard, providing east-west access through the central portion of the community of San Pedro. This roadway starts just east of Western Avenue and terminates at Harbor Boulevard.
- **9th Street** is classified as a Major Class II Highway between Western Avenue and Pacific Avenue, providing east-west access through the central portion of the community of San Pedro. Between Pacific Avenue and Beacon Street it is classified as a Local Street. This roadway starts west of Western Avenue and terminates at Beacon Street, one block west of Harbor Boulevard.
- **25th Street** is classified as a Major Class II Highway, providing east-west access through the southern portion of the community of San Pedro. This roadway starts west of Western Avenue and terminates at Pacific Avenue.
- **Western Avenue** is classified as a Major Class II Highway providing north-south access through the western portion of the community of San Pedro. This scenic roadway starts near the ocean at Paseo Del Mar and continues northward through much of the Los Angeles region.

Table 3.11-1 provides a description of these streets, summarizing their physical characteristics in the study area. Diagrams of the existing lane configurations at the analyzed intersections are provided in the traffic study in Appendix M.

Table 3.11-1. Existing Surface Street Characteristics

Segment	*From*	*To*	*Number of Lanes*		*Median Type*	*Parking Characteristics*		*Speed Limit*
			NB/EB	*SB/WB*		*NB/EB*	*SB/WB*	
5th Street	Cabrillo Avenue	Grand Avenue	1	1	Single Dashed Yellow	Parking Allowed	Parking Allowed	30
	Grand Avenue	Pacific Avenue	1	1	Single Dashed Yellow	Parking Allowed 2 hour (8 a.m.–6 p.m.)/No Stopping Any Time	No Stopping Any Time/Parking Allowed 2 hour (8 a.m.–6 p.m.)	30
	Pacific Avenue	Mesa Street	1	1	Dual Left Turn	Parking Allowed 2 hour (9 a.m.–5 p.m.)	Parking Allowed 2 hour (9 a.m.–5 p.m.)	30
	Mesa Street	Palos Verdes Street	2	2	Dual Left Turn	Metered Parking 2 hour (9 a.m.–5 p.m.)	Metered Parking 2 hour (9 a.m.–5 p.m.)	30
	Palos Verdes Street	Harbor Boulevard	2	2	Dual Left Turn	Parking Allowed	Parking Allowed	30
6th Street	Cabrillo Avenue	Gaffey Street	1	1	Single Dashed Yellow	Parking Allowed	Parking Allowed	30
	Gaffey Street	Pacific Avenue	1	1	Single Dashed Yellow	Metered Parking 2 hour (8 a.m.–6 p.m.)	Metered Parking 2 hour (8 a.m.–6 p.m.)/ Parking Allowed	30
	Pacific Avenue	Centre Street	1	1	Single Dashed Yellow	Metered Parking 2 hour (9 a.m.–5 p.m.)	Metered Parking 2 hour (9 a.m.–5 p.m.)	30
	Centre Street	Palos Verdes Street	1	1	Single Dashed Yellow	No Stopping Any Time/Metered Parking 1 hour (8 a.m.–6 p.m.)	No Stopping Any Time/Metered Parking 2 hour (8 a.m.–6 p.m.)	30
	Palos Verdes Street	Beacon Street	1	1	Single Dashed Yellow	No Stopping Any Time	Metered Parking 2 hour (8 a.m.–6 p.m.)	30
	Beacon Street	Harbor Boulevard	1	1	Single Dashed Yellow	Metered Parking 1 hour (8 a.m.–6 p.m.)	Metered Parking 2 hour (8 a.m.–6 p.m.)	30

Segment	*From*	*To*	*Number of Lanes*		*Median Type*	*Parking Characteristics*		*Speed Limit*
			NB/EB	*SB/WB*		*NB/EB*	*SB/WB*	
7th Street	Cabrillo Avenue	Gaffey Street	1	1	Single Dashed Yellow/Double Yellow	Parking Allowed	Parking Allowed	30
	Gaffey Street	Grand Avenue	1	1	Single Dashed Yellow/Double Yellow	Metered Parking 2 hour (8 a.m.–6 p.m.)	Parking Allowed	30
	Grand Avenue	Pacific Avenue	1	1	Single Dashed Yellow/Double Yellow	Metered Parking 30 minute, 1 hour, 2 hour (8 a.m.–6 p.m.)	Metered Parking 2 hour (8 a.m.–6 p.m.)	30
	Pacific Avenue	Palos Verdes Street	1	1	Dual Left Turn	Metered Parking 2 hour (9 a.m.–5 p.m.)	Metered Parking 30 minute, 2 hour (9 a.m.–5 p.m.)	30
	Palos Verdes Street	Harbor Boulevard	1	1	Dual Left Turn	Metered Parking 2 hour (8 a.m.–6 p.m.)	Metered Parking 2 hour (9 a.m.–5 p.m.)	30
9th Street	Western Avenue	Dodson Avenue	1	1	Dual Left Turn	Parking Allowed	Parking Allowed	25/35
	Dodson Avenue	Meyler Street	1	1	Double Yellow	Parking Allowed	Parking Allowed	35
	Meyler Street	Cabrillo Avenue	1	1	Double Yellow	Parking Allowed 2 hour (8 a.m.–6 p.m.)	Parking Allowed 2 hour (8 a.m.–6 p.m.)	35
	Cabrillo Avenue	Gaffey Street	1	1	Double Yellow	Metered Parking 2 hour (8 a.m.–6 p.m.)	Parking Allowed	35
	Gaffey Street	Pacific Avenue	1	1	Single Dashed Yellow	Metered Parking 2 hour (8 a.m.–6 p.m.)	Metered Parking 2 hour (8 a.m.–6 p.m.)/ Parking Allowed	25
	Pacific Avenue	Mesa Street	1	1	Single Dashed Yellow	Metered Parking 2 hour (9 a.m.–5 p.m.)	Parking Allowed/ Metered Parking 2 hour (9 a.m.–5 p.m.)	25
	Mesa Street	Palos Verdes Street	1	1	Single Dashed Yellow	Parking Allowed	Parking Allowed 1 hour (8 a.m.–6 p.m.)/ Parking Allowed	25

Segment	*From*	*To*	*Number of Lanes*		*Median Type*	*Parking Characteristics*		*Speed Limit*
			NB/EB	*SB/WB*		*NB/EB*	*SB/WB*	
	Palos Verdes Street	Beacon Street	1	1	Single Dashed Yellow	Metered Parking 2 hour (9 a.m.–5 p.m.)	Metered Parking 2 hour (9 a.m.–5 p.m.)	25
13th Street	Cabrillo Avenue	Gaffey Street	1	1	Double Yellow	Parking Allowed	Parking Allowed	25
	Gaffey Street	Pacific Avenue	1	1	Single Dashed Yellow	Parking Allowed	Parking Allowed 2 hour (8 a.m.–6 p.m.)/ Parking Allowed	25
	Pacific Avenue	Mesa Street	1	1	Single Dashed Yellow	Parking Allowed 1 hour (8 a.m.–6 p.m.)/ Parking Allowed	Parking Allowed	25
	Mesa Street	Beacon Street	1	1	Single Dashed Yellow	Parking Allowed	Parking Allowed	25
22nd Street	Cabrillo Avenue	Pacific Avenue	1	1	Single Dashed Yellow	Parking Allowed	Parking Allowed	25
	Pacific Avenue	Mesa Street	1	1	Single Dashed Yellow	Parking Allowed 1 hour (8 a.m.–6 p.m.)/ Parking Allowed	Parking Allowed	25
	Mesa Street	Via Cabrillo Marina	2	2	Dual Left Turn	No Stopping Any Time	No Stopping Any Time	25
	Via Cabrillo Marina	Outer Street	2	2	Double Yellow	Parking Allowed/ Metered Parking 3 hour (10 a.m.–10 p.m.)/No Stopping Any Time	No Stopping Any Time	25
	Outer Street	Miner Street	2	2	Double Yellow	No Stopping Any Time	No Stopping Any Time	25
	Miner Street	Sampson Way and Signal Street	2	2	Dual Left Turn	No Stopping Any Time	No Stopping Any Time	25
	Sampson Way and Signal Street	Signal Place	2	2	Dual Left Turn	No Stopping Any Time	No Stopping Any Time	25
25th Street	Gaffey Street	Cabrillo Avenue	1	1	Dual Left Turn	No Stopping Any Time	Parking Allowed	35

Segment	*From*	*To*	*Number of Lanes*		*Median Type*	*Parking Characteristics*		*Speed Limit*
			NB/EB	*SB/WB*		*NB/EB*	*SB/WB*	
	Cabrillo Avenue	Patton Street	1	1	Dual Left Turn	Parking Allowed	Parking Allowed	35
	Patton Street	Western Avenue	2	2	Dual Left Turn	No Stopping Any Time	No Stopping Any Time	35
	Western Avenue	Moray Avenue	2	1	Dual Left Turn	Parking Allowed/No Stopping Any Time	No Stopping Any Time	35
	Moray Avenue	Mermaid Drive	2	1	Dual Left Turn	Parking Allowed	Parking Allowed	35/40
	Mermaid Drive	Catalina Vis	1	1	Dual Left Turn/Double Yellow	No Stopping Any Time/ No Stopping (6–9 a.m., 3–7 p.m.)	No Stopping Any Time	45
Palos Verdes Drive	Catalina Vis	Seacliff Drive	1	1	Double Yellow/Raised Median	No Stopping Any Time	No Stopping Any Time	45
Gaffey Street	30th Street	23rd Street	1	1	Double Yellow	Parking Allowed	Parking Allowed	35
	23rd Street	22nd Street	2	1	Double Yellow	Parking Allowed	Parking Allowed	35
	22nd Street	18th Street	2	2	Double Yellow	Parking Allowed	Parking Allowed	35
	18th Street	17th Street	2	2	Double Yellow	Parking Allowed 1 hour (8 a.m.–6 p.m.)	No Stopping Any Time	35
	17th Street	15th Street	2	2	Double Yellow	Parking Allowed	Parking Allowed 1 hour (8 a.m.–6 p.m.)	35
	15th Street	14th Street	2	2	Double Yellow	Parking Allowed 1 hour (8 a.m.–6 p.m.)	Parking Allowed 1 hour (8 a.m.–6 p.m.)	35
	14th Street	13th Street	2	2	Double Yellow	Red Zone—No Parking Allowed/Parking Allowed	Parking Allowed 1 hour (8 a.m.–6 p.m.)	35
	13th Street	12th Street	2	2	Double Yellow	Parking Allowed 1 hour (8 a.m.–6 p.m.)	Red Zone—No Parking Allowed	35

Segment	*From*	*To*	*Number of Lanes*		*Median Type*	*Parking Characteristics*		*Speed Limit*
			NB/EB	*SB/WB*		*NB/EB*	*SB/WB*	
	12th Street	11th Street	2	2	Double Yellow	Parking Allowed 1 hour (8 a.m.–6 p.m.)	Parking Allowed 1 hour (8 a.m.–6 p.m.)	35
	11th Street	9th Street	2	2	Dual Left Turn	Parking Allowed 1 hour (8 a.m.–6 p.m.)	No Stopping Any Time/Red Zone—No Parking Allowed	35
	9th Street	7th Street	2	2	Dual Left Turn	Parking Allowed 1 hour (8 a.m.–6 p.m.)	Parking Allowed 1 hour (8 a.m.–6 p.m.)	35
	7th Street	6th Street	2	2	Dual Left Turn	Parking Allowed 1 hour (8 a.m.–6 p.m.)	Parking Allowed 30 minute (8 a.m.–6 p.m.)	35
	6th Street	5th Street	2	2	Dual Left Turn	Parking Allowed 1 hour (8 a.m.–6 p.m.)	Parking Allowed 1 hour (8 a.m.–6 p.m.)	35
	5th Street	3rd Street	2	2	Dual Left Turn	Parking Allowed 1 hour (9 a.m.–4 p.m.)	No Stopping (7 a.m.–7 p.m.)	35
	3rd Street	1st Street	3/2	3/2	Dual Left Turn	Parking Allowed 1 hour (9 a.m.–4 p.m.)	No Stopping (7 a.m.–7 p.m.)	35
	1st Street	Santa Cruz Street	3	3/2	Dual Left Turn	No Stopping Any Time	No Stopping (3–7 p.m.)/ No Stopping Any Time	35
	Santa Cruz Street	Sepulveda Street	4	3/2	Raised Median	No Stopping Any Time	No Stopping (3–7 p.m.)	35
	Sepulveda Street	I-110	4	3/2	Raised Median	No Stopping Any Time	No Stopping (3–7 p.m.)	35
	I-110	Summerland Avenue	2	3	Dual Left Turn	No Stopping Any Time	No Stopping Any Time	35
	Summerland Avenue	Channel Street	2	2	Dual Left Turn	No Stopping Any Time	No Stopping Any Time	40
Pacific Avenue	30th Street	26th Street	1	1	Dual Left Turn	Parking Allowed	Parking Allowed	35
	26th Street	Hamilton Avenue	1	1	Dual Left Turn	No Stopping Any Time	Parking Allowed	35

Segment	*From*	*To*	*Number of Lanes*		*Median Type*	*Parking Characteristics*		*Speed Limit*
			NB/EB	*SB/WB*		*NB/EB*	*SB/WB*	
	Hamilton Avenue	22nd Street	1	1	Dual Left Turn	Parking Allowed 1 hour (8 a.m.–6 p.m.)	Parking Allowed 1 hour (8 a.m.–6 p.m.)	35
	22nd Street	21st Street	1	1	Double Yellow	Parking Allowed 2 hour (8 a.m.–6 p.m.)	Red zone—No parking allowed	35
	21st Street	19th Street	2	2	Double Yellow	Parking Allowed 1 hour (8 a.m.–6 p.m.)	Parking Allowed 1 hour (8 a.m.–6 p.m.)	35
	19th Street	18th Street	2	2	Double Yellow	Parking Allowed	Parking Allowed	35
	18th Street	14th Street	2	2	Double Yellow	Parking Allowed 1 hour (8 a.m.–6 p.m.)	Parking Allowed 1 hour (8 a.m.–6 p.m.)	35
	14th Street	9th Street	2	2	Double Yellow	PM 2 hour (8 a.m.–6 p.m.)	PM 2 hour (8 a.m.–6 p.m.)	35/25
	9th Street	5th Street	2	2	Double Yellow	PM 2 hour (9 a.m.–5 p.m.)	PM 2 hour (9 a.m.–5 p.m.)	35
	5th Street	3rd Street	2	2	Double Yellow	PM 2 hour (8 a.m.–6 p.m.)	PM 2 hour (8 a.m.–6 p.m.)	35
	3rd Street	Santa Cruz Street	2	2	Double Yellow	PM 1 hour (8 a.m.–6 p.m.)	Parking Allowed 1 hour (8 a.m.–6 p.m.)	35
	Santa Cruz Street	Sepulveda Street	2	2	Double Yellow	Parking Allowed 1 hour (8 a.m.–6 p.m.)	Parking Allowed 1 hour (8 a.m.–6 p.m.)	35
	Sepulveda Street	O'Farrell Street	2	2	Double Yellow	Parking Allowed	No Stopping Any Time	35
	O'Farrell Street	Bonita Street	2	2	Dual Left Turn	Parking Allowed	Parking Allowed/Red Zone—No Parking Allowed	35/25
	Bonita Street	Front Street	2	2	Dual Left Turn	No Stopping Any Time	No Stopping Any Time	35/25

Segment	*From*	*To*	*Number of Lanes*		*Median Type*	*Parking Characteristics*		*Speed Limit*
			NB/EB	*SB/WB*		*NB/EB*	*SB/WB*	
	Front Street	Channel Street	2	2	Dual Left Turn	No Stopping Any Time	Red Zone—No Parking Allowed/Parking Allowed 2 hour (8 a.m.–6 p.m.)/ Parking Allowed	35
Western Avenue	25th Street	19th Street	2	2	Dual Left Turn	Parking Allowed	No Stopping Any Time	40
	19th Street	Baynner Drive	2	2	Raised Median	Not Posted	No Stopping Any Time	40
	Baynner Drive	1st Street	2	2	Raised Median	No Stopping Any Time	No Stopping Any Time	40
Crescent Avenue	21st Street	20th Street	1	1	Double Yellow	No Stopping Any Time	Parking Allowed	30
	20th Street	17th Street	1	1	Single Dashed Yellow	No Stopping Any Time	Parking Allowed	30
	17th Street	Harbor Boulevard	1	1	Double Yellow	No Stopping Any Time	No Stopping Any Time	30
1st Street	Harbor Boulevard	Gaffey Street	1	1	Single Dashed Yellow	Parking Allowed	Parking Allowed	30
	Gaffey Street	Western Avenue	1	1	Double Yellow	Parking Allowed	Parking Allowed	30
Front Street	Pacific Avenue	SR-47 WB On Ramp	2	2	Dual Left Turn	No Stopping Any Time	No Stopping Any Time	35
Harbor Boulevard	SR-47 WB On Ramp	Beacon Street	2	2	Raised Median	No Stopping Any Time	No Stopping Any Time	35
	Beacon Street	1st Street	2	2	Raised Median	No Stopping Any Time	Parking Allowed 2 hour (8 a.m.–6 p.m.)	35
	1st Street	3rd Street	2	2	Raised Median	No Stopping Any Time	Parking Allowed	35
	3rd Street	6th Street	2	2	Raised Median	No Parking Any Time	Parking Allowed	35
	6th Street	7th Street	2	2	Raised Median	Parking Allowed	Red Zone—No Parking Allowed	35

Segment	*From*	*To*	*Number of Lanes*		*Median Type*	*Parking Characteristics*		*Speed Limit*
			NB/EB	*SB/WB*		*NB/EB*	*SB/WB*	
	7th Street	Crescent Avenue	2	2	Double Yellow	No Stopping Any Time/Parking Allowed	Parking Allowed	35
Miner Street	Crescent Avenue	22nd Street	2	2	Dual Left Turn	No Stopping Any Time	No Stopping Any Time	35

Notes:

Lanes:

= Number of lanes

3/2 = 3 lanes, 1 being both a peak period travel lane and a parking lane

3.11.2.2 Roadway Levels of Service

This section presents the existing peak hour turning movement traffic volumes for the analyzed intersections, describes the methodology used to assess the traffic conditions at each intersection, and analyzes the resulting operating conditions at each intersection, indicating volume-to-capacity ratios and levels of service.

3.11.2.2.1 Analysis Locations

New traffic counts were conducted for the weekday morning peak period (between 7:00 and 10:00 a.m.), the weekday afternoon peak period (between 3:00 and 6:00 p.m.), and the weekend midday peak period (between 1:00 and 5:00 p.m.) in October 2007 and early 2008 at each of the intersections analyzed in the study. The 36 analyzed intersections were identified in consultation with the City of Los Angeles Department of Transportation (LADOT on the basis of their location in relation to the proposed project site and the potential for project-related traffic to travel through them. The analysis locations are shown in Figure 3.11-1, and listed as follows.

1. Western Avenue/25th Street,
2. Western Avenue/9th Street,
3. Gaffey Street/25th Street,
4. Gaffey Street/22nd Street,
5. Gaffey Street/9th Street,
6. Gaffey Street/7th Street,
7. Gaffey Street/6th Street,
8. Gaffey Street/5th Street,
9. Gaffey Street/1st Street,
10. Gaffey Street/I-110 ramps,
11. Gaffey Street/Summerland Avenue,
12. Pacific Avenue/22nd Street,
13. Pacific Avenue/9th Street,
14. Pacific Avenue/7th Street,
15. Pacific Avenue/6th Street,
16. Pacific Avenue/5th Street,
17. Pacific Avenue/1st Street,
18. Pacific Avenue/Front Street,
19. Via Cabrillo Marina/22nd Street,

20. Miner Street/22nd Street,
21. Harbor Boulevard/Miner Street/Crescent Avenue,
22. Harbor Boulevard/7th Street,
23. Harbor Boulevard/6th Street,
24. Harbor Boulevard/5th Street,
25. Harbor Boulevard/1st Street,
26. Harbor Boulevard/Swinford Street/SR-47 eastbound ramps,
27. Harbor Boulevard/SR-47 westbound on-ramp,
28. Harbor Boulevard/Gulch Road,
29. Harbor Boulevard/O'Farrell Street,
30. Harbor Boulevard/3rd Street,
31. Pacific Avenue/13th Street,
32. Pacific Avenue/17th Street,
33. Pacific Avenue/19th Street,
34. Gaffey Street/13th Street,
35. Gaffey Street/17th Street, and
36. Gaffey Street/19th Street.

Existing traffic turning movements and traffic counts are presented in the traffic study in Appendix M).

3.11.2.2.2 Level of Service Methodology

Level of service (LOS) is a qualitative measure used to describe the condition of traffic flow, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. LOS D is typically considered to be the minimum acceptable level of service in urban areas.

LADOT requires that the Critical Movement Analysis method (Transportation Research Board 1980) of intersection capacity analysis be used to determine the intersection volume-to-capacity ratio (V/C) and corresponding LOS for the given turning movements and intersection characteristics at signalized intersections. The CALCADB software package developed by LADOT was used to implement the CMA methodology in this study. Table 3.11-2 defines the ranges of V/C ratios and their corresponding LOS using the Critical Movement Analysis methodology.

Table 3.11-1. Level of Service Definitions for Signalized Intersections (Critical Movement Analysis Methodology)

LOS	*V/C*	*Definition*
A	0.000-0.600	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	0.610-0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.710-0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.810-0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.910-1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.
Source: Transportation Research Board 1980.		

Of the 36 intersections analyzed, 31 are signalized. All but two of the 31 signalized study intersections are controlled by the City of Los Angeles Automated Traffic Surveillance and Control (ATSAC) system within the San Pedro sub-system. In accordance with LADOT procedures, a capacity increase of 7% (0.07 V/C adjustment) was applied to reflect the benefits of ATSAC control at these intersections. The intersections of Villa Cabrillo Marina and 22nd Street and Miner Street and 22nd Street are not part of the ATSAC system and are controlled individually.

The intersections of Gaffey Street/6th Street (Intersection 7); Harbor Boulevard/Miner Street/Crescent Avenue (Intersection 21); Harbor Boulevard and Third Street (Intersection 30), and Harbor Boulevard/SR-47 westbound on-ramp (Intersection 27) were analyzed using the "Two-Way Stop" methodology from the *Highway Capacity Manual* (Transportation Research Board 2000), which determines the average vehicle delay and the LOS using the relationship indicated in Table 3.11-3. The intersection of Harbor Boulevard/Gulch Road (Intersection 28) was analyzed using the "Four-Way Stop" methodology from the *Highway Capacity Manual* to determine V/C ratio and corresponding level of service.

Table 3.11-2. Level of Service Definitions for Unsignalized Intersections

Level of Service	*Average Total Delay (seconds/vehicle)*
A	< 10
B	> 10 and < 15
C	> 15 and < 25
D	> 25 and < 35
E	> 35 and < 50
F	> 50
Source: Transportation Research Board 2000.	

3.11.2.2.3 Existing Peak Hour LOS

The existing weekday and weekend peak hour turning movement volumes presented in the traffic study (Appendix M) were used in conjunction with the LOS methodology described above to determine existing operating conditions at each of the study intersections. LOS calculation worksheets are included in Appendix M as well.

Table 3.11-4 summarizes the weekday morning, weekday afternoon, and weekend midday peak hour V/C ratios and corresponding LOS at each of the study intersections. The results of this analysis indicate that 32 of the 36 study intersections are currently operating at acceptable levels of service (LOS D or better) during the weekday morning, weekday afternoon, and weekend midday peak hours. The following intersections are operating at LOS E or F during all or some of the analysis periods:

- The intersections of Gaffey Street and 6th Street (Intersection 7) and Gaffey Street and 1st Street (Intersection 9) are currently operating at LOS E or F during the weekday morning, weekday afternoon, and weekend midday peak hours.
- The intersection of Gaffey Street and Summerland Avenue (Intersection 11) is currently operating at LOS E during the weekday afternoon peak hour.
- The intersection of Harbor Boulevard and 3rd Street (Intersection 30) is currently operating at LOS E or F during the weekday morning and weekday afternoon peak hours.

Table 3.11-3. Intersection Levels of Service Existing Conditions (Year 2007)

Inter-section Number	*Intersection*	*Peak Hour*	*Existing*			
			Traffic Control	*V/C*	*Avg. Delay*	*LOS*
1	Western Avenue/25th Street	AM	Signal[1]	0.531	—	A
		PM		0.513	—	A
		Weekend		0.479	—	A
2	Western Avenue/9th Street	AM	Signal[1]	0.482	—	A
		PM		0.610	—	B
		Weekend		0.402	—	A
3	Gaffey Street/25th Street	AM	Signal[1]	0.382	—	A
		PM		0.371	—	A
		Weekend		0.373	—	A
4	Gaffey Street/22nd Street	AM	Signal[1]	0.405	—	A
		PM		0.362	—	A
		Weekend		0.317	—	A
5	Gaffey Street/9th Street	AM	Signal[1]	0.723	—	C
		PM		0.747	—	C
		Weekend		0.640	—	B
6	Gaffey Street/7th Street	AM	Signal[1]	0.717	—	C
		PM		0.696	—	B
		Weekend		0.631	—	B
7	Gaffey Street/6th Street	AM	Two-Way Stop Control	—	—[2]	F
		PM		—	—[2]	F
		Weekend		—	—[2]	F
8	Gaffey Street/5th Street	AM	Signal[1]	0.849	—	D
		PM		0.854	—	D
		Weekend		0.663	—	B
9	Gaffey Street/1st Street	AM	Signal[1]	1.137	—	F
		PM		0.994	—	E
		Weekend		0.995	—	E
10	Gaffey Street/I-110 Ramps	AM	Signal[1]	0.364	—	A
		PM		0.502	—	A
		Weekend		0.487	—	A

Inter-section Number	*Intersection*	*Peak Hour*	*Existing*			
			Traffic Control	*V/C*	*Avg. Delay*	*LOS*
11	Gaffey Street/Summerland Avenue	AM	Signal[1]	0.815	—	D
		PM		0.919	—	E
		Weekend		0.579	—	A
12	Pacific Avenue/22nd Street	AM	Signal[1]	0.511	—	A
		PM		0.423	—	A
		Weekend		0.356	—	A
13	Pacific Avenue/9th Street	AM	Signal[1]	0.489	—	A
		PM		0.515	—	A
		Weekend		0.441	—	A
14	Pacific Avenue/7th Street	AM	Signal[1]	0.410	—	A
		PM		0.440	—	A
		Weekend		0.317	—	A
15	Pacific Avenue/6th Street	AM	Signal[1]	0.420	—	A
		PM		0.385	—	A
		Weekend		0.395	—	A
16	Pacific Avenue/5th Street	AM	Signal[1]	0.489	—	A
		PM		0.435	—	A
		Weekend		0.381	—	A
17	Pacific Avenue/1st Street	AM	Signal[1]	0.424	—	A
		PM		0.432	—	A
		Weekend		0.376	—	A
18	Pacific Avenue/Front Street	AM	Signal[1]	0.362	—	A
		PM		0.272	—	A
		Weekend		0.326	—	A
19	Via Cabrillo Marina/22nd Street	AM	Signal	0.177	—	A
		PM		0.084	—	A
		Weekend		0.122	—	A
20	Miner Street/22nd Street	AM	Signal	0.318	—	A
		PM		0.317	—	A
		Weekend		0.178	—	A
21	Miner Street/Crescent Avenue	AM	Two-Way	—	19	C
		PM		—	18	C

Inter-section Number	*Intersection*	*Peak Hour*	*Existing*			
			Traffic Control	*V/C*	*Avg. Delay*	*LOS*
		Weekend	Stop Control	—	13	B
22	Harbor Boulevard/7th Street	AM	Signal[1]	0.263	—	A
		PM		0.286	—	A
		Weekend		0.134	—	A
23	Harbor Boulevard/6th Street	AM	Signal[1]	0.360	—	A
		PM		0.324	—	A
		Weekend		0.462	—	A
24	Harbor Boulevard/5th Street	AM	Signal[1]	0.329	—	A
		PM		0.527	—	A
		Weekend		0.295	—	A
25	Harbor Boulevard/1st Street	AM	Signal[1]	0.391	—	A
		PM		0.395	—	A
		Weekend		0.289	—	A
26	Harbor Boulevard/Swinford Street/ SR-47 Eastbound Ramps	AM	Signal[1]	0.648	—	B
		PM		0.739	—	C
		Weekend		0.586	—	A
27	Harbor Boulevard/SR-47 Westbound On Ramp	AM	Two-Way Stop Control	—	10	A
		PM		—	10	A
		Weekend		—	9	A
28	Harbor Boulevard/Gulch Road	AM	All-Way Stop Control	—	12	B
		PM		—	12	B
		Weekend		—	9	A
29	Harbor Boulevard/O'Farrell Street	AM	Signal[1]	0.431	—	A
		PM		0.649	—	B
		Weekend		0.403	—	A
30	Harbor Boulevard/3rd Street	AM	Two-Way Stop Control	—	37	E
		PM		—	—[2]	F
		Weekend		—	32	D
31	Pacific Avenue/13th Street	AM	Signal[1]	0.413	—	A
		PM		0.373	—	A
		Weekend		0.322	—	A

Inter-section Number	*Intersection*	*Peak Hour*	*Existing*			
			Traffic Control	*V/C*	*Avg. Delay*	*LOS*
32	Pacific Avenue/17th Street	AM	Signal[1]	0.367	—	A
		PM		0.293	—	A
		Weekend		0.235	—	A
33	Pacific Avenue/19th Street	AM	Signal[1]	0.199	—	A
		PM		0.278	—	A
		Weekend		0.188	—	A
34	Gaffey Street/13th Street	AM	Signal[1]	0.815	—	D
		PM		0.606	—	B
		Weekend		0.550	—	A
35	Gaffey Street/17th Street	AM	Signal[1]	0.544	—	A
		PM		0.428	—	A
		Weekend		0.449	—	A
36	Gaffey Street/19th Street	AM	Signal[1]	0.467	—	A
		PM		0.388	—	A
		Weekend		0.381	—	A

[1] Intersection is currently operating under ATSAC system.
[2] Indicates oversaturated conditions. Delay cannot be calculated.

3.11.2.3 Neighborhood Streets

Impacts to neighborhood streets assess residential local streets that have the potential to experience increased traffic as a result of the proposed Project or alternatives. The following residential street segments located west of the proposed project site, shown below along with the existing ADT, were analyzed to assess potential residential street project impacts.

- Santa Cruz Street, between Grand Avenue and Pacific Avenue (Existing ADT = 1,486)
- 17th Street, between Centre Street and Palos Verdes Street (Existing ADT = 1,758)

3.11.2.4 Congestion Management Program Facilities

The Congestion Management Plan for Los Angeles County (CMP) requires that, when an EIR is prepared for a project, traffic and transit impact analyses be conducted for select regional facilities based on the quantity of project traffic expected to use those facilities. (Metro 2004)

The CMP guidelines require that the first issue to be addressed is the determination of the geographic scope of the study area. The criteria for determining the study area for CMP arterial monitoring intersections and for freeway monitoring locations are:

- all CMP arterial monitoring intersections where the proposed Project will add 50 or more trips during either the AM or PM peak hours of adjacent street traffic; or
- all CMP mainline freeway monitoring locations where the proposed Project will add 150 or more trips, in either direction, during either the AM or PM peak hours.

The two CMP arterial monitoring stations in the proposed project study area are also study intersections:

- Western Avenue/9th Street (Intersection 2)—the proposed Project and its alternatives are expected to add up to approximately 30 weekday peak hour trips in 2015 and up to approximately 35 weekday peak hour trips in 2037.
- Gaffey Street/9th Street (Intersection 5)—the proposed Project and its alternatives are expected to add up to approximately 95 weekday peak hour trips in 2015 and up to approximately 135 weekday peak hour trips in 2037.
- At the intersection of Gaffey Street/9th Street, the proposed Project is expected to add more than 50 vehicle trips during the AM and PM peak hours in 2015 and 2037.

Based on CMP criteria, the following freeway facilities have been identified for regional analysis for the proposed Project and alternatives:

- I-110, south of C Street (post mile 2.77);
- I-110, at Manchester Boulevard (post mile 15.86);
- I-405, south of Route 110 at Carson Scales (post mile 11.90); and
- I-405, north of Inglewood Boulevard (post mile 18.63).

3.11.2.5 Existing Public Transit

The San Pedro community is served by bus transit lines operated by the Los Angeles County Metropolitan Transportation Authority (Metro), LADOT, the Municipal Area Express (MAX) lines, and the Palos Verdes Peninsula Transit Authority (PVPTA). LAHD also operates the San Pedro Electric Trolley, a rubber-tired trolley, and the

Waterfront Red Car Line, a vintage rail trolley line. The following transit routes provide service in the proposed project vicinity:

- **Metro Line 445:** Line 445 travels along Harbor Boulevard, 1st Street, Pacific Avenue, 22nd Street, and 19th Street in the vicinity of the proposed project site. Line 445 provides service from approximately 5:00 a.m. to 8:40 p.m. on weekdays, and from 6:00 a.m. to 8:40 p.m. on weekends and holidays. Bus headways are 30 to 60 minutes on weekdays and 60 minutes on weekends. From San Pedro, this line provides freeway express service, via the Harbor Transitway (on I-110), to the Patsaouras Transit Plaza at Union Station in downtown Los Angeles.
- **Metro Lines 446/447:** Line 446 operates on Pacific Avenue in the vicinity of the proposed project site. Line 447 operates on Front Street, Harbor Boulevard, 7th Street, and Gaffey Street in the proposed project area. Between San Pedro and downtown Los Angeles, both lines operate with the same route, providing freeway express service, via the Harbor Transitway, to the Patsaouras Transit Plaza at Union Station in downtown Los Angeles. Both lines provide service from approximately 4:30 a.m. to 1:30 a.m. seven days a week, with headways from 10 to 60 minutes on weekdays and 30 to 60 minutes on weekends.
- **Metro Line 550:** Line 550 travels along Gaffey Street, 7th Street, and 13th Street in the study area. It operates from 5:00 a.m. to 11:45 p.m. on weekdays, and from 6:00 a.m. to 11:45 p.m. on weekends and holidays with headways of approximately 30 to 60 minutes. This line provides express connection from San Pedro to West Hollywood.
- **LADOT Commuter Express Line 142:** Line 142 travels along 7th Street in the vicinity of the proposed project site. This line provides service between Ports O' Call in east San Pedro, downtown San Pedro, and the Long Beach Transit Center via the Vincent Thomas Bridge. The line runs from approximately 5:30 a.m. to 11:30 p.m., seven days a week, with frequencies of 25 to 60 minutes.
- **DASH San Pedro:** This line travels along Gaffey Street, 1st Street, Centre Street, and 7th Street in the vicinity of the proposed project site. This route provides local service in the community of San Pedro. The line runs from 6:30 a.m. to 7:30 p.m. on Mondays through Saturdays, and from 7:00 a.m. to 7:00 p.m. on Sundays and holidays. Service frequencies are 20 to 30 minutes.
- **The San Pedro Electric Trolley:** The Trolley travels along 6th Street and Harbor Boulevard in the vicinity of the proposed project site. The Trolley operates on Fridays through Mondays with a frequency of 15 minutes. It operates between 10:00 a.m. and 6:00 p.m.
- **Port of Los Angeles Waterfront Red Car Line:** This local line is a 1.5-mile vintage trolley line connecting the World Cruise Center with attractions along the San Pedro waterfront in the vicinity of the proposed project site. The four Waterfront Red Car boarding points are at the World Cruise Center, Downtown, Ports O'Call, and Marina stations. Waterfront Red Car hours of operation are from 10:00 a.m. to 6:00 p.m. Friday through Monday, with service every 20 minutes. Waterfront Red Cars also run on select Tuesdays, Wednesdays, and Thursdays when cruise ships are in port.

- **MAX Line 3:** This line travels along 9th Street, Gaffey Street, 11th Street, and Pacific Avenue in San Pedro. It is a directional express line that brings passengers from the South Bay to the El Segundo and Los Angeles International Airport (LAX) area. The weekday morning northbound route has four buses with frequencies of 20 to 30 minutes starting at 5:20 a.m. The afternoon southbound route also has four buses with frequencies of 20 to 30 minutes starting at 5:03 p.m.
- **MAX Line 3X:** This line travels along Pacific Avenue and Gaffey Street in the vicinity of the proposed project site. It is a directional express line that brings passengers from the South Bay to the El Segundo and LAX area. The weekday morning northbound route has four buses with frequencies of approximately 20 minutes starting at 6:00 a.m. The afternoon southbound route also has four buses with frequencies of approximately 30 minutes starting at 4:36 p.m.
- **PVPTA Line 225:** This line operates along 9th Street and Weymouth Avenue at the western edge of the study area, connecting San Pedro with the Palos Verdes Peninsula. Northbound buses operate between 6:00 a.m. and 2:30 p.m., with headways of approximately 60 minutes. Southbound buses operate between 7:15 a.m. and 7:15 p.m. also with headways of approximately 60 minutes.
- **PVPTA Green Line:** This line operates on Western Avenue north of 9th Street at the periphery of the proposed project site. The hours of operation are from approximately 6:00 a.m. to 6:00 p.m., with no service between 9:00 a.m. and 1:30 p.m. The line operates with headways of 10 to 50 minutes.

3.11.2.6 Existing Commercial Rail Facilities

The Port is served by an extensive commercial rail network, linking port operations to both the region and the rest of the country. Limited freight rail activity occurs in the immediate vicinity of the proposed project site on the line that runs along the east side of Harbor Boulevard. This track is shared with the Waterfront Red Car Line, which operates from 10:00 a.m. to 6:00 p.m., Friday through Monday. The Waterfront Red Car also runs on select Tuesdays, Wednesdays, and Thursdays when cruise ships are in port.

3.11.2.7 Existing Parking

Several parking areas are located within the vicinity of the Port. The Caltrans lot, located on North Beacon Street near the intersection of Harbor Boulevard and Swinford Street, provides approximately 300 surface parking spaces. This lot is utilized as a park-and-ride lot and is used by a variety of businesses within the area, including overflow parking for the World Cruise Center and Catalina Express.

Table 3.11-1, presented earlier in this section, also summarizes the parking characteristics of the roadways within the study area.

3.11.2.8 Existing Nonmotorized Traffic Features

Pedestrian and bicycle facilities comprise the existing nonmotorized traffic features. Pedestrian facilities include sidewalks, crosswalks, and pedestrian signals. Sidewalks are provided along existing major roadway facilities in the study area, with the exception of Sampson Way. Minor roads, which are primarily located in the southern portion of the study area along City Dock No. 1 and the Outer Harbor area, typically do not include sidewalks. Additionally, an existing promenade extends south from the Harbor Freeway along the east side of the existing rail lines to the Ports O'Call. Pedestrian crossings and signals are located at most major roadway intersections.

Bicycle facilities include the following:

- bike paths (Class I): paved trails that are separated from roadways;
- bike lanes (Class II): lanes on roadways designated for use by bicycles through striping, pavement legends, and signs; and
- bike routes (Class III): designated roadways for bicycle use by signs only, and may or may not include additional pavement width for cyclists.

Class I bike paths are provided at the southern end of the proposed project study area, along Cabrillo Beach and parallel to Crescent Avenue between Harbor Boulevard and 22nd Street. Class II bike lanes are provided on Harbor Boulevard from Front Street to 22nd Street, on Front Street from Harbor Boulevard to Pacific Avenue, on Pacific Avenue south of 22nd Street, and on 9th Street west of Gaffey Street.

3.11.3 Applicable Regulations

Traffic analysis in the state of California is guided by policies and standards set at the state level by Caltrans and by local jurisdictions. Since the proposed Project is located in the City of Los Angeles, the proposed Project or alternative should adhere to the adopted City transportation policies.

3.11.3.1 Intersection Operations

The City of Los Angeles has established threshold criteria to determine significant traffic impacts of a proposed project in its jurisdiction. Under the LADOT guidelines (LADOT 2002), an intersection would be significantly impacted if a project results in an increase in V/C ratio equal to or greater than 0.04 for intersections operating at LOS C; equal to or greater than 0.02 for intersections operating at LOS D; and equal to or greater than 0.01 for intersections operating at LOS E or F. Intersections operating at LOS A or B after the addition of the project traffic are not considered significantly impacted regardless of the increase in V/C ratio. Table 3.11-5 summarizes intersection impact criteria.

Table 3.11-4. Intersection Impact Criteria

LOS	*Final V/C Ratio*	*Project-related Increase in V/C*
C	>0.700–0.800	equal to or greater than 0.040
D	> 0.800–0.900	equal to or greater than 0.020
E or F	> 0.900	equal to or greater than 0.010

3.11.3.2 Neighborhood Streets

Under the City of Los Angeles guidelines (LADOT 2002), potential proposed project impacts are also considered on local residential streets. Table 3.11-6 summarizes neighborhood street impact criteria.

Table 3.11-5. Neighborhood Street Impact Criteria

Projected Average Daily Traffic with Project (Final ADT)	*Project-Related Increase in ADT*
0 to 999	16% or more of final ADT
1,000 or more	12% or more of final ADT
2,000 or more	10% or more of final ADT
3,000 or more	8% or more of final ADT

3.11.3.3 CMP Guidelines

The CMP traffic impact analysis guidelines establish that a significant project impact occurs when the following threshold is exceeded:

> A CMP facility would be significantly impacted if the Project increases V/C by 0.02 or greater and would cause the facility to operate at LOS F (V/C > 1.00); or if the facility is already at LOS F, a significant impact occurs when the proposed project increases V/C by 0.02 or greater.

3.11.3.4 Parking Code

Analysis presented in this section is based on the parking requirements defined in Section 12.21.A.4 of the Los Angeles Municipal Code. The code generally requires that "there shall be at least one automobile parking space for each 500 square feet of combined floor area contained within all the office, business, commercial, research and development buildings, and manufacturing or industrial buildings on any lot."

Different parking ratios are generally required for warehouses, restaurants, retail stores, and places of assembly, such as the proposed conference center. Because the proposed project site lies within a designated State Enterprise Zone, the minimum parking requirements for the retail and restaurant uses proposed as part of the proposed Project or alternatives is reduced from the general requirement to one space per 500 sf. This analysis assumes that the existing parking supply serving the three uses that lie within the proposed project area but that would not be physically altered as part of the proposed Project (Fire Station #112, Jankovich & Son Fueling Station, and Mike's Marine Fueling Station) is sufficient to meet the Code requirement.

3.11.3.5 Rail Operations

The California Public Utilities Commission (CPUC) has regulatory authority over rail operations and grade crossings throughout the state. This component of the proposed Project is subject to approval or modification by that entity. CPUC General Order 143-B states that in cases where light rail vehicle travel is upon streets, all intersections must be controlled by traffic signals or other approved devices. Part 10 of the MUTCD provides specific standards and guidance on the design of traffic controls for highway-light rail transit grade crossings. It allows for the use of traffic signal control at intersections, rather than automatic gates, when streetcar operating speeds are below 35 miles per hour (Section 10D.03).

3.11.4 Impacts and Mitigation Measures

3.11.4.1 Methodology

Estimates of future traffic conditions both with and without the proposed Project were necessary to evaluate the potential impact of the proposed Project on the local street system. The cumulative base traffic scenario represents future traffic conditions without the addition of the proposed Project (and is equivalent to Alternative 6), while the cumulative plus project or cumulative plus project alternative scenario represents future traffic conditions with the development of the proposed Project or alternatives.

For purposes of this draft EIS/EIR, the evaluation of significance under CEQA is defined by comparing the proposed Project and alternatives to the no-project baseline scenario. The no-project baseline condition is represented in Alternative 6, which reflects traffic growth from regional development that is expected to occur regardless of whether or not the proposed Project is implemented. The no-project scenario also reflects future roadway improvements that are expected to be built, regardless of whether or not the proposed Project is implemented.

The evaluation of significance under NEPA is defined by comparing the proposed Project and alternatives to the no-federal-action scenario. The NEPA baseline condition is reflected in Alternative 5, which includes the full range of construction

and operational activities the applicant could implement absent permits from the USACE. Therefore, the NEPA baseline would not include dredging, in-water filling, wharf construction or upgrades, or any other in-water work. The NEPA baseline reflects construction and operation of all land-side elements of the proposed Project and alternatives, added to the no-project condition.

3.11.4.1.1 No-Project Baseline Traffic Volumes

This section describes methods used to project traffic conditions under the no-project (Alternative 6) scenario. The no-project baseline traffic conditions represent an estimate of future conditions without development of the proposed Project or Alternatives 1 through 5 in 2015 and 2037, including traffic from cumulative projects plus an ambient growth factor. The no-project baseline traffic conditions normally reflect the changes to existing traffic conditions that can be expected from three primary sources:

- future baseline street improvements,
- areawide background traffic growth, and
- traffic generated by other planned development.

These elements are described below.

Future Baseline Street Improvements

Several key roadway improvements in or near the study area are expected to be completed by 2015. These improvements, which are the result of local or regional capital improvement programs or as mitigation for other ongoing or entitled related projects, would result in capacity changes at the specified locations throughout the study area. The related transportation projects include the following:

- All signalized study intersections would be equipped with the ATSAC and adaptive traffic control system (ATCS). Information from LADOT indicates that all signalized intersections in the study area will be equipped with both ATSAC and ATCS by 2015. ATCS is an enhancement to the ATSAC and uses a personal computer-based traffic signal control software program that provides fully traffic-adaptive signal control based on real-time traffic conditions. ATCS allows for the automatic adjustment to the traffic signal timing strategy and control pattern in response to current traffic demands by allowing ATCS to control all three critical components of traffic signal timing simultaneously, namely cycle length, phase split, and offset. In the analysis of future operating conditions, a capacity increase of 10% (0.10 V/C adjustment) was applied to reflect the benefits of ATSAC/ATCS control at all signalized study intersections.
- Restriping of Gaffey Street/1st Street (Intersection 9) would add an additional westbound approach lane. The westbound approach would provide one left-turn lane, one through lane, and one right-turn lane. The eastbound approach would

be restriped to provide two exclusive left-turn lanes and a shared through/right-turn lane. This improvement is identified as a mitigation measure for the Harbor Police and Charter School project.

- Restriping of Miner Street/22nd Street (Intersection 22) would add an additional northbound approach lane. The northbound approach would provide one left-turn lane, one through lane, and one right-turn lane. This improvement is associated with the Cabrillo Marina Phase II Project.
- A new interchange would be constructed to and from westbound SR-47/I-110. The interchange would curve north of the Vincent Thomas Bridge, connecting to Front Street just south of Knoll Drive and opposite the driveway used by the China Shipping terminal. This Port improvement would provide on-ramp and off-ramp access from SR-47 and would eliminate the existing "U-Turn" ramp connection from westbound SR-47 onto Harbor Boulevard (Intersection 26) and relocate the existing eastbound on-ramp from Harbor Boulevard (Intersection 27). The improvement includes the installation of a traffic signal at the new intersection with protected left-turn phasing for the northbound approach and an overlapping right-turn phase for the eastbound approach (westbound SR-47 off-ramp). The westbound approach (China Shipping driveway) would be configured as a single shared lane, and the eastbound approach would be configured to provide one shared through/left-turn lane and two right-turn lanes. The northbound approach would be configured to provide two left-turn lanes and one through lane and the southbound approach to provide two through lanes and one right-turn lane.
- Restriping of northbound Harbor Boulevard at SR-47 ramps/Swinford Street would provide an additional left-turn lane to eastbound SR-47 (Intersection 26). The widening would occur on Port, Caltrans, or City property and the roadway would be restriped.

Areawide Background Traffic Growth

Based on the CMP for Los Angeles County and following discussions with LADOT, an ambient growth factor of 0.65% per year was applied to adjust the existing base year traffic volumes to reflect the effects of regional growth and development for the 2015 buildout year and 2037 horizon year. This annual adjustment was applied to the base year 2007 traffic volume data, resulting in an estimated ambient growth of 5.2% by 2015, and 19.5% by 2037.

Traffic Generated by Other Planned Development

Cumulative base traffic forecasts include the effects of specific cumulative development projects, also called related projects, expected to be built in the vicinity of the proposed project site prior to the buildout date of the proposed Project. The list of related projects was based on data from LADOT and from the Community Redevelopment Agency of the City of Los Angeles, as well as a review of other recent traffic studies conducted for projects in the vicinity. A total of 25 cumulative

projects were identified in the study area. They are listed in Table 6 of the traffic study in Appendix M.

The traffic resulting from related projects was estimated as follows.

- **Trip Generation.** Trip generation estimates for the related projects were calculated using either data in previous traffic studies or the trip generation rates contained in Trip Generation, 7th Edition (Institute of Transportation Engineers [ITE] 2003). These projections are conservative in that they may not in every case account for either the existing uses to be removed or the possible use of nonmotorized travel modes (transit, walking, etc.).
- **Trip Distribution.** The geographic distribution of the traffic generated by the cumulative projects is dependent on several factors: type and density of the proposed land uses; the geographic distribution of population from which employees and potential patrons of proposed commercial developments are drawn; the locations of employment and commercial centers to which residents of residential projects would be drawn; and the location of the projects in relation to the surrounding street system. If available, trip distribution from a cumulative project's traffic study was used in this analysis. When trip distribution was not available for a cumulative project, it was estimated based on the factors described above.
- **Traffic Assignment.** Using the estimated trip generation and trip distribution patterns described above, traffic generated by the related projects was assigned to the street network.

3.11.4.1.2 Proposed Project Traffic Volumes

Development of the traffic generation estimates for the proposed Project and its alternatives involved a three-step process including traffic generation, trip distribution, and traffic assignment.

Project Traffic Generation

Trip generation rates and equations from Trip Generation, 7th Edition, and other sources were used to develop trip generation estimates for the proposed Project. When a land use proposed as part of the proposed Project had an associated trip generation rate in Trip Generation, that rate was used. For those land uses without standard trip generation rates, data from empirical studies and other trip generation sources were used to develop rates specific to the proposed Project.

- Cruise ship trip generation rates were developed specifically for this study. Vehicle turning movement count data by vehicle type were collected at all entrances and exits to the World Cruise Center (the Inner Harbor Cruise Terminal at the Port) on Friday, January 11, 2008, when two cruise ships were present.

The data were then analyzed to develop trip generation rates per passenger capacity and applied to the projected increase in cruise passengers.

- Trip generation rates for the S.S. Lane Victory visitor's center and Ralph J. Scott Fireboat Museum were obtained from the Autry National Center Traffic Study (Fehr & Peers/Kaku Associates 2007). Because those rates are based on empirical observations at another museum in the region, they were determined to be applicable to the museums in the study area.
- Trip generation rates for the public open space project elements, including the Waterfront Promenade, Town Square, Fishermen's Park, San Pedro Park, and Outer Harbor Park were obtained from the City Park land use in the *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region* (San Diego Association of Governments 2002).
- Conference facility trip generation rates were developed based on assumptions regarding its use, including an average vehicle ridership of 2.0, 75% of attendees arriving during the given peak hour, a staff equivalent of 10% of attendees, and two 300-person events on weekdays and one 100-person event on weekends.
- Because no trip generation rates for the reuse of Warehouses Nos. 9 and 10 as low-intensity visitor-serving commercial retail or educational use exists in Trip Generation, but the land use is retail in nature, it was assumed that the reuse of the warehouses would generate half as many trips as Specialty Retail (ITE Land Use 814).

The following assumptions were also factored into proposed project trip generation:

- A 15% internal capture credit was applied to trips generated by existing and projected Ports O'Call retail and restaurant development. Internal credits reflect the tendency of users of one land use to visit other land uses within the proposed project area. For example, Ports O'Call visitors may dine at a restaurant and patronize a nearby retail shop during the same trip. Internal trip capture is a key characteristic of a multi-use development such as Ports O'Call.
- Pass-by trip reduction credits were not taken for the proposed Project's commercial components. Although this is a suggested practice as part of the use of the ITE data, these credits were not applied in this analysis because of the location of the proposed project site in the context of the surrounding roadway system. This ensured that the traffic generation was not underestimated, which could result in inadequate future roadway capacities.
- Transit trip reduction credits were not applied to any of the proposed land uses within the proposed project site. Transit credits account for those proposed project-related trips that may be made by public transportation and the resulting reduction in vehicle trips. Although limited transit service is available near the proposed project site, the proposed project's land uses are not conducive to public transit use, such as cruise ship activity, and a conservative approach was used in this analysis.
- The proposed project site contains several existing uses that would be redeveloped, relocated, reconfigured, or removed as a result of the proposed

Project. The S.S. Lane Victory, Crowley and Millennium Tugboat offices, and Los Angeles Maritime Institute would be relocated. The Inner Harbor Cruise Terminal would be reconfigured and redeveloped to provide additional passenger amenities and to handle larger ships. Ports O'Call would be redeveloped. Some marina docking slips would be removed in the Downtown Harbor area and at Ports O'Call and relocated within the Cabrillo Marina Phase II Project. Crescent Warehouse would vacate Warehouses No. 9 and 10. Estimates were made of the number of trips generated by these different land uses using Trip Generation and other sources as described above.

Table 3.11-7 summarizes the trip generation projections that were completed for no-project conditions, as well as the different proposed project alternatives. A more detailed description of the trip generation projections is provided in Tables 6 through 20 of the traffic study in Appendix M.

Table 3.11-6. Trip Generation Summary for Proposed Project Alternatives

Proposed Project	*Year*	*Weekday Daily*	*Weekday AM Peak*	*Weekday PM Peak*	*Weekend Daily*	*Weekend Peak*
Baseline trips generated by proposed project site						
Alternative 6	2015	17,658	1,172	829	17,772	1,964
(No Project)	2037	21,168	1,511	926	21,282	2,356
Net increase in trips over baseline						
Proposed Project	2015	18,350	1,108	1,313	17,861	1,917
	2037	22,679	1,550	1,435	22,190	2,406
Alternative 1	2015	14,306	686	1,189	13,836	1,456
	2037	16,637	923	1,255	16,167	1,718
Alternative 2	2015	17,958	1,019	1,288	17,469	1,860
	2037	22,135	1,423	1,403	21,646	2,326
Alternative 3	2015	7,570	473	618	7,441	671
	2037	9,901	710	684	9,772	934
Alternative 4	2015	13,269	597	1,168	13,158	1,375
	2037	13,269	597	1,168	13,158	1,375
Alternative 5	2015	13,808	585	1,180	13,355	1,387
	2037	13,808	585	1,180	13,355	1,387

Proposed Project Traffic Distribution

The geographic distribution of trips generated by the proposed Project and alternatives is dependent on characteristics of the street system serving the proposed

project site, the level of accessibility of routes to and from the site, the locations of employment and commercial centers to which residents of the site would be drawn, and the geographic distribution of the population from which employees and potential patrons of the proposed commercial elements of the proposed Project and alternatives would be drawn. The general distribution pattern used in this study was developed in consultation with LADOT.

Proposed Project Traffic Assignment

The trip generation estimates and the projected distribution patterns were used to assign the proposed project-generated traffic to the local and regional street system.

3.11.4.1.3 Cumulative Plus Project Traffic Projections

Traffic volumes for the proposed Project and alternatives were added to the cumulative base traffic projections to develop the cumulative plus project traffic forecasts for the buildout year 2015 and planning horizon year 2037. This provides projections of traffic volumes at all study intersections and roadway segments

3.11.4.2 Thresholds of Significance

A project or action is considered to have a significant transportation/circulation impact if the project or action would result in one or more of the following occurrences. These criteria were taken from the *L.A.CEQA Thresholds Guide* (City of Los Angeles 2006) and other criteria applied to Port projects.

TC-1: A project would have a significant impact if construction of the project would result in a short-term, temporary increase in construction-related truck and auto traffic, decreases in roadway capacity, potential safety hazards and disruption of travel for vehicular and nonmotorized travelers.

TC-2: A project would have a significant impact if it would increase the LOS of an intersection or roadway segment beyond the guidelines described earlier in this section, namely:

- **TC-2a:** A project would have a significant impact if an intersection would increase in V/C ratio equal to or greater than 0.04 for intersections operating at LOS C; equal to or greater than 0.02 for intersections operating at LOS D; and equal to or greater than 0.01 for intersections operating at LOS E or F (summarized previously in Table 3.11-5).
- **TC-2b:** A project would have a significant impact if a neighborhood street would have an ADT increase greater than 16% on roadways with current ADT under 1,000; an ADT increase greater than 12% on roadways with current ADT between 1,000-1,999; an ADT increase greater than 10% on roadways with

current ADT between 2,000-2,999; or an ADT increase greater than 8% on roadways with current ADT at or above 3,000 (summarized previously in Table 3.11-6).

- **TC-2c:** A project would have a significant impact if a CMP facility would have an increase in V/C by 0.02 or greater and would cause the facility to operate at LOS F (V/C > 1.00); or if the facility is already at LOS F, a significant impact would occur when the project increases V/C by 0.02 or greater.

TC-3: A project would have a significant impact on local transit services if it would increase demand beyond the supply of such services anticipated at project build-out.

TC-4: A project would have a significant impact if it results in violation of the City's adopted parking policies, or if project parking demand would exceed supply.

TC-5: A project would have a significant impact if design elements of the project, or project construction, would result in conditions that would increase the risk of accidents, either for vehicular or nonmotorized traffic. Elements that could result in safety impacts include poor sight distance, sharp curves, or substantial differences in speed between construction-related and general-purpose traffic.

3.11.4.3 Impacts and Mitigation

3.11.4.3.1 Proposed Project

Impact TC-1: Construction of the proposed Project would not result in a short-term, temporary increase in construction-related truck and auto traffic, decreases in roadway capacity, and disruption of vehicular and nonmotorized travel.

Demolition and landside construction associated with various elements under the proposed Project would generate truck and other vehicular traffic associated with construction worker commutes, transport and staging of construction equipment, transport of construction materials to the construction site, and hauling excavated and demolished materials away from the site. Most proposed project construction is expected to occur between 2009 and 2014. During the construction period, Port operations would continue at usual levels. Potential construction effects on roadway operations include the following:

- A temporary increase in traffic associated with construction worker commutes, delivery of construction materials, hauling of demolished and/or excavated materials, and general deliveries would increase travel demand on roadways.
- Temporary roadway lanes closures or narrowings in areas directly abutting construction activities would reduce capacity of roadways.

- Temporary roadway closures associated with the construction of transportation infrastructure would reduce the capacity of the roadway system, and/or require detours that increase travel times.
- Temporary lane or road closures could require route detours or reduced service for transit routes that run adjacent to proposed project elements that are under construction; namely, Metro lines 445 and 446/447, LADOT Commuter Express Line 142, the San Pedro Electric Trolley, and the Waterfront Red Car Line.
- During proposed project construction, parking demand would increase from construction workers and from construction equipment that is not in use. In addition, parking spaces located adjacent to construction activities could be temporarily closed.
- Temporary sidewalk, lane, or road closures could occur adjacent to proposed project elements that are under construction, which could interfere with bicycle or pedestrian circulation within the proposed project vicinity.
- Travel disruptions could occur along the Class I bike path located at the southern end of the proposed project area parallel to Crescent Avenue and the Class II bicycle lanes along Harbor Boulevard north of 22nd Street.
- Heavy and slow-moving construction vehicles would mix with general-purpose vehicular and nonmotorized traffic in the area.

See Chapter 2, "Project Description," for detailed descriptions of the construction activities and planned phasing of the elements associated with the proposed Project.

CEQA Impact Determination

Proposed project construction would result in a temporary increase in traffic volumes and a decrease in roadway capacity due to temporary lane closures. The following impacts could result from the proposed Project.

- Reduced roadway capacity and an increase in construction-related congestion could result in temporary localized increases in traffic congestion that exceed applicable LOS standards,
- Construction activities could disrupt existing transit service in the proposed project vicinity. Impacts may include temporary route detours, reduced or no service to certain destinations, or service delays.
- Construction activities would increase parking demand in the proposed project vicinity and could result in parking demand exceeding the available supply.
- Construction activities would disrupt pedestrian and bicycle travel. Impacts include temporary sidewalk or roadway closures that would create gaps in pedestrian or bicycle routes and interfere with safe travel.
- Construction activities would increase the mix of heavy construction vehicles with general purpose traffic. Impacts include increase in safety hazards due to a higher proportion of heavy trucks.

The impact of construction-generated traffic on transportation operations and safety is considered significant under CEQA.

Mitigation Measures

MM TC-1: Develop and implement a Traffic Control Plan throughout proposed project construction. In accordance with the City's policy on street closures and traffic diversion for arterial and collector roadways, the construction contractor will prepare a traffic control plan (to be approved by the city and county engineers) before construction. The traffic control plan will include:

- a street layout showing the location of construction activity and surrounding streets to be used as detour routes, including special signage;
- a tentative start date and construction duration period for each phase of construction;
- the name, address, and emergency contact number for those responsible for maintaining the traffic control devices during the course of construction; and
- written approval to implement traffic control from other agencies, as needed.

Additionally, the traffic control plan will include the following stipulations.

- Provide access for emergency vehicles at all times.
- Avoid creating additional delay at intersections currently operating at congested conditions, either by choosing routes that avoid these locations, or constructing during nonpeak times of day.
- Maintain access for driveways and private roads, except for brief periods of construction, in which case property owners will be notified.
- Provide adequate off-street parking areas at designated staging areas for construction-related vehicles.
- Maintain pedestrian and bicycle access and circulation during proposed project construction where safe to do so. If construction encroaches on a sidewalk, a safe detour will be provided for pedestrians at the nearest crosswalk. If construction encroaches on a bike lane, warning signs will be posted that indicate bicycles and vehicles are sharing the roadway.
- Traffic controls may include flag persons wearing Occupational Safety and Health Administration–approved vests and using a "Stop/Slow" paddle to warn motorists of construction activity.
- Maintain access to Metro, LADOT, MAX, PVPTA, and LAHD transit services and ensure that public transit vehicles are detoured.
- Post standard construction warning signs in advance of the construction area and at any intersection that provides access to the construction area.
- Construction warning signs will be posted, in accordance with local standards or those set forth in the *Manual on Uniform Traffic Control Devices* (Federal

Highway Administration 2001) in advance of the construction area and at any intersection that provides access to the construction area.

- During lane closures, notify LAFD and LAPD, as well as the Los Angeles County Sheriff's and Fire Departments, of construction locations to ensure that alternative evacuation and emergency routes are designed to maintain response times during construction periods, if necessary.
- Provide written notification to contractors regarding appropriate routes to and from construction sites, and weight and speed limits for local roads used to access construction sites. Submit a copy of all such written notifications to the City of Los Angeles Planning Department.
- Repair or restore the road right-of-way to its original condition or better upon completion of the work.

Residual Impacts

Mitigation Measure MM TC-1 would reduce traffic impacts during construction by maintaining access, minimizing construction-related traffic delays on the most heavily travelled roadways, and provide public awareness of expected delays that may occur. By implementing this mitigation, decreases in roadway capacity and disruption of vehicular and nonmotorized travel would be minimized. Impacts would be less than significant.

NEPA Impact Determination

Proposed project construction would result in temporary increase in traffic volumes, and decrease in roadway capacity due to temporary lane closures. The following impacts could result, compared to NEPA baseline conditions.

- Reduced roadway capacity and an increase in construction-related congestion could result in temporary localized increases in traffic congestion that exceed applicable LOS standards,
- Construction activities could disrupt existing transit service in the proposed project vicinity. Impacts may include temporary route detours, reduced or no service to certain destinations, or service delays.
- Construction activities would increase parking demand in the proposed project vicinity and could result in parking demand exceeding the available supply.
- Construction activities would disrupt pedestrian and bicycle travel. Impacts include temporary sidewalk or roadway closures that would create gaps in pedestrian or bicycle routes and interfere with safe travel.
- Construction activities would increase the mix of heavy construction vehicles with general purpose traffic. Impacts include increase in safety hazards due to a higher proportion of heavy trucks.

The impact of construction-generated traffic on transportation operations and safety is considered significant under NEPA.

Mitigation Measure

Implement Mitigation Measure MM TC-1.

Residual Impacts

Impacts would be less than significant.

Impact TC-2a: Proposed Project operations would increase traffic volumes and degrade LOS at intersections within the proposed project vicinity.

The proposed Project would increase demand for expanded commercial, recreational, and other proposed waterfront facilities and would therefore increase the number of people traveling to and from the San Pedro Waterfront area. The resulting increase in traffic volumes on the surrounding roadways would in turn degrade intersection operations. The projected LOS at intersections within the vicinity, as compared to CEQA and NEPA baseline conditions, are summarized in Table 23 (2015 conditions) and Table 24 (2037 conditions) of the traffic study in Appendix M.

CEQA Impact Determination

To determine whether significant impacts would occur at the study intersections under CEQA, the CEQA baseline-plus-project operating conditions were compared to the CEQA baseline operating conditions. Table 3.11-8 summarizes the locations at which significant impacts are identified under CEQA, without implementation of mitigation measures. The proposed Project would result in significant traffic impacts at 10 intersections by 2015 and at 16 intersections by 2037 during one or more peak hours.

Table 3.11-7. Significant Impacts at Intersections under CEQA without Mitigation—Proposed Project

	LOS (V/C)[1]					
	2015			*2037*		
Intersection	*AM*	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
5. Gaffey Street/9th Street			C (0.731)	E (0.909)	E (0.923)	D (0.833)
6. Gaffey Street/7th Street						D (0.804)
7. Gaffey Street/6th Street	E (0.918)		D (0.831)	F (1.040)		E (0.942)
8. Gaffey Street/5th Street	E (0.955)			F (1.089)		D (0.842)
9. Gaffey Street/1st Street	F (1.211)		E (0.943)	F (1.414)	F (1.080)	F (1.077)

Intersection	*LOS (V/C)*[1]					
	2015			*2037*		
	AM	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
20. Miner Street/22nd Street				C (0.723)		
21. Harbor Boulevard/Miner Street/Crescent Avenue				C (0.729)		
22. Harbor Boulevard/7th Street			D (0.859)	C (0.800)		E (0.972)
23. Harbor Boulevard/6th Street						C (0.721)
24. Harbor Boulevard/5th Street		D (0.806)			E (0.906)	D (0.806)
25. Harbor Boulevard/1st Street	D (0.806)		D (0.817)	F (1.002)	C (0.787)	E (0.975)
26. Harbor Boulevard/Swinford Street/SR-47 eastbound ramps	E (0.935)		E (0.939)	F (1.198)	C (0.726)	F (1.208)
27. Harbor Boulevard/SR-47 westbound on-ramp				D (0.876)		C (0.771)
29. Harbor Boulevard/O'Farrell Street	C (0.712)	E (0.931)	D (0.864)	D (0.830)	F (1.046)	F (1.006)
30. Harbor Boulevard/3rd Street	C (0.793)	D (0.865)	E (0.981)	E (0.928)	E (0.948)	F (1.108)
34. Gaffey Street /13th Street				E (0.969)		

Note:
1. Only analysis intersections at which significant impacts have been identified are listed in this table. LOS (V/C) information is provided only in the years/analysis periods in which a significant impact has been identified

The intersections identified in Table 3.11-8 are projected to exceed the LOS thresholds defined under CEQA. Thus, without mitigation, operational impacts on vehicle traffic would be significant under CEQA.

Mitigation Measures

The following mitigation measures would be implemented by the Port in consultation with LADOT to address intersection impacts identified through 2015 and 2037.

MM TC-2. Prohibit weekday peak period parking on Gaffey Street (needed by 2015). Prohibit parking on Gaffey Street both northbound and southbound north of 9th Street during the weekday AM and PM peak periods to allow for an additional through lane in both the northbound and southbound directions. This prohibition is

identified in the current San Pedro Community Plan as a potential measure to improve traffic flow on Gaffey Street.

MM TC-3. Modify southbound approach to Gaffey Street and 9th Street (needed by 2015). Modify the southbound approach to Gaffey Street and 9th Street to provide one left-turn lane, two through lanes, and one through/right-turn lane.

MM TC-4. Install traffic signal at Gaffey Street and 6th Street (needed by 2015).

MM TC-5. Modify northbound and southbound approaches at Miner Street and 22nd Street (needed by 2037). Modify the northbound and southbound approaches at Miner Street and 22nd Street to provide one left-turn lane, one through lane, and one through/right-turn lane.

MM TC-6. Prohibit parking on Harbor Boulevard (needed by 2015). As a complementary mitigation measure for intersection-specific mitigation measures along Harbor Boulevard, the prohibition of parking on Harbor Boulevard would allow for the roadway to be configured to generally provide three lanes in each direction. This prohibition is identified in the current San Pedro Community Plan as a potential measure to improve traffic flow on Harbor Boulevard north of 7th Street.

MM TC-7. Modify Harbor Boulevard at 6th Street (needed by 2037). Reconfigure Harbor Boulevard at 6th Street to provide three lanes on the southbound intersection approach, resulting in two through lanes and one shared through/right-turn lane.

MM TC-8. Modify Harbor Boulevard at 5th Street (needed by 2015). Reconfigure Harbor Boulevard at 5th Street to provide three lanes on the southbound intersection approach, resulting in one left-turn lane, two through lanes, and one shared through/right-turn lane.

MM TC-9. Modify Harbor Boulevard at 1st Street (needed by 2015). Reconfigure Harbor Boulevard at 1st Street to provide three lanes both northbound and southbound.

MM TC-10. Modify eastbound approach to Harbor Boulevard and 7th Street (needed by 2015). Reconfigure the eastbound approach to Harbor Boulevard and 7th Street to provide two left-turn lanes, one through lane onto Sampson Way, and one through/right-turn lane.

MM TC-11. Reconfigure Harbor Boulevard and Swinford Street/SR-47 eastbound ramps (needed by 2015). Restripe the westbound (Swinford Street) approach to provide an additional lane at the Harbor Boulevard and Swinford Street/SR-47 eastbound ramps. The westbound approach would be configured with one left-turn lane, one through lane, and one right-turn lane.

MM TC-12. Reconfigure Harbor Boulevard at O'Farrell Street (needed by 2015). Reconfigure Harbor Boulevard at O'Farrell Street to provide three lanes both northbound and southbound.

MM TC-13. Install signal at Harbor Boulevard and 3rd Street (needed by 2015). Install a traffic signal at Harbor Boulevard and 3rd Street and configure the roadway to provide three lanes both northbound and southbound.

MM TC-14. Modify eastbound and westbound approaches at Gaffey Street and 13th Street (needed by 2037). Modify the eastbound and westbound approaches at Gaffey Street and 13th Street to provide one left-turn lane and one shared through/right-turn lane each. This reconfiguration will result in the loss of approximately six on-street parking spaces.

Residual Impacts

The mitigation measures above would fully mitigate impacts identified at seven of the 10 intersections in 2015 and six of the 16 intersections in 2037 to less-than-significant levels. For the remaining locations, no feasible measures were identified that would fully mitigate impacts to less-than-significant levels for all analysis periods due to existing physical constraints at those locations due to unavailable right-of-way to improve capacity or reduce volume. Impacts would be significant and unavoidable. Table 3.11-9 summarizes the locations and scenarios at which residual significant impacts are expected to remain after implementation of all recommended mitigation measures.

The potential removal of existing on-street bicycle lanes under MM TC-7, MM TC-12, and MM TC-13 would not result in significant impacts because the Los Angeles Harbor Bike Path would be provided adjacent to Harbor Boulevard and Sampson Way, outside of the roadway right-of-way.

Additionally, implementation of Mitigation Measure TC-6 and portions of Mitigation Measures TC-7, TC-8, TC-9, TC-12 and TC-13 (involving configuring Harbor Boulevard to provide three lanes both northbound and southbound) have been identified to reduce congestion and increase levels of service. While these mitigation measures are available to the LAHD, the LAHD may decide not to adopt Mitigation Measure TC-6 and portions of Mitigation Measures TC-7, TC-8, TC-9, TC-12 and TC-13 (involving configuring Harbor Boulevard to provide three lanes both northbound and southbound) because the provision of three lanes both northbound and southbound on Harbor Boulevard would increase speeds along Harbor Boulevard and would not contribute to a pedestrian-friendly environment along Harbor Boulevard. Should the LAHD decide not to adopt these mitigation measures, the resulting congestion and the levels of service would be worse than what is presented below.

Table 3.11-8. Significant Residual Impacts at Intersections under CEQA—Proposed Project

	LOS (V/C)[1]					
	2015			*2037*		
Intersection	*AM*	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
5. Gaffey Street/9th Street			C (0.731)	E (0.909)		D (0.833)

Intersection	*LOS (V/C)*[1]					
	2015			*2037*		
	AM	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
6. Gaffey Street/7th Street						D (0.804)
8. Gaffey Street/5th Street						D (0.842)
9. Gaffey Street/1st Street	F (1.211)		E (0.943)	F (1.414)	F (1.080)	F (1.077)
21. Harbor Boulevard/Miner Street/Crescent Avenue				C (0.729)		
22. Harbor Boulevard/7th Street			C (0.787)	C (0.703)		D (0.891)
24. Harbor Boulevard/5th Street						C (0.710)
25. Harbor Boulevard/1st Street				C (0.742)		
27. Harbor Boulevard/SR-47 westbound on-ramp				D (0.876)		C (0.771)

Notes:
[1] LOS (V/C) information is provided only in the years/analysis periods in which a significant residual impact has been identified

Following is a description of the effectiveness of each proposed intersection mitigation measure.

- Mitigation Measure MM TC-2 would mitigate all identified impacts, except during the weekend midday peak hour in 2037, identified at the following locations, which would remain significant and unavoidable:
  - Gaffey Street and 7th Street, and
  - Gaffey Street and 5th Street.
- Mitigation Measure MM TC-3, when combined with Mitigation Measure MM TC-2, would fully mitigate the identified impact at Gaffey Street and 9th Street during the future weekday PM peak hour. No feasible measures could be identified to mitigate the impact at this location during the weekday AM peak hour (2037) or weekend midday peak hour (in 2015 and in 2037), which would remain significant and unavoidable.
- Mitigation Measure MM TC-4, when combined with Mitigation Measure MM TC-2, would fully mitigate the impacts identified at Gaffey Street and 6th Street. Impacts would be less than significant.
- Mitigation Measure MM TC-5 would fully mitigate the identified impact at Miner Street and 22nd Street. Impacts would be less than significant.

- Mitigation Measure MM TC-6, combined with additional measures, would mitigate impacts identified at the following locations to less-than-significant levels:
  - Harbor Boulevard and 6th Street (see also MM TC-7),
  - Harbor Boulevard and 5th Street (see also MM TC-8),
  - Harbor Boulevard and 1st Street (see also MM TC 9),
  - Harbor Boulevard and 7th Street (See also MM TC-10),
  - Harbor Boulevard and O'Farrell Street (see also MM TC-12), and
  - Harbor Boulevard and 3rd Street (see also MM TC-13).
- Mitigation Measure MM TC-7, when combined with Mitigation Measure MM TC-6, would fully mitigate the identified impact at Harbor Boulevard and 6th Street to less-than-significant levels.
- Mitigation Measure MM TC-8, when combined with Mitigation Measure MM TC-6, would partially mitigate the identified impact at Harbor Boulevard and 5th Street. No feasible measures could be identified to mitigate the impact at this location during the weekend midday peak hour (in 2037), which would remain significant and unavoidable.
- Mitigation Measure MM TC-9, when combined with Mitigation Measure MM TC-6, would fully mitigate the identified impact at Harbor Boulevard and 1st Street, except during the weekday AM peak hour (in 2037), which would remain significant and unavoidable.
- Mitigation Measure MM TC-10, when combined with Mitigation Measure MM TC-6, would partially mitigate impacts identified at Harbor Boulevard and 7th Street. No feasible measures could be identified to address the impact at during the weekday AM peak hour (in 2037) or weekend midday peak hour (in 2015 and 2037), which would remain significant and unavoidable.
- Mitigation Measure MM TC-11 would fully mitigate the impacts at Harbor Boulevard and Swinford Street/SR-47 Eastbound Ramps to less-than-significant levels.
- Mitigation Measure MM TC-12, combined with Mitigation Measure MM TC-6, would fully mitigate all identified impacts at Harbor Boulevard and O'Farrell Street to less-than-significant levels.
- Mitigation Measure MM TC-13, combined with Mitigation Measure MM TC-6, would fully mitigate all identified impacts at Harbor Boulevard and 3rd Street to less-than-significant levels.
- Mitigation Measure TC-14 would fully mitigate the identified impact at Gaffey Street and 13th Street to less-than-significant levels.

NEPA Impact Determination

To determine whether significant impacts would occur at the study intersections under NEPA, the cumulative-plus-project operating conditions were compared to the

NEPA baseline operating conditions. Table 3.11-10 summarizes the locations at which significant impacts are identified under NEPA without implementation of mitigation measures. The proposed Project is expected to result in significant traffic impacts at seven intersections by 2015 and at 15 intersections by 2037 during one or more peak hours.

Table 3.11-9. Significant Impacts at Intersections under NEPA without Mitigation—Proposed Project

	LOS (V/C)[1]					
	2015			*2037*		
Intersection	*AM*	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
5. Gaffey Street/9th Street				E (0.909)		
7. Gaffey Street/6th Street	E (0.918)			F (1.040)		E (0.942)
8. Gaffey Street/5th Street				F (1.089)		
9. Gaffey Street/1st Street				F (1.414)		F (1.077)
20. Miner Street/22nd Street				C (0.723)		
21. Harbor Boulevard/Miner Street/Crescent Avenue				C (0.729)		
22. Harbor Boulevard/7th Street			D (0.859)	C (0.800)		E (0.972)
23. Harbor Boulevard/6th Street						C (0.721)
24. Harbor Boulevard/5th Street		D (0.806)			E (0.906)	D (0.806)
25. Harbor Boulevard/1st Street	D (0.806)		D (0.817)	F (1.002)	C (0.787)	E (0.975)
26. Harbor Boulevard/Swinford Street/SR-47 eastbound ramps	E (0.935)		E (0.939)	F (1.198)	C (0.726)	F (1.208)
27. Harbor Boulevard/SR-47 westbound on-ramp				D (0.876)		C (0.771)
29. Harbor Boulevard/O'Farrell Street	C (0.712)	E (0.931)	D (0.864)	D (0.830)	F (1.046)	F (1.006)
30. Harbor Boulevard/3rd Street	C (0.793)	D (0.865)	E (0.981)	E (0.928)	E (0.948)	F (1.108)
34. Gaffey Street/13th Street				E (0.969)		

Note:
[1] Only analysis intersections at which significant impacts have been identified are listed in this table. LOS (V/C) information

	LOS (V/C)[1]					
	2015			*2037*		
Intersection	*AM*	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
is provided only in the years/analysis periods in which a significant impact has been identified						

The intersections identified in Table 3.11-10 are projected to exceed the LOS thresholds defined under NEPA, as described in Section 3.11.4.1, "Methodology." Thus, without mitigation, operational impacts on vehicle traffic would be significant under NEPA.

Mitigation Measures

Implement Mitigation Measures MM TC-2, MM TC-4, MM TC-6, and MM TC-8 through MM TC-13 by 2015.

Implement Mitigation Measures MM TC-3, MM TC-5, MM TC-7, and MM TC-14 by 2037.

Residual Impacts

The recommended mitigation measures would fully mitigate impacts identified at all seven intersections in 2015 and eight of the 15 intersections in 2037 to less-than-significant levels. For the remaining locations, no feasible measures were identified that would fully mitigate the impact to less-than-significant levels for all analysis periods due to existing physical constraints at those locations. This includes three intersections (Gaffey Street and 1st Street; Harbor Boulevard/Miner Street and Crescent Avenue; and Harbor Boulevard and SR-47 westbound ramps) where no feasible measures were identified. Impacts would be significant and unavoidable. Table 3.11-11 summarizes the locations and scenarios at which residual significant impacts are expected to remain after implementation of all recommended mitigation measures.

As stated above under the CEQA Residual Impacts, the LAHD may decide not to adopt Mitigation Measure TC-6 and portions of Mitigation Measures TC-7, TC-8, TC-9, TC-12 and TC-13 (involving configuring Harbor Boulevard to provide three lanes both northbound and southbound) because the provision of three lanes both northbound and southbound on Harbor Boulevard would increase speeds along Harbor Boulevard and would not contribute to a pedestrian-friendly environment along Harbor Boulevard. Should the LAHD decide not to adopt these mitigation measures, the resulting congestion and the levels of service would be worse than what is presented below.

Table 3.11-10. Significant Residual Impacts at Intersections under NEPA—Proposed Project

	LOS (V/C)[1]	
Intersection	*2015*	*2037*

	AM	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
5. Gaffey Street/9th Street				E (0.909)		
9. Gaffey Street/1st Street				F (1.414)		F (1.077)
21. Harbor Boulevard/Miner Street/Crescent Avenue				C (0.729)		
22. Harbor Boulevard/7th Street				C (0.703)		D (0.891)
24. Harbor Boulevard/5th Street						C (0.710)
26. Harbor Boulevard/Swinford Street/SR-47 eastbound ramps				F (1.095)		F (1.109)
27. Harbor Boulevard/SR-47 westbound on-ramp				D (0.876)		C (0.771)

Notes:
[1] LOS (V/C) information is provided only in the years/analysis periods in which a significant residual impact has been identified

Following is a description of the effectiveness of each proposed intersection mitigation measure.

- Mitigation Measure MM TC-2 would fully mitigate all identified impacts at Gaffey Street and 5th Street to less-than-significant levels.
- Mitigation Measure MM TC-3, when combined with Mitigation Measure MM TC-2, would partially mitigate the identified impact at Gaffey Street and 9th Street. No feasible measures could be identified to mitigate the impact at this location during the weekday AM peak hour in 2037, which would remain significant and unavoidable.
- Mitigation Measure MM TC-4, when combined with Mitigation Measure MM TC-2, would fully mitigate the impacts identified at Gaffey Street and 6th Street to less-than-significant levels.
- Mitigation Measure MM TC-5 would fully mitigate the identified impact at Miner Street and 22nd Street to less-than-significant levels.
- Mitigation Measure MM TC-6, combined with additional measures, would mitigate impacts identified at the following locations to less-than-significant levels:
  - Harbor Boulevard and 6th Street (see also MM TC-7),
  - Harbor Boulevard and 5th Street (see also MM TC-8),
  - Harbor Boulevard and 1st Street (see also MM TC 9),
  - Harbor Boulevard and 7th Street (See also MM TC-10),

- Harbor Boulevard and O'Farrell Street (see also MM TC-12), and
- Harbor Boulevard and 3rd Street (see also MM TC-13).

- Mitigation Measure MM TC-7, when combined with Mitigation Measure MM TC-6, would fully mitigate the identified impact at Harbor Boulevard and 6th Street to less-than-significant levels.
- Mitigation Measure MM TC-8, when combined with Mitigation Measure MM TC-6, would partially mitigate the identified impact at Harbor Boulevard and 5th Street. No feasible measures could be identified to mitigate the impact at this location during the weekend midday peak hour in 2037, which would remain significant and unavoidable.
- Mitigation Measure MM TC-9, when combined with Mitigation Measure MM TC-6, would fully mitigate the identified impact at Harbor Boulevard and 1st Street to less-than-significant levels.
- Mitigation Measure MM TC-10, combined with Mitigation Measure MM TC-6, would partially mitigate impacts identified at Harbor Boulevard and 7th Street. No feasible measures could be identified to address the impact at this location during the weekday AM peak hour or weekend midday peak hour in 2037, which would remain significant and unavoidable.
- Mitigation Measure MM TC-11 would partially mitigate the identified impacts. No feasible measures could be identified to address the impact at Harbor Boulevard and Swinford Street/SR-47 Eastbound Ramps during the weekday AM peak hour or weekend midday peak hour in 2037 under NEPA, which would remain significant and unavoidable.
- Mitigation Measure MM TC-12, combined with Mitigation Measure MM TC-6, would fully mitigate all identified impacts at Harbor Boulevard and O'Farrell Street to less-than-significant levels.
- Mitigation Measure MM TC-13, combined with Mitigation Measure MM TC-6, would fully mitigate all identified impacts at Harbor Boulevard and 3rd Street to less-than-significant levels.
- Mitigation Measure TC-14 would fully mitigate the identified impact at Gaffey Street and 13th Street to less-than-significant levels.

Impact TC-2b: Proposed Project operations would increase traffic volumes and degrade LOS along neighborhood streets within the proposed project vicinity.

The proposed Project would increase the number of people traveling to and from the San Pedro Waterfront area. The resulting increase in traffic volumes would increase traffic volumes on the surrounding neighborhood roadways. Table 3.11-12 summarizes the impact related to increased traffic volumes expected to result from the proposed Project at the two analysis neighborhood roadways, as compared to CEQA and NEPA baseline conditions.

Table 3.11-11. Neighborhood Street Impact Assessment—Proposed Project

Street Segment	*Year*	*NEPA Baseline*	*CEQA Baseline*	*Project Only*	*Future with Project*	*NEPA Increase*	*CEQA Increase*	*Impact Threshold*	*NEPA Impact*	*CEQA Impact*
Santa Cruz Street between Grand and Pacific	2015	1,927	1,857	83	1,940	1%	4%	12%	No	No
	2037	1,999	1,929	94	2,023	1%	5%	10%	No	No
West 17th Street between Centre and Palos Verdes	2015	1,952	1,788	194	1,982	2%	11%	12%	No	No
	2037	2,036	1,872	219	2,091	3%	12%	10%	No	Yes

Note:

Numbers represent volumes in average daily traffic (ADT).

CEQA Impact Determination

To determine whether significant impacts would occur at the study street segments under CEQA, the cumulative-plus-project operating conditions were compared to the CEQA baseline operating conditions. Table 3.11-12 indicates that under 2037 conditions, projected increases in traffic on the neighborhood streets due to the proposed Project would exceed CEQA thresholds for the 17th Street segment. Thus, a significant operational impact would occur.

Mitigation Measures

No feasible mitigation is identified to address the impacts due to traffic on West 17th Street between Centre and Palos Verdes under 2015 and 2037 conditions. Short of the permanent closure of the affected street segment, which would not be acceptable since it serves adjacent land uses and carries substantial traffic volumes, no mitigation measures exist that would fully eliminate the addition of significant or adverse traffic volumes to this segment of 17th Street.

Residual Impacts

Impacts would be significant and unavoidable.

NEPA Impact Determination

To determine whether significant impacts would occur at the study intersections under NEPA, the cumulative-plus-project operating conditions were compared to the NEPA baseline operating conditions. Table 3.11-12 indicates that projected increases in traffic on the neighborhood streets due to the proposed Project would not

exceed NEPA thresholds. Therefore, operational impacts on neighborhood street operations would be less than significant under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact TC-2c: Proposed Project operations would not increase traffic volumes and degrade operations on CMP facilities within the proposed Project vicinity.

The proposed Project would increase the number of people traveling to and from the San Pedro Waterfront area. The resulting demand would increase traffic volumes and degrade operations on the regional CMP facilities. Detailed projections of traffic volumes and V/Cs under baseline and proposed Project conditions are provided in Tables 44 and 45 of the traffic study in Appendix M).

CEQA Impact Determination

The projected volumes on the CMP freeway facilities, as compared to thresholds defined under the CMP, are summarized in Table 3.11-13.

To determine whether significant impacts would occur on the CMP freeway facilities under CEQA, the difference in V/C between CEQA baseline-plus-project operating conditions and the no-project operating conditions were compared to the CMP thresholds. Table 3.11-13 indicates that under projected 2015 and 2037 conditions, most of the CMP facility locations would operate at LOS E or better, and at the locations projected to operate at LOS F, the proposed Project would result in a V/C change of less than 0.02. Thus, operational impacts would be less than significant under CEQA.

Table 3.11-12. CMP Facility Impact Assessment under CEQA—Proposed Project

CMP Monitoring Station	*Peak Hour*	*Northbound/Westbound*				*Southbound/Eastbound*			
		Baseline		*Change Due to Project*		*Baseline*		*Change Due to Project*	
		V/C	*LOS*	*V/C Change*	*Significant Impact?*	*V/C*	*LOS*	*V/C change*	*Significant Impact?*
2015									
I-110, south of C Street	AM	0.56	C	0.03	No	0.41	B	0.04	No
	PM	0.39	B	0.04	No	0.53	B	0.03	No
I-110, at Manchester	AM	0.84	D	0.01	No	1.06	F	0.01	No

Boulevard	PM	1.01	F	0.00	No	1.15	F	0.00	No
I-405, south of I-110 at Carson Scales	AM	0.97	E	0.00	No	0.84	D	0.00	No
	PM	0.83	D	0.01	No	0.93	D	0.01	No
I-405, north of Inglewood Boulevard	AM	0.92	D	0.01	No	0.71	C	0.01	No
	PM	0.82	D	0.01	No	1.02	F	0.01	No
2037									
I-110, south of C Street	AM	0.63	C	0.06	No	0.46	B	0.06	No
	PM	0.44	B	0.05	No	0.60	C	0.04	No
I-110, at Manchester Boulevard	AM	0.96	E	0.00	No	1.20	F	0.01	No
	PM	1.14	F	0.01	No	1.30	F	0.01	No
I-405, south of I-110 at Carson Scales	AM	1.10	F	0.00	No	0.95	E	0.00	No
	PM	0.95	E	0.00	No	1.06	F	0.00	No
I-405, north of Inglewood Boulevard	AM	1.04	F	0.01	No	0.81	D	0.01	No
	PM	0.93	D	0.01	No	1.16	F	0.01	No

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Impacts would be less than significant, as discussed for the CEQA impact determination.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact TC-3: Proposed Project operations would not cause increases in demand for transit service beyond the supply of such services.

The proposed Project is expected to generate a net increase in approximately 611 vehicle trips during the AM peak hour and 1,180 vehicle trips during the PM peak hour as a result of the commercial, recreational, cultural, and business-oriented proposed project elements. Because the proposed Project would not change these elements between 2015 and 2037, this net increase applies to both analysis periods. Application of an average vehicle occupancy of 1.4 to the number of vehicle trips results in an estimated 855 AM peak hour person trips and 1,652 PM peak hour person trips. Assuming the 3.5% transit mode split suggested in the CMP, this results in approximately 30 new transit person trips in the AM peak hour and 58 new transit person trips in the PM peak hour that the proposed Project would add to the transit lines providing service in the vicinity of the proposed project site.

As discussed in the Section 3.11.2, "Environmental Setting," there are seven bus lines that provide service in the vicinity of the proposed project site, two that provide service on the periphery, a local community circulator, and the Waterfront Red Car line. Based on the existing operating schedules for these transit lines, 12 buses in the AM peak hour and 12 buses in the PM peak hour are estimated to serve the vicinity of the proposed Project. This results in the conclusion that the proposed Project could add, on average, approximately three person trips per bus in the AM peak hour and five person trips per bus in the PM peak hour in 2015 and 2037. Five people per bus represents the equivalent of slightly more than 12% of the capacity of a typical 40-passenger bus. At this level of activity, proposed project-related impacts to the regional transit system would be considered less than significant in either 2015 or 2037.

CEQA Impact Determination

Based on the discussion presented above, operational impacts to transit ridership would be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Based on the discussion presented above, operational impacts to transit ridership would be less than significant under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact TC-4: Proposed Project operations would not result in a violation of the City's adopted parking policies and parking demand would not exceed supply.

The proposed Project would increase parking demand at the waterfront facilities. Table 3.11-14 summarizes the impact assessment, which consists of comparing the proposed parking supply to the proposed project demand and to the requirements set forth in the City of Los Angeles Municipal Code. More detailed information on parking projections for the proposed Project is provided in Table 56 of the traffic study in Appendix M.

Table 3.11-13. Parking Assessment—Proposed Project

Proposed Parking Supply	*Code Requirements*		*2015 Projected Demand*		*2037 Projected Demand*	
	Spaces Required	*Accommodated by proposed supply?*	*Spaces Required*	*Accommodated by proposed supply?*	*Spaces Required*	*Accommodated by proposed supply?*
9,076	2,996	Yes	7,719	Yes	8,997	Yes

The table shows that the proposed parking supply would exceed code requirements as well as projected parking demand through 2015 and 2037.

The alignment of the Waterfront Red Car expansion could result in loss of available parking. The southern portion of the proposed Cabrillo Beach extension would lie within the parking lot serving the Cabrillo Marine Aquarium and Cabrillo Beach. The affected areas of the parking lot would need to be reconfigured to accommodate the dynamic envelope of the streetcar, avoiding the potential for parked cars to overhang onto the rail line and to ensure that it has adequate clearance to operate safely. *Dynamic envelope* is the outline of a moving vehicle on a tangent track that considers lateral, vertical, and rotational displacements of the vehicle. The existing parking lots in this area currently provide approximately 285 spaces, including approximately 110 spaces reserved for vehicles with attached boat trailers. Thus, operational impacts of the proposed Project to parking would be significant.

CEQA Impact Determination

The loss of parking resulting from reconfiguration of the parking lot to accommodate the Waterfront Red Car extension is significant under CEQA.

Mitigation Measures

The following mitigation measures will be implemented to address parking impacts associated with the Waterfront Red Car expansion.

MM TC 15-a. Offset loss of parking through reconfiguration or expansion of parking elsewhere in the vicinity.

Or,

MM TC 15-b. Design the southern portion of this extension to minimize disruption to the existing parking lots.

Or,

MM TC 15-c. Align the southern segment of the Cabrillo Beach extension behind the Cabrillo Marine Aquarium to avoid or minimize conflicts with the existing parking lots in the area.

Residual Impacts

Implementation of any three of the above mitigation measures, or combination thereof, would reduce impacts to less-than-significant levels.

NEPA Impact Determination

The expansion of the Waterfront Red Car Line would also occur under baseline NEPA conditions; therefore, conditions under the proposed Project would be identical to conditions under the NEPA baseline. Operational impacts to parking would not occur under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact TC-5a: The alignment of the Waterfront Red Car expansion for the proposed Project would not increase potential conflict with vehicles at cross streets.

The proposed expansion of the Waterfront Red Car would realign portions of the existing line and extend it in the southern proposed project area along three new branch lines to City Dock No. 1, Outer Harbor, and Cabrillo Beach.

The realignment and extension of the Waterfront Red Car would create numerous new grade crossings where the Waterfront Red Car tracks would cross surface streets at existing or new intersections, thereby mixing with vehicular traffic and pedestrians, resulting in potential safety hazards. The overall system would be 4.6 miles long and would include 16 new or relocated stations. The plans for this component of the proposed Project are at the conceptual stage. The traffic study prepared for this proposed Project identifies several areas in which potential conflicts (i.e., collisions, vehicles blocking tracks, delays in vehicle traffic and/or Waterfront Red Car progression) could occur with vehicles or pedestrians, as documented in the locations of the mitigation measures presented below.

The proposed alignment would be crossed by both existing and proposed driveways serving adjacent uses. These include surface parking lots and parking structures along Sampson Way near the Ports O' Call development, parking lots serving the existing and planned park space north of 22nd Street, and parking facilities serving the planned Cabrillo Marina expansion and Outer Harbor Cruise Terminal on the west side of Miner Street.

CEQA Impact Determination

Vehicular and pedestrian safety hazards associated with the Waterfront Red Car expansion at cross street locations are significant under CEQA.

Mitigation Measures

As the plans for this proposed project component are further developed, consideration should be given to minimizing potential conflicts to ensure the maximum safety and convenience. The following mitigation measures will be implemented to address cross street impacts associated with the Waterfront Red Car expansion.

MM TC-16. Install a signal at the intersection of Harbor Boulevard and 3rd Street.

MM TC-17. Ensure that traffic signals at cross street locations have protected left-turn phases and, potentially, active "No Right Turn" signs to allow these movements from streets parallel to the tracks to be held when a train is approaching or present.

MM TC-18. Provide traffic control on approach streets to rail line to prevent motorists from stopping on tracks. On the streets that approach the rail line perpendicularly, such as 1st Street, 5th Street, 6th Street, or Miner Street, the stop bars and vehicle detection loops on the intersection legs where the rail line will be placed in advance of the tracks to prevent motorists from stopping on the tracks. During final design, the LAHD may also consider installing automatic crossing gates to fully protect the crossings that lie adjacent to parallel streets.

MM TC-19-a. Prohibit left turns across tracks on existing and proposed streets and proposed driveways that cross the tracks.

Or,

MM TC-19-b. Reduce streetcar operating speeds along streets where existing and proposed driveways serve the adjacent uses and install appropriate active warning signs or other devices to alert motorists to the possible presence of oncoming streetcars.

MM TC-20. Combine lower levels of proposed parking structures to reduce potential conflict points along Sampson Way. Locate a main access to the surface parking lots on the east side of Sampson Way to create a four-legged intersection there, and install a signal at this location to reduce conflicts by providing only one point of ingress/egress to the multiple parking structures.

MM TC-21. Signalize the reconfigured intersection of Signal Street/Sampson Way.

Residual Impacts

Implementation of the mitigation measures above would minimize or avoid potential conflicts between the Waterfront Red Car and vehicles at cross streets by providing additional traffic controls and/or operating restrictions on the Waterfront Red Car. Impacts would be less than significant.

NEPA Impact Determination

The expansion of the Waterfront Red Car Line would occur under baseline NEPA conditions; therefore, conditions under the proposed Project would be identical to conditions under the NEPA baseline. No impact is identified under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact TC-5b: The alignment of the Waterfront Red Car expansion for the proposed Project would not increase potential conflict at track crossovers where the rail would transition between center-running and side-running.

The proposed Waterfront Red Car alignment includes several locations where the tracks would cross over the adjoining streets. These would occur on Sampson Way near 13th Street and at Signal Way; on Signal Way itself; and at the intersections of Miner Street and Sampson Way/22nd Street, and Via Cabrillo Marina and 22nd Street. In addition to these in-street track crossovers, the proposed alignment of the Cabrillo

Beach/Marina extension would run through an existing parking lot at its southern terminus.

CEQA Impact Determination

The potential conflict of the Waterfront Red Car expansion with vehicles at track crossovers would potentially increase collisions with vehicular traffic or indirectly cause vehicular accidents. Impacts are considered significant under CEQA.

Mitigation Measures

The following mitigation measures will be implemented by the Port during the final design of the Waterfront Red Car line and roadway improvements to address track crossover impacts associated with the Waterfront Red Car expansion.

MM TC-22. Install half-signals at two proposed track crossovers located along Sampson Way and retime signals at the proposed track crossovers on 22nd Street at Miner Street and at Via Cabrillo Marina. At locations where detailed design determines it necessary, retime traffic signals to include a street car phase for turning and crossing streetcars and provide transit signal priority phasing. At the intersection of 22nd Street and Via Cabrillo Marina, provide for train movements to coincide with the westbound left-turn and northbound right-turn movements

MM TC-23. Install a half-signal at the proposed track crossover on the City Dock No. 1 extension that would occur south of the proposed Mid-Point Station.

Residual Impacts

Implementation of the mitigation measures above would minimize or avoid potential conflicts between the Waterfront Red Car and vehicles at crossovers by providing additional traffic controls. Impacts would be less than significant.

NEPA Impact Determination

The expansion of the Waterfront Red Car Line would occur under baseline NEPA conditions; therefore, conditions under the proposed Project would be identical to conditions under the NEPA baseline. No impact is identified under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact TC-5c: The Waterfront Red Car expansion for the proposed Project would not result in increased pedestrian conflicts at stations.

At this time, individual station ridership of the Waterfront Red Car Line has not been projected. The *Waterfront Red Car Line Expansion Feasibility Study* includes planning-level estimates that suggest typical daily system-wide ridership of approximately 2,000 passengers per day, or an average of approximately 125 passengers per day per station. Above-average activity would be expected at certain stations.

As part of the proposed Project, a pedestrian bridge is proposed between Harbor Boulevard and Sampson Way near 13th Street to improve local access to the Ports O'Call area. The bridge would terminate near the planned Sampson Way/Ports O'Call station and directly opposite the main vehicular driveway serving the surface parking lots on east side of Sampson Way.

An increased number of stations and level of pedestrian activity associated with the stations and the new pedestrian bridge also increases the number of places where pedestrians and vehicles may mix, and thus increases potential safety conflict points for pedestrians. Additionally, increased pedestrian activity throughout the proposed project area could potentially conflict with the Waterfront Red Car at other locations throughout the route where there are no planned designated crossings.

CEQA Impact Determination

Increased pedestrian conflict points resulting from the Waterfront Red Car expansion would be significant under CEQA.

Mitigation Measures

The following mitigation measures would be implemented to address pedestrian impacts associated with the Waterfront Red Car expansion.

MM TC-24. Design pavement markings and signage in station areas to clearly direct pedestrians to the desired routes.

MM TC-25. Construct new sidewalks to allow for the orderly movement of pedestrians.

MM TC-26. Shift the location of the main Ports O' Call surface parking lot driveway to a point north of this station to improve pedestrian safety there. Place the main Ports O' Call surface parking lot driveway opposite one of the driveways serving the proposed parking structure on the west side of Sampson Way. Within the Ports O' Call surface parking lots, provide clear pedestrian paths from the foot of the proposed pedestrian bridge.

Residual Impacts

Implementation of the mitigation measures above would minimize or avoid potential conflicts between the Waterfront Red Car and pedestrians by providing additional cautionary treatments and organized pedestrian movements. Impacts would be less than significant.

NEPA Impact Determination

The expansion of the Waterfront Red Car Line would also occur under baseline NEPA conditions; therefore, conditions under the proposed Project would be identical to conditions under the NEPA baseline. No impact is identified under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

3.11.4.3.2 Alternative 1—Alternative Development Scenario 1

Impact TC-1: Construction of Alternative 1 would not result in a short-term, temporary increase in construction-related truck and auto traffic, decreases in roadway capacity, and disruption of vehicular and nonmotorized travel.

Similar types of construction impacts are expected for Alternative 1 as those described for the proposed Project. See Chapter 2, "Project Description," for detailed descriptions of the construction activities and planned phasing of the elements associated with Alternative 1.

CEQA Impact Determination

The impact of construction-generated traffic on vehicular and nonmotorized travel is the same as the impact described under the proposed Project and is considered significant under CEQA.

Mitigation Measures

Implement Mitigation Measure MM TC-1.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The impact of construction-generated traffic on vehicular and nonmotorized travel is the same as the impact described under the proposed Project and is considered significant under NEPA.

Mitigation Measures

Implement Mitigation Measure MM TC-1.

Residual Impacts

Impacts would be less than significant.

Impact TC-2a: Alternative 1 operations would increase traffic volumes and degrade LOS at intersections within the proposed project vicinity.

Alternative 1 would increase the number of people traveling to and from the San Pedro Waterfront area. The resulting increase in traffic volumes on the surrounding roadways would in turn degrade intersection operations. The projected LOS at intersections within the vicinity, as compared to CEQA and NEPA baseline conditions, are summarized in Table 25 (2015 conditions) and Table 26 (2037 conditions) of the traffic study in Appendix M.

CEQA Impact Determination

To determine whether significant impacts would occur at the study intersections under CEQA, the cumulative-plus-project operating conditions were compared to the CEQA baseline operating conditions. Table 3.11-15 summarizes the locations at which significant impacts are identified under CEQA without implementation of mitigation measures. Alternative 1 would result in significant traffic impacts at nine intersections by 2015 and at 12 intersections by 2037 during one or more peak hours.

Table 3.11-14. Significant Impacts at Intersections under CEQA without Mitigation—Alternative 1

	LOS (V/C)[1]					
	2015			*2037*		
Intersection	*AM*	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
5. Gaffey Street/9th Street					E (0.921)	D (0.826)
7. Gaffey Street/6th Street			D	F		E

Intersection	*LOS (V/C)*[1]					
	2015			*2037*		
	AM	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
			(0.828)	(1.032)		(0.936)
8. Gaffey Street/5th Street						D (0.837)
9. Gaffey Street/1st Street	F (1.198)		E (0.939)	F (1.394)		F (1.072)
21. Harbor Boulevard/Miner Street/Crescent Avenue	C (0.770)	D (0.888)		D (0.887)	E (0.999)	C (0.793)
22. Harbor Boulevard/7th Street		C (0.738)			D (0.829)	C (0.765)
24. Harbor Boulevard/5th Street		C (0.793)			D (0.886)	C (0.710)
25. Harbor Boulevard/1st Street	C (0.742)		C (0.765)	E (0.908)	C (0.764)	E (0.904)
27. Harbor Boulevard/SR-47 westbound on-ramp						C (0.703)
28. Harbor Boulevard/Gulch Road		D (0.842)			E (0.946)	C (0.746)
29. Harbor Boulevard/O'Farrell Street		E (0.917)	C (0.795)	C (0.763)	F (1.025)	E (0.904)
30. Harbor Boulevard/3rd Street	C (0.722)	D (0.848)	E (0.904)	D (0.823)	E (0.925)	E (0.994)

Note:
1. Only analysis intersections at which significant impacts have been identified are listed in this table. LOS (V/C) information is provided only in the years/analysis periods in which a significant impact has been identified

The intersections identified in Table 3.11-15 are projected to exceed the LOS thresholds defined under CEQA, as described in the methodology section of this section. Thus, without mitigation, operational impacts on vehicle traffic would be significant under CEQA.

Mitigation Measures

Implement Mitigation Measures MM TC-2, MM TC-4, MM TC-6, MM TC-8 through MM TC-10, MM TC-12, and MM TC-13 by 2015.

Implement Mitigation Measure MM TC-3 by 2037.

Residual Impacts

The recommended mitigation measures would fully mitigate impacts identified at six of the nine intersections in 2015 and five of the 12 intersections in 2037 to less-than-significant levels. For the remaining locations, no feasible measures were identified that would fully mitigate impacts to less-than-significant levels for all analysis periods due to existing physical constraints (i.e., lack of right-of-way and existing development) at those locations. This includes four intersections (Gaffey Street and 1st Street; Harbor Boulevard/Miner Street and Crescent Avenue; Harbor Boulevard and SR-47 westbound ramps; and Harbor Boulevard and Gulch Road) where no feasible measures were identified. Table 3.11-16 summarizes the locations and scenarios at which residual significant impacts are expected to remain after implementation of all recommended mitigation measures.

Additionally, as stated for the proposed project, implementation of Mitigation Measure TC-6 and portions of Mitigation Measures TC-7, TC-8, TC-9, TC-12 and TC-13 (involving configuring Harbor Boulevard to provide three lanes both northbound and southbound) have been identified to reduce congestion and increase levels of service for this alternative. While these mitigation measures are available to the LAHD, the LAHD may decide not to adopt Mitigation Measure TC-6 and portions of Mitigation Measures TC-7, TC-8, TC-9, TC-12 and TC-13 (involving configuring Harbor Boulevard to provide three lanes both northbound and southbound) because the provision of three lanes both northbound and southbound on Harbor Boulevard would increase speeds along Harbor Boulevard and would not contribute to a pedestrian-friendly environment along Harbor Boulevard. Should the LAHD decide not to adopt these mitigation measures, the resulting congestion and the levels of service would be worse than what is presented below.

Table 3.11-15. Significant Residual Impacts at Intersections under CEQA—Alternative 1

	LOS (V/C)[1]					
	2015			*2037*		
Intersection	*AM*	*PM*	*Wkend*	*AM*	*PM*	*Wkend*

Intersection	*LOS (V/C)*[1]					
	2015			*2037*		
	AM	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
5. Gaffey Street/9th Street						D (0.826)
8. Gaffey Street/5th Street						D (0.837)
9. Gaffey Street/1st Street	F (1.198)		E (0.939)	F (1.394)		F (1.072)
21. Harbor Boulevard/Miner Street/Crescent Avenue	C (0.770)	D (0.888)		D (0.887)	E (0.999)	C (0.793)
22. Harbor Boulevard/7th Street					C (0.732)	
27. Harbor Boulevard/SR-47 westbound on-ramp						C (0.703)
28. Harbor Boulevard/Gulch Road		D (0.842)			E (0.946)	C (0.746)

Notes:
[1] LOS (V/C) information is provided only in the years/analysis periods in which a significant residual impact has been identified

Following is a description of the effectiveness of each proposed intersection mitigation measure.

- Mitigation Measure MM TC-2 would mitigate all identified impacts, except during the weekend midday peak hour in 2037, identified at the following locations:
  - impacts at Gaffey Street and 7th Street would be fully mitigated, and
  - the impact Gaffey Street and 5th Street would be partially mitigated (residual impact remains during the weekend midday peak hour in 2037).
- When combined, Mitigation Measures MM TC-2 and MM TC-3 would fully mitigate the identified impact at Gaffey Street and 9th Street during the weekday PM peak hour in 2037. No feasible measures could be identified to mitigate the impact at this location during the weekend midday peak hour in 2037.
- Mitigation Measure MM TC-4, when combined with MM TC-2, would fully mitigate the impacts identified at Gaffey Street and 6th Street.
- Mitigation Measure MM TC-6, combined with other measures, would mitigate impacts identified at the following locations:
  - Harbor Boulevard and 5th Street (see also MM TC-8),
  - Harbor Boulevard and 1st Street (see also MM TC 9),

- Harbor Boulevard and 7th Street (See also MM TC-10),
- Harbor Boulevard and O'Farrell Street (see also MM TC-12), and
- Harbor Boulevard and 3rd Street (see also MM TC-13).

- Mitigation Measure MM TC-8, when combined with Mitigation Measure MM TC-6, would fully mitigate the identified impacts at Harbor Boulevard and 5th Street.
- Mitigation Measure MM TC-9, when combined with Mitigation Measure MM TC-6, would fully mitigate the identified impact at Harbor Boulevard and 1st Street.
- Mitigation Measure MM TC-10, when combined with Mitigation Measure MM TC-6, would partially mitigate impacts identified at Harbor Boulevard and 7th Street. No feasible measures could be identified to address the impact at this location during the weekday PM peak hour in 2037.
- Mitigation Measure MM TC-12, combined with MM TC-6, would fully mitigate all identified impacts at Harbor Boulevard and O'Farrell Street.
- Mitigation Measure MM TC-13, combined with MM TC-6, would fully mitigate all identified impacts at Harbor Boulevard and 3rd Street.

NEPA Impact Determination

To determine whether significant impacts would occur at the study intersections under NEPA, the cumulative plus Alternative 1operating conditions were compared to the NEPA baseline operating conditions. Table 3.11-17 summarizes the locations at which significant impacts are identified under NEPA without implementation of mitigation measures. Alternative 1 is expected to result in significant traffic impacts at six intersections by 2015 and at nine intersections in 2037 during one or more peak hours.

Table 3.11-16. Significant Impacts at Intersections under NEPA without Mitigation—Alternative 1

	LOS (V/C)[1]					
	2015			*2037*		
Intersection	*AM*	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
21. Harbor Boulevard/Miner Street/Crescent Avenue	C (0.770)	D (0.888)		D (0.887)	E (0.999)	C (0.793)
22. Harbor Boulevard/7th Street		C (0.738)			D (0.829)	
24. Harbor Boulevard/5th Street						C (0.710)
25. Harbor Boulevard/1st Street	C (0.742)			E (0.908)		E (0.904)
26. Harbor Boulevard/Swinford Street/ SR-47 eastbound ramps				F (1.080)		

Intersection	*LOS (V/C)*[1]					
	2015			*2037*		
	AM	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
27. Harbor Boulevard/SR-47 westbound on-ramp				C (0.781)		
28. Harbor Boulevard/Gulch Road		D (0.842)			E (0.946)	C (0.746)
29. Harbor Boulevard/O'Farrell Street			C (0.795)		F (1.025)	E (0.904)
30. Harbor Boulevard/3rd Street	C (0.722)		E (0.904)	D (0.823)	E (0.925)	E (0.994)

Note:
1. Only analysis intersections at which significant impacts have been identified are listed in this table. LOS (V/C) information is provided only in the years/analysis periods in which a significant impact has been identified

The intersections identified in Table 3.11-17 are projected to exceed the LOS thresholds defined under NEPA, as described in Section 3.11.4.1, "Methodology." Thus, without mitigation, operational impacts on vehicle traffic would be significant under NEPA.

Mitigation Measures

Implement Mitigation Measures MM TC-6, MM TC-9, MM TC-10, MM TC-12, and MM TC-13 by 2015.

Implement Mitigation Measures MM TC-8 and MM TC-11 by 2037.

Residual Impacts

The recommended mitigation measures would fully mitigate impacts identified at four of the six intersections in 2015 and five of the nine intersections in 2037 to less-than-significant levels. For the remaining locations, no feasible measures were identified that would fully mitigate the impact to less-than-significant levels for all analysis periods due to existing physical constraints at those locations. This includes three intersections (Harbor Boulevard/Miner Street and Crescent Avenue; Harbor Boulevard and SR-47 westbound ramps; and Harbor Boulevard and Gulch Road) where no feasible measures were identified. Table 3.11-18 summarizes the locations and scenarios at which residual significant impacts are expected to remain after implementation of all recommended mitigation measures.

Similar to the residual impact discussion for CEQA, implementation of Mitigation Measure TC-6 and portions of Mitigation Measures TC-7, TC-8, TC-9, TC-12 and TC-13 (involving configuring Harbor Boulevard to provide three lanes both northbound and southbound) have been identified to reduce congestion and increase levels of service for this alternative under NEPA. While these mitigation measures are available to the LAHD, the LAHD may decide not to adopt Mitigation Measure

TC-6 and portions of Mitigation Measures TC-7, TC-8, TC-9, TC-12 and TC-13 (involving configuring Harbor Boulevard to provide three lanes both northbound and southbound) because the provision of three lanes both northbound and southbound on Harbor Boulevard would increase speeds along Harbor Boulevard and would not contribute to a pedestrian-friendly environment along Harbor Boulevard. Should the LAHD decide not to adopt these mitigation measures, the resulting congestion and the levels of service would be worse than what is presented below.

Table 3.11-17. Significant Residual Impacts at Intersections under NEPA—Alternative 1

	LOS (V/C)[1]					
	2015			*2037*		
Intersection	*AM*	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
21. Harbor Boulevard/Miner Street/Crescent Avenue	C (0.770)	D (0.888)		D (0.887)	E (0.999)	C (0.793)
22. Harbor Boulevard/7th Street					C (0.732)	
27. Harbor Boulevard/SR-47 westbound on-ramp				C (0.781)		
28. Harbor Boulevard/Gulch Road		D (0.842)			E (0.946)	C (0.746)

Notes:
[1] LOS (V/C) information is provided only in the years/analysis periods in which a significant residual impact has been identified.

Following is a description of the effectiveness of each proposed intersection mitigation measure.

- Mitigation Measure MM TC-6, combined with additional measures, would mitigate impacts identified at the following locations:
  - Harbor Boulevard and 5th Street (see also MM TC-8),
  - Harbor Boulevard and 1st Street (see also MM TC 9),
  - Harbor Boulevard and 7th Street (see also MM TC-10),
  - Harbor Boulevard and O'Farrell Street (see also MM TC-12), and
  - Harbor Boulevard and 3rd Street (see also MM TC-13).
- Mitigation Measure MM TC-8, when combined with Mitigation Measure MM TC-6, would partially mitigate the identified impact at Harbor Boulevard and 5th Street. No feasible measures could be identified to mitigate the impact at this location during the weekend midday peak hour in 2037.
- Mitigation Measure MM TC-9, when combined with Mitigation Measure MM TC-6, would fully mitigate the identified impact at Harbor Boulevard and 1st Street.

- Mitigation Measure MM TC-10, combined with MM TC-6, would partially mitigate impacts identified at Harbor Boulevard and 7th Street. No feasible measures could be identified to address the impact at this location during the weekday PM peak hour in 2037.
- Mitigation Measure MM TC-11 would partially mitigate the identified impacts. No feasible measures could be identified to address the impact at Harbor Boulevard and Swinford Street/SR-47 Eastbound Ramps during the weekday AM peak hour or weekend midday peak hour in 2037.
- Mitigation Measure MM TC-12, combined with Mitigation Measure MM TC-6, would fully mitigate all identified impacts at Harbor Boulevard and O'Farrell Street.
- Mitigation Measure MM TC-13, combined with Mitigation Measure MM TC-6, would fully mitigate all identified impacts at Harbor Boulevard and 3rd Street.

Impact TC-2b: Alternative 1 operations would increase traffic volumes and degrade LOS along neighborhood streets within the proposed project vicinity.

Alternative 1 would increase the number of people traveling to and from the San Pedro Waterfront area. The resulting increase in traffic volumes would degrade LOS on the surrounding neighborhood roadways. Table 3.11-19 summarizes the LOS expected to result from Alternative 1 at the two analysis neighborhood roadways, as compared to CEQA and NEPA baseline conditions.

Table 3.11-18. Neighborhood Street Impact Assessment—Alternative 1

Street Segment	*Year*	*NEPA Baseline*	*CEQA Baseline*	*Project Only*	*Future with Project*	*NEPA Increase %*	*CEQA Increase %*	*Impact Threshold*	*NEPA Impact*	*CEQA Impact*
Santa Cruz Street between Grand and Pacific	2015	1,927	1,857	72	1,929	0%	4%	12%	No	No
	2037	1,999	1,929	79	2,008	0%	4%	10%	No	No
West 17th Street between Centre and Palos Verdes	2015	1,952	1,788	227	2,015	3%	13%	10%	No	Yes
	2037	2,036	1,872	250	2,122	4%	13%	10%	No	Yes

CEQA Impact Determination

To determine whether significant impacts would occur at the analysis street segments under CEQA, the cumulative plus Alternative 1 operating conditions were compared

to the CEQA baseline operating conditions. Table 3.11-19 indicates that under projected 2037 conditions, increases in traffic on the neighborhood streets due to Alternative 1 would exceed CEQA thresholds for the West 17th Street segment. This would be a significant operational impact.

Mitigation Measures

No feasible mitigation is identified to address the traffic impacts on West 17th Street between Centre and Palos Verdes under 2015 and 2037 conditions. Short of the permanent closure of the affected street segment, which would not be acceptable since it serves adjacent land uses and carries substantial traffic volumes, no mitigation measures exist that would fully eliminate the addition of significant or adverse traffic volumes to this segment of West 17th Street.

Residual Impacts

Impacts would be significant and unavoidable.

NEPA Impact Determination

To determine whether significant impacts would occur at the analysis street segments under NEPA, the cumulative plus Alternative 1 operating conditions were compared to the NEPA baseline operating conditions. Table 3.11-19 indicates that projected increases in traffic on the neighborhood streets due to Alternative 1 would not exceed NEPA thresholds. Therefore, operational impacts on neighborhood street operations would be less than significant under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact TC-2c: Alternative 1 operations would not increase traffic volumes and degrade operations on CMP facilities within the proposed project vicinity.

Alternative 1 would increase the number of people traveling to and from the San Pedro Waterfront area. The resulting demand would increase traffic volumes and degrade operations on the regional CMP facilities. Detailed projections of traffic volumes and V/Cs under baseline and Alternative 1 conditions are provided in Tables 46 and 47 of the traffic study in Appendix M.

CEQA Impact Determination

The projected volumes on the CMP freeway facilities, as compared to thresholds defined under the CMP, are summarized in Table 3.11-20.

To determine whether significant impacts would occur on the CMP freeway facilities under CEQA, the difference in V/C between cumulative-plus-project operating conditions and the no-project operating conditions were compared to the CMP thresholds. Table 3.11-20 indicates that, under projected 2015 and 2037 conditions, most of the CMP facility locations would operate at LOS E or better. It also shows that at the locations projected to operate at LOS F the project would result in a V/C change of less than 0.02. Thus, operational impacts would be less than significant under CEQA.

Table 3.11-19. CMP Facility Impact Assessment under CEQA—Alternative 1

CMP Monitoring Station	*Peak Hour*	*Northbound/Westbound*				*Southbound/Eastbound*			
		Baseline		*Change Due to Project*		*Baseline*		*Change Due to Project*	
		V/C	*LOS*	*V/C change*	*Significant Impact?*	*V/C*	*LOS*	*V/C change*	*Significant Impact?*
2015									
I-110 south of C Street	AM	0.56	C	0.01	No	0.41	B	0.03	No
	PM	0.39	B	0.04	No	0.53	B	0.03	No
I-110 at Manchester Boulevard	AM	0.84	D	0.00	No	1.06	F	0.00	No
	PM	1.01	F	0.00	No	1.15	F	0.00	No
I-405 south of I-110 at Carson scales	AM	0.97	E	0.00	No	0.84	D	0.00	No
	PM	0.83	D	0.01	No	0.93	D	0.01	No
I-405 north of Inglewood Boulevard	AM	0.92	D	0.00	No	0.71	C	0.01	No
	PM	0.82	D	0.01	No	1.02	F	0.01	No
2037									
I-110 south of C Street	AM	0.63	C	0.02	No	0.46	B	0.04	No
	PM	0.44	B	0.04	No	0.60	C	0.03	No
I-110 at Manchester Boulevard	AM	0.96	E	0.00	No	1.20	F	0.01	No
	PM	1.14	F	0.01	No	1.30	F	0.01	No
I-405 south of I-110 at Carson scales	AM	1.10	F	0.00	No	0.95	E	0.00	No
	PM	0.95	E	0.00	No	1.06	F	0.00	No
I-405 north of Inglewood Boulevard	AM	1.04	F	0.01	No	0.81	D	0.01	No
	PM	0.93	D	0.01	No	1.16	F	0.01	No

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Impacts would be less than significant, as discussed for the CEQA impact determination.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact TC-3: Alternative 1 operations would not cause increases in demand for transit service beyond the supply of such services.

Analysis presented in the traffic study indicates that Alternative 1's transit demand would be less than that expected for the proposed Project because the proposed Project represents the "worst-case" scenario in the number of trips generated as a result of commercial, recreation, cultural, and business activity, due to only one Outer Harbor Cruise Terminal and berth. Other proposed project components would result in similar transit demands as for the proposed Project.

CEQA Impact Determination

Since no significant impact is identified under the proposed Project, the lower transit demand that would be expected under Alternative 1 would also be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Since no significant impact is identified under the proposed Project, the lower transit demand that would be expected under Alternative 1 would also be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact TC-4: Alternative 1 operations would not result in a violation of the City's adopted parking policies and parking demand would not exceed supply.

Alternative 1 would increase parking demand at the waterfront facilities. Table 3.11-21 summarizes the impact assessment, which compares the proposed parking supply to the demand generated by Alternative 1, and also to requirements set forth in the City of Los Angeles Municipal Code. More detailed information on parking projections for Alternative 1 is provided in Table 57 of the traffic study in Appendix M.

Table 3.11-20. Parking Assessment—Alternative 1

Proposed Parking Supply	*Code Requirements*		*2015 Projected Demand*		*2037 Projected Demand*	
	Spaces Required	*Accommodated by proposed supply?*	*Spaces Required*	*Accommodated by proposed supply?*	*Spaces Required*	*Accommodated by proposed supply?*
8,027	3,196	Yes	7,597	Yes	8,728	No

Table 3.11-21 shows that parking supply for Alternative 1 would exceed code requirements, as well as projected parking demand through 2015 and 2037. The shortfall is the result of the projected increase in the amount of parking needed to support the anticipated level of activity at the cruise terminals.

The Waterfront Red Car alignment is the same under this alternative as it is for the proposed Project and could result in loss of available parking.

CEQA Impact Determination

Based on the discussion presented above, 2037 parking demand would exceed supply, resulting in a significant impact under CEQA. In addition, the loss of parking

resulting from reconfiguration of the parking lots to accommodate the Waterfront Red Car extension would be significant.

Mitigation Measures

Implement Mitigation Measures MM TC-15a, MM TC-15b, or MM TC-15c.

MM TC-27. Increase capacity of parking supply associated with cruise terminals. To provide secure, dedicated parking for the cruise terminals, increase the size of the parking structures serving the cruise terminals by 701 spaces.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The expansion of the Waterfront Red Car Line would also occur under baseline NEPA conditions; therefore conditions under Alternative 1 would be identical to conditions under the NEPA baseline. Operational impacts to parking would not occur under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact TC-5a: The alignment of the Waterfront Red Car expansion for Alternative 1 would not increase potential conflict with vehicles at cross streets.

The Waterfront Red Car alignment would be the same for Alternative 1 as it is for the proposed Project.

CEQA Impact Determination

Vehicular and pedestrian safety hazards associated with the Waterfront Red Car expansion at cross street locations under Alternative 1 are the same as those identified for the proposed Project and would be significant under CEQA.

Mitigation Measures

Implement Mitigation Measures MM TC-16, MM TC-17, MM TC-18, MM TC-19-a or MM TC-19-b, and MM TC-20, plus the following additional measure.

MM TC-28. Signalize the proposed intersection of Crescent Avenue/Sampson Way and the reconfigured intersection of Signal Street/Sampson Way.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The expansion of the Waterfront Red Car Line would also occur under baseline NEPA conditions; therefore, conditions under Alternative 1 would be identical to conditions under the NEPA baseline. Thus, no impact is identified under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact TC-5b: The alignment of the Waterfront Red Car expansion for Alternative 1 would not increase potential conflict at track crossovers where the rail would transition between center-running and side-running.

The Waterfront Red Car alignment would be the same for Alternative 1 as it is for the proposed Project.

CEQA Impact Determination

Vehicular and pedestrian safety hazards associated with the Waterfront Red Car expansion at track crossover locations under Alternative 1 are the same as those identified for the proposed Project and would be significant under CEQA.

Mitigation Measures

Implement Mitigation Measures MM TC-22 and MM TC-23.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The expansion of the Waterfront Red Car Line would also occur under baseline NEPA conditions; therefore, conditions under Alternative 1 would be identical to conditions under the NEPA baseline. Thus, no impact is identified under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact TC-5c: The Waterfront Red Car expansion for Alternative 1 would not result in increased pedestrian conflicts at stations.

The Waterfront Red Car alignment would be the same for Alternative 1 as it is for the proposed Project.

CEQA Impact Determination

Increased pedestrian conflict points resulting from the Waterfront Red Car expansion would be the same as those identified for the proposed Project and would be significant.

Mitigation Measures

Implement Mitigation Measures TC-24, TC-25, and TC-26.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The expansion of the Waterfront Red Car Line would also occur under baseline NEPA conditions; therefore, conditions under Alternative 1 would be identical to conditions under the NEPA baseline. Thus, no impact is identified under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

3.11.4.3.3 Alternative 2—Alternative Development Scenario 2

Impact TC-1: Construction of Alternative 2 would not result in a short-term, temporary increase in construction-related truck and auto traffic, decreases in roadway capacity, and disruption of vehicular and nonmotorized travel.

Similar types of construction impacts are expected for Alternative 2 as those described for the proposed Project, though they could be greater in intensity near the Outer Harbor, Harbor Boulevard, and Shoshonean Road, where more construction is planned. Alternative 2 involves two cruise terminals in the Outer Harbor and construction of the waterfront promenade on Shoshonean Road. See Chapter 2, "Project Description," for detailed descriptions of the construction activities and planned phasing of the elements associated with Alternative 2.

CEQA Impact Determination

The impact of construction-generated traffic on vehicular and nonmotorized travel is the same as the impact described under the proposed Project and is considered significant under CEQA.

Mitigation Measures

Implement Mitigation Measure MM TC-1.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The impact of construction-generated traffic on vehicular and nonmotorized travel is the same as the impact described under the proposed Project and is considered significant under NEPA.

Mitigation Measures

Implement Mitigation Measure MM TC-1.

Residual Impacts

Impacts would be less than significant.

Impact TC-2a: Alternative 2 operations would increase traffic volumes and degrade LOS at intersections within the proposed project vicinity.

Alternative 2 would increase the number of people traveling to and from the San Pedro Waterfront area. The resulting increase in traffic volumes on the surrounding roadways would in turn degrade intersection operations. The projected LOS at intersections within the vicinity, as compared to CEQA and NEPA baseline conditions, are summarized in Table 27 (2015 conditions) and Table 28 (2037 conditions) of the traffic study in Appendix M.

CEQA Impact Determination

To determine whether significant impacts would occur at the study intersections under CEQA, the cumulative plus Alternative 2 operating conditions were compared to the CEQA baseline operating conditions. Table 3.11-22 summarizes the locations at which significant impacts are identified under CEQA without implementation of mitigation measures. Alternative 2 is expected to result in significant traffic impacts at 12 intersections by 2015 and at 17 intersections by 2037, during one or more peak hours.

Table 3.11-21. Significant Impacts at Intersections under CEQA without Mitigation—Alternative 2

	LOS (V/C)[1]					
	2015			*2037*		
Intersection	*AM*	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
5. Gaffey Street/9th Street			C (0.733)	E (0.915)	E (0.925)	D (0.840)
6. Gaffey Street/7th Street				D (0.897)		D (0.808)
7. Gaffey Street/6th Street	E (0.923)		D (0.834)	F (1.047)	E (0.958)	E (0.947)
8. Gaffey Street/5th Street	E (0.959)			F (1.096)		D (0.849)
9. Gaffey Street/1st Street	F (1.194)		E (0.945)	F (1.387)	F (1.081)	F (1.082)
20. Miner Street/22nd Street						C (0.785)
21. Harbor Boulevard/Miner Street/Crescent Avenue	D (0.863)	E (0.919)	D (0.859)	F (1.026)	F (1.048)	F (1.053)
22. Harbor Boulevard/7th Street	C (0.708)	C (0.768)	C (0.763)	D (0.884)	D (0.875)	E (0.908)
23. Harbor Boulevard/6th Street						C (0.776)

Intersection	*LOS (V/C)*[1]					
	2015			*2037*		
	AM	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
24. Harbor Boulevard/5th Street		D (0.813)	C (0.735)	C (0.725)	E (0.916)	D (0.866)
25. Harbor Boulevard/1st Street	D (0.802)		D (0.838)	E (0.999)	C (0.787)	F (1.005)
26. Harbor Boulevard/Swinford Street/SR-47 eastbound ramps	E (0.902)			F (1.151)	C (0.728)	
27. Harbor Boulevard/SR-47 westbound on-ramp				D (0.882)		C (0.775)
28. Harbor Boulevard/Gulch Road		D (0.874)	D (0.818)		E (0.998)	F (1.007)
29. Harbor Boulevard/O'Farrell Street	C (0.714)	E (0.937)	D (0.894)	D (0.853)	F (1.054)	F (1.052)
30. Harbor Boulevard/3rd Street	D (0.828)	D (0.873)	F (1.028)	E (0.982)	E (0.962)	F (1.179)
34. Gaffey Street /13th Street				E (0.975)		

Note:
1. Only analysis intersections at which significant impacts have been identified are listed in this table. LOS (V/C) information is provided only in the years/analysis periods in which a significant impact has been identified

The intersections identified in Table 3.11-22 are projected to exceed the LOS thresholds defined under CEQA, as described in the methodology section of this section. Thus, without mitigation, operational impacts on vehicle traffic would be significant under CEQA.

Mitigation Measures

Implement Mitigation Measures MM TC-2 through MM TC-4, MM TC-6, and MM TC-8 through MM TC-13 by 2015.

Implement Mitigation Measures MM TC-5, MM TC-7, and MM TC-14 by 2037.

Residual Impacts

The recommended mitigation measures would fully mitigate impacts identified at eight of the 12 intersections in 2015 and six of the 17 intersections in 2037 to less-than-significant levels. For the remaining locations, no feasible measures were identified that would fully mitigate impacts to less-than-significant levels for all analysis periods due to existing physical constraints at those locations. This includes four intersections (Gaffey Street and 1st Street; Harbor Boulevard/Miner Street and Crescent Avenue; Harbor Boulevard and SR-47 westbound ramps; and Harbor

Boulevard and Gulch Road**)** where no feasible measures were identified. Table 3.11-23 summarizes the locations and scenarios at which residual significant impacts are expected to remain after implementation of all recommended mitigation measures.

Additionally, as stated for the proposed project, implementation of Mitigation Measure TC-6 and portions of Mitigation Measures TC-7, TC-8, TC-9, TC-12 and TC-13 (involving configuring Harbor Boulevard to provide three lanes both northbound and southbound) have been identified to reduce congestion and increase levels of service for this alternative. While these mitigation measures are available to the LAHD, the LAHD may decide not to adopt Mitigation Measure TC-6 and portions of Mitigation Measures TC-7, TC-8, TC-9, TC-12 and TC-13 (involving configuring Harbor Boulevard to provide three lanes both northbound and southbound) because the provision of three lanes both northbound and southbound on Harbor Boulevard would increase speeds along Harbor Boulevard and would not contribute to a pedestrian-friendly environment along Harbor Boulevard. Should the LAHD decide not to adopt these mitigation measures, the resulting congestion and the levels of service would be worse than what is presented below.

Table 3.11-22. Significant Residual Impacts at Intersections under CEQA—Alternative 2

	LOS (V/C)[1]					
	2015			*2037*		
Intersection	*AM*	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
5. Gaffey Street/9th Street			C (0.733)	E (0.915)		D (0.840)
6. Gaffey Street/7th Street						D (0.808)
8. Gaffey Street/5th Street						D (0.849)
9. Gaffey Street/1st Street	F (1.194)		E (0.945)	F (1.387)	F (1.081)	F (1.082)
21. Harbor Boulevard/Miner Street/Crescent Avenue	D (0.863)	E (0.919)	D (0.859)	F (1.026)	F (1.048)	F (1.053)
22. Harbor Boulevard/7th Street				C (0.787)	C (0.778)	D (0.827)
23. Harbor Boulevard/6th Street						C (0.724)
24. Harbor Boulevard/5th Street				C (0.725)		C (0.741)
25. Harbor Boulevard/1st Street				C (0.724)		C (0.706)
27. Harbor Boulevard/SR-47 westbound on-ramp				D (0.882)		C (0.775)

Intersection	*LOS (V/C)*[1]					
	2015			*2037*		
	AM	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
28. Harbor Boulevard/Gulch Road		D (0.874)	D (0.818)		E (0.998)	F (1.007)

Notes:
[1] LOS (V/C) information is provided only in the years/analysis periods in which a significant residual impact has been identified.

Following is a description of the effectiveness of each proposed intersection mitigation measure.

- Mitigation Measure MM TC-2 would mitigate all identified impacts, except during the weekend midday peak hour in 2037, identified at the following locations:
  - Gaffey Street and 7th Street, and
  - Gaffey Street and 5th Street.
- Mitigation Measure MM TC-3, when combined with Mitigation Measure MM TC-2, would fully mitigate the identified impact at Gaffey Street and 9th Street during the weekday PM peak hour in 2037. No feasible measures could be identified to mitigate the impact at this location during the weekday AM peak hour in 2037 or the weekend midday peak hour in 2015 or 2037.
- Mitigation Measure MM TC-4, when combined with Mitigation Measure MM TC-2, would fully mitigate the impacts identified at Gaffey Street and 6th Street.
- Mitigation Measure MM TC-5 would fully mitigate the identified impact at Miner Street and 22nd Street.
- Mitigation Measure MM TC-6, combined with additional measures, would mitigate impacts identified at the following locations:
  - Harbor Boulevard and 6th Street (see also MM TC-7),
  - Harbor Boulevard and 5th Street (see also MM TC-8),
  - Harbor Boulevard and 1st Street (see also MM TC 9),
  - Harbor Boulevard and 7th Street (see also MM TC-10),
  - Harbor Boulevard and O'Farrell Street (see also MM TC-12), and
  - Harbor Boulevard and 3rd Street (see also MM TC-13).
- Mitigation Measure MM TC-7, combined with Mitigation Measure MM TC-6, would partially mitigate the identified impact at Harbor Boulevard and 6th Street. No feasible measures could be identified to mitigate the impact at this location during the weekend midday peak hour in 2037.

- Mitigation Measure MM TC-8, combined with Mitigation Measure MM TC-6, would partially mitigate the identified impact at Harbor Boulevard and 5th Street. No feasible measures could be identified to mitigate the impact at this location during the weekday AM peak hour and the weekend midday peak hour in 2037.
- Mitigation Measure MM TC-9, combined with Mitigation Measure MM TC-6, would partially mitigate the identified impact at Harbor Boulevard and 1st Street. No feasible measures could be identified to mitigate the impact at this location during the weekday AM peak hour and the weekend midday peak hour in 2037.
- Mitigation Measure MM TC-10 would partially mitigate the identified impact at the eastbound approach to Harbor Boulevard and 7th Street. No feasible measures could be identified to mitigate the impact at this location during the weekday AM and PM peak hours and the weekend midday peak hour in 2037.
- Mitigation Measure MM TC-11 would fully mitigate the impacts at Harbor Boulevard and Swinford Street/SR-47 eastbound ramps.
- Mitigation Measure MM TC-12, combined with Mitigation Measure MM TC-6, would fully mitigate all identified impacts at Harbor Boulevard and O'Farrell Street.
- Mitigation Measure MM TC-13, combined with MM TC-6, would fully mitigate all identified impacts at Harbor Boulevard and 3rd Street.
- Mitigation Measure TC-14 would fully mitigate the identified impact at Gaffey Street and 13th Street.

NEPA Impact Determination

To determine whether significant impacts would occur at the study intersections under NEPA, the cumulative plus Alternative 2 operating conditions were compared to the NEPA baseline operating conditions. Table 3.11-24 summarizes the locations at which significant impacts are identified under NEPA without implementation of mitigation measures. Alternative 2 is expected to result in significant traffic impacts at ten intersections by 2015 and 16 intersections by 2037 during one or more peak hours.

Table 3.11-23. Significant Impacts at Intersections under NEPA without Mitigation—Alternative 2

	LOS (V/C)[1]					
	2015			*2037*		
Intersection	*AM*	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
5. Gaffey Street/9th Street				E (0.915)		
7. Gaffey Street/6th Street	E (0.923)			F (1.047)		D (0.947)
8. Gaffey Street/5th Street	E (0.959)			F (1.096)		
9. Gaffey Street/1st Street						F

Intersection	*LOS (V/C)*[1]					
	2015			*2037*		
	AM	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
						(1.082)
20. Miner Street/22nd Street						C (0.785)
21. Harbor Boulevard/Miner Street/Crescent Avenue	D (0.863)	E (0.919)	D (0.859)	F (1.026)	F (1.048)	F (1.053)
22. Harbor Boulevard/7th Street	C (0.708)	C (0.768)		D (0.884)	D (0.875)	E (0.908)
23. Harbor Boulevard/6th Street						C (0.776)
24. Harbor Boulevard/5th Street		D (0.813)	C (0.735)	C (0.725)	E (0.916)	D (0.866)
25. Harbor Boulevard/1st Street	D (0.802)		D (0.838)	E (0.999)	C (0.787)	F (1.005)
26. Harbor Boulevard/Swinford Street/ SR-47 eastbound ramps	E (0.902)			F (1.151)	C (0.728)	F (1.120)
27. Harbor Boulevard/SR-47 westbound on-ramp				D (0.882)		C (0.775)
28. Harbor Boulevard/Gulch Road		D (0.874)	D (0.818)		E (0.998)	F (1.007)
29. Harbor Boulevard/O'Farrell Street	C (0.714)	E (0.937)	D (0.894)	D (0.853)	F (1.054)	F (1.052)
30. Harbor Boulevard/3rd Street	D (0.828)	D (0.873)	F (1.028)	E (0.982)	E (0.962)	F (1.179)
34. Gaffey Street/13th Street				E (0.975)		

Note:
1. Only analysis intersections at which significant impacts have been identified are listed in this table. LOS (V/C) information is provided only in the years/analysis periods in which a significant impact has been identified.

The intersections identified in Table 3.11-24 are projected to exceed the LOS thresholds defined under NEPA, as described in Section 3.11.4.1, "Methodology." Thus, without mitigation, operational impacts on vehicle traffic would be significant under NEPA.

Mitigation Measures

Implement Mitigation Measures MM TC-2, MM TC-4, MM TC-6, and MM TC-8 through MM TC-13 by 2015.

Implement Mitigation Measures MM TC-3, MM TC-5, MM TC-7, and MM TC-14 by 2037.

Residual Impacts

The recommended mitigation measures would fully mitigate impacts identified at eight of the 10 intersections in 2015 and seven of the 16 intersections in 2037 to less-than-significant levels. For the remaining locations, no feasible measures were identified that would fully mitigate impacts to less-than-significant levels for all analysis periods, due to existing physical constraints at those locations (i.e., lack of right-of-way and existing development). This includes four intersections (Gaffey Street and 1st Street; Harbor Boulevard/Miner Street and Crescent Avenue; Harbor Boulevard and SR-47 westbound ramps; and Harbor Boulevard and Gulch Road**)** where no feasible measures were identified. Impacts would be significant and unavoidable. Table 3.11-25 summarizes the locations and scenarios at which residual significant impacts are expected to remain after implementation of all recommended mitigation measures.

Similar to the residual impacts under the CEQA analysis above, implementation of Mitigation Measure TC-6 and portions of Mitigation Measures TC-7, TC-8, TC-9, TC-12 and TC-13 (involving configuring Harbor Boulevard to provide three lanes both northbound and southbound) have been identified to reduce congestion and increase levels of service under NEPA. While these mitigation measures are available to the LAHD, the LAHD may decide not to adopt Mitigation Measure TC-6 and portions of Mitigation Measures TC-7, TC-8, TC-9, TC-12 and TC-13 (involving configuring Harbor Boulevard to provide three lanes both northbound and southbound) because the provision of three lanes both northbound and southbound on Harbor Boulevard would increase speeds along Harbor Boulevard and would not contribute to a pedestrian-friendly environment along Harbor Boulevard. Should the LAHD decide not to adopt these mitigation measures, the resulting congestion and the levels of service would be worse than what is presented below.

Table 3.11-24. Significant Residual Impacts at Intersections under NEPA—Alternative 2

	LOS (V/C)[1]					
	2015			*2037*		
Intersection	*AM*	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
5. Gaffey Street/9th Street				E (0.915)		
9. Gaffey Street/1st Street						F (1.082)
21. Harbor Boulevard/Miner Street/Crescent Avenue	D (0.863)	E (0.919)	D (0.859)	F (1.026)	F (1.048)	F (1.053)
22. Harbor Boulevard/7th Street				C (0.787)	C (0.778)	

Intersection	*LOS (V/C)*[1]					
	2015			*2037*		
	AM	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
23. Harbor Boulevard/6th Street						C (0.724)
24. Harbor Boulevard/5th Street				C (0.725)		C (0.741)
26. Harbor Boulevard/Swinford Street/ SR-47 eastbound ramps				F (1.067)		
27. Harbor Boulevard/SR-47 westbound on-ramp				D (0.882)		C (0.775)
28. Harbor Boulevard/Gulch Road		D (0.874)	D (0.818)		E (0.998)	F (1.007)

Notes:
[1] LOS (V/C) information is provided only in the years/analysis periods in which a significant residual impact has been identified.

Following is a description of the effectiveness of each proposed intersection mitigation measure.

- Mitigation Measure MM TC-2 would mitigate all identified impacts at Gaffey Street and 5th Street to less-than-significant levels.
- Mitigation Measure MM TC-3, when combined with Mitigation Measure MM TC-2, would partially mitigate the identified impact at Gaffey Street and 9th Street. No feasible measures could be identified to mitigate the impact at this location during the weekday AM peak hour (2037), which would remain significant and unavoidable.
- Mitigation Measure MM TC-4, when combined with Mitigation Measure MM TC-2, would fully mitigate the impacts identified at Gaffey Street and 6th Street to less-than-significant levels.
- Mitigation Measure MM TC-5 would fully mitigate the identified impact at Miner Street and 22nd Street to less-than-significant levels.
- Mitigation Measure MM TC-6, combined with additional measures, would mitigate impacts identified at the following locations to less-than-significant levels:
  - Harbor Boulevard and 6th Street (see also MM TC-7),
  - Harbor Boulevard and 5th Street (see also MM TC-8),
  - Harbor Boulevard and 1st Street (see also MM TC 9),
  - Harbor Boulevard and 7th Street (see also MM TC-10),
  - Harbor Boulevard and O'Farrell Street (see also MM TC-12), and

- Harbor Boulevard and 3rd Street (see also MM TC-13).

- Mitigation Measure MM TC-7, when combined with Mitigation Measure MM TC-6, would partially mitigate the identified impact at Harbor Boulevard and 6th Street. No feasible measures could be identified to mitigate the impact at this location during the weekend midday peak hour in 2037 under NEPA, which would remain significant and unavoidable.
- Mitigation Measure MM TC-8, when combined with Mitigation Measure MM TC-6, would partially mitigate the identified impact at Harbor Boulevard and 5th Street. No feasible measures could be identified to mitigate the impact at this location during the weekday AM peak hour and the weekend midday peak hour in 2037 under NEPA, which would remain significant and unavoidable.
- Mitigation Measure MM TC-9, when combined with Mitigation Measure MM TC-6, would fully mitigate the identified impact at Harbor Boulevard and 1st Street to less-than-significant levels.
- Mitigation Measure MM TC-10, when combined with Mitigation Measure MM TC-6, would partially mitigate the identified impact at the eastbound approach to Harbor Boulevard and 7th Street. No feasible measures could be identified to mitigate the impact at this location during the weekday AM and PM peak hours in 2037 under NEPA, which would remain significant and unavoidable.
- Mitigation Measure MM TC-11 would partially mitigate the identified impact at Harbor Boulevard and the Swinford Street/ SR-47 eastbound ramps. No feasible measures could be identified to mitigate the impact at this location during the weekday AM peak hour in 2037 under NEPA, which would remain significant and unavoidable.
- Mitigation Measure MM TC-12, combined with Mitigation Measure MM TC-6, would fully mitigate all identified impacts at Harbor Boulevard and O'Farrell Street to less-than-significant levels.
- Mitigation Measure MM TC-13, combined with Mitigation Measure MM TC-6, would fully mitigate all identified impacts at Harbor Boulevard and 3rd Street to less-than-significant levels.
- Mitigation Measure TC-14 would fully mitigate the identified impact at Gaffey Street and 13th Street to less-than-significant levels.

Impact TC-2b: Alternative 2 operations would increase traffic volumes and degrade LOS along neighborhood streets within the proposed project vicinity.

Alternative 2 would increase the number of people traveling to and from the San Pedro Waterfront area. The resulting increase in traffic volumes would degrade LOS on the surrounding neighborhood roadways. Table 3.11-26 summarizes the increased traffic volumes expected to result from Alternative 2 at the two analysis neighborhood roadways, as compared to CEQA and NEPA baseline conditions.

Table 3.11-25. Neighborhood Street Impact Assessment—Alternative 2

Street Segment	*Year*	*NEPA Baseline*	*CEQA Baseline*	*Project Only*	*Future with Project*	*NEPA Increase*	*CEQA Increase*	*Impact Threshold*	*NEPA Impact*	*CEQA Impact*
Santa Cruz Street between Grand and Pacific	2015	1,927	1,857	84	1,941	1%	5%	12%	No	No
	2037	1,999	1,929	95	2,024	1%	5%	10%	No	No
West 17th Street between Centre and Palos Verdes	2015	1,952	1,788	265	2,053	5%	15%	10%	No	Yes
	2037	2,036	1,872	300	2,172	7%	16%	10%	No	Yes
Note: Numbers represent ADT.										

CEQA Impact Determination

To determine whether significant impacts would occur at the analysis street segments under CEQA, the cumulative plus Alternative 2 operating conditions were compared to the CEQA baseline operating conditions. Table 3.11-26 indicates that under projected 2015 and 2037 conditions, increases in traffic on the neighborhood streets due to Alternative 2 would exceed CEQA thresholds for the West 17th Street segment. Thus, a significant operational impact is identified.

Mitigation Measures

No feasible mitigation is identified to address the traffic impacts on West 17th Street between Centre and Palos Verdes under 2015 and 2037 conditions. Short of the permanent closure of the affected street segment, which would not be acceptable since it serves adjacent land uses and carries substantial traffic volumes, no mitigation measures exist that would fully eliminate the addition of significant or adverse traffic volumes to this segment of West 17th Street.

Residual Impacts

Impacts would be significant and unavoidable.

NEPA Impact Determination

To determine whether significant impacts would occur at the analysis street segments under NEPA, the cumulative plus Alternative 2 operating conditions were compared to the NEPA baseline operating conditions. Table 3.11-26 indicates that projected increases in traffic on the neighborhood streets due to Alternative 2 would not exceed NEPA thresholds. Therefore, operational impacts on neighborhood street operations would be less than significant under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact TC-2c: Alternative 2 operations would not increase traffic volumes and degrade operations on CMP facilities within the proposed project vicinity.

Alternative 2 would increase the number of people traveling to and from the San Pedro Waterfront area. The resulting demand would increase traffic volumes and degrade operations on the regional CMP facilities. Detailed projections of traffic volumes and V/Cs under baseline and Alternative 2 conditions are provided in Tables 48 and 49 of the traffic study in Appendix M.

CEQA Impact Determination

The projected volumes on the CMP freeway facilities, as compared to thresholds defined under the CMP, are summarized in Table 3.11-27.

To determine whether significant impacts would occur on the CMP freeway facilities under CEQA, the difference in V/C between cumulative-plus-project operating conditions and the no-project operating conditions were compared to the CMP thresholds. Table 3.11-27 indicates that, under projected 2015 and 2037 conditions, most of the CMP facility locations would operate at LOS E or better. It also shows that at the locations projected to operate at LOS F the project would result in a V/C change of less than 0.02. Thus, operational impacts would be less than significant under CEQA.

Table 3.11-26. CMP Facility Impact Assessment under CEQA—Alternative 2

		Northbound/Westbound				*Southbound/Eastbound*			
		Baseline		*Change Due to Project*		*Baseline*		*Change due to Project*	
CMP Monitoring Station	*Peak Hour*	*V/C*	*LOS*	*V/C change*	*Significant Impact?*	*V/C*	*LOS*	*V/C change*	*Significant Impact?*
2015									
I-110 south of C Street	AM	0.56	C	0.03	No	0.41	B	0.04	No
	PM	0.39	B	0.04	No	0.53	B	0.03	No
I-110 at Manchester Boulevard	AM	0.84	D	0.01	No	1.06	F	0.01	No
	PM	1.01	F	0.00	No	1.15	F	0.00	No
I-405 south of I-110	AM	0.97	E	0.00	No	0.84	D	0.00	No

CMP Monitoring Station	*Peak Hour*	*Northbound/Westbound*				*Southbound/Eastbound*			
		Baseline		*Change Due to Project*		*Baseline*		*Change due to Project*	
		V/C	*LOS*	*V/C change*	*Significant Impact?*	*V/C*	*LOS*	*V/C change*	*Significant Impact?*
at Carson Scales	PM	0.83	D	0.01	No	0.93	D	0.01	No
I-405, north of Inglewood Boulevard	AM	0.92	D	0.01	No	0.71	C	0.01	No
	PM	0.82	D	0.01	No	1.02	F	0.01	No
2037									
I-110 south of C Street	AM	0.63	C	0.05	No	0.46	B	0.05	No
	PM	0.44	B	0.05	No	0.60	C	0.04	No
I-110 at Manchester Boulevard	AM	0.96	E	0.00	No	1.20	F	0.01	No
	PM	1.14	F	0.01	No	1.30	F	0.01	No
I-405 south of I-110 at Carson Scales	AM	1.10	F	0.00	No	0.95	E	0.00	No
	PM	0.95	E	0.00	No	1.06	F	0.00	No
I-405 north of Inglewood Boulevard	AM	1.04	F	0.01	No	0.81	D	0.01	No
	PM	0.93	D	0.01	No	1.16	F	0.01	No

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Impacts would be less than significant, as discussed for the CEQA impact determination.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact TC-3: Alternative 2 operations would not cause increases in demand for transit service beyond the supply of such services.

Analysis presented in the traffic study indicates that Alternative 2's transit demand would be less than that expected for the proposed Project because the proposed Project represents the "worst-case" scenario in the number of trips generated as a result of commercial, recreation, cultural, and business activity.

CEQA Impact Determination

Since no significant impact is identified under the proposed Project, the lower demand that would be expected under Alternative 2 would also be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Since no significant impact is identified under the proposed Project, the lower demand that would be expected under Alternative 2 would also be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact TC-4: Alternative 2 operations would not result in a violation of the City's adopted parking policies and parking demand would not exceed supply.

Alternative 2 would increase parking demand at the waterfront facilities. Table 3.11-28 summarizes the impact assessment, which compares the proposed parking supply to the demand for Alternative 2, and also to requirements set forth in the City of Los Angeles Municipal Code. More detailed information on parking projections for Alternative 2 is provided in Table 58 of the traffic study in Appendix M.

Table 3.11-27. Parking Assessment—Alternative 2

Proposed Parking Supply	*Code Requirements*		*2015 Projected Demand*		*2037 Projected Demand*	
	Spaces Required	*Accommodated by proposed supply?*	*Spaces Required*	*Accommodated by proposed supply?*	*Spaces Required*	*Accommodated by proposed supply?*
9,076	2,996	Yes	7,719	Yes	8,997	Yes

Table 3.11-28 shows that parking supply for Alternative 2 would exceed code requirements, as well as projected parking demand through 2015 and 2037. Impacts of Alternative 2 to parking would be less than significant.

The Waterfront Red Car alignment is the same under this alternative as it is for the proposed Project and could result in loss of available parking.

CEQA Impact Determination

As for the proposed Project, the loss of parking resulting from reconfiguration of the parking lots to accommodate the Waterfront Red Car extension would be significant.

Mitigation Measures

Implement Mitigation Measures MM TC-15a, MM TC-15b, or MM TC-15c.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The expansion of the Waterfront Red Car Line would also occur under baseline NEPA conditions; therefore conditions under Alternative 2 would be identical to conditions under the NEPA baseline. Operational impacts to parking would not occur under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact TC-5a: The alignment of the Waterfront Red Car expansion for Alternative 2 would not increase potential conflict with vehicles at cross streets.

The Waterfront Red Car alignment would be the same for Alternative 2 as it is for the proposed Project.

CEQA Impact Determination

Vehicular and pedestrian safety hazards associated with the Waterfront Red Car expansion at cross street locations under Alternative 2 are the same as those identified for the proposed Project and would be significant under CEQA.

Mitigation Measures

Implement Mitigation Measures MM TC-16, MM TC-17, MM TC-18, MM TC-19-a or MM TC-19-b, MM TC-20, MM TC-21, and MM TC-27.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The expansion of the Waterfront Red Car Line would also occur under baseline NEPA conditions; therefore, conditions under Alternative 2 would be identical to conditions under the NEPA baseline. Thus, no impact is identified under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact TC-5b: The alignment of the Waterfront Red Car expansion for Alternative 2 would not increase potential conflict at track crossovers where the rail would transition between center-running and side-running.

The Waterfront Red Car alignment would be the same for Alternative 2 as it is for the proposed Project.

CEQA Impact Determination

Vehicular and pedestrian safety hazards associated with the Waterfront Red Car expansion at track crossover locations under Alternative 2 are the same as those identified for the proposed Project and would be significant under CEQA.

Mitigation Measures

Implement Mitigation Measures MM TC-22 and MM TC-23.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The expansion of the Waterfront Red Car Line would also occur under baseline NEPA conditions; therefore, conditions under Alternative 2 would be identical to conditions under the NEPA baseline. Thus, no impact is identified under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact TC-5c: The Waterfront Red Car expansion for Alternative 2 would not result in increased pedestrian conflicts at stations.

The Waterfront Red Car alignment would be the same for Alternative 2 as it is for the proposed Project.

CEQA Impact Determination

Increased pedestrian conflict points resulting from the Waterfront Red Car expansion would be the same as those identified for the proposed Project and would be significant.

Mitigation Measures

Implement Mitigation Measures TC-24, TC-25, and TC-26.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The expansion of the Waterfront Red Car Line would also occur under baseline NEPA conditions; therefore, conditions under Alternative 2 would be identical to conditions under the NEPA baseline. Thus, no impact is identified under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

3.11.4.3.4 Alternative 3—Alternative Development Scenario 3 (Reduced Project)

Impact TC-1: Construction of Alternative 3 would not result in a short-term, temporary increase in construction-related truck and auto traffic, decreases in roadway capacity, and disruption of vehicular and nonmotorized travel.

Similar types of construction impacts are expected for Alternative 3 as those described for the proposed Project, though they would be lower in intensity overall as fewer construction activities are planned. See Chapter 2, "Project Description," for detailed descriptions of the construction activities and planned phasing of the elements associated with Alternative 3.

CEQA Impact Determination

The impact of construction-generated traffic on vehicular and nonmotorized travel is the same as the impact described under the proposed Project and is considered significant under CEQA.

Mitigation Measures

Implement Mitigation Measure MM TC-1.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The impact of construction-generated traffic on vehicular and nonmotorized travel is the same as the impact described under the proposed Project and is considered significant under NEPA.

Mitigation Measures

Implement Mitigation Measure MM TC-1.

Residual Impacts

Impacts would be less than significant.

Impact TC-2a: Alternative 3 operations would increase traffic volumes and degrade LOS at intersections within the proposed project vicinity.

Alternative 3 would increase the number of people traveling to and from the San Pedro Waterfront area. The resulting increase in traffic volumes on the surrounding roadways would in turn degrade intersection operations. The projected LOS at intersections within the vicinity, as compared to CEQA and NEPA baseline conditions, are summarized in Table 29 (2015 conditions) and Table 30 (2037 conditions) of the traffic study in Appendix M.

CEQA Impact Determination

To determine whether significant impacts would occur at the study intersections under CEQA, the cumulative plus Alternative 3 operating conditions were compared to the CEQA baseline operating conditions. Table 3.11-29 summarizes the locations at which significant impacts are identified under CEQA without implementation of mitigation measures. Alternative 3 is expected to result in significant traffic impacts at 8 intersections by 2015 and at 10 intersections by 2037 during one or more peak hours.

Table 3.11-28. Significant Impacts at Intersections under CEQA without Mitigation—Alternative 3

	LOS (V/C)[1]					
	2015			*2037*		
Intersection	*AM*	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
5. Gaffey Street/9th Street						D (0.818)
7. Gaffey Street/6th Street				F (1.031)		E (0.931)
9. Gaffey Street/1st Street	F (1.197)		E (0.931)	F (1.393)		F (1.065)

Intersection	*LOS (V/C)*[1]					
	2015			*2037*		
	AM	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
21. Harbor Boulevard/Miner Street/Crescent Avenue	D (0.804)	D (0.878)		E (0.938)	E (0.989)	C (0.778)
22. Harbor Boulevard/7th Street	E (0.936)		E (0.995)	F (1.093)	C (0.775)	F (1.131)
24. Harbor Boulevard/5th Street		C (0.711)			D (0.804)	
25. Harbor Boulevard/1st Street	C (0.706)			D (0.864)		D (0.809)
28. Harbor Boulevard/Gulch Road	D (0.823)	D (0.843)		E (0.959)	E (0.948)	C (0.748)
29. Harbor Boulevard/O'Farrell Street		D (0.849)	C (0.711)	C (0.755)	E (0.959)	D (0.825)
30. Harbor Boulevard/3rd Street	C (0.703)	C (0.745)	C (0.763)	D (0.803)	D (0.822)	D (0.853)

Note:
1. Only analysis intersections at which significant impacts have been identified are listed in this table. LOS (V/C) information is provided only in the years/analysis periods in which a significant impact has been identified.

The intersections identified in Table 3.11-29 are projected to exceed the LOS thresholds defined under CEQA, as described in Section 3.11.4.1, "Methodology." Thus, without mitigation, operational impacts on vehicle traffic would be significant under CEQA.

Mitigation Measures

Implement Mitigation Measures MM TC-6, MM TC-8 through MM TC-10, MM TC-12, and MM TC-13 by 2015.

Implement Mitigation Measures MM TC-2 through MM TC-4 by 2037.

Residual Impacts

The recommended mitigation measures would fully mitigate impacts identified at four of the eight intersections in 2015 and five of the ten intersections in 2037 to less-than-significant levels. For the remaining locations, no feasible measures were identified that would fully mitigate impacts to less-than-significant levels for all analysis periods due to existing physical constraints at those locations. This includes four intersections (Gaffey Street and 9th Street; Gaffey Street and 1st Street; Harbor Boulevard/Miner Street and Crescent Avenue; and Harbor Boulevard and Gulch Road**)** where no feasible measures were identified. Table 3.11-30 summarizes the

locations and scenarios at which residual significant impacts are expected to remain after implementation of all recommended mitigation measures.

Additionally, as stated for the proposed project, implementation of Mitigation Measure TC-6 and portions of Mitigation Measures TC-8, TC-9, TC-12 and TC-13 (involving configuring Harbor Boulevard to provide three lanes both northbound and southbound) have been identified to reduce congestion and increase levels of service for this alternative. While these mitigation measures are available to the LAHD, the LAHD may decide not to adopt Mitigation Measure TC-6 and portions of Mitigation Measures TC-8, TC-9, TC-12 and TC-13 (involving configuring Harbor Boulevard to provide three lanes both northbound and southbound) because the provision of three lanes both northbound and southbound on Harbor Boulevard would increase speeds along Harbor Boulevard and would not contribute to a pedestrian-friendly environment along Harbor Boulevard. Should the LAHD decide not to adopt these mitigation measures, the resulting congestion and the levels of service would be worse than what is presented below.

Table 3.11-29. Significant Residual Impacts at Intersections under CEQA—Alternative 3

	LOS (V/C)[1]					
	2015			*2037*		
Intersection	*AM*	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
5. Gaffey Street/9th Street						D (0.818)
9. Gaffey Street/1st Street	F (1.197)		E (0.931)	F (1.393)		F (1.065)
21. Harbor Boulevard/Miner Street/Crescent Avenue	D (0.804)	D (0.878)		E (0.938)	E (0.989)	C (0.778)
22. Harbor Boulevard/7th Street	D (0.851)		E (0.923)	E (0.997)		F (1.050)
28. Harbor Boulevard/Gulch Road	D (0.823)	D (0.843)		E (0.959)	E (0.948)	C (0.748)

Notes:
[1] LOS (V/C) information is provided only in the years/analysis periods in which a significant residual impact has been identified.

Following is a description of the effectiveness of each proposed intersection mitigation measure.

- Mitigation Measure MM TC-3, when combined with Mitigation Measure MM TC-2, would partially mitigate the identified impact. No feasible measures could be identified to fully mitigate the impact at this location during the weekend midday peak hour (2037).

- Mitigation Measure MM TC-4, when combined with Mitigation Measure MM TC-2, would fully mitigate the impacts identified at Gaffey Street and 6th Street.
- Mitigation Measure MM TC-6, combined with additional measures, would mitigate impacts identified at the following locations:
  - Harbor Boulevard and 5th Street (see also MM TC-8),
  - Harbor Boulevard and 1st Street (see also MM TC 9),
  - Harbor Boulevard and 7th Street (see also MM TC-10),
  - Harbor Boulevard and O'Farrell Street (see also MM TC-12), and
  - Harbor Boulevard and 3rd Street (see also MM TC-13).
- Mitigation Measure MM TC-10 would not mitigate the impact at the eastbound approach to Harbor Boulevard and 7th Street under any of the future scenarios.
- Mitigation Measure MM TC-8, when combined with Mitigation Measure MM TC-6, would fully mitigate the identified impacts at Harbor Boulevard and 5th Street.
- Mitigation Measure MM TC-9, when combined with Mitigation Measure MM TC-6, would fully mitigate the identified impacts at Harbor Boulevard and 1st Street.
- Mitigation Measure MM TC-10, when combined with Mitigation Measure MM TC-6, would partially mitigate impacts identified at Harbor Boulevard and 7th Street. No feasible measures could be identified to fully address the impact at this location during the weekday AM peak hour (in 2015 and 2037) or weekend midday peak hour (in 2015 and 2037).
- Mitigation Measure MM TC-12, combined with Mitigation Measure MM TC-6, would fully mitigate all identified impacts at Harbor Boulevard and O'Farrell Street.
- Mitigation Measure MM TC-13, combined with Mitigation Measure MM TC-6, would fully mitigate all identified impacts at Harbor Boulevard and 3rd Street.

NEPA Impact Determination

To determine whether significant impacts would occur at the study intersections under NEPA, the cumulative plus Alternative 3 operating conditions were compared to the NEPA baseline operating conditions. Table 3.11-31 summarizes the locations at which significant impacts are identified under NEPA without implementation of mitigation measures. Alternative 3 would result in significant traffic impacts at four intersections by 2015 and seven intersections by 2037 during one or more peak hours.

Table 3.11-30. Significant Impacts at Intersections under NEPA—Alternative 3

	LOS (V/C)[1]					
		2015			*2037*	
Intersection	*AM*	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
21. Harbor Boulevard/Miner Street/Crescent Avenue	D (0.804)	D (0.878)		E (0.938)	E (0.989)	C (0.778)
22. Harbor Boulevard/7th Street	E (0.936)		E (0.995)	F (1.093)	C (0.775)	F (1.131)
25. Harbor Boulevard/1st Street				D (0.864)		
26. Harbor Boulevard/Swinford Street/ SR-47 eastbound ramps				F (1.093)		
27. Harbor Boulevard/SR-47 westbound on-ramp				C (0.774)		
28. Harbor Boulevard/Gulch Road	D (0.823)	D (0.843)		E (0.959)	E (0.948)	C (0.748)
30. Harbor Boulevard/3rd Street	C (0.703)			D (0.803)		

Note:
[1] Only analysis intersections at which significant impacts have been identified are listed in this table. LOS (V/C) information is provided only in the years/analysis periods in which a significant impact has been identified

The intersections identified in Table 3.11-31 are projected to exceed the LOS thresholds defined under NEPA, as described in Section 3.11.4.1, "Methodology." Thus, without mitigation, operational impacts on vehicle traffic would be significant under NEPA.

Mitigation Measures

Implement Mitigation Measures MM TC-6, MM TC-10, and MM TC-13 by 2015.

Implement Mitigation Measures MM TC-9 and MM TC-11 by 2037.

Residual Impacts

The recommended mitigation measures would fully mitigate impacts identified at one of the four intersections in 2015 and three of the seven intersections in 2037 to less-than-significant levels. For the remaining locations, no feasible measures were identified that would fully mitigate impacts to less-than-significant levels for all analysis periods due to existing physical constraints at those locations. This includes four intersections (Harbor Boulevard/Miner Street and Crescent Avenue; Harbor Boulevard and SR-47 westbound ramps; and Harbor Boulevard and Gulch Road) where no feasible measures were identified. Table 3.11-32 summarizes the locations

and scenarios at which residual significant impacts are expected to remain after implementation of all recommended mitigation measures.

As stated for the CEQA analysis above, implementation of Mitigation Measure TC-6 and portions of Mitigation Measures TC-9 and TC-13 (involving configuring Harbor Boulevard to provide three lanes both northbound and southbound) have been identified to reduce congestion and increase levels of service under NEPA. While these mitigation measures are available to the LAHD, the LAHD may decide not to adopt Mitigation Measure TC-6 and portions of Mitigation Measures TC-9 and TC-13 (involving configuring Harbor Boulevard to provide three lanes both northbound and southbound) because the provision of three lanes both northbound and southbound on Harbor Boulevard would increase speeds along Harbor Boulevard and would not contribute to a pedestrian-friendly environment along Harbor Boulevard. Should the LAHD decide not to adopt these mitigation measures, the resulting congestion and the levels of service would be worse than what is presented below.

Table 3.11-31. Significant Residual Impacts at Intersections under NEPA—Alternative 3

	LOS (V/C)[1]					
	2015			*2037*		
Intersection	*AM*	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
21. Harbor Boulevard/Miner Street/Crescent Avenue	D (0.804)	D (0.878)		E (0.938)	E (0.989)	C (0.778)
22. Harbor Boulevard/7th Street	D (0.851)		E (0.923)	E (0.997)		F (1.050)
27. Harbor Boulevard/SR-47 westbound on-ramp				C (0.774)		
28. Harbor Boulevard/Gulch Road	D (0.823)	D (0.843)		E (0.959)	E (0.948)	C (0.748)

Notes:
[1] LOS (V/C) information is provided only in the years/analysis periods in which a significant residual impact has been identified.

Following is a description of the effectiveness of each proposed intersection mitigation measure.

- Mitigation Measure MM TC-6, combined with additional measures, would mitigate impacts identified at the following locations:
  - Harbor Boulevard and 1st Street (see also MM TC 9),
  - Harbor Boulevard and 7th Street (see also MM TC-10), and
  - Harbor Boulevard and 3rd Street (see also MM TC-13).
- Mitigation Measure MM TC-9, when combined with Mitigation Measure MM TC-10 would not mitigate the impact at the eastbound approach to Harbor Boulevard and 7th Street under any of the future scenarios under NEPA.

- MM TC-6 would fully mitigate the identified impact at Harbor Boulevard and 1st Street.
- Mitigation Measure MM TC-10, when combined with MM TC-6, would partially mitigate impacts identified at Harbor Boulevard and 7th Street. No feasible measures could be identified to address the impact at during the weekday AM peak hour (in 2015 and 2037) or weekend midday peak hour (in 2015 and 2037).
- Mitigation Measure MM TC-11 would fully mitigate the impacts at Harbor Boulevard and Swinford Street/SR-47 eastbound ramps.
- Mitigation Measure MM TC-13, combined with MM TC-6, would fully mitigate all identified impacts at Harbor Boulevard and 3rd Street.

Impact TC-2b: Alternative 3 operations would not increase traffic volumes and degrade LOS along neighborhood streets within the proposed project vicinity.

Alternative 3 would increase the number of people traveling to and from the San Pedro Waterfront area. The resulting increase in traffic volumes would degrade LOS on the surrounding neighborhood roadways. Table 3.11-33 summarizes the LOS expected to result from Alternative 3 at the two analysis neighborhood roadways, as compared to CEQA and NEPA baseline conditions.

Table 3.11-32. Neighborhood Street Impact Assessment—Alternative 3

Street Segment	*Year*	*NEPA Baseline*	*CEQA Baseline*	*Project Only*	*Future with Project*	*NEPA Increase %*	*CEQA Increase %*	*Impact Threshold*	*NEPA Impact*	*CEQA Impact*
Santa Cruz Street between Grand and Pacific	2015	1,927	1,857	24	1,881	-2%	1%	12%	No	No
	2037	1,999	1,929	29	1,958	-2%	2%	12%	No	No
West 17th Street between Centre and Palos Verdes	2015	1,952	1,788	85	1,873	-4%	5%	12%	No	No
	2037	2,036	1,872	100	1,972	-3%	5%	12%	No	No

CEQA Impact Determination

To determine whether significant impacts would occur at the analysis street segments under CEQA, the cumulative plus Alternative 3 operating conditions were compared to the CEQA baseline operating conditions. Table 3.11-33 indicates that projected increases in traffic on the neighborhood streets due to Alternative 3 would not exceed

CEQA thresholds. Therefore, operational impacts on neighborhood street operations would be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

To determine whether significant impacts would occur at the analysis street segments under NEPA, the cumulative plus Alternative 3 operating conditions were compared to the NEPA baseline operating conditions. Table 3.11-33 indicates that projected increases in traffic on the neighborhood streets due to Alternative 3 would not exceed NEPA thresholds. Therefore, operational impacts on neighborhood street operations would be less than significant under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact TC-2c: Alternative 3 operations would not increase traffic volumes and degrade operations on CMP facilities within the proposed project vicinity.

Alternative 3 would increase the number of people traveling to and from the San Pedro Waterfront area. The resulting demand would increase traffic volumes and degrade operations on the regional CMP facilities. Detailed projections of traffic volumes and V/Cs under baseline and project conditions are provided in Tables 50 and 51 of the traffic study in Appendix M.

CEQA Impact Determination

The projected volumes on the CMP freeway facilities, as compared to thresholds defined under the CMP, are summarized in Table 3.11-34.

To determine whether significant impacts would occur on the CMP freeway facilities under CEQA, the difference in V/C between cumulative-plus-project operating conditions and the no-project operating conditions were compared to the CMP thresholds. Table 3.11-34 indicates that, under projected 2015 and 2037 conditions, most of the CMP facility locations would operate at LOS E or better. It also shows

that at the locations projected to operate at LOS F Alternative 3 would result in a V/C change of less than 0.02. Thus, operational impacts would be less than significant under CEQA.

Table 3.11-33. CMP Facility Impact Assessment under CEQA—Alternative 3

CMP Monitoring Station	*Peak Hour*	*Northbound/Westbound*				*Southbound/Eastbound*			
		Baseline		*Change due to Project*		*Baseline*		*Change due to Project*	
		V/C	*LOS*	*V/C change*	*Sig Impact?*	*V/C*	*LOS*	*V/C change*	*Sig Impact?*
2015									
I-110, south of C Street	AM	0.56	C	0.00	No	0.41	B	0.02	No
	PM	0.39	B	0.02	No	0.53	B	0.01	No
I-110, at Manchester Boulevard	AM	0.84	D	0.00	No	1.06	F	0.00	No
	PM	1.01	F	0.00	No	1.15	F	0.00	No
I-405, south of I-110 at Carson Scales	AM	0.97	E	0.00	No	0.84	D	0.00	No
	PM	0.83	D	0.01	No	0.93	D	0.01	No
I-405, north of Inglewood Boulevard	AM	0.92	D	0.00	No	0.71	C	0.01	No
	PM	0.82	D	0.01	No	1.02	F	0.01	No
2037									
I-110, south of C Street	AM	0.63	C	0.02	No	0.46	B	0.00	No
	PM	0.44	B	0.00	No	0.60	C	0.00	No
I-110, at Manchester Boulevard	AM	0.96	E	0.00	No	1.20	F	0.00	No
	PM	1.14	F	0.00	No	1.30	F	0.00	No
I-405, south of I-110 at Carson Scales	AM	1.10	F	0.00	No	0.95	E	0.00	No
	PM	0.95	E	0.00	No	1.06	F	0.00	No
I-405, north of Inglewood Boulevard	AM	1.04	F	0.01	No	0.81	D	0.00	No
	PM	0.93	D	0.00	No	1.16	F	0.00	No

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Impacts would be less than significant, as discussed for the CEQA impact determination.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact TC-3: Alternative 3 operations would not cause increases in demand for transit service beyond the supply of such services.

Analysis presented in the traffic study indicates that Alternative 3's transit demand would be less than that expected for the proposed Project because the proposed Project represents the "worst-case" scenario in the number of trips generated as a result of commercial, recreation, cultural, and business activity.

CEQA Impact Determination

Since no significant impact is identified under the proposed Project, the lower demand that would be expected under Alternative 3 would also be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Since no significant impact is identified under the proposed Project, the lower demand that would be expected under Alternative 3 would also be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact TC-4: Alternative 3 operations would not result in a violation of the City's adopted parking policies and parking demand would not exceed supply.

Alternative 3 would increase parking demand at the waterfront facilities. Table 3.11-35 summarizes the impact assessment, which compares the proposed parking supply to the demand generated by Alternative 3, and also to requirements set forth in the City of Los Angeles Municipal Code. More detailed information on parking projections for the Alternative 3 is provided in Table 59 of the traffic study in Appendix M.

Table 3.11-34. Parking Assessment—Alternative 3

Proposed Parking Supply	*Code Requirements*		*2015 Projected Demand*		*2037 Projected Demand*	
	Spaces Required	*Accommodated by proposed supply?*	*Spaces Required*	*Accommodated by proposed supply?*	*Spaces Required*	*Accommodated by proposed supply?*
6,863	1,425	Yes	6,381	Yes	7,512	No

Table 3.11-35 shows that the parking supply for Alternative 3 would exceed code requirements through 2015 and 2037 and projected parking demand through 2015 but not through 2037. The shortfall is the result of the projected increase in the amount of parking needed to support the anticipated level of activity at the cruise terminals.

The Waterfront Red Car alignment is the same under this alternative as it is for the proposed Project and could result in loss of available parking.

CEQA Impact Determination

Based on the discussion presented above, 2037 parking demand would exceed supply, resulting in a significant impact under CEQA. In addition, the loss of parking resulting from reconfiguration of the parking lots to accommodate the streetcar extension would be the same as that identified for the proposed Project and would be significant.

Mitigation Measures

Implement Mitigation Measures MM TC-15a, MM TC-15b, or MM TC-15c.

MM TC-29. Increase capacity of parking supply associated with cruise terminals. To provide secure, dedicated parking for the cruise terminals, increase the size of the parking structures serving the cruise terminals by 649 spaces.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Impacts related to cruise terminal parking would be significant, as discussed for the CEQA impact determination. The expansion of the Waterfront Red Car Line would occur under baseline NEPA conditions; therefore conditions under Alternative 3 would be identical to conditions under the NEPA baseline. Thus, impacts related to parking for the Waterfront Red Car extension would not occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact TC-5a: The alignment of the Waterfront Red Car expansion for Alternative 3 would not increase potential conflict with vehicles at cross streets.

The Waterfront Red Car alignment would be the same for Alternative 3 as it is for the proposed Project.

CEQA Impact Determination

Vehicular and pedestrian safety hazards associated with the Waterfront Red Car expansion at cross street locations under Alternative 3 are the same as those identified for the proposed Project and would be significant under CEQA.

Mitigation Measures

Implement Mitigation Measures MM TC-16, MM TC-17, MM TC-18, MM TC-19-a or MM TC-19-b, and MM TC-20.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The expansion of the Waterfront Red Car Line would also occur under baseline NEPA conditions; therefore, conditions under Alternative 3 would be identical to conditions under the NEPA baseline. Thus, no impact is identified under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact TC-5b: The alignment of the Waterfront Red Car expansion for Alternative 3 would not increase potential conflict at track crossovers where the rail would transition between center-running and side-running.

The Waterfront Red Car alignment would be the same for Alternative 3 as it is for the proposed Project.

CEQA Impact Determination

Vehicular and pedestrian safety hazards associated with the Waterfront Red Car expansion at track crossover locations under Alternative 3 are the same as those identified for the proposed Project and would be significant under CEQA.

Mitigation Measures

Implement Mitigation Measures MM TC-22 and MM TC-23.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The expansion of the Waterfront Red Car Line would also occur under baseline NEPA conditions; therefore, conditions under Alternative 3 would be identical to conditions under the NEPA baseline. Thus, no impact is identified under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact TC-5c: The Waterfront Red Car expansion for Alternative 3 would not result in increased pedestrian conflicts at stations.

The Waterfront Red Car alignment would be the same for Alternative 3 as it is for the proposed Project.

CEQA Impact Determination

Increased pedestrian conflict points resulting from the Waterfront Red Car expansion would be the same as those identified for the proposed Project and would be significant.

Mitigation Measures

Implement Mitigation Measures MM TC-24, MM TC-25, and MM TC-26.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The expansion of the Waterfront Red Car Line would also occur under baseline NEPA conditions; therefore, conditions under Alternative 3 would be identical to conditions under the NEPA baseline. Thus, no impact is identified under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

3.11.4.3.5 Alternative 4—Alternative Development Scenario 4

Impact TC-1: Construction of Alternative 4 would not result in a short-term, temporary increase in construction-related truck and auto traffic, decreases in roadway capacity, and disruption of vehicular and nonmotorized travel.

Similar types of construction impacts are expected for Alternative 4 as those described for the proposed Project, though would be lower in intensity overall as fewer construction activities are planned. See Chapter 2, "Project Description," for

detailed descriptions of the construction activities and planned phasing of the elements associated with Alternative 4.

CEQA Impact Determination

The impact of construction-generated traffic on vehicular and nonmotorized travel is the same as the impact described under the proposed Project and is considered significant under CEQA.

Mitigation Measures

Implement Mitigation Measure MM TC-1.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The impact of construction-generated traffic on vehicular and nonmotorized travel is the same as the impact described under the proposed Project and is considered significant under NEPA.

Mitigation Measures

Implement Mitigation Measure MM TC-1.

Residual Impacts

Impacts would be less than significant.

Impact TC-2a: Alternative 4 operations would increase traffic volumes and degrade LOS at intersections within the proposed project vicinity.

Alternative 4 would increase the number of people traveling to and from the San Pedro Waterfront area. The resulting increase in traffic volumes on the surrounding roadways would in turn degrade intersection operations. The projected LOS at intersections within the vicinity, as compared to CEQA and NEPA baseline conditions, are summarized in Table 31 (2015 conditions) and Table 32 (2037 conditions) of the traffic study in Appendix M.

CEQA Impact Determination

To determine whether significant impacts would occur at the study intersections under CEQA, the cumulative plus Alternative 4 operating conditions were compared to the CEQA baseline operating conditions. Table 3.11-36 summarizes the locations at which significant impacts are identified under CEQA without implementation of

mitigation measures. Alternative 4 is expected to result in significant traffic impacts at six intersections by 2015 and at eight intersections by 2037 during one or more peak hours.

Table 3.11-35. Significant Impacts at Intersections under CEQA without Mitigation—Alternative 4

	LOS (V/C)[1]					
	2015			*2037*		
Intersection	*AM*	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
5. Gaffey Street/9th Street					E (0.919)	D (0.821)
7. Gaffey Street/6th Street						E (0.931)
9. Gaffey Street/1st Street	F (1.214)		E (0.936)	F (1.400)		F (1.067)
22. Harbor Boulevard/7th Street			C (0.769)			D (0.846)
24. Harbor Boulevard/5th Street		C (0.781)			D (0.868)	
25. Harbor Boulevard/1st Street			C (0.749)	D (0.812)	C (0.739)	D (0.855)
29. Harbor Boulevard/O'Farrell Street		E (0.907)	C (0.747)	C (0.724)	F (1.009)	D (0.825)
30. Harbor Boulevard/3rd Street		D (0.834)	D (0.831)	C (0.718)	E (0.903)	D (0.896)

Note:
[1] Only analysis intersections at which significant impacts have been identified are listed in this table. LOS (V/C) information is provided only in the years/analysis periods in which a significant impact has been identified.

The intersections identified in Table 3.11-36 are projected to exceed the LOS thresholds defined under CEQA, as described in Section 3.11.4.1, "Methodology." Thus, without mitigation, operational impacts on vehicle traffic would be significant under CEQA.

Mitigation Measures

Implement Mitigation Measures MM TC-6, MM TC-8 through MM TC-10, MM TC-12, and MM TC-13 by 2015.

Implement Mitigation Measures MM TC-2 through MM TC-4 by 2037.

Residual Impacts

The recommended mitigation measures would fully mitigate impacts identified at five of the six intersections in 2015, and five of the eight intersections in 2037 to less-than-significant levels. For the remaining locations, no feasible measures were identified that would fully mitigate impacts to less-than-significant levels for all analysis periods due to existing physical constraints at those locations. This includes one intersection (Gaffey Street and 1st Street**)** where no feasible measure was identified. Table 3.11-37 summarizes the locations and scenarios at which residual significant impacts are expected to remain after implementation of all recommended mitigation measures.

Additionally, as stated for the proposed project, implementation of Mitigation Measure TC-6 and portions of Mitigation Measures TC-7, TC-8, TC-9, TC-12 and TC-13 (involving configuring Harbor Boulevard to provide three lanes both northbound and southbound) have been identified to reduce congestion and increase levels of service for this alternative. While these mitigation measures are available to the LAHD, the LAHD may decide not to adopt Mitigation Measure TC-6 and portions of Mitigation Measures TC-7, TC-8, TC-9, TC-12 and TC-13 (involving configuring Harbor Boulevard to provide three lanes both northbound and southbound) because the provision of three lanes both northbound and southbound on Harbor Boulevard would increase speeds along Harbor Boulevard and would not contribute to a pedestrian-friendly environment along Harbor Boulevard. Should the LAHD decide not to adopt these mitigation measures, the resulting congestion and the levels of service would be worse than what is presented below.

Table 3.11-36. Significant Residual Impacts at Intersections under CEQA—Alternative 4

	LOS (V/C)[1]					
	2015			*2037*		
Intersection	*AM*	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
5. Gaffey Street/9th Street						D (0.821)
9. Gaffey Street/1st Street	F (1.214)		E (0.936)	F (1.400)		F (1.067)
22. Harbor Boulevard/7th Street						C (0.757)

Notes:
[1] LOS (V/C) information is provided only in the years/analysis periods in which a significant residual impact has been identified.

The following is a description of the effectiveness of each proposed intersection mitigation measure.

- Mitigation Measure MM TC-3, combined with MM TC-2, would partially mitigate the identified impact at Gaffey Street and 9th Street. No feasible

measures have been identified to address the impact during the weekend midday peak hour in 2037.

- Mitigation Measure MM TC-4, combined with MM TC-2, would fully mitigate the impacts identified at Gaffey Street and 6th Street.
- Mitigation Measure MM TC-6, combined with additional measures, would mitigate impacts identified at the following locations:
  - Harbor Boulevard and 5th Street (see also MM TC-8),
  - Harbor Boulevard and 1st Street (see also MM TC 9),
  - Harbor Boulevard and 7th Street (See also MM TC-10),
  - Harbor Boulevard and O'Farrell Street (see also MM TC-12), and
  - Harbor Boulevard and 3rd Street (see also MM TC-13).
- Mitigation Measure MM TC-8, when combined with MM TC-6, would fully mitigate the identified impacts at Harbor Boulevard and 5th Street.
- Mitigation Measure MM TC-9, when combined with MM TC-6, would fully mitigate the identified impact at Harbor Boulevard and 1st Street.
- Mitigation Measure MM TC-10, when combined with MM TC-6, would partially mitigate the identified impact at Harbor Boulevard and 7th Street. No feasible measures have been identified to address the impact during the weekend midday peak hour in 2037.
- Mitigation Measure MM TC-12, combined with MM TC-6, would fully mitigate all identified impacts at Harbor Boulevard and O'Farrell Street.
- Mitigation Measure MM TC-13, combined with MM TC-6, would fully mitigate all identified impacts at Harbor Boulevard and 3rd Street.

NEPA Impact Determination

To determine whether significant impacts would occur at the study intersections under NEPA, the cumulative plus Alternative 4 operating conditions were compared to the NEPA baseline operating conditions. Alternative 4 would result in less-than-significant traffic impacts under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact TC-2b: Alternative 4 operations would not increase traffic volumes and degrade LOS along neighborhood streets within the proposed project vicinity.

Alternative 4 would increase the number of people traveling to and from the San Pedro Waterfront area. The resulting increase in traffic volumes would degrade LOS on the surrounding neighborhood roadways. Table 3.11-38 summarizes the LOS expected to result from the Alternative 4 at the two analysis neighborhood roadways, as compared to CEQA and NEPA baseline conditions.

Table 3.11-37. Neighborhood Street Impact Assessment—Alternative 4

Street Segment	*Year*	*NEPA Baseline*	*CEQA Baseline*	*Project Only*	*Future with Project*	*NEPA Increase %*	*CEQA Increase %*	*Impact Threshold*	*NEPA Impact*	*CEQA Impact*
Santa Cruz Street between Grand and Pacific	2015	1,927	1,857	65	1,922	0%	4%	12%	No	No
	2037	1,999	1,929	70	1,999	0%	4%	12%	No	No
West 17th Street between Centre and Palos Verdes	2015	1,952	1,788	163	1,951	0%	9%	12%	No	No
	2037	2,036	1,872	163	2,035	0%	9%	10%	No	No

CEQA Impact Determination

To determine whether significant impacts would occur at the study intersections under CEQA, the cumulative plus Alternative 4 operating conditions were compared to the CEQA baseline operating conditions. Table 3.11-38 indicates that projected increases in traffic on the neighborhood streets due to Alternative 4 would not exceed CEQA thresholds. Therefore, operational impacts on neighborhood street operations would be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

To determine whether significant impacts would occur at the study intersections under NEPA, the cumulative plus Alternative 4 operating conditions were compared to the NEPA baseline operating conditions. Table 3.11-38 indicates that projected increases in traffic on the neighborhood streets due to Alternative 4 would not exceed NEPA thresholds. Therefore, operational impacts on neighborhood street operations would be less than significant under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact TC-2c: Alternative 4 operations would not increase traffic volumes and degrade operations on CMP facilities within the proposed project vicinity.

Alternative 4 would increase the number of people traveling to and from the San Pedro Waterfront area. The resulting demand would increase traffic volumes and degrade operations on the regional CMP facilities. Detailed projections of traffic volumes and V/Cs under baseline and project conditions are provided in Tables 52 and 53 of the traffic study in Appendix M.

CEQA Impact Determination

The projected volumes on the CMP freeway facilities, as compared to thresholds defined under the CMP, are summarized in Table 3.11-39.

To determine whether significant impacts would occur on the CMP freeway facilities under CEQA, the difference in V/C between cumulative-plus-project operating conditions and the no-project operating conditions were compared to the CMP thresholds. Table 3.11-39 indicates that, under projected 2015 and 2037 conditions, most of the CMP facility locations would operate at LOS E or better. It also shows that at the locations projected to operate at LOS F the project would result in a V/C change of less than 0.02. Thus, operational impacts would be less than significant under CEQA.

Table 3.11-38. CMP Facility Impact Assessment under CEQA—Alternative 4

		Northbound/Westbound				*Southbound/Eastbound*			
		Baseline		*Change Due to Project*		*Baseline*		*Change Due to Project*	
CMP Monitoring Station	*Peak Hour*	*V/C*	*LOS*	*V/C change*	*Significant Impact?*	*V/C*	*LOS*	*V/C change*	*Significant Impact?*

CMP Monitoring Station	*Peak Hour*	*Northbound/Westbound*				*Southbound/Eastbound*			
		Baseline		*Change Due to Project*		*Baseline*		*Change Due to Project*	
		V/C	*LOS*	*V/C change*	*Significant Impact?*	*V/C*	*LOS*	*V/C change*	*Significant Impact?*
2015									
I-110 south of C Street	AM	0.56	C	0.00	No	0.41	B	0.02	No
	PM	0.39	B	0.04	No	0.53	B	0.03	No
I-110 at Manchester Boulevard	AM	0.84	D	0.00	No	1.06	F	0.00	No
	PM	1.01	F	0.00	No	1.15	F	0.00	No
I-405 south of I-110 at Carson Scales	AM	0.97	E	0.00	No	0.84	D	0.00	No
	PM	0.83	D	0.01	No	0.93	D	0.01	No
I-405 north of Inglewood Boulevard	AM	0.92	D	0.00	No	0.71	C	0.01	No
	PM	0.82	D	0.01	No	1.02	F	0.01	No
2037									
I-110 south of C Street	AM	0.63	C	0.00	No	0.46	B	0.02	No
	PM	0.44	B	0.04	No	0.60	C	0.03	No
I-110 at Manchester Boulevard	AM	0.96	E	0.00	No	1.20	F	0.01	No
	PM	1.14	F	0.01	No	1.30	F	0.01	No
I-405 south of I-110 at Carson Scales	AM	1.10	F	0.00	No	0.95	E	0.00	No
	PM	0.95	E	0.00	No	1.06	F	0.00	No
I-405 north of Inglewood Boulevard	AM	1.04	F	0.01	No	0.81	D	0.00	No
	PM	0.93	D	0.01	No	1.16	F	0.01	No

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Impacts would be less than significant, as discussed for the CEQA impact determination.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact TC-3: Alternative 4 operations would not cause increases in demand for transit service beyond the supply of such services.

Analysis presented in the traffic study indicates that Alternative 4's transit demand would be less than that expected for the proposed Project, because the proposed Project represents the "worst-case" scenario in the number of trips generated as a result of commercial, recreation, cultural, and business activity.

CEQA Impact Determination

Since no significant impact is identified under the proposed Project, the lower demand that would be expected under Alternative 4 would also be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Since no significant impact is identified under the proposed Project, the lower demand that would be expected under Alternative 4 would also be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact TC-4: Alternative 4 operations would not result in a violation of the City's adopted parking policies and parking demand would not exceed supply.

Alternative 4 would increase parking demand at the waterfront facilities. Table 3.11-40 summarizes the impact assessment, which consists of comparison of

the proposed parking supply to the demand generated by Alternative 4, and also to requirements set forth in the City of Los Angeles Municipal Code. More detailed information on parking projections for Alternative 4 is provided in Table 60 of the traffic study in Appendix M.

Table 3.11-39. Parking Assessment—Alternative 4

Proposed Parking Supply	*Code Requirements*		*2015 Projected Demand*		*2037 Projected Demand*	
	Spaces Required	*Accommodated by proposed supply?*	*Spaces Required*	*Accommodated by proposed supply?*	*Spaces Required*	*Accommodated by proposed supply?*
8,021	2,996	Yes	7,494	Yes	8,183	No

Table 3.11-40 shows that the parking supply for Alternative 3 would exceed code requirements through 2015 and 2037 and projected parking demand through 2015 but not through 2037.

The Waterfront Red Car alignment is the same under this alternative as it is for the proposed Project and could result in loss of available parking.

CEQA Impact Determination

Based on the discussion presented above, 2037 parking demand would exceed supply, resulting in a significant impact under CEQA. In addition, the loss of parking resulting from reconfiguration of the parking lots to accommodate the streetcar extension is the same as that identified for the proposed Project and would be significant.

Mitigation Measures

Implement Mitigation Measures MM TC-15a, MM TC-15b, or MM TC-15c.

MM TC-30. Increase capacity of parking supply associated with cruise terminals. To provide secure, dedicated parking for the cruise terminals, increase the size of the parking structures serving the cruise terminals by 162 spaces.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Impacts related to cruise terminal parking would be significant, as discussed for the CEQA impact determination. The expansion of the Waterfront Red Car Line would occur under baseline NEPA conditions; therefore, conditions under Alternative 4 would be identical to conditions under the NEPA baseline. Thus, impacts related to parking for the Waterfront Red Car extension would not occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact TC-5a: The alignment of the Waterfront Red Car expansion for Alternative 4 would not increase potential conflict with vehicles at cross streets.

The Waterfront Red Car alignment would be the same for Alternative 4 as it is for the proposed Project.

CEQA Impact Determination

Vehicular and pedestrian safety hazards associated with the Waterfront Red Car expansion at cross street locations under Alternative 4 are the same as those identified for the proposed Project and would significant under CEQA.

Mitigation Measures

Implement Mitigation Measures MM TC-16, MM TC-17, MM TC-18, MM TC-19-a or MM TC-19-b, and MM TC-20.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The expansion of the Waterfront Red Car Line would also occur under baseline NEPA conditions; therefore, conditions under Alternative 4 would be identical to conditions under the NEPA baseline. Thus, no impact is identified under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact TC-5b: The alignment of the Waterfront Red Car expansion for Alternative 4 would not increase potential conflict at track crossovers where the rail would transition between center-running and side-running.

The Waterfront Red Car alignment would be the same for Alternative 4 as it is for the proposed Project.

CEQA Impact Determination

Vehicular and pedestrian safety hazards associated with the Waterfront Red Car expansion at track crossover locations under Alternative 4 are the same as those identified for the proposed Project and would be significant under CEQA.

Mitigation Measures

Implement Mitigation Measures MM TC-22 and MM TC-23.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The expansion of the Waterfront Red Car Line would also occur under baseline NEPA conditions; therefore, conditions under Alternative 4 would be identical to conditions under the NEPA baseline. Thus, no impact is identified under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact TC-5c: The Waterfront Red Car expansion for Alternative 4 would not result in increased pedestrian conflicts at stations.

The Waterfront Red Car alignment would be the same for Alternative 4 as it is for the proposed Project.

CEQA Impact Determination

Increased pedestrian conflict points resulting from the Waterfront Red Car expansion would be the same as those identified for the proposed Project and would be significant.

Mitigation Measures

Implement Mitigation Measures TC-24, TC-25, and TC-26.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The expansion of the Waterfront Red Car Line would also occur under baseline NEPA conditions; therefore, conditions under Alternative 4 would be identical to conditions under the NEPA baseline. Thus, no impact is identified under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

3.11.4.3.6 Alternative 5—No-Federal-Action Alternative

Impact TC-1: Construction of Alternative 5 would not result in a short-term, temporary increase in construction-related truck and auto traffic, decreases in roadway capacity, and disruption of vehicular and nonmotorized travel.

Similar types of construction impacts are expected for Alternative 5 as those described for the proposed Project, though would be lower in intensity overall as fewer construction activities are planned; all water-side components and Outer Harbor terminal and berth development would be eliminated. See Chapter 2, "Project Description," for detailed descriptions of the construction activities and planned phasing of the elements associated with Alternative 5.

CEQA Impact Determination

The impact of construction-generated traffic on vehicular and nonmotorized travel is the same as the impact described under the proposed Project and is considered significant under CEQA.

Mitigation Measures

Implement Mitigation Measure MM TC-1.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Because the No-Federal-Action Alternative is identical to the NEPA baseline, this alternative would have no impact under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact TC-2a: Alternative 5 operations would increase traffic volumes and degrade LOS at intersections within the proposed project vicinity.

Alternative 5 would increase the number of people traveling to and from the San Pedro Waterfront area. The resulting increase in traffic volumes on the surrounding roadways would in turn degrade intersection operations. The projected LOS at intersections within the vicinity, as compared to CEQA and NEPA baseline conditions, are summarized in Table 33 (2015 conditions) and Table 34 (2037 conditions) of the traffic study in Appendix M.

CEQA Impact Determination

To determine whether significant impacts would occur at the study intersections under CEQA, the cumulative plus Alternative 5 operating conditions were compared to the CEQA baseline operating conditions. Table 3.11-41 summarizes the locations at which significant impacts are identified under CEQA. Alternative 5 would result in significant traffic impacts at six intersections by 2015 and at eight intersections by 2037 during one or more peak hours.

Table 3.11-40. Significant Impacts at Intersections under CEQA—Alternative 5

	LOS (V/C)[1]					
	2015			*2037*		
Intersection	*AM*	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
5. Gaffey Street/9th Street					E (0.919)	D (0.821)
7. Gaffey Street/6th Street						E (0.930)
9. Gaffey Street/1st Street	F (1.214)		E (0.936)	F (1.400)		F (1.067)
22. Harbor Boulevard/7th Street			C (0.772)			D (0.842)
24. Harbor Boulevard/5th Street		C (0.785)			D (0.871)	
25. Harbor Boulevard/1st Street			C (0.751)	D (0.809)	C (0.741)	D (0.852)
29. Harbor Boulevard/O'Farrell Street		E (0.909)	C (0.750)	C (0.723)	F (1.011)	D (0.827)
30. Harbor Boulevard/3rd Street		D (0.833)	D (0.833)	C (0.713)	E (0.902)	D (0.887)

Note:
1. Only analysis intersections at which significant impacts have been identified are listed in this table. LOS (V/C) information is provided only in the years/analysis periods in which a significant impact has been identified.

The intersections identified in Table 3.11-41 are projected to exceed the LOS thresholds defined under CEQA, as described in Section 3.11.4.1, "Methodology." Thus, operational impacts on vehicle traffic would be significant under CEQA.

Mitigation Measures

Implement Mitigation Measures MM TC-6, MM TC-8 through MM TC-10, MM TC-12, and MM TC-13 by 2015.

Implement Mitigation Measures MM TC-2 through MM TC-4 by 2037.

Residual Impacts

The recommended mitigation measures would fully mitigate impacts identified at five of the six intersections in 2015 and five of the eight intersections in 2037 to less-than-significant levels. For the remaining locations, no feasible measures were identified that would fully mitigate impacts to less-than-significant levels for all analysis periods due to existing physical constraints at those locations. This includes one intersection (Gaffey Street and 1st Street**)** where no feasible measure was

identified. Table 3.11-42 summarizes the locations and scenarios at which residual significant impacts would remain after implementation of all recommended mitigation measures.

Additionally, as stated for the proposed project, implementation of Mitigation Measure TC-6 and portions of Mitigation Measures TC-7, TC-8, TC-9, TC-12 and TC-13 (involving configuring Harbor Boulevard to provide three lanes both northbound and southbound) have been identified to reduce congestion and increase levels of service for this alternative. While these mitigation measures are available to the LAHD, the LAHD may decide not to adopt Mitigation Measure TC-6 and portions of Mitigation Measures TC-7, TC-8, TC-9, TC-12 and TC-13 (involving configuring Harbor Boulevard to provide three lanes both northbound and southbound) because the provision of three lanes both northbound and southbound on Harbor Boulevard would increase speeds along Harbor Boulevard and would not contribute to a pedestrian-friendly environment along Harbor Boulevard. Should the LAHD decide not to adopt these mitigation measures, the resulting congestion and the levels of service would be worse than what is presented below.

Table 3.11-41. Significant Residual Impacts at Intersections under CEQA—Alternative 5

	LOS (V/C)[1]					
	2015			*2037*		
Intersection	*AM*	*PM*	*Wkend*	*AM*	*PM*	*Wkend*
5. Gaffey Street/9th Street						D (0.821)
9. Gaffey Street/1st Street	F (1.214)		E (0.936)	F (1.400)		F (1.067)
22. Harbor Boulevard/7th Street						C (0.760)

Notes:
[1] LOS (V/C) information is provided only in the years/analysis periods in which a significant residual impact has been identified.

The following is a description of the effectiveness of each proposed intersection mitigation measure.

- Mitigation Measure MM TC-3, combined with MM TC-2, would partially mitigate the identified impact at Gaffey Street and 9th Street. No feasible measures have been identified to address the impact during the weekend midday peak hour in 2037.
- Mitigation Measure MM TC-4, combined with MM TC-2, would fully mitigate the impacts identified at Gaffey Street and 6th Street.
- Mitigation Measure MM TC-6, combined with additional measures, would mitigate impacts identified at the following locations:

- Harbor Boulevard and 5th Street (see also MM TC-8),
- Harbor Boulevard and 1st Street (see also MM TC 9),
- Harbor Boulevard and 7th Street (see also MM TC-10),
- Harbor Boulevard and O'Farrell Street (see also MM TC-12), and
- Harbor Boulevard and 3rd Street (see also MM TC-13).

- Mitigation Measure MM TC-8, combined with MM TC-6, would fully mitigate the identified impacts at Harbor Boulevard and 5th Street.
- Mitigation Measure MM TC-9, combined with MM TC-6, would fully mitigate the identified impact at Harbor Boulevard and 1st Street.
- Mitigation Measure MM TC-10, combined with MM TC-6, would partially mitigate the identified impact at Harbor Boulevard and 7th Street. No feasible measures have been identified to address the impact during the weekend midday peak hour in 2037.
- Mitigation Measure MM TC-12, combined with MM TC-6, would fully mitigate all identified impacts at Harbor Boulevard and O'Farrell Street.
- Mitigation Measure MM TC-13, combined with MM TC-6, would fully mitigate all identified impacts at Harbor Boulevard and 3rd Street.

NEPA Impact Determination

Because the No-Federal-Action Alternative is identical to the NEPA baseline, this alternative would have no impact under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact TC-2b: Alternative 5 operations would not increase traffic volumes and degrade LOS along neighborhood streets within the proposed project vicinity.

Alternative 5 would increase the number of people traveling to and from the San Pedro Waterfront area. The resulting increase in traffic volumes would degrade LOS on the surrounding neighborhood roadways. Table 3.11-43 summarizes the LOS expected to result from Alternative 5 at the two analysis neighborhood roadways, as compared to CEQA and NEPA baseline conditions.

Table 3.11-42. Neighborhood Street Impact Assessment—Alternative 5

Street Segment	*Year*	*NEPA Baseline*	*CEQA Baseline*	*Project Only*	*Future with Project*	*NEPA Increase %*	*CEQA Increase %*	*Impact Criteria*	*NEPA Impact*	*CEQA Impact*
Santa Cruz Street between Grand and Pacific	2015	1,927	1,857	70	1,927	0%	4%	12%	No	No
	2037	1,999	1,929	70	1,999	0%	4%	12%	No	No
West 17th Street between Centre and Palos Verdes	2015	1,952	1,788	164	1,952	0%	9%	12%	No	No
	2037	2,036	1,872	164	2,036	0%	9%	10%	No	No

CEQA Impact Determination

To determine whether significant impacts would occur at the study intersections under CEQA, the cumulative plus Alternative 5 operating conditions were compared to the CEQA baseline operating conditions. Table 3.11-43 indicates that projected increases in traffic on the neighborhood streets due to Alternative 5 would not exceed CEQA thresholds. Therefore, operational impacts on neighborhood street operations would be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Because the No-Federal-Action Alternative is identical to the NEPA baseline, this alternative would have no impact under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact TC-2c: Alternative 5 operations would not increase traffic volumes and degrade operations on CMP facilities within the proposed project vicinity.

Alternative 5 would increase the number of people traveling to and from the San Pedro Waterfront area. The resulting demand would increase traffic volumes and degrade operations on the regional CMP facilities. Detailed projections of traffic volumes and V/Cs under baseline and Alternative 5 conditions are provided in Tables 54 and 55 of the traffic study in Appendix M.

CEQA Impact Determination

The projected volumes on the CMP freeway facilities, as compared to thresholds defined under the CMP, are summarized in Table 3.11-44.

To determine whether significant impacts would occur on the CMP freeway facilities under CEQA, the difference in V/C between cumulative-plus-project operating conditions and the no-project operating conditions were compared to the CMP thresholds. Table 3.11-44 indicates that, under projected 2015 and 2037 conditions, most of the CMP facility locations are projected to operate at LOS E or better. It also shows that at the locations projected to operate at LOS F the proposed Project would result in a V/C change of less than 0.02. Thus, operational impacts would be less than significant under CEQA.

Table 3.11-43. CMP Facility Impact Assessment under CEQA—Alternative 5

CMP Monitoring Station	*Peak Hour*	*Northbound/Westbound*				*Southbound/Eastbound*			
		Baseline		*Change Due to Project*		*Baseline*		*Change Due to Project*	
		V/C	*LOS*	*V/C change*	*Significant Impact?*	*V/C*	*LOS*	*V/C change*	*Significant Impact?*
2015									
I-110 south of C Street	AM	0.56	C	0.00	No	0.41	B	0.02	No
	PM	0.39	B	0.04	No	0.53	B	0.03	No
I-110 at Manchester Boulevard	AM	0.84	D	0.00	No	1.06	F	0.01	No
	PM	1.01	F	0.01	No	1.15	F	0.01	No
I-405 south of I-110 at Carson Scales	AM	0.97	E	0.00	No	0.84	D	0.00	No
	PM	0.83	D	0.00	No	0.93	D	0.00	No
I-405 north of Inglewood Boulevard	AM	0.92	D	0.00	No	0.71	C	0.00	No
	PM	0.82	D	0.01	No	1.02	F	0.01	No
2037									
I-110 south of C Street	AM	0.63	C	0.00	No	0.46	B	0.02	No
	PM	0.44	B	0.04	No	0.60	C	0.03	No

I-110 at Manchester Boulevard	AM	0.96	E	0.00	No	1.20	F	0.01	No
	PM	1.14	F	0.01	No	1.30	F	0.01	No
I-405 south of I-110 at Carson Scales	AM	1.10	F	0.00	No	0.95	E	0.00	No
	PM	0.95	E	0.00	No	1.06	F	0.00	No
I-405 north of Inglewood Boulevard	AM	1.04	F	0.00	No	0.81	D	0.00	No
	PM	0.93	D	0.01	No	1.16	F	0.01	No

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Because the No-Federal-Action Alternative is identical to the NEPA baseline, this alternative would have no impact under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact TC-3: Alternative 5 operations would not cause increases in demand for transit service beyond the supply of such services.

Analysis presented in the traffic study indicates that Alternative 5's transit demand would be less than that expected for the proposed Project, because the proposed Project represents the "worst-case" scenario in the number of trips generated as a result of commercial, recreation, cultural, and business activity.

CEQA Impact Determination

Since no significant impact is identified under the proposed Project, the lower demand that would be expected under Alternative 5 would also be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Because the No-Federal-Action Alternative is identical to the NEPA baseline, this alternative would have no impact under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact TC-4: Alternative 5 operations would not result in a violation of the City's adopted parking policies and parking demand would not exceed supply.

Alternative 5 would increase parking demand at the waterfront facilities. Table 3.11-45 summarizes the impact assessment, which compares of the proposed parking supply to the proposed project demand, and also to requirements set forth in the City of Los Angeles Municipal Code. More detailed information on parking projections for Alternative 5 is provided in Table 61 of the traffic study in Appendix M.

Table 3.11-44. Parking Assessment—Alternative 5

Proposed Parking Supply	*Code Requirements*		*2015 Projected Demand*		*2037 Projected Demand*	
	Spaces Required	*Accommodated by proposed supply?*	*Spaces Required*	*Accommodated by proposed supply?*	*Spaces Required*	*Accommodated by proposed supply?*
7,909	2,996	Yes	7,396	Yes	8,085	No

Table 3.11-45 shows that the parking supply for Alternative 5 would exceed code requirements through 2015 and 2037 and projected parking demand through 2015 but not through 2037.

The Waterfront Red Car alignment is the same under this alternative as it is for the proposed Project and could result in loss of available parking.

CEQA Impact Determination

Based on the discussion presented above, 2037 parking demand would exceed supply, resulting in a significant impact under CEQA. The loss of parking resulting from reconfiguration of the parking lots to accommodate this streetcar extension would be the same as that identified for the proposed Project and would be significant.

Mitigation Measures

Implement Mitigation Measures MM TC-15a, MM TC-15b, or MM TC-15c.

MM TC-31. Increase capacity of parking supply associated with cruise terminals. To provide secure, dedicated parking for the cruise terminals, increase the size of the parking structures serving the cruise terminals by 176 spaces.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Because the No-Federal-Action Alternative is identical to the NEPA baseline, this alternative would have no impact under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact TC-5a: The alignment of the Waterfront Red Car expansion for Alternative 5 would not increase potential conflict with vehicles at cross streets.

The Waterfront Red Car alignment would be the same for Alternative 5 as it is for the proposed Project.

CEQA Impact Determination

Vehicular and pedestrian safety hazards associated with the Waterfront Red Car expansion at cross street locations under Alternative 5 are the same as those identified for the proposed Project and would be significant under CEQA.

Mitigation Measures

Implement Mitigation Measures MM TC-16, MM TC-17, MM TC-18, MM TC-19-a or MM TC-19-b, and MM TC-20.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Because the No-Federal-Action Alternative is identical to the NEPA baseline, this alternative would have no impact under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact TC-5b: The alignment of the Waterfront Red Car expansion for Alternative 5 would not increase potential conflict at track crossovers where the rail would transition between center-running and side-running.

The Waterfront Red Car alignment would be the same for Alternative 5 as it is for the proposed Project.

CEQA Impact Determination

Vehicular and pedestrian safety hazards associated with the Waterfront Red Car expansion at track crossover locations under Alternative 5 are the same as those identified for the proposed Project and would be significant under CEQA.

Mitigation Measures

Implement Mitigation Measures MM TC-22 and MM TC-23.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Because the No-Federal-Action Alternative is identical to the NEPA baseline, this alternative would have no impact under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact TC-5c: The Waterfront Red Car expansion for Alternative 5 would not result in increased pedestrian conflicts at stations.

The Waterfront Red Car alignment would be the same for Alternative 5 as it is for the proposed Project.

CEQA Impact Determination

Increased pedestrian conflict points resulting from the Waterfront Red Car expansion would be the same as those identified for the proposed Project and would be significant.

Mitigation Measures

Implement Mitigation Measures TC-24, TC-25, and TC-26.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Because the No-Federal-Action Alternative is identical to the NEPA baseline, this alternative would have no impact under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

3.11.4.3.7 Alternative 6—No Project Alternative

Impact TC-1: Construction of Alternative 6 would not result in a short-term, temporary increase in construction-related truck and auto traffic, decreases in roadway capacity, and disruption of vehicular and nonmotorized travel.

CEQA Impact Determination

As no construction activities would take place under Alternative 6, no construction impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur

NEPA Impact Determination

This alternative is not applicable to NEPA.

Mitigation Measures

Not applicable.

Residual Impacts

Not applicable.

Impact TC-2a: Alternative 6 operations would not increase traffic volumes and degrade LOS at intersections within the proposed project vicinity.

CEQA Impact Determination

As no new facilities or transportation improvements would be constructed under Alternative 6, no new vehicle or nonmotorized trips would be generated; therefore, no operational impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

NEPA Impact Determination

This alternative is not applicable to NEPA.

Mitigation Measures

Not applicable.

Residual Impacts

Not applicable.

Impact TC-2b: Alternative 6 operations would not increase traffic volumes and degrade LOS along neighborhood streets within the proposed project vicinity.

CEQA Impact Determination

As no new facilities or transportation improvements would be constructed under Alternative 6, no new vehicle or non-motorized trips would be generated; therefore, no operational impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

NEPA Impact Determination

This alternative is not applicable to NEPA.

Mitigation Measures

Not applicable.

Residual Impacts

Not applicable.

Impact TC-2c: Alternative 6 operations would not increase traffic volumes and degrade operations on CMP facilities within the proposed project vicinity.

CEQA Impact Determination

As no new facilities or transportation improvements would be constructed under Alternative 6, no new vehicle or non-motorized trips would be generated; therefore, no operational impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

NEPA Impact Determination

This alternative is not applicable to NEPA.

Mitigation Measures

Not applicable.

Residual Impacts

Not applicable.

Impact TC-3: Alternative 6 operations would not cause increases in demand for transit service beyond the supply of such services.

CEQA Impact Determination

As no new facilities or transportation improvements would be constructed under Alternative 6, no increase in transit demand would be required; therefore, no operational impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

NEPA Impact Determination

This alternative is not applicable to NEPA.

Mitigation Measures

Not applicable.

Residual Impacts

Not applicable.

Impact TC-4: Alternative 6 operations would not result in a violation of the City's adopted parking policies and parking demand would not exceed supply.

CEQA Impact Determination

As no new facilities or transportation improvements would be constructed under Alternative 6, no new parking demand would be required; therefore, no operational impacts would occur. The alignment of the Waterfront Red Car expansion would not occur under this alternative and therefore would not result in loss of available parking.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

NEPA Impact Determination

This alternative is not applicable to NEPA.

Mitigation Measures

Not applicable.

Residual Impacts

Not applicable.

Impact TC-5a: The alignment of the Waterfront Red Car expansion for Alternative 6 would not increase potential conflict with vehicles at cross streets.

CEQA Impact Determination

As no new facilities or transportation improvements would be constructed under Alternative 6, no increase in conflicts between vehicles and the Waterfront Red Car Line would occur; therefore, no operational impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur

NEPA Impact Determination

This alternative is not applicable to NEPA.

Mitigation Measures

Not applicable.

Residual Impacts

Not applicable.

Impact TC-5b: The alignment of the Waterfront Red Car expansion for Alternative 6 would not increase potential conflict at track crossovers where the rail would transition between center-running and side-running.

CEQA Impact Determination

As no new facilities or transportation improvements would be constructed under Alternative 6, no increase in conflicts between vehicles and the Waterfront Red Car Line would occur; therefore, no operational impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur

NEPA Impact Determination

This alternative is not applicable to NEPA.

Mitigation Measures

Not applicable.

Residual Impacts

Not applicable.

Impact TC-5c: The Waterfront Red Car expansion for Alternative 6 would not result in increased pedestrian conflicts at stations.

CEQA Impact Determination

As no new facilities or transportation improvements would be constructed under Alternative 6, no increase in conflicts between vehicles and the Waterfront Red Car Line would occur; therefore, no operational impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur

NEPA Impact Determination

This alternative is not applicable to NEPA.

Mitigation Measures

Not applicable.

Residual Impacts

Not applicable.

3.11.4.3.8 Summary of Impact Determinations

Table 3.11-46 summarizes the CEQA and NEPA impact determinations of the proposed Project and its alternatives related to transportation and circulation, as described in the detailed discussion in Sections 3.11.4.3.1 through 3.11.4.3.7. This table is meant to allow easy comparison between the potential impacts of the proposed Project and its alternatives with respect to this resource. Identified potential impacts may be based on federal, state, and City of Los Angeles significance criteria; LAHD criteria; and the scientific judgment of the report preparers.

For each type of potential impact, the table describes the impact, notes the CEQA and NEPA impact determinations, describes any applicable mitigation measures, and notes the residual impacts (i.e., the impact remaining after mitigation). All impacts, whether significant or not, are included in this table.

Table 3.11-46. Summary Matrix of Potential Impacts and Mitigation Measures for Transportation and Circulation (Ground) Associated with the Proposed Project and Alternatives

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
3.11 Transportation and Circulation (Ground)				
Proposed Project	**Impact TC-1:** Construction of the proposed Project would not result in a short-term, temporary increase in construction-related truck and auto traffic, decreases in roadway capacity, and disruption of vehicular and nonmotorized travel.	CEQA: Significant	**MM TC-1: Develop and implement a Traffic Control Plan throughout proposed project construction**. In accordance with the City's policy on street closures and traffic diversion for arterial and collector roadways, the construction contractor will prepare a traffic control plan (to be approved by the city and county engineers) before construction. The traffic control plan will include: • a street layout showing the location of construction activity and surrounding streets to be used as detour routes, including special signage; • a tentative start date and construction duration period for each phase of construction; • the name, address, and emergency contact number for those responsible for maintaining the traffic control devices during the course of construction; and • written approval to implement traffic control from other agencies, as needed. Additionally, the traffic control plan will include the following stipulations. • Provide access for emergency vehicles at all times. • Avoid creating additional delay at intersections currently operating at congested conditions, either by choosing routes that avoid these locations, or constructing during nonpeak times	CEQA: Less than significant

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
			of day. • Maintain access for driveways and private roads, except for brief periods of construction, in which case property owners will be notified. • Provide adequate off-street parking areas at designated staging areas for construction-related vehicles. • Maintain pedestrian and bicycle access and circulation during proposed project construction where safe to do so. If construction encroaches on a sidewalk, a safe detour will be provided for pedestrians at the nearest crosswalk. If construction encroaches on a bike lane, warning signs will be posted that indicate bicycles and vehicles are sharing the roadway. • Traffic controls may include flag persons wearing Occupational Safety and Health Administration–approved vests and using a "Stop/Slow" paddle to warn motorists of construction activity. • Maintain access to Metro, LADOT, MAX, PVPTA, and LAHD transit services and ensure that public transit vehicles are detoured. • Post standard construction warning signs in advance of the construction area and at any intersection that provides access to the construction area. • Construction warning signs will be posted, in accordance with local standards or those set forth in the *Manual on Uniform Traffic Control Devices* (Federal Highway Administration 2001) in advance of the construction area and at any intersection that provides access to the	

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
			construction area. • During lane closures, notify LAFD and LAPD, as well as the Los Angeles County Sheriff's and Fire Departments, of construction locations to ensure that alternative evacuation and emergency routes are designed to maintain response times during construction periods, if necessary. • Provide written notification to contractors regarding appropriate routes to and from construction sites, and weight and speed limits for local roads used to access construction sites. Submit a copy of all such written notifications to the City of Los Angeles Planning Department. • Repair or restore the road right-of-way to its original condition or better upon completion of the work.	
		NEPA: Significant	Implement Mitigation Measure MM TC-1.	NEPA: Less than significant
	Impact TC-2a: Proposed project operations would increase traffic volumes and degrade LOS at intersections within the proposed project vicinity.	CEQA: Significant	**MM TC-2. Prohibit weekday peak period parking on Gaffey Street (needed by 2015).** Prohibit parking on Gaffey Street both northbound and southbound north of 9th Street during the weekday AM and PM peak periods to allow for an additional through lane in both the northbound and southbound directions. This prohibition is identified in the current San Pedro Community Plan as a potential measure to improve traffic flow on Gaffey Street. **MM TC-3. Modify southbound approach to Gaffey Street and 9th Street (needed by 2015).** Modify the southbound approach to Gaffey Street and 9th Street to provide one left-turn lane, two	CEQA: Significant and unavoidable

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
			through lanes, and one through/right-turn lane. **MM TC-4. Install traffic signal at Gaffey Street and 6th Street (needed by 2015).** **MM TC-5. Modify northbound and southbound approaches at Miner Street and 22nd Street (needed by 2037).** Modify the northbound and southbound approaches at Miner Street and 22nd Street to provide one left-turn lane, one through lane, and one through/right-turn lane. **MM TC-6. Prohibit parking on Harbor Boulevard (needed by 2015).** As a complementary mitigation measure for intersection-specific mitigation measures along Harbor Boulevard, the prohibition of parking on Harbor Boulevard would allow for the roadway to be configured to generally provide three lanes in each direction. This prohibition is identified in the current San Pedro Community Plan as a potential measure to improve traffic flow on Harbor Boulevard north of 7th Street. **MM TC-7. Modify Harbor Boulevard at 6th Street (needed by 2037).** Reconfigure Harbor Boulevard at 6th Street to provide three lanes on the southbound intersection approach, resulting in two through lanes and one shared through/right-turn lane. The existing on-street bicycle lanes may need to be removed to accommodate the additional travel lane on southbound Harbor Boulevard. **MM TC-8. Modify Harbor Boulevard at 5th Street (needed by 2015).** Reconfigure Harbor Boulevard at 5th Street to provide three lanes on the southbound intersection approach, resulting in one left-turn lane, two through lanes, and one shared through/right-turn lane. The existing on-street bicycle lanes may need to be removed to	

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
			accommodate the additional travel lane on southbound Harbor Boulevard. **MM TC-9. Modify Harbor Boulevard at 1st Street (needed by 2015).** Reconfigure Harbor Boulevard at 1st Street to provide three lanes both northbound and southbound. The existing on-street bicycle lanes may need to be removed to accommodate the additional travel lane on southbound Harbor Boulevard. **MM TC-10. Modify eastbound approach to Harbor Boulevard and 7th Street (needed by 2015).** Reconfigure the eastbound approach to Harbor Boulevard and 7th Street to provide two left-turn lanes, one through lane onto Sampson Way, and one through/right-turn lane. **MM TC-11. Reconfigure Harbor Boulevard and Swinford Street/SR-47 eastbound ramps (needed by 2015).** Restripe the westbound (Swinford Street) approach to provide an additional lane at the Harbor Boulevard and Swinford Street/SR-47 eastbound ramps. The westbound approach would be configured with one left-turn lane, one through lane, and one right-turn lane. **MM TC-12. Reconfigure Harbor Boulevard at O'Farrell Street (needed by 2015).** Reconfigure Harbor Boulevard at O'Farrell Street to provide three lanes both northbound and southbound. The existing on-street bicycle lanes may need to be removed to accommodate the additional travel lanes on Harbor Boulevard. **MM TC-13. Install signal at Harbor Boulevard and 3rd Street (needed by 2015).** Install a traffic signal at Harbor Boulevard and 3rd Street and configure the roadway to provide three	

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
			lanes both northbound and southbound. The existing on-street bicycle lanes may need to be removed to accommodate the additional travel lanes on Harbor Boulevard. **MM TC-14. Modify eastbound and westbound approaches at Gaffey Street and 13th Street (needed by 2037).** Modify the eastbound and westbound approaches at Gaffey Street and 13th Street to provide one left-turn lane and one shared through/right-turn lane each. This reconfiguration will result in the loss of approximately six on-street parking spaces.	
		NEPA: Significant	Implement Mitigation Measures MM TC-2, MM TC-4, MM TC-6, and MM TC-8 through MM TC-13 by 2015. Implement Mitigation Measures MM TC-3, MM TC-5, MM TC-7, and MM TC-14 by 2037.	NEPA: Significant and unavoidable
	Impact TC-2b: Proposed Project operations would increase traffic volumes and degrade LOS along neighborhood streets within the proposed project vicinity.	CEQA: Significant	No mitigation is available.	CEQA: Significant and unavoidable
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant
	Impact TC-2c: Proposed Project operations would not increase traffic volumes and degrade operations on CMP facilities within the proposed project vicinity.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
	Impact TC-3: Proposed Project operations would not cause increases in demand for transit service beyond the supply of such services.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant
	Impact TC-4: Proposed Project operations would not result in a violation of the City's adopted parking policies and parking demand would not exceed supply.	CEQA: Significant	**MM TC 15-a. Offset loss of parking through reconfiguration or expansion of parking elsewhere in the vicinity.** Or, **MM TC 15-b. Design the southern portion of this extension to minimize disruption to the existing parking lots.** Or, **MM TC 15-c. Align the southern segment of the Cabrillo Beach extension behind the Cabrillo Marine Aquarium to avoid or minimize conflicts with the existing parking lots in the area.**	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact
	Impact TC-5a: The alignment of the Waterfront Red Car expansion for the proposed Project would not increase potential conflict with vehicles at cross streets.	CEQA: Significant	**MM TC-16. Install a signal at the intersection of Harbor Boulevard and 3rd Street.** **MM TC-17. Ensure that traffic signals at cross street locations have protected left-turn phases and, potentially, active "No Right Turn" signs to allow these movements from streets parallel to the tracks to be held when a train is approaching or present.** **MM TC-18. Provide traffic control on approach streets to rail line to prevent motorists from stopping on tracks.** On the streets that approach the rail line perpendicularly, such as 1st Street, 5th Street, 6th Street, or Miner Street, the stop bars and	CEQA: Less than significant

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
			vehicle detection loops on the intersection legs where the rail line will be placed in advance of the tracks to prevent motorists from stopping on the tracks. During final design, the LAHD may also consider installing automatic crossing gates to fully protect the crossings that lie adjacent to parallel streets. **MM TC-19-a. Prohibit left turns across tracks on existing and proposed streets and proposed driveways that cross the tracks.** Or, **MM TC-19-b. Reduce streetcar operating speeds along streets where existing and proposed driveways serve the adjacent uses and install appropriate active warning signs or other devices to alert motorists to the possible presence of oncoming streetcars.** **MM TC-20. Combine lower levels of proposed parking structures to reduce potential conflict points along Sampson Way.** Locate a main access to the surface parking lots on the east side of Sampson Way to create a four-legged intersection there, and install a signal at this location to reduce conflicts. **MM TC-21. Signalize the reconfigured intersection of Signal Street/Sampson Way.**	
		NEPA: No impact	No mitigation is required.	NEPA: No impact
	Impact TC-5b: The alignment of the Waterfront Red Car expansion for the proposed Project would not increase potential	CEQA: Significant	**MM TC-22. Install half-signals at two proposed track crossovers located along Sampson Way and retime signals at the proposed track crossovers on 22nd Street at Miner Street and at Via Cabrillo Marina.** At locations where detailed design determines it necessary, retime traffic signals	CEQA: Less than significant

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
	conflict at track crossovers where the rail would transition between center-running and side-running.		to include a street car phase for turning and crossing streetcars and provide transit signal priority phasing. At the intersection of 22nd Street and Via Cabrillo Marina, provide for train movements to coincide with the westbound left-turn and northbound right-turn movements **MM TC-23. Install a half-signal at the proposed track crossover on the City Dock No. 1 extension that would occur south of the proposed Mid-Point Station.**	
		NEPA: No impact	No mitigation is required.	NEPA: No impact
	Impact TC-5c: The Waterfront Red Car expansion for the proposed Project would not result in increased pedestrian conflicts at stations.	CEQA: Significant	**MM TC-24. Design pavement markings and signage in station areas to clearly direct pedestrians to the desired routes.** **MM TC-25. Construct new sidewalks to allow for the orderly movement of pedestrians.** **MM TC-26. Shift the location of the main Ports O' Call surface parking lot driveway to a point north of this station to improve pedestrian safety there.** Place the main Ports O' Call surface parking lot driveway opposite one of the driveways serving the proposed parking structure on the west side of Sampson Way. Within the Ports O' Call surface parking lots, provide clear pedestrian paths from the foot of the proposed pedestrian bridge.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact
Alternative 1	**Impact TC-1:** Construction of Alternative 1 would not result in a short-term, temporary increase in construction-related truck and auto traffic, decreases	CEQA: Significant	Implement Mitigation Measure MM TC-1.	CEQA: Less than significant
		NEPA: Significant	Implement Mitigation Measure MM TC-1.	NEPA: Less than significant

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
	in roadway capacity, and disruption of vehicular and nonmotorized travel.			
	Impact TC-2a: Alternative 1 operations would increase traffic volumes and degrade LOS at intersections within the proposed project vicinity.	CEQA: Significant	Implement Mitigation Measures MM TC-2, MM TC-4, MM TC-6, MM TC-8 through MM TC-10, MM TC-12, and MM TC-13 by 2015. Implement Mitigation Measure MM TC-3 by 2037.	CEQA: Significant and unavoidable
		NEPA: Significant	Implement Mitigation Measures MM TC-6, MM TC-9, MM TC-10, MM TC-12, and MM TC-13 by 2015. Implement Mitigation Measures MM TC-8 and MM TC-11 by 2037.	NEPA: Significant and unavoidable
	Impact TC-2b: Alternative 1 operations would increase traffic volumes and degrade LOS along neighborhood streets within the proposed project vicinity.	CEQA: Significant	No mitigation is available.	CEQA: Significant and unavoidable
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant
	Impact TC-2c: Alternative 1 operations would not increase traffic volumes and degrade operations on CMP facilities within the proposed project vicinity.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant
	Impact TC-3: Alternative 1 operations would not cause increases in demand for transit service beyond the supply of such services.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
	Impact TC-4: Alternative 1 operations would not result in a violation of the City's adopted parking policies and parking demand would not exceed supply.	CEQA: Significant	Implement Mitigation Measures MM TC-15a, MM TC-15b, or MM TC-15c. **MM TC 27. Increase capacity of parking supply associated with cruise terminals. To provide secure, dedicated parking for the cruise terminals, increase the size of the parking structures serving the cruise terminals by 701 spaces.**	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NPEA: No impact
	Impact TC-5a: The alignment of the Waterfront Red Car expansion for Alternative 1 would not increase potential conflict with vehicles at cross streets.	CEQA: Significant	Implement Mitigation Measures MM TC-16, MM TC-17, MM TC-18, MM TC-19-a or MM TC-19-b, and MM TC-20, plus the following additional measure. **MM TC-28. Signalize the proposed intersection of Crescent Avenue/Sampson Way and the reconfigured intersection of Signal Street/Sampson Way.**	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact
	Impact TC-5b: The alignment of the Waterfront Red Car expansion for Alternative 1 would not increase potential conflict at track crossovers where the rail would transition between center-running and side-running.	CEQA: Significant	Implement Mitigation Measures MM TC-22 and MM TC-23.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact
	Impact TC-5c: The Waterfront Red Car expansion for Alternative 1 would not result in increased pedestrian	CEQA: Significant	Implement Mitigation Measures TC-24, TC-25, and TC-26.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
	conflicts at stations.			
Alternative 2	**Impact TC-1:** Construction of Alternative 2 would not result in a short-term, temporary increase in construction-related truck and auto traffic, decreases in roadway capacity, and disruption of vehicular and nonmotorized travel.	CEQA: Significant	Implement Mitigation Measure MM TC-1.	CEQA: Less than significant
		NEPA: Significant	Implement Mitigation Measure MM TC-1.	NEPA: Less than significant
	Impact TC-2a: Alternative 2 operations would increase traffic volumes and degrade LOS at intersections within the proposed project vicinity.	CEQA: Significant	Implement Mitigation Measures MM TC-2 through MM TC-4, MM TC-6, and MM TC-8 through MM TC-13 by 2015. Implement Mitigation Measures MM TC-5, MM TC-7, and MM TC-14 by 2037.	CEQA: Significant and unavoidable
		NEPA: Significant	Implement Mitigation Measures MM TC-2, MM TC-4, MM TC-6, and MM TC-8 through MM TC-13 by 2015. Implement Mitigation Measures MM TC-3, MM TC-5, MM TC-7, and MM TC-14 by 2037.	NEPA: Significant and unavoidable
	Impact TC-2b: Alternative 2 operations would increase traffic volumes and degrade LOS along neighborhood streets within the proposed project vicinity.	CEQA: Significant	No mitigation is available.	CEQA: Significant and unavoidable
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant
	Impact TC-2c: Alternative 2 operations would not increase traffic volumes and degrade operations on CMP	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
	facilities within the proposed project vicinity.			
	Impact TC-3: Alternative 2 operations would not cause increases in demand for transit service beyond the supply of such services.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant
	Impact TC-4: Alternative 2 operations would not result in a violation of the City's adopted parking policies and parking demand would not exceed supply.	CEQA: Significant	Implement Mitigation Measures MM TC-15a, MM TC-15b, or MM TC-15c.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact
	Impact TC-5a: The alignment of the Waterfront Red Car expansion for Alternative 2 would not increase potential conflict with vehicles at cross streets.	CEQA: Significant	Implement Mitigation Measures MM TC-16, MM TC-17, MM TC-18, MM TC-19-a or MM TC-19-b, MM TC-20, MM TC-21, and MM TC-27.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact
	Impact TC-5b: The alignment of the Waterfront Red Car expansion for Alternative 2 would not increase potential conflict at track crossovers where the rail would transition between center-running and side-running.	CEQA: Significant	Implement Mitigation Measures MM TC-22 and MM TC-23.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact
	Impact TC-5c: The Waterfront Red Car	CEQA: Significant	Implement Mitigation Measures TC-24, TC-25, and TC-26.	CEQA: Less than significant

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
	expansion for Alternative 2 would not result in increased pedestrian conflicts at stations.	NEPA: No impact	No mitigation is required.	NEPA: No impact
Alternative 3	**Impact TC-1:** Construction of Alternative 3 would not result in a short-term, temporary increase in construction-related truck and auto traffic, decreases in roadway capacity, and disruption of vehicular and nonmotorized travel.	CEQA: Significant	Implement Mitigation Measure MM TC-1.	CEQA: Less than significant
		NEPA: Significant	Implement Mitigation Measure MM TC-1.	NEPA: Less than significant
	Impact TC-2a: Alternative 3 operations would increase traffic volumes and degrade LOS at intersections within the proposed project vicinity.	CEQA: Significant	Implement Mitigation Measures MM TC-6, MM TC-8 through MM TC-10, MM TC-12, and MM TC-13 by 2015. Implement Mitigation Measures MM TC-2 through MM TC-4 by 2037.	CEQA: Significant and unavoidable
		NEPA: Significant	Implement Mitigation Measures MM TC-6, MM TC-10, and MM TC-13 by 2015. Implement Mitigation Measures MM TC-9 and MM TC-11 by 2037.	NEPA: Significant and unavoidable
	Impact TC-2b: Alternative 3 operations would not increase traffic volumes and degrade LOS along neighborhood streets within the proposed project vicinity.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant
	Impact TC-2c: Alternative 3 operations	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
	would not increase traffic volumes and degrade operations on CMP facilities within the proposed project vicinity.	NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant
	Impact TC-3: Alternative 3 operations would not cause increases in demand for transit service beyond the supply of such services.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant
	Impact TC-4: Alternative 3 operations would not result in a violation of the City's adopted parking policies and parking demand would not exceed supply.	CEQA: Significant	Implement Mitigation Measures MM TC-15a, MM TC-15b, or MM TC-15c. **MM TC-29. Increase capacity of parking supply associated with cruise terminals.** To provide secure, dedicated parking for the cruise terminals, increase the size of the parking structures serving the cruise terminals by 649 spaces.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact
	Impact TC-5a: The alignment of the Waterfront Red Car expansion for Alternative 3 would not increase potential conflict with vehicles at cross streets.	CEQA: Significant	Implement Mitigation Measures MM TC-16, MM TC-17, MM TC-18, MM TC-19-a or MM TC-19-b, and MM TC-20.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact
	Impact TC-5b: The alignment of the Waterfront Red Car expansion for Alternative 3 would not increase potential conflict at track crossovers where the rail	CEQA: Significant	Implement Mitigation Measures MM TC-22 and MM TC-23.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
	would transition between center-running and side-running.			
	Impact TC-5c: The Waterfront Red Car expansion for Alternative 3 would not result in increased pedestrian conflicts at stations.	CEQA: Significant	Implement Mitigation Measures MM TC-24, MM TC-25, and MM TC-26.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact
Alternative 4	**Impact TC-1:** Construction of Alternative 4 would not result in a short-term, temporary increase in construction-related truck and auto traffic, decreases in roadway capacity, and disruption of vehicular and nonmotorized travel.	CEQA: Significant	Implement Mitigation Measure MM TC-1.	CEQA: Less than significant
		NEPA: Significant	Implement Mitigation Measure MM TC-1.	NEPA: Less than significant
	Impact TC-2a: Alternative 4 operations would increase traffic volumes and degrade LOS at intersections within the proposed project vicinity.	CEQA: Significant	Implement Mitigation Measures MM TC-6, MM TC-8 through MM TC-10, MM TC-12, and MM TC-13 by 2015. Implement Mitigation Measures MM TC-2 through MM TC-4 by 2037.	CEQA: Significant and unavoidable
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant
	Impact TC-2b: Alternative 4 operations would not increase traffic volumes and degrade LOS along neighborhood streets within the proposed project vicinity.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
	Impact TC-2c: Alternative 4 operations would not increase traffic volumes and degrade operations on CMP facilities within the proposed project vicinity.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant
	Impact TC-3: Alternative 4 operations would not cause increases in demand for transit service beyond the supply of such services.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant
	Impact TC-4: Alternative 4 operations would not result in a violation of the City's adopted parking policies and parking demand would not exceed supply.	CEQA: Significant	Implement Mitigation Measures MM TC-15a, MM TC-15b, or MM TC-15c. **MM TC-30. Increase capacity of parking supply associated with cruise terminals.** To provide secure, dedicated parking for the cruise terminals, increase the size of the parking structures serving the cruise terminals by 162 spaces.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact
	Impact TC-5a: The alignment of the Waterfront Red Car expansion for Alternative 4 would not increase potential conflict with vehicles at cross streets.	CEQA: Significant	Implement Mitigation Measures MM TC-16, MM TC-17, MM TC-18, MM TC-19-a or MM TC-19-b, and MM TC-20.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact
	Impact TC-5b: The alignment of the Waterfront Red Car expansion for Alternative 4 would not increase	CEQA: Significant	Implement Mitigation Measures MM TC-22 and MM TC-23.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
	potential conflict at track crossovers where the rail would transition between center-running and side-running.			
	Impact TC-5c: The Waterfront Red Car expansion for Alternative 4 would not result in increased pedestrian conflicts at stations.	CEQA: Significant	Implement Mitigation Measures TC-24, TC-25, and TC-26.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact
Alternative 5	**Impact TC-1:** Construction of Alternative 5 would not result in a short-term, temporary increase in construction-related truck and auto traffic, decreases in roadway capacity, and disruption of vehicular and nonmotorized travel.	CEQA: Significant	Implement Mitigation Measure MM TC-1.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact
	Impact TC-2a: Alternative 5 operations would increase traffic volumes and degrade LOS at intersections within the proposed project vicinity.	CEQA: Significant	Implement Mitigation Measures MM TC-6, MM TC-8 through MM TC-10, MM TC-12, and MM TC-13 by 2015. Implement Mitigation Measures MM TC-2 through MM TC-4 by 2037.	CEQA: Significant and unavoidable
		NEPA: No impact	No mitigation is required.	NEPA: No impact
	Impact TC-2b: Alternative 5 operations would not increase traffic volumes and degrade LOS along neighborhood streets within the	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
	proposed project vicinity.			
	Impact TC-2c: Alternative 5 operations would not increase traffic volumes and degrade operations on CMP facilities within the proposed project vicinity.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact
	Impact TC-3: Alternative 5 operations would not cause increases in demand for transit service beyond the supply of such services.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact
	Impact TC-4: Alternative 5 operations would not result in a violation of the City's adopted parking policies and parking demand would not exceed supply.	CEQA: Significant	Implement Mitigation Measures MM TC-15a, MM TC-15b, or MM TC-15c. **MM TC-31. Increase capacity of parking supply associated with cruise terminals.** To provide secure, dedicated parking for the cruise terminals, increase the size of the parking structures serving the cruise terminals by 176 spaces.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact
	Impact TC-5a: The alignment of the Waterfront Red Car expansion for Alternative 5 would not increase potential conflict with vehicles at cross streets.	CEQA: Significant	Implement Mitigation Measures MM TC-16, MM TC-17, MM TC-18, MM TC-19-a or MM TC-19-b, and MM TC-20.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact
	Impact TC-5b: The alignment of the Waterfront Red Car expansion for Alternative	CEQA: Significant	Implement Mitigation Measures MM TC-22 and MM TC-23.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
	5 would not increase potential conflict at track crossovers where the rail would transition between center-running and side-running.			
	Impact TC-5c: The Waterfront Red Car expansion for Alternative 5 would not result in increased pedestrian conflicts at stations.	CEQA: Significant	Implement Mitigation Measures TC-24, TC-25, and TC-26.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact
Alternative 6	**Impact TC-1:** Construction of Alternative 6 would not result in a short-term, temporary increase in construction-related truck and auto traffic, decreases in roadway capacity, and disruption of vehicular and nonmotorized travel.	CEQA: No impact	No mitigation is required.	CEQA: No impact
		NEPA: Not applicable	Not applicable	NEPA: Not applicable
	Impact TC-2a: Alternative 6 operations would not increase traffic volumes and degrade LOS at intersections within the proposed project vicinity.	CEQA: No impact	No mitigation is required.	CEQA: No impact
		NEPA: Not applicable	Not applicable	NEPA: Not applicable
	Impact TC-2b: Alternative 6 operations would not increase traffic volumes and degrade LOS along neighborhood streets within the	CEQA: No impact	No mitigation is required.	CEQA: No impact
		NEPA: Not applicable	Not applicable	NEPA: Not applicable

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
	proposed project vicinity.			
	Impact TC-2c: Alternative 6 operations would not increase traffic volumes and degrade operations on CMP facilities within the proposed project vicinity.	CEQA: No impact	No mitigation is required.	CEQA: No impact
		NEPA: Not applicable	Not applicable	NEPA: Not applicable
	Impact TC-3: Alternative 6 operations would not cause increases in demand for transit service beyond the supply of such services.	CEQA: No impact	No mitigation is required.	CEQA: No impact
		NEPA: Not applicable	Not applicable	NEPA: Not applicable
	Impact TC-4: Alternative 6 operations would not result in a violation of the City's adopted parking policies and parking demand would not exceed supply.	CEQA: No impact	No mitigation is required.	CEQA: No impact
		NEPA: Not applicable	Not applicable	NEPA: Not applicable
	Impact TC-5a: The alignment of the Waterfront Red Car expansion for Alternative 6 would not increase potential conflict with vehicles at cross streets.	CEQA: No impact	No mitigation is required.	CEQA: No impact
		NEPA: Not applicable	Not applicable	NEPA: Not applicable
	Impact TC-5b: The alignment of the Waterfront Red Car expansion for Alternative 6 would not increase potential conflict at track	CEQA: No impact	No mitigation is required.	CEQA: No impact
		NEPA: Not applicable	Not applicable	NEPA: Not applicable

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
	crossovers where the rail would transition between center-running and side-running.			
	Impact TC-5c: The Waterfront Red Car expansion for Alternative 6 would not result in increased pedestrian conflicts at stations.	CEQA: No impact	No mitigation is required.	CEQA: No impact
		NEPA: Not applicable	Not applicable	NEPA: Not applicable

Notes:

* Impact descriptions for each of the alternatives are the same as for the proposed Project, unless otherwise noted.

† The term *not applicable* is used in cases where a particular impact is not identified as a CEQA- or NEPA-related issue in the threshold of significance criteria, or where there is no federal action requiring a NEPA determination of significance.

3.11.4.4 Mitigation Monitoring

Table 3.11-47. Mitigation Monitoring for Transportation and Circulation

PROPOSED PROJECT	
Impact TC-1: Construction of the proposed Project would not result in a short-term, temporary increase in construction-related truck and auto traffic, decreases in roadway capacity, and disruption of vehicular and nonmotorized travel.	
Mitigation Measure	**MM TC-1: Develop and implement a Traffic Control Plan throughout proposed project construction**. In accordance with the City's policy on street closures and traffic diversion for arterial and collector roadways, the construction contractor will prepare a traffic control plan (to be approved by the city and county engineers) before construction. The traffic control plan will include: ■ a street layout showing the location of construction activity and surrounding streets to be used as detour routes, including special signage; ■ a tentative start date and construction duration period for each phase of construction; ■ the name, address, and emergency contact number for those responsible for maintaining the traffic control devices during the course of construction; and ■ written approval to implement traffic control from other agencies, as needed. Additionally, the traffic control plan will include the following stipulations. ■ Provide access for emergency vehicles at all times. ■ Avoid creating additional delay at intersections currently operating at congested conditions, either by choosing routes that avoid these locations, or constructing during nonpeak times of day. ■ Maintain access for driveways and private roads, except for brief periods of construction, in which case property owners will be notified. ■ Provide adequate off-street parking areas at designated staging areas for construction-related vehicles. ■ Maintain pedestrian and bicycle access and circulation during proposed project construction where safe to do so. If construction encroaches on a sidewalk, a safe detour will be provided for pedestrians at the nearest crosswalk. If construction encroaches on a bike lane, warning signs will be posted that indicate bicycles and vehicles are sharing the roadway. ■ Traffic controls may include flag persons wearing Occupational Safety and Health Administration–approved vests and using a "Stop/Slow" paddle to warn motorists of construction activity. ■ Maintain access to Metro, LADOT, MAX, PVPTA, and LAHD transit services and ensure that public transit vehicles are detoured. ■ Post standard construction warning signs in advance of the construction area and at any intersection that provides access to the construction area. ■ Construction warning signs will be posted, in accordance with local standards or those set forth in the *Manual on Uniform Traffic Control Devices* (Federal Highway

	Administration 2001) in advance of the construction area and at any intersection that provides access to the construction area. ■ During lane closures, notify LAFD and LAPD, as well as the Los Angeles County Sheriff's and Fire Departments, of construction locations to ensure that alternative evacuation and emergency routes are designed to maintain response times during construction periods, if necessary. ■ Provide written notification to contractors regarding appropriate routes to and from construction sites, and weight and speed limits for local roads used to access construction sites. Submit a copy of all such written notifications to the City of Los Angeles Planning Department. ■ Repair or restore the road right-of-way to its original condition or better upon completion of the work.
Timing	Prior to construction activities, to be implemented during construction
Methodology	The construction contractor(s) will prepare a construction traffic control plan to be approved by LAHD Engineering and LADOT, detailing methods to minimize traffic congestion and access restrictions during construction.
Responsible Parties	LAHD Engineering Division, construction contractor(s)
Residual Impacts for Impact TC-1	Less than significant
Impact TC-2a: Proposed Project operations would increase traffic volumes and degrade LOS at intersections within the proposed project vicinity	
Mitigation Measure	**MM TC-2. Prohibit parking on Gaffey Street (needed by 2015).** Prohibit parking on Gaffey Street both northbound and southbound north of 9th Street during the AM and PM peak periods to allow for an additional through lane in both the northbound and southbound directions. This prohibition is identified in the current San Pedro Community Plan as a potential measure to improve traffic flow on Gaffey Street.
Timing	Before buildout of proposed project, prior to 2015
Methodology	The LAHD will apply to the LADOT to provide parking restrictions northbound and southbound north of 9th Street during the AM and PM peak periods to allow for an additional through lane in both the northbound and southbound directions. This measure will be implemented prior to buildout of the proposed project, and will be a required condition of approval of the proposed project.
Responsible Parties	LAHD Engineering Division
Mitigation Measure	**MM TC-3. Modify southbound approach to Gaffey Street and 9th Street (needed by 2015).** Modify the southbound approach to Gaffey Street and 9th Street to provide one left-turn lane, two through lanes, and one through/right-turn lane.
Timing	Before buildout of proposed project, prior to 2015
Methodology	The LAHD will apply to the LADOT to modify the southbound approach to Gaffey Street and 9th Street to provide one left-turn lane, two through lanes, and one through/right-turn lane. This measure will be implemented prior to buildout of the proposed project, and will be a required condition of approval of the proposed project.
Responsible Parties	LAHD Engineering Division

Mitigation Measure	**MM TC-4. Install traffic signal at Gaffey Street and 6th Street (needed by 2015).**
Timing	Before buildout of proposed project, prior to 2015
Methodology	The LAHD will apply to the LADOT to install traffic signal at Gaffey Street and 6th Street. This measure will be implemented prior to buildout of the proposed project, and will be a required condition of approval of the proposed project.
Responsible Parties	LAHD Engineering Division
Mitigation Measure	**MM TC-5. Modify northbound and southbound approaches at Miner Street and 22nd Street (needed by 2037).** Modify the northbound and southbound approaches at Miner Street and 22nd Street to provide one left-turn lane, one through lane, and one through/right-turn lane.
Timing	Prior to 2037, when warranted by LADOT significance criteria.
Methodology	The LAHD will modify the northbound and southbound approaches at Miner Street and 22nd Street to provide one left-turn lane, one through lane, and one through/right-turn lane. This measure will be implemented prior to 2037 based on annual monitoring and traffic analyses at this intersection.
Responsible Parties	LAHD Engineering Division
Mitigation Measure	**MM TC-6. Prohibit parking on Harbor Boulevard (needed by 2015).** Prohibit parking on Harbor Boulevard and configuring the roadway to provide three lanes. This prohibition is identified in the current San Pedro Community Plan as a potential measure to improve traffic flow on Harbor Boulevard north of 7th Street.
Timing	Before buildout of proposed project, prior to 2015
Methodology	The LAHD will apply to the LADOT to provide parking restrictions on Harbor Boulevard and configuring the roadway to provide three lanes. This measure will be implemented prior to buildout of the proposed project, and will be a required condition of approval of the proposed project.
Responsible Parties	LAHD Engineering Division
Mitigation Measure	**MM TC-7. Modify Harbor Boulevard at 6th Street (needed by 2037).** Reconfigure Harbor Boulevard at 6th Street to provide three lanes on the southbound intersection approach, resulting in two through lanes and one shared through/right-turn lane. The existing on-street bicycle lanes may need to be removed to accommodate the additional travel lane on southbound Harbor Boulevard.
Timing	During proposed project design and before buildout of proposed project, prior to 2037
Methodology	The LAHD will design the 6th Street/Harbor intersection to provide three lanes on the southbound intersection approach, resulting in two through lanes and one shared through/right-turn lane. This measure will be implemented during construction of the Harbor Boulevard improvements, and will be a required condition of approval of the proposed project.
Responsible Parties	LAHD Engineering Division
Mitigation Measure	**MM TC-8. Modify Harbor Boulevard at 5th Street (needed by 2015).** Reconfigure Harbor Boulevard at 5th Street to provide three lanes on the southbound intersection approach, resulting in one left-turn lane, two through lanes, and one shared through/right-turn lane. The existing on-street bicycle lanes may need to be removed to accommodate the additional travel lane on southbound Harbor Boulevard.

Timing	During proposed project design and before buildout of proposed project, prior to 2015
Methodology	The LAHD will design the 5th Street/Harbor intersection to provide three lanes on the southbound intersection approach, resulting in one left-turn lane, two through lanes, and one shared through/right-turn lane. This measure will be implemented during construction of the Harbor Boulevard improvements, and will be a required condition of approval of the proposed project.
Responsible Parties	LAHD Engineering Division
Mitigation Measure	**MM TC-9. Modify Harbor Boulevard at 1st Street (needed by 2015).** Reconfigure Harbor Boulevard at 1st Street to provide three lanes both northbound and southbound. The existing on-street bicycle lanes may need to be removed to accommodate the additional travel lane on southbound Harbor Boulevard.
Timing	During proposed project design and before buildout of proposed project, prior to 2015
Methodology	The LAHD will design the 1st Street/Harbor intersection to provide three lanes northbound and southbound. This measure will be implemented during construction of the Harbor Boulevard improvements, and will be a required condition of approval of the proposed project.
Responsible Parties	LAHD Engineering Division
Mitigation Measure	**MM TC-10. Modify eastbound approach to Harbor Boulevard and 7th Street (needed by 2015).** Reconfigure the eastbound approach to Harbor Boulevard and 7th Street to provide two left-turn lanes, one through lane onto Sampson Way, and one through/right-turn lane.
Timing	During proposed project design and before buildout of proposed project, prior to 2015
Methodology	The LAHD will design the Harbor Boulevard and 7th Street intersection to provide two left-turn lanes, one through lane onto Sampson Way, and one through/right-turn lane. This measure will be implemented during construction of the Harbor Boulevard improvements, and will be a required condition of approval of the proposed project.
Responsible Parties	LAHD Engineering Division
Mitigation Measure	**MM TC-11. Reconfigure Harbor Boulevard and Swinford Street/SR-47 eastbound ramps (needed by 2015).** Restripe the westbound (Swinford Street) approach to provide an additional lane at the Harbor Boulevard and Swinford Street/SR-47 eastbound ramps. The westbound approach would be configured with one left-turn lane, one through lane, and one right-turn lane.
Timing	During proposed project design and before buildout of proposed project, prior to 2015
Methodology	The LAHD will restripe the westbound (Swinford Street) approach to provide an additional lane at the Harbor Boulevard and Swinford Street/SR-47 eastbound ramps. The westbound approach would be configured with one left-turn lane, one through lane, and one right-turn lane. This measure will be implemented during construction of the Harbor Boulevard improvements, and will be a required condition of approval of the proposed project.
Responsible Parties	LAHD Engineering Division
Mitigation Measure	**MM TC-12. Reconfigure Harbor Boulevard at O'Farrell Street (needed by 2015).** Reconfigure Harbor Boulevard at O'Farrell Street to provide three lanes both northbound and southbound. The existing on-street bicycle lanes may need to be removed to accommodate the additional travel lanes on Harbor Boulevard.

Timing	During proposed project design and before buildout of proposed project, prior to 2015
Methodology	The LAHD will reconfigure Harbor Boulevard at O'Farrell Street intersection to provide three lanes both northbound and southbound. This measure will be implemented during construction of the Harbor Boulevard improvements, and will be a required condition of approval of the proposed project.
Responsible Parties	LAHD Engineering Division
Mitigation Measure	**MM TC-13. Install signal at Harbor Boulevard and 3rd Street (needed by 2015).** Install a traffic signal at Harbor Boulevard and 3rd Street and configure the roadway to provide three lanes both northbound and southbound. The existing on-street bicycle lanes may need to be removed to accommodate the additional travel lanes on Harbor Boulevard.
Timing	During proposed project design and before buildout of proposed project, prior to 2015
Methodology	The LAHD will install a traffic signal at Harbor Boulevard and 3rd Street and configure the roadway to provide three lanes both northbound and southbound. This measure will be implemented during construction of the Harbor Boulevard improvements, and will be a required condition of approval of the proposed project.
Responsible Parties	LAHD Engineering Division
Mitigation Measure	**MM TC-14. Modify eastbound and westbound approaches at Gaffey Street and 13th Street (needed by 2037).** Modify the eastbound and westbound approaches at Gaffey Street and 13th Street to provide one left-turn lane and one shared through/right-turn lane each. This reconfiguration will result in the loss of approximately six on-street parking spaces.
Timing	During proposed project design and before buildout of proposed project, prior to 2015
Methodology	The LAHD will apply to the LADOT to modify the eastbound and westbound approaches at Gaffey Street and 13th Street to provide one left-turn lane and one shared through/right-turn lane each. This measure will be implemented prior to buildout of the proposed project, and will be a required condition of approval of the proposed project.
Responsible Parties	LAHD Engineering Division
Residual Impacts for Impact TC-2a	Significant and unavoidable
Impact TC-4: Proposed Project operations would not result in a violation of the City's adopted parking policies and parking demand would not exceed supply.	
Mitigation Measure	**MM TC 15-a. Offset loss of parking through reconfiguration or expansion of parking elsewhere in the vicinity.**
Timing	During final design of Waterfront Red Car alignment, to be implemented prior to extension of the Waterfront Red Car to Cabrillo Beach
Methodology	The LAHD will replace any parking lost in the Cabrillo Beach parking lot elsewhere in the vicinity of Cabrillo Beach, within one-quart of a mile.
Responsible Parties	LAHD Engineering

Mitigation Measure	**MM TC 15-b. Design the southern portion of this extension to minimize disruption to the existing parking lots.**
Timing	During final design of Waterfront Red Car alignment, to be implemented prior to extension of the Waterfront Red Car to Cabrillo Beach
Methodology	The LAHD will design the alignment to avoid existing parking spaces, minimizing any loss of parking in the Cabrillo Beach parking lot.
Responsible Parties	LAHD Engineering
Mitigation Measure	**MM TC 15-c. Align the southern segment of the Cabrillo Beach extension behind the Cabrillo Marine Aquarium to avoid or minimize conflicts with the existing parking lots in the area.**
Timing	During final design of Waterfront Red Car alignment, to be implemented prior to extension of the Waterfront Red Car to Cabrillo Beach
Methodology	The LAHD will design the alignment to avoid existing parking spaces, minimizing any loss of parking in the Cabrillo Beach parking lot.
Responsible Parties	LAHD Engineering
Residual Impacts for Impact TC-4	Less than significant
Impact TC-5a: The alignment of the Waterfront Red Car expansion for the proposed Project would not increase potential conflict with vehicles at cross streets.	
Mitigation Measure	**MM TC-16. Install a signal at the intersection of Harbor Boulevard** and **3rd Street.**
Timing	During final design of Waterfront Red Car alignment, to be implemented during construction of the Waterfront Red Car alignment along Harbor Boulevard
Methodology	The LAHD will install a traffic signal at the intersection of Harbor Boulevard and 3rd Street during the Harbor Boulevard improvements.
Responsible Parties	LAHD Engineering
Mitigation Measure	**MM TC-17. Ensure that traffic signals at cross street locations have protected left-turn phases and, potentially, active "No Right Turn" signs to allow these movements from streets parallel to the tracks to be held when a train is approaching or present.**
Timing	During final design of Waterfront Red Car alignment, to be implemented during construction of the Waterfront Red Car alignment where it crosses streets at grade
Methodology	The LAHD will work with LADOT to design signals so that that traffic signals at cross street locations have protected left-turn phases and, potentially, active "No Right Turn" signs to allow these movements from streets parallel to the tracks to be held when a train is approaching or present.
Responsible Parties	LAHD Engineering
Mitigation Measure	**MM TC-18. Provide traffic control on approach streets to rail line to prevent motorists from stopping on tracks.** On the streets that approach the rail line perpendicularly, such as 1st Street, 5th Street, 6th Street, or Miner Street, place the stop bars and vehicle detection loops on the intersection legs in advance of the tracks to prevent motorists from stopping on the tracks. During final design, the LAHD may also consider installing automatic crossing gates to fully protect the crossings that lie adjacent to parallel streets.

Timing	During final design of Waterfront Red Car alignment, to be implemented during construction of the Waterfront Red Car alignment where it crosses streets at grade
Methodology	The LAHD will work with LADOT to design stop bars and vehicle detection loops on the intersection legs in advance of the tracks to prevent motorists from stopping on the tracks on the streets that approach the rail line perpendicularly, such as 1st Street, 5th Street, 6th Street, or Miner Street. During final design, the LAHD may also consider installing automatic crossing gates may also be necessary to fully protect the crossings that lie adjacent to parallel streets.
Responsible Parties	LAHD Engineering
Mitigation Measure	**MM TC-19-a. Prohibit left turns across tracks on existing and proposed streets and proposed driveways that cross the tracks.**
Timing	During final design of Waterfront Red Car alignment, to be implemented prior to operation of the Waterfront Red Car alignment where it crosses streets at grade
Methodology	The LAHD will restrict left turn ingress and egress at existing and proposed streets and driveways where the Waterfront Red Car tracks cross
Responsible Parties	LAHD Engineering
Mitigation Measure	**MM TC-19-b. Reduce streetcar operating speeds along streets where existing and proposed driveways serve the adjacent uses and install appropriate active warning signs or other devices to alert motorists to the possible presence of oncoming streetcars.**
Timing	Prior to and during operation of the Waterfront Red Car alignment
Methodology	The LAHD will require the Waterfront Red Car operator to reduce speeds along streets where existing and proposed driveways serve the adjacent uses. These specifications will be included in any operating procedures for the Waterfront Red Car. The LAHD will also install appropriate active warning signs or other devices to alert motorists to the possible presence of oncoming streetcars. These specifications will be included in the final design of the Waterfront Red Car alignment and will be implemented prior to operation of the Waterfront Red Car.
Responsible Parties	LAHD Engineering, Waterfront Red Car operator
Mitigation Measure	**MM TC-20. Combine lower levels of proposed parking structures to reduce potential conflict points along Sampson Way.** Locate a main access to the surface parking lots on the east side of Sampson Way to create a four-legged intersection there, and install a signal at this location to reduce conflicts.
Timing	During final design of bluff parking structures
Methodology	The LAHD will design parking structure circulation to provide one driveway into parking structure complex from Sampson way
Responsible Parties	LAHD Engineering

Mitigation Measure	**MM TC-21. Signalize the reconfigured intersection of Signal Street/Sampson Way.**
Timing	During final design of Waterfront Red Car alignment, to be implemented during construction of the Waterfront Red Car alignment along Sampson Way
Methodology	The LAHD will install a traffic signal at the intersection of Signal Street and Sampson Way during the Sampson Way improvements.
Responsible Parties	LAHD Engineering
Residual Impacts for Impact TC-5a	Less than significant
Impact TC-5b: The alignment of the Waterfront Red Car expansion for the proposed Project would not increase potential conflict at track crossovers where the rail would transition between center-running and side-running.	
Mitigation Measure	**MM TC 22. Install half-signals at two proposed track crossovers located along Sampson Way and retime signals at the proposed track crossovers on 22nd Street at Miner Street and at Via Cabrillo Marina.** The traffic signals may each need to be retimed to include a street car phase for turning and crossing streetcars, along with possible transit signal priority phasing. At the intersection of 22nd Street and Via Cabrillo Marina, train movements may be able to coincide with the westbound left-turn and northbound right-turn movements
Timing	During final design of Waterfront Red Car alignment, to be implemented during construction of the Waterfront Red Car alignment along Sampson Way and 22nd Street
Methodology	The LAHD will install half-signals at two proposed track crossovers located along Sampson Way and retime signals at the proposed track crossovers on 22nd Street at Miner Street and at Via Cabrillo Marina.
Responsible Parties	LAHD Engineering
Mitigation Measure	**MM TC 23. Install a half-signal at the proposed track crossover on the City Dock No. 1 extension that would occur south of the proposed Mid-Point Station.**
Timing	During final design of Waterfront Red Car alignment, to be implemented during construction of the Waterfront Red Car alignment along City Dock No. 1
Methodology	The LAHD will install a half-signal at the proposed track crossover on the City Dock No. 1 extension that would occur south of the proposed Mid-Point Station.
Responsible Parties	LAHD Engineering
Residual Impacts for Impact TC-5b	Less than significant

Impact TC-5c: The Waterfront Red Car expansion for the proposed Project would not result in increased pedestrian conflicts at stations.	
Mitigation Measure	**MM TC 24. Design pavement markings and signage in station areas to clearly direct pedestrians to the desired routes.**
Timing	During final design of Waterfront Red Car stations, to be implemented during construction of the Waterfront Red Car stations
Methodology	The LAHD will design pavement markings and signage in station areas to clearly direct pedestrians to the desired routes.
Responsible Parties	LAHD Engineering
Mitigation Measure	**MM TC 25. Construct new sidewalks to allow for the orderly movement of pedestrians.**
Timing	During final design of Waterfront Red Car stations, to be implemented during construction of the Waterfront Red Car stations
Methodology	The LAHD will design and construct new sidewalks to allow for the orderly movement of pedestrians.
Responsible Parties	LAHD Engineering
Mitigation Measure	**MM TC 26. Shift the location of the main Ports O' Call surface parking lot driveway to a point north of this station to improve pedestrian safety there.** Place the main Ports O' Call surface parking lot driveway opposite one of the driveways serving the proposed parking structure on the west side of Sampson Way. Within the Ports O' Call surface parking lots, provide clear pedestrian paths from the foot of the proposed pedestrian bridge.
Timing	During final design of Waterfront Red Car stations and/or Ports O'Call parking lot access, to be implemented during construction of the Waterfront Red Car stations and/or during the redevelopment of Ports O'Call, in conjunction with the bluff parking structures.
Methodology	The LAHD will design or will require the private developer chosen to design and implement redevelopment in Ports O'Call, to shift the location of the main Ports O' Call surface parking lot driveway to a point north of the station to improve pedestrian safety. The main Ports O' Call surface parking lot driveway will be designed opposite one of the driveways serving the proposed parking structure on the west side of Sampson Way. Within the Ports O' Call surface parking lots, clear pedestrian paths from the foot of the proposed pedestrian bridge will be provided.
Responsible Parties	LAHD Engineering
Residual Impacts for Impact TC-5c	Less than significant
ALTERNATIVE 1 All mitigation measures are the same as those shown above for the proposed Project except for the following.	
Impact TC-2a: Alternative 1 operations would increase traffic volumes and degrade LOS at intersections within the proposed project vicinity.	
Mitigation Measures	See Mitigation Measures MM TC-2 through MM TC-4, MM TC-6, and MM TC-8 through MM TC-13above.
Residual Impacts for Impact TC-2a	Significant and unavoidable
Impact TC-4: Alternative 1 operations would not result in a violation of the City's adopted parking policies and	

parking demand would not exceed supply.	
Mitigation Measures	See MM TC-15a, MM TC-15b, or MM TC-15c above.
Mitigation Measure	**MM TC-27. Increase capacity of parking supply associated with cruise terminals.** To provide secure, dedicated parking for the cruise terminals, increase the size of the parking structures serving the cruise terminals by 701 spaces.
Timing	During final design of parking lots and/or structures at the World Cruise Center.
Methodology	The LAHD will design parking at the World Cruise Center to accommodate additional spaces as required by City code and parking demand analyses (if Alternative 1 is selected).
Responsible Parties	LAHD Engineering
Residual Impacts for Impact TC-4	Less than significant
Impact TC-5a: The alignment of the Waterfront Red Car expansion for Alternative 1 would not increase potential conflict with vehicles at cross streets.	
Mitigation Measures	See MM TC-16, MM TC-17, MM TC-18, MM TC-19-a or MM TC-19-b, and MM TC-20 above.
Mitigation Measures	**MM TC-28. Signalize the proposed intersection of Crescent Avenue/Sampson Way**
Timing	During final design of Waterfront Red Car alignment, to be implemented during construction of the Waterfront Red Car alignment along Sampson Way (if Alternative 1 or 2 is selected)
Methodology	The LAHD will install a traffic signal at the intersection of Crescent Avenue and Sampson Way during the Sampson Way improvements.
Responsible Parties	LAHD Engineering
Residual Impacts for Impact TC-5a	Less than significant
ALTERNATIVE 2 All mitigation measures are the same as those shown above for the proposed Project except for the following.	
Impact TC-5a: The alignment of the Waterfront Red Car expansion for Alternative 2 would not increase potential conflict with vehicles at cross streets.	
Mitigation Measures	See MM TC-16, MM TC-17, MM TC-18, MM TC-19-a or MM TC-19-b, MM TC-20, MM TC-21, and MM TC-27 above.
Residual Impacts for Impact TC-5a	Less than significant
ALTERNATIVE 3 All mitigation measures are the same as those shown above for the proposed Project except for the following.	
Impact TC-2a: Alternative 3 operations would increase traffic volumes and degrade LOS at intersections within the proposed project vicinity.	
Mitigation Measures	See Mitigation Measures MM TC-2 through MM TC-4, MM TC-6, and MM TC-8 through MM TC-13above.
Residual Impacts for Impact TC-2a	Significant and unavoidable
Impact TC-4: Alternative 3 operations would not result in a violation of the City's adopted parking policies and	

parking demand would not exceed supply.	
Mitigation Measures	See MM TC-15a, MM TC-15b, or MM TC-15c above.
Mitigation Measure	**MM TC-29. Increase capacity of parking supply associated with cruise terminals.** To provide secure, dedicated parking for the cruise terminals, increase the size of the parking structures serving the cruise terminals by 649 spaces.
Timing	During final design of parking lots and/or structures at the World Cruise Center.
Methodology	The LAHD will design parking at the World Cruise Center to accommodate additional spaces as required by City code and parking demand analyses (if Alternative 3 is selected).
Responsible Parties	LAHD Engineering
Residual Impacts for Impact TC-4	Less than significant
ALTERNATIVE 4 All mitigation measures are the same as those shown above for the proposed Project except for the following.	
Impact TC-2a: Alternative 4 operations would increase traffic volumes and degrade LOS at intersections within the proposed project vicinity.	
Mitigation Measures	See Mitigation Measures MM TC-2 through MM TC-4, MM TC-6, MM TC-8 through MM TC-10, MM TC-12, and MM TC-13 above.
Residual Impacts for Impact TC-2a	Significant and unavoidable
Impact TC-4: Alternative 4 operations would not result in a violation of the City's adopted parking policies and parking demand would not exceed supply.	
Mitigation Measures	See MM TC-15a, MM TC-15b, or MM TC-15c above.
Mitigation Measure	**MM TC-30. Increase capacity of parking supply associated with cruise terminals.** To provide secure, dedicated parking for the cruise terminals, increase the size of the parking structures serving the cruise terminals by 162 spaces.
Timing	During final design of parking lots and/or structures at the World Cruise Center.
Methodology	The LAHD will design parking at the World Cruise Center to accommodate additional spaces as required by City code and parking demand analyses (if Alternative 4 is selected).
Responsible Parties	LAHD Engineering
Residual Impacts for Impact TC-4	Less than significant
ALTERNATIVE 5 All mitigation measures are the same as those shown above for the proposed Project except for the following.	
Impact TC-2a: Alternative 5 operations would increase traffic volumes and degrade LOS at intersections within the proposed project vicinity.	
Mitigation Measures	See Mitigation Measures MM TC-2 through MM TC-4, MM TC-6, MM TC-8 through MM TC-10, MM TC-12, and MM TC-13 above.
Residual Impacts for Impact TC-2a	Significant and unavoidable
Impact TC-4: Alternative 5 operations would not result in a violation of the City's adopted parking policies	

and parking demand would not exceed supply.	
Mitigation Measures	See MM TC-15a, MM TC-15b, or MM TC-15c above.
Mitigation Measure	**MM TC-31. Increase capacity of parking supply associated with cruise terminals.** To provide secure, dedicated parking for the cruise terminals, increase the size of the parking structures serving the cruise terminals by 176 spaces.
Timing	During final design of parking lots and/or structures at the World Cruise Center.
Methodology	The LAHD will design parking at the World Cruise Center to accommodate additional spaces as required by City code and parking demand analyses (if Alternative 5 is selected).
Responsible Parties	LAHD Engineering
Residual Impacts for Impact TC-4	Less than significant
ALTERNATIVE 6 No mitigation is required for any impacts associated with Alternative 6.	

3.11.5 Significant Unavoidable Impacts

The proposed Project and Alternatives 1 through 5 would increase traffic volumes and degrade level of services (LOS) at intersections within the proposed project vicinity. Mitigation Measures would be implemented to address intersection impacts identified through 2015 and 2037 (MM TC-2, MM TC-3, MM TC-4, MM TC-5, MM TC-6, MM TC-7, MM TC-8, MM TC-9, MM TC-10, MM TC-11, MM TC-12, MM TC-13, MM TC-14). Mitigation measures would fully mitigate some impacts to less-than-significant levels in 2015 and 2037, but for the remaining intersections, no feasible measures were identified that would fully mitigate the impact to less-than-significant levels due to existing physical constraints at those locations. Tables 3.11-47 and 3.11-48 show the significant and unavoidable impacts in 2015 and 2037 for CEQA and NEPA, respectively.

Table 3.11-48. Summary of Significant Unavoidable Impacts under CEQA

	Proposed Project		*Alt 1*		*Alt 2*		*Alt 3*		*Alt 4*		*Alt 5*	
Intersection	*2015*	*2037*	*2015*	*2037*	*2015*	*2037*	*2015*	*2037*	*2015*	*2037*	*2015*	*2037*
5. Gaffey Street/9th Street	X	X		X	X	X		X		X		X
6. Gaffey Street/7th Street		X				X						
8. Gaffey Street/5th Street		X		X		X						
9. Gaffey Street/1st Street	X	X	X	X	X	X	X	X	X	X	X	X

Intersection	*Proposed Project*		*Alt 1*		*Alt 2*		*Alt 3*		*Alt 4*		*Alt 5*	
	2015	*2037*	*2015*	*2037*	*2015*	*2037*	*2015*	*2037*	*2015*	*2037*	*2015*	*2037*
21. Harbor Boulevard/Miner Street/Crescent Avenue		X	X	X	X	X	X	X				
22. Harbor Boulevard/7th Street	X	X		X		X	X	X		X		X
23. Harbor Boulevard/6th Street						X						
24. Harbor Boulevard/5th Street		X				X						
25. Harbor Boulevard/1st Street		X				X						
27. Harbor Boulevard/SR-47 westbound on-ramp		X		X		X						
28. Harbor Boulevard/Gulch Road			X	X	X	X	X	X				

Table 3.11-49. Summary of Significant Unavoidable Impacts under NEPA

Intersection	*Proposed Project*		*Alt 1*		*Alt 2*		*Alt 3*	
	2015	*2037*	*2015*	*2037*	*2015*	*2037*	*2015*	*2037*
5. Gaffey Street/9th Street		X				X		
6. Gaffey Street/7th Street								
8. Gaffey Street/5th Street								
9. Gaffey Street/1st Street		X				X		
21. Harbor Boulevard/Miner Street/Crescent Avenue		X	X	X	X	X	X	X
22. Harbor Boulevard/7th Street	X	X		X		X	X	X
23. Harbor Boulevard/6th Street						X		
24. Harbor Boulevard/5th Street		X				X		
25. Harbor Boulevard/1st Street		X						

Intersection	*Proposed Project*		*Alt 1*		*Alt 2*		*Alt 3*	
	2015	*2037*	*2015*	*2037*	*2015*	*2037*	*2015*	*2037*
26. Harbor Boulevard/Swinford Street/SR-47 eastbound ramps		X				X		
27. Harbor Boulevard/SR-47 westbound on-ramp		X		X		X		X
28. Harbor Boulevard/Gulch Road			X	X	X	X	X	X
Note: There are no significant unavoidable NEPA impacts for Alternative 4								

The proposed Project, Alternative 1, and Alternative 2 would also result in significant unavoidable impacts under CEQA due to projected increases in traffic on neighborhood streets, specifically on West 17th Street between Centre and Palos Verdes, under 2015 and 2037 conditions. No feasible mitigation is identified to address these impacts. Short of the permanent closure of the affected street segment, which would not be acceptable since it serves adjacent land uses and carries substantial traffic volumes, no mitigation measures exist that would fully eliminate the addition of significant or adverse traffic volumes to this segment of 17th Street. No significant impacts to neighborhood streets would occur under CEQA for Alternatives 3 through 6, and no impacts would occur under NEPA.