3.10

TRANSPORTATION/CIRCULATION

3.10.1 Introduction

This section provides a summary of the ground transportation/circulation impact analysis for the proposed Berths 136-147 Container Terminal Project in the Port of Los Angeles. The transportation analysis of the proposed Project includes streets and intersections (17 key intersections) that would be used by truck and automobile traffic to gain access to and from the Berths 136-147 container terminal. In addition, the analysis includes the rail system on which a portion of the containers would be transported to and from the Berths 136-147 container terminal as part of the proposed Project (the remainder would be transported by truck). Also, the nearest freeway monitoring stations were assessed in conformance with Los Angeles County Transportation Authority Congestion Management Program guidelines. The technical traffic impact data are included in Appendix E. Project-related traffic would result in significant impacts by degrading the level of service (LOS) at some intersections to unacceptable levels. However, mitigation would reduce these impacts to less than significant.

3.10.2 Environmental Setting

3.10.2.1 Regional and Local Access

Access to the harbor area is provided by a network of freeways and arterial routes, as shown on Figure 3.10-1. The freeway network consists of the Harbor Freeway (I-110), the Long Beach Freeway (I-710), the San Diego Freeway (I-405), and the Terminal Island Freeway (SR-103, SR-47), while the arterial street network that serves the West Basin proposed Project area includes John S. Gibson Boulevard, Harry Bridges Boulevard, Figueroa Street, Alameda Street, Anaheim Street, Sepulveda Boulevard/Willow Street, Front Street, Harbor Boulevard, and Pacific Avenue.

The Harbor and Long Beach Freeways are north-south highways that extend from the port area to downtown Los Angeles. They each have six lanes in the vicinity of the harbor and widen to eight lanes to the north. The San Diego Freeway is an eight-lane freeway that passes through the Los Angeles region generally parallel to the coast. The Terminal Island Freeway is a short highway that extends from Terminal Island across the Heim Bridge and terminates at Willow Street approximately 245 m (800 feet) east of the Southern Pacific Intermodal Container Transfer Facility (ICTF). It is six lanes wide on the southern segment, narrowing to four lanes at Anaheim Street.

John S. Gibson Boulevard is a four-lane north-south street that runs adjacent to the Harbor Freeway along the western boundary of the West Basin Project site. It provides direct access to the Yang Ming container terminal at Berths 121-131 and Phase I of the China Shipping Terminal at Berths 97-109. John S. Gibson Boulevard becomes Pacific Avenue as the street continues south into San Pedro.

Front Street is a four-lane street that intersects with Pacific Avenue and curves around Knoll Hill adjacent to Berths 97-109. After Front Street passes under the Vincent Thomas Bridge approach, the street name changes to Harbor Boulevard, which continues south through San Pedro adjacent to the Los Angeles Harbor Main Channel.

Harry Bridges Boulevard is a four-lane east-west street that runs along the north side of the West Basin. It provides direct access to the container terminal at Berths 136-139 and provides access to Berths 142-147 via Neptune Avenue, which extends south from Harry Bridges Boulevard.

Figueroa Street is a four-lane street that extends north from the harbor area into Wilmington and Carson along the east side of the Harbor Freeway. The entrance to the TraPac Container Terminal is at the intersection of Figueroa Street and Harry Bridges Boulevard.

Alameda Street is a four-lane street that extends north from Harry Bridges Boulevard and serves as a key truck route between the harbor area and downtown Los Angeles. Ultimately, Alameda Street will be striped for six lanes over most of its length and there are grade separations at all major intersections south of SR-91. It was improved as part of the Alameda Corridor Transportation Corridor project.

Sepulveda Boulevard is a four-lane east-west street that passes through the City of Carson and then becomes Willow Street in the City of Long Beach. Sepulveda Boulevard/Willow Street provides direct access to the Union Pacific ICTF.

The transportation environmental setting for the proposed Project includes those streets and intersections that would be used by both automobile and truck traffic to gain access to and from the Berth 136-147 Terminal, as well as those streets that would be used by construction traffic (i.e., equipment and commuting workers). The streets most likely to be impacted by Project-related auto and truck traffic include the following: Harbor Boulevard, Front Street, John S. Gibson Boulevard, Harry Bridges Boulevard, Figueroa Street, Alameda Street, Anaheim Street, and Sepulveda Boulevard. Beyond these locations, the proposed Project would generate fewer than 43 project trips (thus falling below the City of Los Angeles threshold for analysis), or

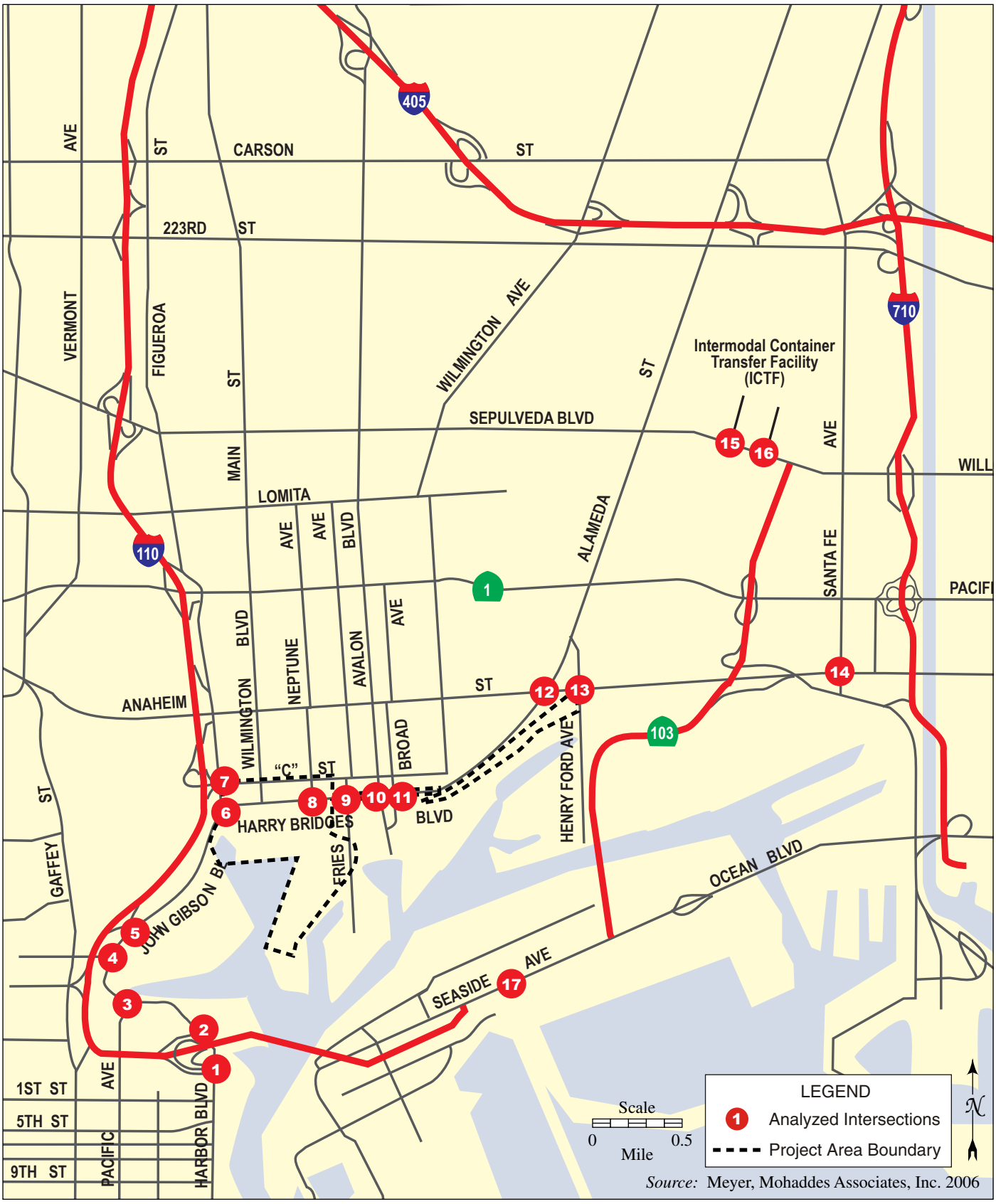

Figure 3.10-1. Study Intersections

in the case of Alameda Street, the downstream intersections are all grade separated (aligned at different heights such that they do not disrupt the flow of traffic on one another when they cross) and thus experience no traffic delays (i.e., the crossings at Pacific Coast Highway and Sepulveda Boulevard. The 17 study intersections include the following (see Figure 3.10-1 for illustration of study intersection locations):

- Figueroa Street/Harry Bridges Boulevard (#6)
- Avalon Boulevard and Harry Bridges Boulevard (#10)
- Alameda Street and Anaheim Street (#12)
- Henry Ford Avenue and Anaheim Street (#13)
- Harbor Boulevard and SR-47 WB On-Ramp (unsignalized) (#2)
- Harbor Boulevard and Swinford Street (#1)
- John S. Gibson Boulevard and I-110 Northbound Ramps (#5)
- Figueroa Street/"C" Street/I-110 Ramps (unsignalized) (#7)
- Pacific Avenue and Front Street (#3)
- Fries Avenue and Harry Bridges Boulevard (#9)
- Neptune Avenue and Harry Bridges Boulevard (#8)
- Intermodal Container Transfer Facility (ICTF) Driveway #1/Sepulveda Boulevard (#15)
- ICTF Driveway #2/Sepulveda Boulevard (#16)
- Santa Fe Avenue and Anaheim Street (#14)
- John S. Gibson Boulevard and Channel Street (#4)
- Broad Avenue and Harry Bridges Boulevard (#11)
- Navy Way and Seaside Avenue (#17)

The relationship of the proposed Project site to the regional transportation network is shown in Figure 3.10-1.

3.10.2.2 Existing Area Traffic Conditions

Existing truck and automobile traffic along study roadways and intersections, including automobiles, Port trucks, and other truck and regional traffic not related to the Port, was determined by taking peak period vehicle turning movement classification counts at all 17 study locations. A complete presentation of these data is in Appendix E. All traffic counts included truck and auto classifications. Traffic counts were conducted during the peak month in August 2002 from 7 A.M. to 9 A.M. and 4 P.M. to 6 P.M.

Since the baseline year for Port transportation analyses is 2003, the 2002 counts were factored to 2003 conditions using Twenty-foot Equivalent Unit (TEU) throughput data for the adjacent terminals that was provided by the Port. Those data included the

throughput for both 2002 and 2003 at the adjacent terminals at Berths 97-109, Berths 118-131 and Berths 136-147. An adjustment factor was used to factor the 2002 traffic to 2003 equivalent conditions. These data were used to establish the baseline 2003 traffic flow at all study locations.

For all roadway system analysis locations, the A.M. peak (8 to 9 A.M.) and P.M. peak (4 to 5 P.M.) hours have been assessed. Existing 2003 A.M. peak and P.M. peak hour traffic volumes are presented in Appendix E. The mid-day peak hour was not analyzed due to the fact that total traffic during the mid-day is less than the A.M. and P.M. peak hours; therefore the A.M. and P.M. peaks represent the worst case. Regional traffic occurring during the A.M. and P.M. peak hours is mainly due to commute trips, school trips and other background trips. While the peak hour for truck traffic occurs sometime during the mid-day (12-3 P.M.) period, greater levels of traffic occur during the A.M. and P.M. peak hours due to the greater level of regional auto traffic.

In Los Angeles, the Los Angeles Department of Transportation (LADOT) has adopted the use of the Critical Movement Analysis (CMA) method, as published in "Los Angeles Department of Transportation Traffic Study Policies and Procedures," (August 2003). The CMA value is used to assess the intersections level of service. Level of Service (LOS) is a qualitative indication of an intersection's operating conditions as represented by traffic congestion and delay and the volume/capacity (V/C) ratio. For signalized intersections, it is measured from LOS A (excellent conditions) to LOS F (very poor conditions), with LOS D (V/C of 0.90, fair conditions) typically considered to be the threshold of acceptability. The relationship between V/C ratio and LOS for signalized intersections is as follows:

Level of Service Criteria—Signalized Intersections

V/C Ratio	*LOS*	*Traffic Conditions*
0 to 0.60	A	Little or no delay/congestion
>0.601 to 0.70	B	Slight congestion/delay
>0.701 to 0.80	C	Moderate delay/congestion
>0.801 to 0.90	D	Significant delay/congestion
>0.901 to 1.00	E	Extreme congestion/delay
1.00 +	F	Intersection failure/gridlock

For signalized intersections, the LOS values were determined by using Critical Movement Analysis (CMA) methodology contained in the Transportation Research Board's (TRB) Circular No. 212 – Interim Materials on Highway Capacity. In addition, trucks use more roadway capacity than automobiles because of their size weight and acceleration capabilities compared to autos. The concept of Passenger Car Equivalent (PCE) is used in the study to adjust for the effect of trucks in the traffic stream. PCE is defined as the amount of capacity in terms of passenger cars used by a single heavy vehicle of a particular type under specified roadway, traffic, and control conditions. A PCE factor of 1.1 was applied to tractors, 2.0 was applied to chassis, and 2.0 was applied to the container truck volumes for the LOS calculations. These factors are consistent with factors applied in previous port studies including the *Draft Port of Los Angeles*

Baseline Transportation Study (*Baseline Transportation Study*) and subsequent work conducted for the on-going Port of Los Angeles Roadway Master Plan (POLA 2003). Many of the methodologies employed in this Draft EIS/EIR technical traffic analysis are based on, and consistent with, the methodologies developed for the *Baseline Transportation Study*. This includes a computerized traffic analysis tool called the Port Area Travel Demand Model (hereinafter referred to as Port Travel Demand Model or the model), the trip generation methodology and the intersection analysis methodologies. However, the *Baseline Transportation Study* was not conducted specifically for this proposed Project, and the precise assumptions and figures used in preparation of this Draft EIS/EIR are project-specific.

Stop-controlled intersections (i.e., intersections controlled by stop signs) were analyzed using methodologies contained in TRB's Highway Capacity Manual in which LOS is based on average vehicular delay (Transportation Research Board 2000). The relationship between delay and LOS is as follows, for stop-controlled intersections (two-way and multi-way stops):

Level of Service Criteria—Stop Controlled Intersections

Level of Service (LOS)	*Average Control Delay (seconds/vehicle)*
A	0 – 10.0
B	>10.0 – 15.0
C	>15.0 – 25.0
D	>25.0 – 35.0
E	>35.0 – 50.0
F	>50.0

Freeway segments were analyzed in compliance with the County of Los Angeles Congestion Management Program (CMP). The Congestion Management Program is the official source of data for regional coordination of traffic studies in the County of Los Angeles. The CMP uses the demand-to-capacity (D/C) ratio to determine LOS. The relationship between the D/C ratio and LOS for freeway segments per the CMP is as follows:

Freeway Level of Service Criteria

Freeway Level of Service (LOS)	*Demand/Capacity Ratio*
A	0.01-0.35
B	0.36-0.54
C	0.55-0.77
D	0.78-0.93
E	0.94-1.00
F	>1.00

Based on peak-hour traffic volumes, V/C ratios, and average intersection delays, the corresponding LOS has been determined and is summarized in Table 3.10-1. The

data in the table indicate that all of the existing study intersections currently operate at LOS C or better during the peak hours, with the exception of the intersection of Harbor Boulevard/Swinford Street/SR-47 Ramps, which operates at LOS E during the P.M. peak hour. This location (Harbor Boulevard/Swinford Street/SR-47 Ramps) has also been observed to operate at LOS F at other times, including some weekends and midday weekdays when vehicle flows peak as a result of container terminal activity, cruise ship terminal activity, and general San Pedro activity.

Table 3.10-1. Port of Los Angeles West Basin Terminals Existing Intersection Level of Service Analysis

Study Intersection	*Existing 2003*			
	A.M. PEAK HOUR		P.M. PEAK HOUR	
	LOS	V/C or Delay	LOS	V/C or Delay
Figueroa Street and Harry Bridges Blvd	A	0.402	A	0.442
Avalon Boulevard and Harry Bridges Blvd	A	0.297	A	0.399
Alameda Street and Anaheim Street	B	0.633	A	0.563
Henry Ford Avenue and Anaheim Street	A	0.525	A	0.573
Harbor Blvd and SR-47 WB On-Ramp (a)	A	9.6	B	10.5
Harbor Blvd and Swinford Street/SR-47 Ramps	A	0.599	E	0.962
John S. Gibson Blvd and I-110 NB Ramps	A	0.492	A	0.413
Figueroa Street/"C"-Street/I-110 Ramps (b)	B	12.2	C	18.7
Pacific Avenue and Front Street	A	0.511	A	0.445
Fries Avenue and Harry Bridges Blvd	A	0.287	A	0.375
Neptune Avenue and Harry Bridges Blvd	A	0.207	A	0.315
ICTF Driveway #1 and Sepulveda Blvd	A	0.342	A	0.565
ICTF Driveway #2 and Sepulveda Blvd	A	0.388	A	0.436
Santa Fe Avenue and Anaheim Street	A	0.379	A	0.495
John S. Gibson Blvd and Channel Street	A	0.568	B	0.663
Broad Avenue and Harry Bridges Blvd	A	0.235	A	0.316
Navy Way and Seaside Avenue	A	0.534	B	0.603

Notes:

(a) unsignalized intersection

(b) all-way stop-controlled intersection

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

3.10.2.3 Existing Transit Service

Two transit agencies provide service around the proposed Project site in the Wilmington/San Pedro area, the Metropolitan Transportation Authority (MTA) and the Municipal Area Express (MAX). Together, the two transit agencies operate five transit routes within and/or near the proposed Project as follows:

- **MTA Transit Line 445 (San Pedro-Artesia Transit Center-Patsaouras Transit Plaza/Union Station Express).** MTA Transit Line 445 provides express bus service from Downtown Los Angeles to San Pedro via Harbor Freeway. Line 445 starts at Patsaouras Transit Plaza/Union Station in Downtown Los Angeles and travels south to its final destination in San Pedro at Pacific and 21st Street. Days of operation are Monday through Sunday, including all major holidays. The A.M. and P.M. peak period headway ranges between 30-51 minutes and 39-50 minutes, respectively. Saturday mid-day peak period is 1 hour.
- **MTA Transit Line 446 (San Pedro-Pacific Avenue-Wilmington-Carson-Patsaouras Transit Plaza/Union Station Express)**. MTA Transit Line 446 provides express bus service from Downtown Los Angeles to San Pedro via Harbor Freeway, Avalon Boulevard, and Pacific Avenue. Line 446 starts at Patsaouras Transit Plaza in Downtown Los Angeles and travels south to its final destination at the Korean Bell Site. Days of operation are Monday through Sunday, including all major holidays. A.M. and P.M. peak period headway is approximately 1 hour and between 1 hour and 1 hour and 15 minutes, respectively. Saturday mid-day peak period headway is 1 hour.
- **MTA Transit Line 447 (San Pedro-7th Street-Wilmington-Carson-Patsaouras Transit Plaza/Union Station Express)**. MTA Transit Line 447 provides express bus service from Downtown Los Angeles to San Pedro via Harbor Freeway, Avalon Boulevard, Harbor Boulevard and 7th Street. Line 447 starts at Patsaouras Transit Plaza in Downtown Los Angeles and travels south to its final destination at 7th Street and Patton Avenue. Days of operation are Monday through Sunday, including all major holidays. A.M. and P.M. peak period headway is approximately 1 hour and between 1 hour and 1 hour and 15 minutes, respectively. Saturday mid-day peak period headway is 1 hour.
- **MTA Transit Line 202 (Willowbrook-Compton-Wilmington)**. MTA Transit Line 202 is a north-south local service that travels from Wilmington to Willowbrook. Although Line 202 does not travel through the Proposed Project site, its final destination at Avalon and D Street falls slightly north of Harry Bridges Boulevard, the Project site's northern most boundary. Days of operation are Monday through Friday, including all major holidays. A.M. and P.M. peak period headway is approximately 1 hour.
- **Municipal Area Express MX 3X (San Pedro-El Segundo Freeway Express)**. MX 3X is a commuter bus service designed to address the commuting needs of South Bay residents who work in the El Segundo employment district. Line 3X is a special freeway express route that operates directly from San Pedro to El Segundo, starting at Pacific Crest near the USAF housing and ending at South La Cienega Boulevard near the Airport Courthouse. Days of operation are

Monday through Friday only, excluding major holidays. A.M./P.M. peak period does not apply because there is only one bus.

3.10.3 Impacts and Mitigation Measures

3.10.3.1 Methodology

Impacts were assessed by quantifying differences between baseline conditions and future conditions under the proposed Project and the other alternatives. Future Project-related traffic conditions for the years 2015 and 2038 were estimated by adding traffic due to proposed local development projects, regional traffic growth, and traffic increases resulting from Port terminal throughput growth plus the proposed Project. Baseline conditions include baseline year 2003 traffic volumes plus other growth not related to the proposed Project (i.e., traffic due to proposed local development projects, regional traffic growth, and traffic increases resulting from Port terminal throughput growth) and includes no growth in the Berths 136-147 area. Local traffic growth was forecast based on a computerized traffic analysis tool known as the Port of Los Angeles Travel Demand Model, which includes traffic growth for the port and the local area. The Port Travel Demand Model was originally developed for the *Ports of Long Beach and Los Angeles Transportation Study*[1] and was subsequently revised and updated for several efforts including the *Port of Los Angeles Baseline Transportation Study* and the on-going *Port of Los Angeles Roadway Study*. The model is a tool that is based on the Southern California Association of Governments' (SCAG) Regional Travel Demand Forecasting Model. Elements of the SCAG Heavy Duty Truck (HDT) model were used, as well as input data from the City of Long Beach model and the City of Los Angeles Transportation Improvement Mitigation Program (TIMP) models for Wilmington and San Pedro. TRANPLAN is the software platform used for modeling. The Port Travel Demand Model data is owned by the Port and housed and operated at consultant offices.

The SCAG Regional Model, which was developed originally from the Caltrans LARTS model, is the basis and "parent" of most sub-regional models in the southern California five-county region, comprised of Ventura, Los Angeles, Orange, San Bernardino, and Riverside counties. At the regional level, this model has the most comprehensive and up to date regional data –for both existing and future conditions- on housing, population, employment, and other socio-economic input variables used to develop regional travel demand forecasts. The model has over 2000 zones and a complete network of regional transportation infrastructure, including over 1,000 miles of freeways and over 7,000 miles of major, primary, and secondary arterials.

For purposes of sub-regional transportation analysis (such as at the Port), the SCAG Regional Model provides the most comprehensive and dynamic tool to forecast the magnitude of trips and distribution of travel patterns anywhere in the region. However, by virtue of its design and function, the SCAG Regional Model is not (and cannot be) very detailed and precise in any specific area of the region. This is also

[1] Ports of Long Beach and Los Angeles Transportation Study, Ports of Long Beach and Los Angeles, June 2001, Long Beach, California

the case in the Ports of Long Beach and Los Angeles focus area. Therefore, the Port Travel Demand Model has been comprehensively updated and detailed in the Port focus area

The SCAG Regional Heavy Duty Truck (HDT) model is developed as an adjunct component to the SCAG Regional Travel Demand Model. The HDT model develops explicit forecasts for heavy duty vehicles with a gross vehicle weight (GVW) of 8,500 pounds and higher. The HDT model includes trip generation, trip distribution and network traffic assignment modules for heavy duty trucks stratified by three heavy duty truck gross vehicle weight classifications, as follows:

- Light-Heavy-- 8,500 to 14,000 GVW
- Medium-Heavy-- 14,000 to 30,000 GVW
- Heavy-Heavy-- over 30,000 GVW

The HDT Model utilizes the SCAG Regional Model network for its traffic assignment process without major refinements and additions to the network. However, several network modifications are implemented including: link capacity enhancements, truck prohibitions, and incorporation of truck Passenger Car Equivalent (PCE) factors. All of these were carried forward into the Port Travel Demand Model focus area. The presence of vehicles other than passenger cars in the traffic stream affects traffic flow in two ways: (1) these vehicles, which are much larger than passenger cars, occupy more roadway space (and capacity) than individual passenger cars, (2) the operational capabilities of these vehicles, including acceleration, deceleration and maintenance of speed, are generally inferior to passenger cars and result in formation of large gaps in the Traffic stream that reduce the highway capacity. On long, sustained grades, and segments with impaired capacities, where trucks operate considerably slower, formation of these large gaps can have a profound impact on the traffic stream. The Port Travel Demand Model takes all of these factors into account. The SCAG model is owned, developed and housed at SCAG offices, and is used by agencies and consultants for sub-regional planning work, such as for the Port EIR studies.

The Port Travel Demand Model was used to generate growth factors that account for related projects in the vicinity of Berths 136-147. The model also includes numerous other related projects in Long Beach and throughout the region. Table 3.10-2 lists those related projects in the vicinity of Berths 136-147, such as projects in Wilmington, San Pedro and Harbor City. Other related projects located farther away from Berths 136-147 are represented in the model via socioeconomic data including population, housing and employment, but are not listed in the table since their resulting trips will not travel on the study area roadway system or study intersections and would be limited to the freeway system. Table 3.10-2 summarizes the related proposed Project trip generation forecasts, which apply for both the 2015 and 2038 analyses.

Table 3.10-2. Related Proposed Project Trip Generation

No.	Element	Location	A.M. Peak Trips			P.M. Peak Trips			Daily
			IN	OUT	TOTAL	IN	OUT	TOTAL	TOTAL
1	Cabrillo Marina (1)	Miner St /22nd St	73	58	131	138	124	262	3,867
2	Carnival Cruise Terminal - Relocation (2)	Harbor Blvd /Swinford St	152	152	304	51	48	99	2,627
2A	Carnival Cruise Terminal - Removal (2)	Harbor Blvd /Swinford St	(152)	(152)	(304)	(51)	(48)	(99)	(2,627)
3	Fisherman's Village & Day Cruises - Relocation								
	- High-Turnover Restaurant (3)		67	62	129	228	152	380	9,124
	- Day Cruise Ships (4)		39	0	39	37	132	169	531
	- Remove Ex. Rio Doce Pasha (5)		(7)	(11)	(18)	(8)	(9)	(17)	(203)
	Net New Trips		99	51	150	257	275	532	9,452
3A	Fisherman's Village & Day Cruises - Removal								
	- High-Turnover Restaurant (3)		(67)	(62)	(129)	(228)	(152)	(380)	(9,124)
	- Day Cruise Ships (4)		(39)	0	(39)	(37)	(132)	(169)	(531)
	Net New Trips		(106)	(62)	(168)	(265)	(284)	(549)	(9,655)
4	Pacific Corridor Redevelopment Project (6)								
	- Commercial /Retail (7)		378	242	620	1,081	1,171	2,252	25,836
	- Manufacturing		126	38	164	60	106	166	854
	- Residential		113	591	704	573	282	855	9,149
	Net New Trips		524	740	1,264	1,456	1,325	2,781	30,463
5	Night Club /Sports Bar		14	7	21	181	85	266	932
6	Mt. Sinai Missionary Baptist Church	Mesa St /2nd St	30	30	60	37	26	63	374
7	Regal Theater (8)		0	0	0	51	38	89	153
8	Gas Station & Minimart (9)	Gaffey St /Sepulveda St	61	61	122	81	81	162	1,953
9	15th Street Elementary School - San Pedro		51	36	87	36	42	78	306
10	Pedestrian Promenade		NEGLIGIBLE TRIPS						
11	Fishing Reef		NEGLIGIBLE TRIPS						
12	Cabrillo Beach Aquarium Expansion		NEGLIGIBLE TRIPS						
13	Mini Mall (9)	Wilmington Blvd /Anaheim St	95	60	155	46	50	96	1,430
14	Bakery /Restaurant (9)	Wilmington Blvd /Anaheim St	149	155	304	114	94	208	3,084
15	Gas Station with Market (9)	Fries Ave /Anaheim St	20	20	40	24	24	48	579

Table 3.10-2. Related Proposed Project Trip Generation (continued)

No.	Element	Location	A.M. Peak Trips			P.M. Peak Trips			Daily
			In	Out	Total	In	Out	Total	Total
16	Warehouse /Distribution (9)	L St /McFarland Ave	72	50	122	9	102	111	1,330
17	Fast Food Restaurant with Drive-Thru (9)	Gaffey St /3rd St	54	54	108	42	42	84	910
18	5,000 SF Retail & 87 DU Apartment (10)	7th St /Mesa St	26	26	52	43	43	86	871
19	Pacific Trade Center (10)	5th St /Center St	33	33	66	43	43	86	1,459
20	Port Police Station & Charter School (10)	5th St /Center St	422	422	844	136	136	272	3,583
21	135 Single Family Homes (10)	Gaffey St /Basin St	51	51	102	68	68	136	1,292
22	72 Condos & 7,000 SF Retail (10)	8th St /Center St	20	20	40	32	32	64	723
23	Target (10)	Gaffey St /Capitol Dr	75	75	150	197	197	394	5,610
24	Palos Verdes Urban Village (10)	Palos Verdes St /5th St	39	39	78	23	23	46	561
25	Wilmington Waterfront	Harry Bridges Blvd/Avalon Blvd	81	51	132	327	251	578	6,188
26	Yang Ming Container Terminal								
	- Year 2015		252	111	363	206	302	508	5,020
	- Year 2038*		143	109	252	119	181	300	3,749
27	China Shipping Container Terminal								
	- Year 2015		262	115	377	214	314	528	5,215
	- Year 2038*		190	145	335	157	241	398	4,982
Total Net New Trips (Year 2015):			2,397	2,203	4,600	3,496	3,433	6,929	75,700
Total Net New Trips (Year 2038*):			2,216	2,231	4,447	3,352	3,239	6,591	74,196

Notes:

(1) Based on data from "Traffic Study for Cabrillo Marina Phase II" for Port of Los Angeles (Kaku Associates, November 2002), page 26.

(2) Based on data from "Traffic and Parking Study for the Carnival Cruise Passenger Terminal" for the Port of Long Beach (Kaku Associates, July 2000), page 23.

(3) Based on field observations at this location, AM weekday trips were assumed to be 20% of the ITE rate and PM weekday trips were assumed to be 50% of the ITE rate.

(4) Based on an assumed typical operating scenario.

(5) Peak hour rates based on percentage of peak hour to daily of LU 030 (Truck Terminal)

(6) Based on data from "Pacific Corridor Redevelopment Project, Final EIR, Appendix F for the City of LA (Meyer, Mohaddes Associates, November 2001). The net new trips reflect a 15% reduction in trips due to local "linked" trip estimates.

(7) ITE Trip Generation, 6th Edition, Rates for AM Peak Hour estimated based on proportions in the data on Shopping Centers (ITE LU 820). Pass-by trips were assumed to be 25% of all retail commercial trips.

(8) Theater is to be 2,714 s.f. This size supports the assumption of a single screen auditorium.

(9) Data provided by LADOT, September 2002, August 2003.

(10) Data provided by LADOT, April 2007.

* Maximized at Year 2025

3.10.3.1.1 CEQA Baseline

Section 15125 of the CEQA Guidelines requires EIRs to include a description of the physical environmental conditions in the vicinity of a project that exist at the time of the Notice of Preparation (NOP). These environmental conditions would normally constitute the baseline physical conditions by which the CEQA lead agency determines whether an impact is significant. For purposes of this Draft EIS/EIR, the CEQA Baseline for determining the significance of potential impacts under CEQA is December 2003. CEQA Baseline conditions are described in Table 2-2 of Section 2.4.

The CEQA Baseline represents the setting at a fixed point in time, with no project growth over time, and differs from the "No Project" Alternative (discussed in Section 2.5.1) in that the No Project Alternative addresses what is likely to happen at the site over time, starting from the baseline conditions. The No Project Alternative allows for growth at the proposed Project site that would occur without any required additional approvals.

In compliance with CEQA, the CEQA Baseline, defined as year 2003 traffic volumes plus non-Project traffic growth, was compared against the proposed Project conditions for the horizon years. The impact using this methodology accounts for the proposed Project itself as well as regional traffic growth, proposed local development projects, and traffic increases resulting from Port terminal throughput growth that is not attributable to the proposed Project.

This impact section also includes an analysis of project impacts using a CEQA baseline that does not include regional growth (section 3.10.5). As discussed in Section 3.10.5, all impacts using a CEQA baseline that does not include regional growth does not result in significant impacts when compared to the proposed Project or Alternatives. Therefore, Project significance and mitigation is determined using the analysis as presented in Section 3.10.1, which compares the CEQA baseline including regional growth to the proposed Project and Alternatives.

3.10.3.1.2 No Federal Action/NEPA Baseline

For purposes of this Draft EIS/EIR, the evaluation of significance under NEPA is defined by comparing the proposed Project or other alternative to the No Federal Action scenario. The No Federal Action/NEPA Baseline condition for determining significance of impacts coincides with the "No Federal Action" condition, which is defined by examining the full range of construction and operational activities the applicant could implement and is likely to implement absent permits from the USACE. Therefore, the No Federal Action/NEPA Baseline would not include any dredging, filling of the Northwest Slip, wharf construction or upgrades, or crane replacement. The No Federal Action/NEPA Baseline would include construction and operation of all upland elements (existing lands) for backlands or other purposes. The upland elements are assumed to include:

- Adding 57 acres or existing land for backland area and an on-dock rail yard;
- Constructing a 500-space parking lot for union workers;

- Demolishing the existing administration building and constructing a new LEED certified administration building and other terminal buildings;
- Adding new lighting and replacing existing lighting, fencing, paving, and utilities on the backlands;
- Relocating the Pier A rail yard and constructing the new on-dock rail yard;
- Widening and realigning Harry Bridges Boulevard; and
- Developing the Harry Bridges Buffer Area.

Unlike the CEQA Baseline, which is defined by conditions at a point in time, the No Federal Action/NEPA Baseline is not bound by statute to a "flat" or "no growth" scenario; therefore, the USACE may project increases in operations over the life of a project to properly analyze the No Federal Action/NEPA Baseline condition. Normally, any ultimate permit decision would focus on direct impacts to the aquatic environment, as well as indirect and cumulative impacts in the uplands determined to be within the scope of federal control and responsibility. Significance of the proposed Project or alternative is defined by comparing the proposed Project or alternative to the No Federal Action/NEPA Baseline (i.e., the increment). The No Federal Action/NEPA Baseline conditions are described in Table 2-2 of Section 2.4.

The No Federal Action/NEPA Baseline also differs from the "No Project" Alternative, where the Port would take no further action to construct and develop additional backlands (other than the 176 acres that currently exist). Under this alternative, no construction impacts would occur. However, forecasted increases in cargo throughput would still occur as greater operational efficiencies are made.

3.10.3.1.3 Background Ambient (not Proposed Project-related) Traffic Growth

Regional background (ambient) traffic growth was estimated using data from the Port Travel Demand Model (described in section 3.10.3.1), which covers related proposed Project traffic growth, as shown in Table 3.10-2. Background traffic growth occurs as a result of regional growth in employment, population, schools and other activities. To determine the appropriate growth rates, the growth in non-port trips was determined using data from the Southern California Association of Governments (SCAG). SCAG forecast data for 2015 was compared to existing data. It should be noted that most of the related projects, including the San Pedro Waterfront and Promenade Project, are covered by the growth forecasts of the Port Travel Demand Model. Other projects are not included in the SCAG Regional Travel Demand Forecasting Model and were thus separately accounted for in the local area mode. All Ports of Long Beach and Los Angeles container and non-container terminal traffic growth are included in the Port Travel Demand Model.

The background future traffic volumes (which account for cumulative growth) are developed based on the Port Travel Demand Model traffic growth and the 2003 traffic volume data. This determines the 2015 future traffic condition.

Regional background (ambient) traffic growth for year 2038 was estimated using data from the 2004 Los Angeles County Congestion Management Program. The Port

Travel Demand Model is used to forecast traffic to 2030. Based on the Los Angeles County Congestion Management Program, ambient background traffic growth was forecasted out to year 2038 (LACMTA 2004). To determine the appropriate growth rate between 2030 and 2038, approximate regional background growth was estimated using non-port trips based on available data from prior years (0.64 percent a year) from the Los Angeles County Congestion Management Program.

According to current Port cargo throughput projections, most Port cargo terminals would reach capacity in 2025 even with assumed terminal improvements (see Section 1.1.3). Therefore, throughout this EIR/EIS overall Port growth is assumed to remain static between 2030 and 2038. Project-related trip generation is also assumed to remain static from 2030 to 2038.

3.10.3.1.4 Proposed Project Related Trip Generation

Traffic growth related to the proposed Project was developed using the "QuickTrip" truck generation model. QuickTrip is a spreadsheet truck trip generation model that was developed for the *Ports of Long Beach and Los Angeles Transportation Study*. QuickTrip estimates terminal truck flows by hour of the day based on Twenty-foot Equivalent Units (TEUs) throughput and using assumed terminal operating parameters. The QuickTrip model was run and tested against the gate data (gate counts and historical gate data from the terminals). These data (TEU per container ratio, monthly TEU throughput, mode split, hours of operation, dual move percentage, worker shift splits and peaking factors) were input into QuickTrip for each terminal. QuickTrip was validated by comparing estimates of gate activity to actual gate counts conducted in the field. The results of the validation exercise indicate that the QuickTrip model is able to estimate truck movements by day and peak hour within 2 to 10 percent of actual counts for all terminals combined (both directions combined), depending on which peak hour is modeled.

Each of the analysis years was defined by changing operating parameters as follows: increased weekend activity; expanded terminal operating hours (more second shift and hoot [night-time] shift activity); increased on-dock rail use; and increased dual transactions within the terminal. These operating parameters affect the amount of truck traffic generated by the terminals to their estimated maximum capacity. Since cargo volume (throughput) would increase over the years, terminals would be forced to change their operations to accommodate the increase in containers. These operational changes have already started to occur in response to increased cargo volume. For example, hoot shift activity has increased in reaction to the Pier-Pass program, which has shifted gate activity to non-peak hours. It should be noted that increased throughput does not directly translate into increased truck trips proportionately due to the different terminal operating parameters over the years.

3.10.3.1.5 Proposed Project Transportation Improvements

The Port is currently planning a number of transportation projects slated for the West Basin area including improvements to freeway ramp/arterial interchanges along SR-47 and I-110. These projects were developed as part of the ongoing *Port of Los Angeles Roadway Transportation Study* (*Roadway Study*). The *Roadway Study* has

not been finalized, but several of the transportation projects contained in the study have been reviewed by Caltrans. Caltrans is the agency that owns, operates and controls these transportation facilities. Thus, implementation of any improvements at those locations must be approved by Caltrans before they can proceed. A major project development milestone is called the Project Study Report (PSR) which outlines the need for the proposed Project, describes the project components, analyzes the project and assesses project alternatives. After approval of the PSR, the proposed Project is considered to be approved by Caltrans for purposes of proceeding to the development of geometric plans, right-of-way maps, environmental studies and then construction. All of the noted projects have been taken through the Project Study Report (PSR) process and the PSR documents were approved by Caltrans. Additionally, funds have been earmarked for these Projects. The remaining steps to implementation of the projects include preparation of engineering plans, environmental documentation, funding and construction. Because these projects have been approved by Caltrans through the PSR process, are planned to be environmentally cleared via the use of a Negative Declaration, and have committed funding, they are reasonably foreseeable projects and are therefore included in the EIS/EIR transportation analysis as related projects and assumed to be in place during the proposed Project's out years.

The related transportation projects include:

- **Figueroa Street/"C" Street Interchange.** The "C"-Street/Figueroa Street interchange would reconfigure the northbound off-ramp to directly access Harry Bridges Blvd, modify the northbound on-ramp, realign Harry Bridges Blvd at this location, and combine the I-110 Ramps/C Street/Figueroa Ste intersection and the John S. Gibson Blvd./Harry Bridges Blvd. intersections. Horizon year for completion is 2015.
- **South Wilmington Grade Separation.** An elevated grade separation would be constructed along a portion of Fries Avenue, over the existing rail line tracks, to eliminate vehicular traffic delays that would otherwise be caused by trains using the existing rail line and the new ICTF rail yard. The elevated grade would include a connection onto Water Street. There would be a minimum 24.5-foot clearance for rail cars traveling under the grade separation.
- **John S. Gibson Boulevard Intersection at I-110 Ramps.** This transportation improvement would widen the I-110 on-ramp from John S. Gibson Boulevard, and widen John S. Gibson Boulevard at its intersection with the I-110 ramps. An additional left turn lane along southbound John S. Gibson Boulevard at the Yang Ming Terminal entrance would also be provided as well as some striping modifications. Widening of the John S. Gibson Boulevard Intersection at I-110 Ramps would utilize adjacent Port and City property. Horizon year for completion is 2015.
- **Additional Lane for SR-47 to Northbound I-110 Transition.** The existing ramp connecting westbound SR-47 to northbound I-110 would be widened by 1 lane to the north to the John S. Gibson Blvd. Off-Ramp. The new lane would be at grade consistent with the existing ramp. The widening would occur on state property. Horizon year for completion is 2015.

- **Widening of SR-47/Harbor Boulevard Off-Ramp and Additional Right Turn Lane**. The approach of the existing off-ramp from eastbound SR-47 to Harbor Boulevard would be widened to the south to accommodate an additional right turn lane. The approach would be restriped. This project would utilize state right-of-way. Horizon year for completion is 2015.
- **Additional Left Turn Lane on Harbor Boulevard to Eastbound SR-47.** Harbor Boulevard would be widened at its intersection with Swinford Street to accommodate an additional northbound left turn lane from Harbor Boulevard to the existing eastbound SR-47 on-ramp. The widening would occur on Port, Caltrans, or City property and the roadway would be re-striped. Horizon year for completion is 2015.
- **Widening of Harbor Boulevard between Swinford Street and I-110 Northbound On-Ramp.** Harbor Boulevard between Swinford Street and the northbound I-110 on-ramp would be widened to accommodate an additional left turn lane for the I-110 northbound ramp and a new traffic signal installed. The widening would occur on Port or City property and the roadway would be restriped. Horizon year for completion is 2015.

3.10.3.1.6 Harry Bridges Buffer Area

A buffer area will be constructed along Harry Bridges Boulevard north of the proposed Project site. This will result in the closure of several streets intersecting Harry Bridges Boulevard. Project trips would not use the streets that would be closed, thus there would be no impact on traffic related to the proposed Project due to the buffer area and associated street closures. An analysis of the buffer area and street closures was conducted by Kaku Associates in January 2006[2]. The analysis results indicate no circulation related problems or impacts associated with the street closures.

3.10.3.2 Thresholds of Significance

A project or action in the Los Angeles Harbor 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 excerpted from the *City of Los Angeles CEQA Thresholds Guide* (City of Los Angeles 2006) and other criteria applied to Port projects.

TRANS-1 Short-term impacts to streets may occur during proposed Project construction. In the absence of specific criteria for construction impacts from LADOT, the same significant impact thresholds for intersections during operations are also applied for the construction period. Thus, a project would have a significant impact under CEQA or an adverse impact under NEPA on transportation/circulation during construction if it would increase an intersection's V/C ratio in accordance with the following guidelines:

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[2] Memorandum from Kaku Associates entitled "Traffic Circulation and Parking Assessment, Wilmington Waterfront Development Master Plan", January 2006

- V/C ratio increase greater than or equal to 0.040 if final LOS is C,
- V/C ratio increase greater than or equal to 0.020 if final LOS is D, or
- V/C ratio increase greater than or equal to 0.010 if final LOS is E or F.

TRANS-2 A project would have a significant impact under CEQA or an adverse impact under NEPA on transportation/circulation upon operation of the project if it would increase an intersection's V/C ratio in accordance with the following guidelines:

- V/C ratio increase greater than or equal to 0.040 if final LOS is C,
- V/C ratio increase greater than or equal to 0.020 if final LOS is D, or
- V/C ratio increase greater than or equal to 0.010 if final LOS is E or F.
- If an unsignalized intersection is projected to operate at LOS C, D, E or F, the intersection was re-analyzed using the signalized intersection methodology to determine the significance of impacts using the sliding scale criteria described above per L.A. CEQA Thresholds Guide.

TRANS-3 Additional demand on local transit services may occur due to project operation. However, LADOT does not have any established thresholds to determine significance of transit system impacts. The project would have an impact on local transit services if it would increase demand beyond the supply of such services anticipated at Project Build-out.

TRANS-4 According to the Congestion Management Plan (CMP), Traffic Impact Analysis Guidelines, an increase of 0.02 or more in the demand-to-capacity (D/C) ratio with a resulting LOS F at a CMP arterial monitoring station is deemed a significant impact. This applies only if the project meets the minimum CMP threshold for analysis, which are 50 trips at a CMP intersection and 150 trips on a freeway segment.

TRANS-5 An increase in rail activity could cause delays to motorists at the affected at-grade crossings where additional project trains would cross and/or where the project would result in additional vehicular traffic flow. The project is considered to have a significant impact at the affected at-grade crossings if the average vehicle control delay caused by the project at the crossing would exceed the Highway Capacity Manual (HCM) threshold for level of service E at a signalized intersection, which is 55 seconds of average vehicle delay.[3] The Highway Capacity Manual is the national standard for the measurement of highway and intersection capacity and levels of service.

[3] Highway Capacity Manual 2000, Transportation Research Board, National research council, Washington, D.C., 2000, p 16-6, Exhibit 16-2.

3.10.3.3 Impacts and Mitigation

3.10.3.3.1 Proposed Project

3.10.3.3.1.1 Construction Impacts

Impact TRANS-1: Construction would result in a short-term, temporary increase in truck and auto traffic.

CEQA Impact Determination

There would be temporary impacts on the study area roadway system during construction of the proposed Project because the construction activities would generate vehicular traffic associated with construction workers' vehicles and trucks delivering equipment and fill material to the site. This site-generated traffic would result in increased traffic volumes on the study area roadways for the duration of the construction period, which would span a period of 2 to 3 years for the various project components.

The average levels of traffic generated by the construction activities and hours of construction operation have been estimated for each component of the proposed Project, as shown below. The construction schedule and traffic levels have been estimated based on a number of similar construction projects at the Port of Los Angeles. These construction estimates are based on information contained in the Draft West basin EIR Transportation and Circulation section which are in turn based on construction phasing estimates, construction worker needs, truck traffic estimates by type, grading quantity estimates, materials quantity estimates and other construction quantity estimates for a typical container terminal project.

- **Construction Traffic**
  - Berths 136-139
    - Auto Trips per Day: 50
    - Truck Trips per Day: 50
    - Total Daily Traffic: 100
  - Berths 142-147
    - Auto Trips per Day: 100
    - Truck Trips per Day: 100
    - Total Daily Traffic: 200
- **Hours of Construction Operation**
  - Monday through Friday: 7:00 AM to 5:00 PM
  - Saturday: 8:00 AM to 5:00 PM

The construction worker and truck trips were assessed at all study intersections during the AM and PM peak hours. Thus for the AM peak hour there would be an assumed 75 inbound worker trips and 15 truck trips (150 daily truck trips divided into

10 hour work shift), and during the PM peak hour there would be 75 outbound worker trips and 15 truck trips. These truck trips were estimated based on other similar Port construction Projects. [Based on the results of the construction traffic analysis the construction scenario would result in significant circulation system impacts at one study intersection.

Specifically, the LOS at the Figueroa Street/C-Street/I-110 Ramp intersection would experience a significant traffic impact during the P.M. peak hour during the construction phase and the level of Project-related construction traffic would exceed the City of Los Angeles threshold for significant impact.

Mitigation Measures

Trans #1: Prior to beginning construction, the construction contractor shall prepare a detailed traffic management plan which shall include the following: detour plans, coordination with emergency services and transit providers, coordination with adjacent property owners and tenants, advanced notification of temporary bus stop loss and/or bus line relocation, identify temporary alternative bus routes, advanced notice of temporary parking loss, identify temporary parking replacement or alternative adjacent parking within a reasonable walking distance, use of designated haul routes, use of truck staging areas, observance of hours of operations restrictions and appropriate signing for construction activities. The traffic management plan shall be submitted to Los Angeles Harbor Department (LAHD) for approval before beginning construction.

Residual Impacts

Less than significant impact.

NEPA Impact Determination

There would be temporary impacts on the study area roadway system during construction of the proposed Project because the construction activities would generate vehicular traffic associated with construction workers' vehicles and trucks delivering equipment and fill material to the site. This site-generated traffic would result in increased traffic volumes on the study area roadways for the duration of the construction period, which would span a period of 2 to 3 years for the various project components.

The average levels of traffic generated by the construction activities and hours of construction operation have been estimated for each component of the proposed Project, as shown below. The construction schedule and traffic levels have been estimated based on a number of similar construction projects at the Port of Los Angeles. These construction estimates are based on information contained in the Draft West basin EIR Transportation and Circulation section which are in turn based on construction phasing estimates, construction worker needs, truck traffic estimates by type, grading quantity estimates, materials quantity estimates and other construction quantity estimates for a typical container terminal project

- **Construction Traffic**
  - Berths 136-139
    - Auto Trips per Day: 50
    - Truck Trips per Day: 50
    - Total Daily Traffic: 100
  - Berths 142-147
    - Auto Trips per Day: 100
    - Truck Trips per Day: 100
    - Total Daily Traffic: 200
- **Hours of Construction Operation**
  - Monday through Friday: 7:00 AM to 5:00 PM
  - Saturday: 8:00 AM to 5:00 PM

The construction worker and truck trips were assessed at all study intersections during the AM and PM peak hours. Thus for the AM peak hour there would be an assumed 75 inbound worker trips and 15 truck trips (150 daily truck trips divided into 10 hour work shift), and during the PM peak hour there would be 75 outbound worker trips and 15 truck trips. These truck trips were estimated based on other similar Port construction Projects. Based on the results of the construction traffic analysis the construction scenario would result in significant circulation system impacts at one study intersection.

Specifically, the LOS at the Figueroa Street/C-Street/I-110 Ramp intersection would experience a significant traffic impact during the P.M. peak hour during the construction phase.

Mitigation Measures

Trans #1 would apply to the NEPA proposed Project impact determination.

Residual Impacts

Less than significant impacts.

3.10.3.3.1.2 Operational Impacts

Impact TRANS-2: Long-term vehicular traffic associated with the proposed Project would significantly impact four study intersection's volume/capacity ratios, or level of service.

CEQA Evaluation

Future traffic conditions with the proposed Project for the years 2015 and 2038 were estimated by adding traffic resulting from the terminal expansion and associated throughput growth. Port traffic growth was developed using the "QuickTrip" truck generation model (see section 3.10.3.1.4). Table 3.10-3 summarizes the TEU

throughput for the CEQA Baseline and proposed Project and also includes the assumed operating parameters that were used to develop the trip generation forecasts. Traffic generated by the proposed Project was estimated to determine potential impacts of the proposed Project on study area roadways. The following section summarizes some of the key parameters used in the trip generation estimate. These operating parameters are derived from and consistent with the parameters developed and applied in *the Port of Los Angeles Baseline Transportation Study* and the *Port of Los Angeles Roadway Study*:

- **Work shifts.** To achieve the forecast TEU throughput volumes, the Port's terminals must handle more cargo during the non-peak hours than they do currently. Consistent with the Port of *Los Angeles Baseline Transportation Study*, the *Port's Roadway Study* and other on-going port-area transportation studies, it is expected that the gate moves would be distributed as follows: 80 percent day shift, 10 percent night shift, and 10 percent hoot shift in 2015; and 60 percent day shift, 20 percent night shift, and 20 percent hoot shift in 2038. Current shift splits as of 2001 showed over 90 percent of TEU throughput during the day shift. The 80/10/10 split assumption was determined jointly by Ports of Long Beach and Los Angeles staff and is currently being achieved at or better than these levels through the Pier-Pass Program. A greater reduction in day time throughput was only assumed in the longer term (2038) to be reasonably conservative given expected changes in long term port operations.

- **Auto Trip Generation**. The baseline and with-Project employee trip rates are based on the *Ports of Long Beach and Los Angeles Transportation Study* trip generation methodology which estimates employment trips based on TEU throughput using trip generation rates.

- **TEU Throughput Growth**. Additional TEUs per month resulting from the proposed Project are shown in Table 3.10-3. These are based on forecasts of overall port wide growth and estimates of terminal capacity.

- **On-Dock Rail Usage**. On-dock rail refers to a rail terminal that is located within or adjacent to the terminal that is used to build trains that take containers to and from the terminal via rail. Those containers thus do not travel by truck; they enter or leave the terminal on rail cars. As the percentage of containers moved via on-dock rail is increased, the percentage of containers moved via truck is decreased since the container must move via either truck or rail car. Building and operating on-dock rail facilities is a key method to reduce truck trips to and from the container terminal. It is expected that the use of on-dock rail will increase throughout the Port over time as a result of the following: construction of expanded on-dock rail facilities; improvements and enhancements to existing on-dock rail facilities; improvements in rail operations technologies; increased demand for rail movements as opposed to truck movements; and improved container management procedures. The amount of throughout that can be handled by on-dock rail versus by truck is based on the capacity of the on-dock rail facility, including the overall size of the on-dock rail yard, the number of linear feet of rail track in the facility, the number and type of equipment servicing the rail yard, the physical layout of the rail yard and how it interacts with the rest of the terminal and other design and operational factors (LAHD,

Table 3.10-3. Trip Generation Analysis Assumptions and Input Data for Berths 136-147 Terminal

Berths 136-147	*CEQA Baseline*	*Proposed Project*	
	2003	2015	2038
Gross Acres	176	233	243
Resultant TEU's (annual)	891,976	1,747,500	2,389,000
Peak Month Factor	0.091	0.091	0.083
Monthly TEU's	81,170	159,023	198,287
KEY TRIP GENERATION MODEL INPUT FACTORS			
Shift Split (%) (day/2nd/night)	90/10/0	80/10/10	60/20/20
On-Dock Rail %	0%	31%	29%
% Double Cycle Trucks	29%	35%	45%
Percentage of Weekly Gate Traffic Allocated to Weekend	15%	15%	15%
TRIP GENERATION RESULTS – A.M. PEAK			
Project Added Auto Trips	-----	108	94
Project Added Truck Trips	-----	99	148
Project Added Total Trips	-----	207	242
TRIP GENERATION RESULTS – P.M. PEAK			
Project Added Auto Trips	-----	138	120
Project Added Truck Trips	-----	72	18
Project Added Total Trips	-----	210	138

Note: The trips generated for the proposed Project represent incremental increases relative to CEQA Baseline.

2004b). Those factors determine the number of trains that can be built within given time periods, the size of the trains and the overall level of terminal throughput that can be carried in and out of the terminal on rail cars. Increased on-dock rail usage due to expanded rail yards at the project site is based on the above assumptions, and is as follows:

- Year 2015
  - Eastbound: 18.8 percent (of total throughput)
  - Westbound: 12.7 percent (includes 3 percent westbound empties)
- Year 2038
  - Eastbound: 18.6 percent (of total throughput)
  - Westbound: 10.7 percent (includes 3 percent westbound empties)

- **Weekend Terminal Operations.** Weekend throughput is assumed to be 15 percent in 2015 and 2038.

The net increase in truck trip generation includes the increased percent of cargo moved via the expanded on-dock rail facilities, as noted. A rail yard capacity analysis was conducted for the expanded terminal to ensure that the proposed new rail yard could accommodate the projected on-dock container volumes. The proposed Project trip generation estimates are summarized in Table 3.10-3. Note that TEU growth increases for future years, but peak hour trips do not increase proportionately with TEU growth.

This is because in future years, on-dock rail usage would increase and work shift splits would change as described above. Both of these actions would shift more activity to the second shift and night shift and away from the day shift. Therefore, although total trips increase in 2015 and 2038, some of the increase occurs during off-peak time periods due to the operating parameters described above.

Appendix E contains all of the CEQA Baseline, No Federal Action/NEPA Baseline and future with-Project traffic forecasts and LOS calculation worksheets. Figure 3.10-2 illustrates the assumed trip distribution percentages of proposed Project traffic. Trip distribution was based on data from the Port Travel Demand Model, which is based on truck driver origin/destination surveys (actual surveys of truck drivers at the gates), as well as from Longshore Worker place of residence data.

Tables 3.10-4 and 3.10-5 summarize the CEQA Baseline and future with-Project intersection operating conditions at each study intersection for the 2015 and 2038 scenarios, respectively. The CEQA Baseline and with-Project intersection operating conditions for each year were compared to determine regional impacts, and then the impacts were assessed using the City of Los Angeles criteria for significant impacts.

CEQA Impact Determination

Based on the results of the traffic study as presented in Tables 3.10-4 and 3.10-5 and more fully set forth in Appendix E, the proposed Project would result in significant circulation system impacts at four study intersections, relative to Baseline conditions without the proposed Project.

Specifically, the LOS at the Avalon Boulevard/Harry Bridges Boulevard intersection would experience a significant traffic impact during the P.M. peak hour during proposed Project build-out year 2038. At 2038, Avalon Boulevard/Harry Bridges Boulevard would operate at LOS C during the P.M. peak hour, and the level of Project-related traffic would exceed the City of Los Angeles threshold for significant impact.

The Alameda Street/Anaheim Street intersection would experience a significant traffic impact during the A.M. peak hour during proposed Project build-out year 2015 and significant traffic impact for both the A.M. and P.M. peak hours in 2038. At 2015, Alameda Street/Anaheim Street would operate at LOS D during the A.M. peak hour, and the level of Project-related traffic would exceed the City of Los Angeles threshold for significant impact. At 2038, Alameda Street/Anaheim Street would operate at LOS F in the A.M. peak hour and LOS E during the P.M. peak hour, and the level of Project-related traffic would exceed the City of Los Angeles threshold for significant impacts as stated in Section 3.10.3.2.

The Fries Avenue/Harry Bridges Boulevard intersection would experience a significant traffic impact during the P.M. peak hour during proposed Project build-out year 2038. At 2038, Fries Avenue/Harry Bridges Boulevard would operate at LOS C during the P.M. peak hour; and the level of Project-related traffic would exceed the City of Los Angeles threshold for significant impacts.

Table 3.10-4. 2015 Intersection Level of Service Analysis – Proposed Project vs. CEQA Baseline

Study Intersection	*Year 2015 Baseline*				*Year 2015 with Project*				*Change in V/C*		*Significantly Impacted*
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR				
	LOS	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*A.M.*	*P.M.*	
Figueroa Street and Harry Bridges Blvd (b)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	No
Avalon Boulevard and Harry Bridges Blvd	A	0.405	A	0.575	A	0.480	B	0.667	0.075	0.092	No
Alameda Street and Anaheim Street	C	0.782	B	0.692	D	0.829	C	0.726	0.047	0.034	AM
Henry Ford Avenue and Anaheim Street	B	0.672	C	0.742	B	0.676	C	0.733	0.004	-0.009	No
Harbor Blvd and SR-47 WB On-Ramp (a)	A	0.342	A	0.477	A	0.343	A	0.477	0.001	0.000	No
Harbor Blvd and Swinford Street/ SR-47 Ramps	B	0.605	D	0.894	B	0.606	D	0.896	0.001	0.002	No
John S. Gibson Blvd and I-110 NB Ramps	A	0.566	A	0.569	A	0.570	A	0.575	0.004	0.006	No
Figueroa Street / "C"-Street / I-110 Ramps (b)	A	0.469	A	0.469	A	0.505	A	0.502	0.036	0.033	No
Pacific Avenue and Front Street	A	0.554	A	0.486	A	0.561	A	0.493	0.007	0.007	No
Fries Avenue and Harry Bridges Blvd	A	0.360	A	0.472	B	0.606	B	0.685	0.246	0.213	No
Neptune Avenue and Harry Bridges Blvd	A	0.240	A	0.332	A	0.268	A	0.382	0.028	0.050	No
ICTF Driveway #1 and Sepulveda Blvd	A	0.328	A	0.563	A	0.331	A	0.569	0.003	0.006	No
ICTF Driveway #2 and Sepulveda Blvd	A	0.373	A	0.425	A	0.376	A	0.431	0.003	0.006	No
Santa Fe Avenue and Anaheim Street	A	0.410	A	0.538	A	0.413	A	0.542	0.003	0.004	No
John S. Gibson Blvd and Channel Street	A	0.581	B	0.682	A	0.581	B	0.682	0.000	0.000	No
Broad Avenue and Harry Bridges Blvd	A	0.329	A	0.501	A	0.376	A	0.546	0.047	0.045	No
Navy Way and Seaside Avenue	C	0.799	E	0.950	D	0.800	E	0.953	0.001	0.003	No

Notes:

(a) Signalized intersection in the future due to Harbor Boulevard Interchange Improvement

(b) Signalized intersection in the future due to C-Street Interchange Improvement, future analyses assume new intersection of John S. Gibson Boulevard / Harry Bridges Boulevard / Figueroa Street / I-110 ramps per current design plans

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

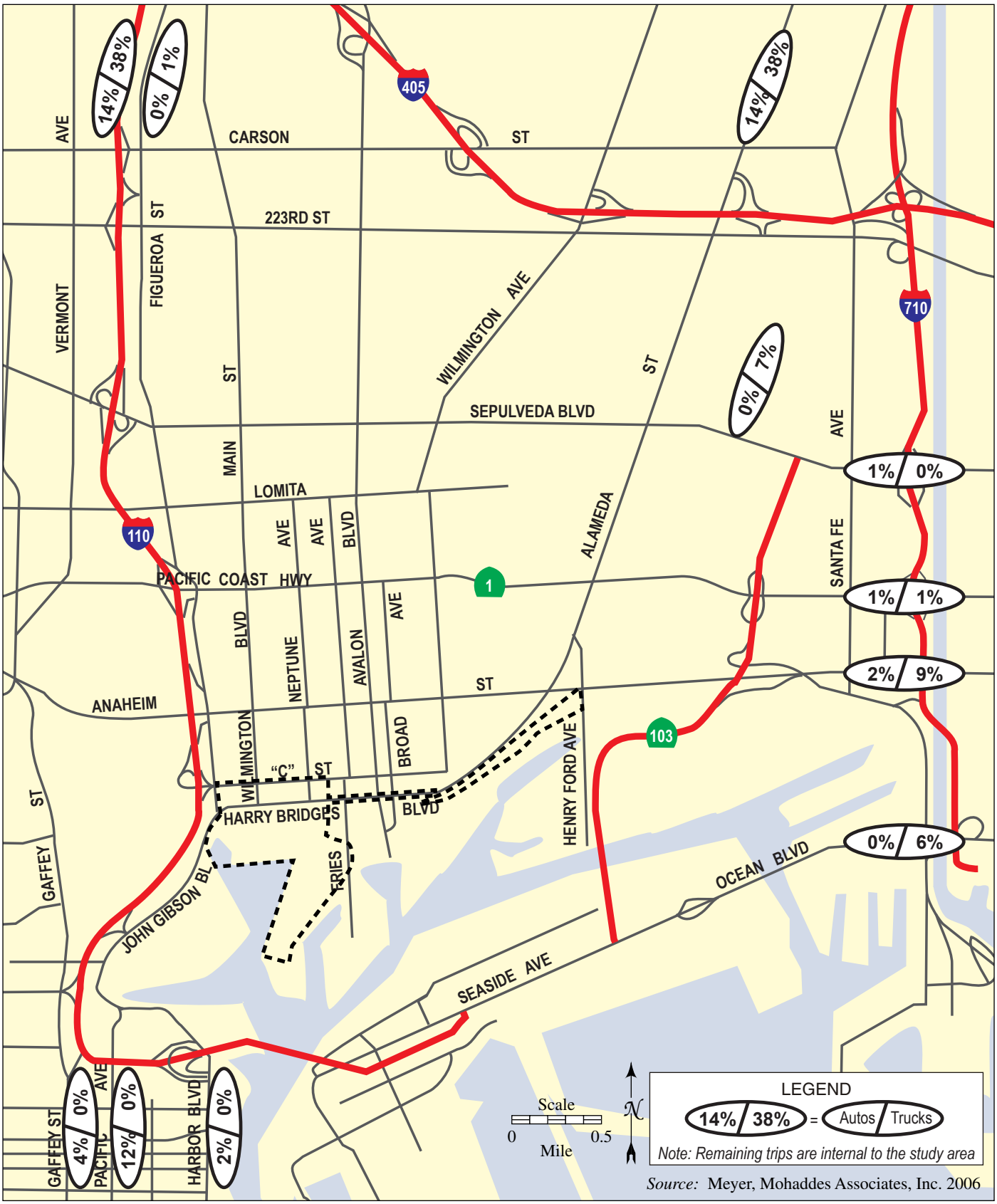

Figure 3.10-2. Proposed Project Trip Distribution

Table 3.10-5. 2038 Intersection Level of Service Analysis –Proposed Project vs. Baseline

Study Intersection	Year 2038 Baseline				Year 2038 with Project				Change in V/C		Significantly Impacted
	A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour				
	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	A.M.	P.M.	
Figueroa Street and Harry Bridges Blvd (b)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	No
Avalon Boulevard and Harry Bridges Blvd	A	0.490	B	0.643	A	0.580	C	0.723	0.090	0.080	P.M.
Alameda Street and Anaheim Street	F	1.069	E	0.920	F	1.104	E	0.948	0.035	0.028	A.M., P.M.
Henry Ford Avenue and Anaheim Street	E	0.913	F	1.012	E	0.921	F	1.017	0.008	0.005	No
Harbor Blvd and SR-47 WB On-Ramp (a)	A	0.453	B	0.667	A	0.454	B	0.668	0.001	0.001	No
Harbor Blvd and Swinford Street/ SR-47 Ramps	C	0.784	F	1.277	C	0.785	F	1.278	0.001	0.001	No
John S. Gibson Blvd and I-110 NB Ramps	B	0.693	A	0.582	B	0.697	A	0.588	0.004	0.006	No
Figueroa Street / "C"-Street / I-110 Ramps (b)	A	0.554	A	0.565	A	0.585	A	0.592	0.031	0.027	No
Pacific Avenue and Front Street	B	0.647	A	0.567	B	0.653	A	0.573	0.006	0.006	No
Fries Avenue and Harry Bridges Blvd	A	0.455	A	0.575	B	0.668	C	0.725	0.213	0.150	P.M.
Neptune Avenue and Harry Bridges Blvd	A	0.255	A	0.363	A	0.303	A	0.406	0.048	0.043	No
ICTF Driveway #1 and Sepulveda Blvd	A	0.355	A	0.585	A	0.361	A	0.590	0.006	0.005	No
ICTF Driveway #2 and Sepulveda Blvd	A	0.395	A	0.440	A	0.401	A	0.445	0.006	0.005	No
Santa Fe Avenue and Anaheim Street	A	0.482	B	0.629	A	0.487	B	0.633	0.005	0.004	No
John S. Gibson Blvd and Channel Street	C	0.710	D	0.825	C	0.710	D	0.825	0.000	0.000	No
Broad Avenue and Harry Bridges Blvd	A	0.364	A	0.589	A	0.403	C	0.794	0.039	0.205	P.M.
Navy Way and Seaside Avenue	F	1.156	F	1.358	F	1.160	F	1.361	0.004	0.003	No

Notes:

(a) Signalized intersection in the future due to Harbor Boulevard Interchange Improvement

(b) Signalized intersection in the future due to C-Street Interchange Improvement, future analyses assume new intersection of John S. Gibson Boulevard / Harry Bridges Boulevard / Figueroa Street / I-110 ramps per current design plans

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

The Broad Avenue/Harry Bridges Boulevard intersection would experience a significant traffic impact during the P.M. peak hour during proposed Project build-out year 2038. At 2038, Broad Avenue/Harry Bridges Boulevard would operate at LOS C during the P.M. peak hour; and the level of Project-related traffic would exceed the City of Los Angeles threshold for significant impacts.

The amount of Project-related traffic that would be added at all other study locations would not be of sufficient magnitude to meet or exceed the threshold of significance of the respective city. This is true even for some intersections that would operate in the future at LOS E or F, but the level of Project-related traffic would be small enough that it would not trigger a significant traffic impact, based on the established thresholds.

In summary, the following significant intersection impacts under CEQA are forecasted for the proposed Project:

- 2015 – Alameda Street and Anaheim Street – (A.M. peak hour)
- 2038 – Avalon Boulevard and Harry Bridges Blvd – (P.M. peak hour)
  Alameda Street and Anaheim Street – (A.M. & P.M. peak hours)
  Fries Avenue and Harry Bridges Boulevard – (P.M. peak hour)
  Broad Avenue and Harry Bridges Boulevard – (P.M. peak hour)

Therefore, the proposed Project would result in a significant traffic impact under CEQA.

Mitigation Measures

The following intersection mitigation measures would be implemented to mitigate the significant impact of Project-related traffic. Tables 3.10-6 and 3.10-7 present the level-of-service results with implementation of the mitigation measures for 2015 and 2038, respectively.

Trans #2: *Avalon Boulevard and Harry Bridges Boulevard* – Provide an additional eastbound through-lane on Harry Bridges Boulevard. This measure shall be implemented by 2038.

Trans #3: *Alameda Street and Anaheim Street* – Provide additional northbound and southbound through-lanes on Alameda Street, and provide a northbound free right-turn lane from northbound Alameda Street to eastbound Anaheim Street This measure shall be implemented by 2015.

Trans #4: *Fries Avenue and Harry Bridges Boulevard* – Add dual northbound left-turn lanes from northbound Fries Avenue to westbound Harry Bridges Boulevard, and provide an additional northbound right-turn lane from northbound Fries Avenue to eastbound Harry Bridges Boulevard. This measure shall be implemented by 2038.

Trans #5: *Broad Avenue and Harry Bridges Boulevard* – Provide an additional eastbound through-lane on Harry Bridges Boulevard. This measure shall be implemented by 2038.

Table 3.10-6. 2015 Intersection Level of Service Analysis – Proposed Project vs. CEQA Baseline

Study Intersection	*Year 2015 Baseline*				*Year 2015 with Project*				*Year 2015 with Mitigation*			
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR	
	LOS	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*
Figueroa Street and Harry Bridges Blvd (b)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Avalon Boulevard and Harry Bridges Blvd	A	0.405	A	0.575	A	0.480	B	0.667	-----	-----	-----	-----
Alameda Street and Anaheim Street	C	0.782	B	0.692	D	0.829	C	0.726	C	0.787	C	0.726
Henry Ford Avenue and Anaheim Street	B	0.672	C	0.742	B	0.676	C	0.733	-----	-----	-----	-----
Harbor Blvd and SR-47 WB On-Ramp (a)	A	0.342	A	0.477	A	0.343	A	0.477	-----	-----	-----	-----
Harbor Blvd and Swinford Street/ SR-47 Ramps	B	0.605	D	0.894	B	0.606	D	0.896	-----	-----	-----	-----
John S. Gibson Blvd and I-110 NB Ramps	A	0.566	A	0.569	A	0.570	A	0.575	-----	-----	-----	-----
Figueroa Street / "C"-Street / I-110 Ramps (b)	A	0.469	A	0.469	A	0.505	A	0.502	-----	-----	-----	-----
Pacific Avenue and Front Street	A	0.554	A	0.486	A	0.561	A	0.493	-----	-----	-----	-----
Fries Avenue and Harry Bridges Blvd	A	0.360	A	0.472	B	0.606	B	0.685	-----	-----	-----	-----
Neptune Avenue and Harry Bridges Blvd	A	0.240	A	0.332	A	0.268	A	0.382	-----	-----	-----	-----
ICTF Driveway #1 and Sepulveda Blvd	A	0.328	A	0.563	A	0.331	A	0.569	-----	-----	-----	-----
ICTF Driveway #2 and Sepulveda Blvd	A	0.373	A	0.425	A	0.376	A	0.431	-----	-----	-----	-----
Santa Fe Avenue and Anaheim Street	A	0.410	A	0.538	A	0.413	A	0.542	-----	-----	-----	-----
John S. Gibson Blvd and Channel Street	A	0.581	B	0.682	A	0.581	B	0.682	-----	-----	-----	-----
Broad Avenue and Harry Bridges Blvd	A	0.329	A	0.501	A	0.376	A	0.546	-----	-----	-----	-----
Navy Way and Seaside Avenue	C	0.799	E	0.950	D	0.800	E	0.953	-----	-----	-----	-----

Notes:

(a) Signalized intersection in the future due to Harbor Boulevard Interchange Improvement

(b) Signalized intersection in the future due to C-Street Interchange Improvement, future analyses assume new intersection of John S. Gibson Boulevard / Harry Bridges Boulevard / Figueroa Street / I-110 ramps per current design plans

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

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Table 3.10-7. 2038 Intersection Level of Service Analysis – Proposed Project vs. CEQA Baseline

Study Intersection	*Year 2038 Baseline*				*Year 2038 with Project*				*Year 2038 with Mitigation*			
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR	
	LOS	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*
Figueroa Street and Harry Bridges Blvd (b)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Avalon Boulevard and Harry Bridges Blvd	A	0.490	B	0.643	A	0.580	C	0.723	A	0.528	B	0.635
Alameda Street and Anaheim Street	F	1.069	E	0.920	F	1.104	E	0.948	F	1.076	C	0.792
Henry Ford Avenue and Anaheim Street	E	0.913	F	1.012	E	0.921	F	1.017	-----	-----	-----	-----
Harbor Blvd and SR-47 WB On-Ramp (a)	A	0.453	B	0.667	A	0.454	B	0.668	-----	-----	-----	-----
Harbor Blvd and Swinford Street/ SR-47 Ramps	C	0.784	F	1.277	C	0.785	F	1.278	-----	-----	-----	-----
John S. Gibson Blvd and I-110 NB Ramps	B	0.693	A	0.582	B	0.697	A	0.588	-----	-----	-----	-----
Figueroa Street / "C"-Street / I-110 Ramps (b)	A	0.554	A	0.565	A	0.585	A	0.592	-----	-----	-----	-----
Pacific Avenue and Front Street	B	0.647	A	0.567	B	0.653	A	0.573	-----	-----	-----	-----
Fries Avenue and Harry Bridges Blvd	A	0.455	A	0.575	B	0.668	C	0.725	B	0.627	B	0.671
Neptune Avenue and Harry Bridges Blvd	A	0.255	A	0.363	A	0.303	A	0.406	-----	-----	-----	-----
ICTF Driveway #1 and Sepulveda Blvd	A	0.355	A	0.585	A	0.361	A	0.590	-----	-----	-----	-----
ICTF Driveway #2 and Sepulveda Blvd	A	0.395	A	0.440	A	0.401	A	0.445	-----	-----	-----	-----
Santa Fe Avenue and Anaheim Street	A	0.482	B	0.629	A	0.487	B	0.633	-----	-----	-----	-----
John S. Gibson Blvd and Channel Street	C	0.710	D	0.825	C	0.710	D	0.825	-----	-----	-----	-----
Broad Avenue and Harry Bridges Blvd	A	0.364	A	0.589	A	0.403	C	0.794	A	0.403	A	0.461
Navy Way and Seaside Avenue	F	1.156	F	1.358	F	1.160	F	1.361	-----	-----	-----	-----

Notes:

(a) Signalized intersection in the future due to Harbor Boulevard Interchange Improvement

(b) Signalized intersection in the future due to C-Street Interchange Improvement, future analyses assume new intersection of John S. Gibson Boulevard / Harry Bridges Boulevard / Figueroa Street / I-110 ramps per current design plans

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

In addition, the related projects discussed in Section 3.10.3.1.5 have been assumed as part of the analysis. If the related projects are not constructed in the timeframe assumed, the following mitigation measures shall also be applied to the proposed Project:

Trans #6: *Figueroa Street and Harry Bridges Boulevard* – Provide dual southbound left-turn lanes from southbound Figueroa Street to eastbound Harry Bridges Boulevard and change southbound left-turn phasing from a permitted phase to protected phase. This measure shall be implemented by 2038.

Trans #7: *Figueroa Street/C-Street and I-110 Ramps* – Signalize this intersection, provide dual northbound left-turn lanes from northbound Figueroa Street to the I-110 northbound on-ramp, and re-stripe the eastbound shared left-through-right lane to an exclusive right turn only lane. This measures shall be implemented by 2015.

Residual Impact

Impacts would be less than significant under CEQA after implementation of the above mitigation measure.

Because **Mitigation Measures TRA 2-7** are largely striping projects that include minimal construction, implementation of **MM 2-7** will not result in secondary impacts. Additionally, striping work would be completed during off peak hours to minimize impacts to traffic.

NEPA Impact Determination

Table 3.10-8 summarizes the TEU throughput for the No Federal Action/NEPA Baseline and proposed Project and also the assumed operating parameters that were used to develop the trip generation forecasts. The net increase in truck trip generation includes the increased percent of cargo moved via the expanded on-dock rail facilities. Tables 3.10-9 and 3.10-10 summarize the No Federal Action/NEPA Baseline and proposed Project intersection operating conditions at each study intersection for the 2015 and 2038 scenarios, respectively.

The Proposed Project measured against the No Federal Action/NEPA Baseline would result in adverse impacts based on the City of Los Angeles impact criteria. The level of impact would be similar or reduced in magnitude compared to the CEQA Baseline. Three intersections would be adversely impacted based on comparison to the No Federal Action/NEPA Baseline, as follows:

- 2038 – Avalon Boulevard and Harry Bridges Blvd – (P.M. peak hour)
  Alameda Street and Anaheim Street – (A.M. & P.M. peak hours)
  Fries Avenue and Harry Bridges Boulevard – (P.M. peak hour)
  Broad Avenue and Harry Bridges Boulevard – (P.M. peak hour)

Therefore, the proposed Project would result in a significant traffic impact under NEPA.

Table 3.10-8. Trip Generation Analysis Assumptions and Input Data for Berths 136-147 Terminal

Berths 136-147	*NEPA Baseline/ No Federal Action*		*Proposed Project*	
	2015	*2038*	*2015*	*2038*
Gross Acres	233	233	233	243
Resultant TEU's (annual)	1,491,200	1,697,000	1,747,500	2,389,000
Peak Month Factor	0.091	0.083	0.091	0.083
Monthly TEU's	135,699	140,851	159,023	198,287
KEY TRIP GENERATION MODEL INPUT FACTORS				
Shift Split (%) (day/2nd/night)	80/10/10	60/20/20	80/10/10	60/20/20
On-Dock Rail %	35%	35%	31%	29%
% Double Cycle Trucks	35%	45%	35%	45%
Percentage of Weekly Gate Traffic Allocated to Weekend	15%	15%	15%	15%
TRIP GENERATION RESULTS – A.M. PEAK				
Project Added Auto Trips	-----	-----	30	56
Project Added Truck Trips	-----	-----	62	130
Project Added Total Trips	-----	-----	92	186
TRIP GENERATION RESULTS – P.M. PEAK				
Project Added Auto Trips	-----	-----	41	76
Project Added Truck Trips	-----	-----	87	141
Project Added Total Trips	-----	-----	128	217

Note: The trips generated for the Project represent incremental increases relative to the No Federal Action/NEPA baseline.

Mitigation Measures

Mitigation Measures Trans #2, Trans #3, Trans #4 and **Trans #5** would apply to the NEPA proposed Project impact determination. Additionally, if the related projects discussed in Section 3.10.3.1.5 are not constructed in the timeframe assumed, mitigation measures Trans #6 and Trans #7 shall also be applied to the proposed Project.

Residual Impact

Impacts would be less than significant under NEPA after implementation of the above mitigation measures.

Impact TRANS-3: An increase in on-site employees due to proposed Project operations would result in a less than significant increase in related public transit use.

Table 3.10-9. 2015 Intersection Level of Service Analysis – Proposed Project vs. No Federal Action/NEPA Baseline

Study Intersection	*2015 – NEPA (No Federal Action)*				*Year 2015 with Project*				*Change in V/C*		*Adverse Impacts*
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR				
	LOS	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*A.M.*	*P.M.*	
Figueroa Street and Harry Bridges Blvd (b)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	No
Avalon Boulevard and Harry Bridges Blvd	A	0.464	B	0.641	A	0.480	B	0.667	0.016	0.026	No
Alameda Street and Anaheim Street	D	0.812	C	0.715	D	0.829	C	0.726	0.017	0.011	No
Henry Ford Avenue and Anaheim Street	B	0.675	C	0.746	B	0.676	C	0.733	0.001	-0.013	No
Harbor Blvd and SR-47 WB On-Ramp (a)	A	0.343	A	0.477	A	0.343	A	0.477	0.000	0.000	No
Harbor Blvd and Swinford Street/ SR-47 Ramps	B	0.606	D	0.895	B	0.606	D	0.896	0.000	0.001	No
John S. Gibson Blvd and I-110 NB Ramps	A	0.569	A	0.573	A	0.570	A	0.575	0.001	0.002	No
Figueroa Street / "C"-Street / I-110 Ramps (b)	A	0.493	A	0.491	A	0.505	A	0.502	0.012	0.011	No
Pacific Avenue and Front Street	A	0.559	A	0.491	A	0.561	A	0.493	0.002	0.002	No
Fries Avenue and Harry Bridges Blvd	A	0.421	A	0.571	B	0.606	B	0.685	0.185	0.114	No
Neptune Avenue and Harry Bridges Blvd	A	0.281	A	0.360	A	0.268	A	0.382	-0.013	0.022	No
ICTF Driveway #1 and Sepulveda Blvd	A	0.331	A	0.567	A	0.331	A	0.569	0.000	0.002	No
ICTF Driveway #2 and Sepulveda Blvd	A	0.375	A	0.429	A	0.376	A	0.431	0.001	0.002	No
Santa Fe Avenue and Anaheim Street	A	0.412	A	0.541	A	0.413	A	0.542	0.001	0.001	No
John S. Gibson Blvd and Channel Street	A	0.581	B	0.682	A	0.581	B	0.682	0.000	0.000	No
Broad Avenue and Harry Bridges Blvd	A	0.360	A	0.531	A	0.376	A	0.546	0.016	0.015	No
Navy Way and Seaside Avenue	C	0.800	E	0.952	D	0.800	E	0.953	0.000	0.001	No

Notes:

(a) Signalized intersection in the future due to Harbor Boulevard Interchange Improvement

(b) Signalized intersection in the future due to C-Street Interchange Improvement, future analyses assume new intersection of John S. Gibson Boulevard / Harry Bridges Boulevard / Figueroa Street / I-110 ramps per current design plans

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

Table 3.10-10. 2038 Intersection Level of Service Analysis – Proposed Project vs. No Federal Action/NEPA Baseline

Study Intersection	*2038 – NEPA (No Federal Action)*				*Year 2038 with Project*				*Change in V/C*		*Adverse Impacts*
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR				
	LOS	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*A.M.*	*P.M.*	
Figueroa Street and Harry Bridges Blvd (b)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	No
Avalon Boulevard and Harry Bridges Blvd	A	0.546	B	0.679	A	0.580	C	0.723	0.034	0.044	PM
Alameda Street and Anaheim Street	F	1.086	E	0.925	F	1.104	E	0.948	0.018	0.023	AM, PM
Henry Ford Avenue and Anaheim Street	E	0.918	F	1.013	E	0.921	F	1.017	0.003	0.004	No
Harbor Blvd and SR-47 WB On-Ramp (a)	A	0.454	B	0.668	A	0.454	B	0.668	0.000	0.000	No
Harbor Blvd and Swinford Street/ SR-47 Ramps	C	0.785	F	1.277	C	0.785	F	1.278	0.000	0.001	No
John S. Gibson Blvd and I-110 NB Ramps	B	0.695	A	0.585	B	0.697	A	0.588	0.002	0.003	No
Figueroa Street / "C"-Street / I-110 Ramps (b)	A	0.564	A	0.574	A	0.585	A	0.592	0.021	0.018	No
Pacific Avenue and Front Street	B	0.651	A	0.571	B	0.653	A	0.573	0.002	0.002	No
Fries Avenue and Harry Bridges Blvd	A	0.512	A	0.598	B	0.668	C	0.725	0.156	0.127	PM
Neptune Avenue and Harry Bridges Blvd	A	0.286	A	0.378	A	0.303	A	0.406	0.017	0.028	No
ICTF Driveway #1 and Sepulveda Blvd	A	0.359	A	0.586	A	0.361	A	0.590	0.002	0.004	No
ICTF Driveway #2 and Sepulveda Blvd	A	0.399	A	0.442	A	0.401	A	0.445	0.002	0.003	No
Santa Fe Avenue and Anaheim Street	A	0.485	B	0.630	A	0.487	B	0.633	0.002	0.003	No
John S. Gibson Blvd and Channel Street	C	0.710	D	0.825	C	0.710	D	0.825	0.000	0.000	No
Broad Avenue and Harry Bridges Blvd	A	0.382	B	0.600	A	0.403	C	0.794	0.021	0.194	PM
Navy Way and Seaside Avenue	F	1.159	F	1.359	F	1.160	F	1.361	0.001	0.002	No

Notes:

(a) Signalized intersection in the future due to Harbor Boulevard Interchange Improvement

(b) Signalized intersection in the future due to C-Street Interchange Improvement, future analyses assume new intersection of John S. Gibson Boulevard / Harry Bridges Boulevard / Figueroa Street / I-110 ramps per current design plans

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

CEQA Impact Determination

Although the proposed Project would result in additional on-site employees, the increase in work-related trips using public transit would be negligible. Port terminals generate extremely low transit demand for several reasons. The primary reason that Port workers do not use public transit is that many terminal workers must first report to union halls for dispatch before proceeding to the terminal to which they have been assigned. Most workers prefer to use a personal automobile to facilitate this disjointed travel pattern. Also, Port workers live throughout the Southern California region and do not have access to the few bus routes that serve the Port. Additionally, Port workers' incomes are generally higher than similarly skilled jobs in other areas and higher incomes correlates to lower transit usage (Pucher, Renne 2003). Finally, parking at the Port is readily available and free, which encourages workers to drive to work. Therefore, it is expected that less than ten work trips per day would be made on public transit, which could easily be accommodated by existing bus transit services and would not result in a demand for transit services which would exceed the supply of such services. Observations of transit usage in the area for bus routes that serve the proposed Project area (MTA routes 446 and 447) revealed that the buses are currently not operating near capacity and would be able to accommodate this level of increase in demand without exceeding supply. Consequently, impacts due to additional demand on local transit services would be less than significant under CEQA.

Mitigation Measures

No mitigation required.

Residual Impacts

Less than significant impacts.

NEPA Impact Determination

The proposed Project would result in a slightly higher employment level compared to the No Federal Action/NEPA Baseline due to in-water construction activities and increased throughput operations, but as discussed above, the increase in work-related trips using public transit would be negligible. Less than significant impacts under NEPA would occur.

Mitigation Measures

No mitigation required.

Residual Impacts

There would be less than significant impacts.

Impact TRANS-4: Proposed Project operations would result in a less than significant increase in freeway congestion.

CEQA Impact Determination

According to the Congestion Management Plan (CMP), Traffic Impact Analysis (TIA) Guidelines, a traffic impact analysis is required at the following:

- CMP arterial monitoring intersections, including freeway on-ramp or off-ramp, where the proposed Project would add 50 or more trips during either the A.M. or P.M. weekday peak hours.
- CMP freeway monitoring locations where the proposed Project would add 150 or more trips during either the A.M. or P.M. weekday peak hours.

Per CMP guidelines, an increase of 0.02 or more in the demand-to-capacity (D/C) ratio with a resulting LOS F is deemed a significant impact.

The closest CMP arterial monitoring station to the proposed Project is Alameda Street/Pacific Coast Highway (PCH). The proposed Project would add at least 50 trips through this intersection, and, therefore, CMP system analysis is required at this location. This intersection was recently improved as part of the Alameda Corridor Project, and the north-south through movements are grade separated. Since most proposed Project traffic at this location is north-south oriented, the proposed Project traffic would be on the newly grade separated portion of the intersection. "O" Street is the connector between PCH and Alameda Street. Thus, the analyzed intersection is "O" Street/Alameda Street. The analysis results indicate that the proposed Project would not result in more than 0.02 increase in the V/C ratio at this location; therefore, there is no CMP system impact.

The closest freeway monitoring station is located at I-110 at "C"-Street and I-710 at Willow Street. The results of the analysis indicate that the proposed Project would not result in more than 150 additional proposed Project trips on either of the CMP freeway monitoring locations; therefore, no CMP system analysis is required at those locations.

Consequently, traffic impacts would be less than significant under CEQA.

Mitigation Measures

No mitigation required.

Residual Impacts

Less than significant impacts.

NEPA Impact Determination

As described above, the proposed Project would not result in an increase of 0.02 or more in the D/C ratio, and therefore would not result in LOS F. Therefore, there would be less than significant impacts under NEPA.

Mitigation Measures

No mitigation required.

Residual Impacts

Less than significant impacts

Impact TRANS-5: Proposed Project operations would cause an increase in rail activity, causing delays in regional traffic.

CEQA Impact Determination

Rail activity causes delay at crossings where the trains pass and cause auto and truck traffic to stop. The amount of delay is related to the length of the train, the speed of the train and the amount of auto and truck traffic that is blocked. The proposed Project would cause an increase in either the number of trains or the amount of auto and truck traffic; however, the increase in auto and truck traffic would only affect some of the at-grade crossings. In the case of this proposed Project, the affected at-grade crossings are at Avalon Boulevard and Henry Ford Avenue. The grade crossing at Fries Avenue would be eliminated as part of the Fries Avenue Grade Separation project.

The proposed Project would not have any significant impact on regional rail corridors north of the proposed Project site since the Alameda Corridor project has been completed. The completion of the corridor has eliminated all of the regional at-grade rail/highway crossings between the Port and the downtown rail yards; therefore, there would be no change in vehicular delay at any of those crossings due to Project-related rail activity (they are now all grade separated). Rail trips are not controlled by the Port. Currently, the unit trains built at the on-dock and near dock facilities can be picked up by BNSF and/or UP. Both rail companies use the Alameda Corridor to travel to the downtown rail yards. To the east of the downtown rail yards, some of the trains are broken down, reconfigured and otherwise modified at the location of the downtown rail yards from that point to the east. Other trains remain unit trains through the downtown rail yard; there are approximately nine major routes with a number of sub-routes that the trains can take to leave the State. The rail operators, and not the Port, make the choice of what routes the trains will take, the day they will move and the time of day the trains will move. Furthermore, the rail mainline tracks were designed and built to accommodate the anticipated rail activity in the region. Rail volumes on the mainline are controlled and limited by the capacity of the mainline itself, thus by definition the project's trains could not traverse the mainline unless it still has remaining capacity. The number of trains generated by the project would not cause the mainline rail tracks to exceed the regional capacity. Once the regional mainline rail track capacity would be exceeded due to increases in regional rail activity, separate environmental studies on the mainline expansion would be undertaken by the rail companies, not by each shipper or carrier generating rail volumes. Thus, rail related impacts due to the proposed Project are limited to the at-grade crossings that are located south of the downtown rail yards, and focus on the at-grade crossings in and near the Port

Between the proposed Project rail yards and the beginning of the corridor, there are two local grade crossings (Avalon Boulevard and Henry Ford Avenue). The rail impact analysis is based on peak hour vehicle delay at those two affected rail crossings. Although proposed Project operations alone would not result in an additional train during the peak hour on a regular basis, it is possible that the cumulative development of the West Basin (Berths 97-109, Berths 121-131, Berths 136-147) may together result in an added train during the peak hour. Therefore, it is assumed that one additional train would occur during the peak hour. This is a very conservative analysis methodology since the proposed Project itself would not regularly result in a full train added during the peak hour.

An additional train would result in additional vehicle delay at the two crossing locations. Vehicular traffic must stop at these crossings and wait while the trains pass by, and the duration of the traffic delay is dependent upon the speed and length of the train. For example, a typical train in the Port is a 28-car train and is approximately 8,760 feet long and travels at an average speed of about 14 km per hour (9 miles per hour) outside the port. Assuming that the automatic gates at each crossing would close 28 seconds prior to the arrival of a train and that they would open 8 seconds after the train clears the crossing, each train passage would block a given street for 11.7 minutes. These assumptions are based on typical train lengths and speeds that occur in the Port.

The severity of impact created by a train blockage depends upon the time of day that the blockage occurs and, correspondingly, the volume of traffic that is affected by the blockage. For example, if a blockage occurs during the peak periods of traffic flow, the resulting delays and the number of stopped vehicles would be greater than if the blockage occurred at a non-peak time. Also, the total amount of delay would be greater at locations with high traffic volumes as compared to low-volume locations because the train crossing would stop more vehicles

For this analysis, the following formula has been used to determine the amount of delay at each crossing for each train passage.

$$Delay = \left(\frac{Tb^2 \times q \times nl}{2 \times 60 \times \left(1 - \frac{q}{25}\right)} \right) \times f$$

Where:

Tb = gate blockage time in minutes
q = average arrival rate in vehicles per minute per lane
f = train frequency in trains per hour
nl = number of lanes

This formula has been applied to the two "public" railroad crossings between the proposed Project and beginning of the corridor (crossings internal to port terminals which do not serve public roadways are not assessed in this study). Since the average arrival rate for vehicles is dependent upon the time of day that the train movement occurs, it has been assumed that the train movements occur throughout the 24-hour

day and that the probability of a blockage during any particular hour is 1:24, which represents an even distribution of train movements. For the peak hour, one train is assumed, which is a conservative assumption since there would not be a train on many days during the peak hour.

Total traffic delays at each individual grade crossing were computed for the A.M. and P.M. peak hours. This is the worst case, since many train movements would occur outside of the peak hours. There are no adopted or standard guidelines for determining whether an impact due to rail blockage of a roadway is significant. In the case of the proposed Project, the two at-grade crossings are located on relatively low-volume minor arterial roadways, which serve primarily port traffic.

Table 3.10-11 summarizes the vehicle delay that is anticipated at the crossings due to the proposed Project rail activity during the peak hours. As shown, the delay calculations were performed at crossings at Avalon Boulevard and Henry Ford Avenue. The results indicate that the added average vehicle delay would range up to a maximum of 91 seconds per vehicle at Henry Ford Avenue with the proposed Project. Based on the threshold of significance of 55 seconds of average vehicle delay, the proposed Project would have a significant impact at both locations.

Mitigation Measures

There are no feasible mitigation measures for this impact.

Residual Impacts

Significant and Unavoidable. There would be a significant, unavoidable transportation/ circulation impact at the Henry Ford Avenue and Avalon Boulevard grade crossings as a result of the proposed Project.

NEPA Impact Determination

Rail delay from the proposed Project would be higher when compared to the No Federal Action/NEPA Baseline, but the delay would not be adverse because the delays would occur along two low volume street segments near the port, as described above. Therefore, less than significant impacts under NEPA would occur.

Mitigation Measures

No mitigation required.

Residual Impacts

Less than significant impacts.

Table 3.10-11. Rail Crossing Vehicle Delay Due to Proposed Project

A.M. PEAK HOUR		
Rail Crossing	*Average Delay **per Vehicle** (sec/veh)*	
	YEAR 2015	YEAR 2038
1. Avalon Blvd (With Project)	71	71
2. Henry Ford Avenue (With Project)	81	87
P.M. PEAK HOUR		
Rail Crossing	*Average Delay **per Vehicle** (sec/veh)*	
	YEAR 2015	YEAR 2038
1. Avalon Blvd (With Project)	73	74
2. Henry Ford Avenue (With Project)	84	91

3.10.3.3.2 Alternatives

3.10.3.3.2.1 Alternative 1 – No Project Alternative

The No Project Alternative (Alternative 1) considers what would reasonably be expected to occur on the site in the absence of issuance of both a federal permit by the USACE and a discretionary land use decision by the Port of Los Angeles.

Impact TRANS-1: Construction would not result in a short-term, temporary increase in truck and auto traffic.

CEQA Impact Determination

The No Project Alternative (Alternative 1) considers what would reasonably be expected to occur on the site in the absence of issuance of both a federal permit by the USACE and a discretionary land use decision by the Port of Los Angeles. This alternative would not allow implementation of the proposed Project or other physical improvements at Berths 136-147. Therefore, under this alternative, there would be no impacts on traffic related to construction. Forecasted increases in cargo throughput would still occur as greater operational efficiencies are made

Mitigation Measures

No mitigation would be necessary.

Residual Impacts

No impact.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, there would be no federal action and an impact determination is not applicable.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation is required.

Residual Impacts

No impact.

Impact TRANS-2: Long-term vehicular traffic associated with Alternative 1 would significantly impact three study intersection's volume/capacity ratios, or level of service.

CEQA Impact Determination

The No Project Alternative considers what would reasonably be expected to occur on the site in the absence of issuance of both a federal permit by the USACE and a discretionary land use decision by the Port of Los Angeles. This alternative would not allow implementation of the proposed Project or other physical improvements at Berths 136-147. Therefore, under this alternative, there would be no impacts on traffic related to construction. Forecasted increases in cargo throughput would still occur as greater operational efficiencies are made.

Alternative 1 future traffic conditions for the years 2015 and 2038 were estimated by adding traffic from proposed local development projects, from regional traffic growth, and traffic increases resulting from Port terminal throughput growth, which is not attributable to the Project, to the CEQA 2003 baseline traffic volumes. Table 3.10-12 summarizes the TEU throughput for the CEQA Baseline and No Project Alternative and also the assumed operating parameters that were used to develop the trip generation forecasts. Traffic generated by Alternative 1 was estimated to determine potential impacts of this alternative on study area roadways.

Appendix E contains all of the CEQA Baseline, No Federal Action/NEPA Baseline and the No Project Alternative traffic forecasts and LOS calculation worksheets.

Table 3.10-12. Trip Generation Analysis Assumptions and Input Data for Berths 136-147 Terminal

Berths 136-147	CEQA BASELINE	NO PROJECT	
	2003	*2015*	*2038*
Gross Acres	176	176	176
Resultant TEU's (annual)	891,976	1,355,200	1,697,000
Peak Month Factor	0.091	0.091	0.083
Monthly TEU's	81,170	123,323	140,851
KEY TRIP GENERATION MODEL INPUT FACTORS			
Shift Split (%) (day/2nd/night)	90/10/0	80/10/10	60/20/20
On-Dock Rail %	0%	0%	0%
% Double Cycle Trucks	29%	35%	45%
Percentage of Weekly Gate Traffic Allocated to Weekend	15%	15%	15%
TRIP GENERATION RESULTS – A.M. PEAK			
Auto Trips Added under No Project	-----	61	38
Truck Trips Added under No Project	-----	153	165
Total Trips Added under No Project	-----	214	203
TRIP GENERATION RESULTS – P.M. PEAK			
Auto Trips Added under No Project	-----	74	44
Truck Trips Added under No Project	-----	147	34
Total Trips Added under No Project	-----	221	78
The trips generated for the No Project represent incremental increases relative to CEQA Baseline.			

Tables 3.10-13 and 3.10-14 summarize the CEQA Baseline and the No Project Alternative intersection operating conditions at each study intersection for the 2015 and 2038 scenarios, respectively. The CEQA Baseline and the No Project Alternative intersection operating conditions for each year were compared to determine the impact of this alternative, and then the impacts were assessed using the City of Los Angeles criteria for significant impacts.

Based on the results of the traffic study as presented in Tables 3.10-13 and 3.10-14, the No Project Alternative would result in significant circulation system impacts at three study intersections, relative to CEQA Baseline conditions. As noted in section 3.10.2, the City of Los Angeles has adopted thresholds of significance for traffic impacts at intersections. Based on those thresholds, three intersection locations would be significantly impacted by traffic that would be added by the No Project Alternative over and above CEQA Baseline conditions. There would be significant impacts under CEQA related to long-term vehicular traffic.

Table 3.10-13. 2015 Intersection Level of Service Analysis – No-Project vs. CEQA Baseline

Study Intersection	*Year 2015 Baseline*				*Year 2015 No Project*				*Change in V/C*		*Significantly Impacted*
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR				
	LOS	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*A.M.*	*P.M.*	
Figueroa Street and Harry Bridges Blvd (b)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	No
Avalon Boulevard and Harry Bridges Blvd	A	0.405	A	0.575	A	0.484	B	0.662	0.079	0.087	No
Alameda Street and Anaheim Street	C	0.782	B	0.692	D	0.842	C	0.730	0.060	0.038	AM
Henry Ford Avenue and Anaheim Street	B	0.672	C	0.742	B	0.676	C	0.750	0.004	0.008	No
Harbor Blvd and SR-47 WB On-Ramp (a)	A	0.342	A	0.477	A	0.343	A	0.477	0.001	0.000	No
Harbor Blvd and Swinford Street/ SR-47 Ramps	B	0.605	D	0.894	B	0.606	D	0.895	0.001	0.001	No
John S. Gibson Blvd and I-110 NB Ramps	A	0.566	A	0.569	A	0.569	A	0.573	0.003	0.004	No
Figueroa Street / "C"-Street / I-110 Ramps (b)	A	0.469	A	0.469	A	0.514	A	0.507	0.045	0.038	No
Pacific Avenue and Front Street	A	0.554	A	0.486	A	0.558	A	0.490	0.004	0.004	No
Fries Avenue and Harry Bridges Blvd	A	0.360	A	0.472	A	0.462	B	0.624	0.102	0.152	No
Neptune Avenue and Harry Bridges Blvd	A	0.240	A	0.332	A	0.306	A	0.381	0.066	0.049	No
ICTF Driveway #1 and Sepulveda Blvd	A	0.328	A	0.563	A	0.332	A	0.570	0.004	0.007	No
ICTF Driveway #2 and Sepulveda Blvd	A	0.373	A	0.425	A	0.376	A	0.433	0.003	0.008	No
Santa Fe Avenue and Anaheim Street	A	0.410	A	0.538	A	0.414	A	0.544	0.004	0.006	No
John S. Gibson Blvd and Channel Street	A	0.581	B	0.682	A	0.581	B	0.682	0.000	0.000	No
Broad Avenue and Harry Bridges Blvd	A	0.329	A	0.501	A	0.388	C	0.766	0.059	0.265	PM
Navy Way and Seaside Avenue	C	0.799	E	0.950	D	0.800	E	0.954	0.001	0.004	No

Notes:

(a) Signalized intersection in the future due to Harbor Boulevard Interchange Improvement

(b) Signalized intersection in the future due to C-Street Interchange Improvement, future analyses assume new intersection of John S. Gibson Boulevard / Harry Bridges Boulevard / Figueroa Street / I-110 ramps per current design plans

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

Table 3.10-14. 2038 Intersection Level of Service Analysis – No-Project vs. CEQA Baseline

Study Intersection	*Year 2038 Baseline*				*Year 2038 No Project*				*Change in V/C*		*Significantly Impacted*
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR				
	LOS	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*A.M.*	*P.M.*	
Figueroa Street and Harry Bridges Blvd (b)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	No
Avalon Boulevard and Harry Bridges Blvd	A	0.490	B	0.643	A	0.563	C	0.705	0.073	0.062	PM
Alameda Street and Anaheim Street	F	1.069	E	0.920	F	1.104	E	0.947	0.035	0.027	AM, PM
Henry Ford Avenue and Anaheim Street	E	0.913	F	1.012	E	0.921	F	1.017	0.008	0.005	No
Harbor Blvd and SR-47 WB On-Ramp (a)	A	0.453	B	0.667	A	0.454	B	0.668	0.001	0.001	No
Harbor Blvd and Swinford Street/ SR-47 Ramps	C	0.784	F	1.277	C	0.785	F	1.277	0.001	0.000	No
John S. Gibson Blvd and I-110 NB Ramps	B	0.693	A	0.582	B	0.695	A	0.585	0.002	0.003	No
Figueroa Street / "C"-Street / I-110 Ramps (b)	A	0.554	A	0.565	A	0.585	A	0.591	0.031	0.026	No
Pacific Avenue and Front Street	B	0.647	A	0.567	B	0.651	A	0.571	0.004	0.004	No
Fries Avenue and Harry Bridges Blvd	A	0.455	A	0.575	A	0.579	B	0.658	0.124	0.083	No
Neptune Avenue and Harry Bridges Blvd	A	0.255	A	0.363	A	0.320	A	0.392	0.065	0.029	No
ICTF Driveway #1 and Sepulveda Blvd	A	0.355	A	0.585	A	0.361	A	0.590	0.006	0.005	No
ICTF Driveway #2 and Sepulveda Blvd	A	0.395	A	0.440	A	0.401	A	0.445	0.006	0.005	No
Santa Fe Avenue and Anaheim Street	A	0.482	B	0.629	A	0.487	B	0.633	0.005	0.004	No
John S. Gibson Blvd and Channel Street	C	0.710	D	0.825	C	0.710	D	0.825	0.000	0.000	No
Broad Avenue and Harry Bridges Blvd	A	0.364	A	0.589	A	0.404	C	0.786	0.040	0.197	PM
Navy Way Seaside Avenue	F	1.156	F	1.358	F	1.160	F	1.361	0.004	0.003	No

Notes:

(a) Signalized intersection in the future due to Harbor Boulevard Interchange Improvement

(b) Signalized intersection in the future due to C-Street Interchange Improvement, future analyses assume new intersection of John S. Gibson Boulevard / Harry Bridges Boulevard / Figueroa Street / I-110 ramps per current design plans

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

Specifically, the LOS at the Avalon Boulevard/Harry Bridges Boulevard intersection would experience a significant traffic impact during the P.M. peak hour in 2038. At 2038, Avalon Boulevard/Harry Bridges Boulevard would operate at LOS C during the A.M. peak hour, and the level of Alternative 1-related traffic would exceed the City of Los Angeles threshold for significant impact.

The Alameda Street/Anaheim Street intersection would also experience a significant traffic impact in the A.M. peak hour in 2015 and significant traffic impact for both the A.M. and P.M. peak hours in 2038. At 2015, Alameda Street/Anaheim Street would operate at LOS D during the A.M. peak hour. This level of traffic would exceed the City of Los Angeles threshold for significant impact. At 2038, Alameda Street/Anaheim Street would operate at LOS F in the A.M. peak hour and LOS E during the P.M. peak hour, which would exceed the City of Los Angeles threshold for significant impacts.

The Broad Avenue/Harry Bridges Boulevard intersection would experience a significant traffic impact for the P.M. peak hour during buildout years 2015 and 2038. In 2015 and 2038, Broad Avenue/Harry Bridges Boulevard would operate at LOS C during the P.M. peak hour, and the level of Alternative 1-related traffic would exceed the City of Los Angeles threshold for significant impacts.

The amount of traffic under the No Project Alternative that would be added at all other study locations would not be of sufficient magnitude to meet or exceed the threshold of significance of the respective city. This is true even for some intersections that would operate in the future at LOS E or F.

In summary, significant impacts under CEQA are forecasted for the No Project Alternative on the following intersections:

- 2015 – Alameda Street and Anaheim Street (A.M. peak hour) Broad Avenue and Harry Bridges Boulevard – (P.M. peak hour)
- 2038 – Avalon Boulevard and Harry Bridges Blvd – (P.M. peak hour) Alameda Street and Anaheim Street – (A.M. & P.M. peak hours) Broad Avenue and Harry Bridges Boulevard – (P.M. peak hour)

Therefore, the No Project Alternative would result in a significant traffic impact under the baseline conditions.

Mitigation Measures

Trans #2, Trans #3, and Trans #5 would apply to the CEQA No Project impact determination. Additionally, if the related projects discussed in Section 3.10.3.1.5 are not constructed in the timeframe assumed, mitigation measures Trans #6 and Trans #7 shall also be applied to the No Project Alternative. Tables 3.10-15 and 3.10-16 present the level-of-service results with implementation of the mitigation measures for 2015 and 2038, respectively.

Table 3.10-15. 2015 Intersection Level of Service Analysis – Alternative 1 (No Project) vs. CEQA Baseline

Study Intersection	*Year 2015 Baseline*				*Year 2015 No Project*				*Year 2015 with Mitigation*			
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR	
	LOS	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*
Figueroa Street and Harry Bridges Blvd (b)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Avalon Boulevard and Harry Bridges Blvd	A	0.405	A	0.575	A	0.484	B	0.662	-----	-----	-----	-----
Alameda Street and Anaheim Street	C	0.782	B	0.692	D	0.842	C	0.730	C	0.792	C	0.730
Henry Ford Avenue and Anaheim Street	B	0.672	C	0.742	B	0.676	C	0.750	-----	-----	-----	-----
Harbor Blvd and SR-47 WB On-Ramp (a)	A	0.342	A	0.477	A	0.343	A	0.477	-----	-----	-----	-----
Harbor Blvd and Swinford Street/ SR-47 Ramps	B	0.605	D	0.894	B	0.606	D	0.895	-----	-----	-----	-----
John S. Gibson Blvd and I-110 NB Ramps	A	0.566	A	0.569	A	0.569	A	0.573	-----	-----	-----	-----
Figueroa Street / "C"-Street / I-110 Ramps (b)	A	0.469	A	0.469	A	0.514	A	0.507	-----	-----	-----	-----
Pacific Avenue and Front Street	A	0.554	A	0.486	A	0.558	A	0.490	-----	-----	-----	-----
Fries Avenue and Harry Bridges Blvd	A	0.360	A	0.472	A	0.462	B	0.624	-----	-----	-----	-----
Neptune Avenue and Harry Bridges Blvd	A	0.240	A	0.332	A	0.306	A	0.381	-----	-----	-----	-----
ICTF Driveway #1 and Sepulveda Blvd	A	0.328	A	0.563	A	0.332	A	0.570	-----	-----	-----	-----
ICTF Driveway #2 and Sepulveda Blvd	A	0.373	A	0.425	A	0.376	A	0.433	-----	-----	-----	-----
Santa Fe Avenue and Anaheim Street	A	0.410	A	0.538	A	0.414	A	0.544	-----	-----	-----	-----
John S. Gibson Blvd and Channel Street	A	0.581	B	0.682	A	0.581	B	0.682	-----	-----	-----	-----
Broad Avenue and Harry Bridges Blvd	A	0.329	A	0.501	A	0.388	C	0.766	A	0.388	A	0.429
Navy Way and Seaside Avenue	C	0.799	E	0.950	D	0.800	E	0.954	-----	-----	-----	-----

Notes:

(a) Signalized intersection in the future due to Harbor Boulevard Interchange Improvement

(b) Signalized intersection in the future due to C-Street Interchange Improvement, future analyses assume new intersection of John S. Gibson Boulevard / Harry Bridges Boulevard / Figueroa Street / I-110 ramps per current design plans

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

Table 3.10-16. 2038 Intersection Level of Service Analysis – Alternative 1 (No Project) vs. CEQA Baseline

Study Intersection	*Year 2038 Baseline*				*Year 2038 No Project*				*Year 2038 with Mitigation*			
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR	
	LOS	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*
Figueroa Street and Harry Bridges Blvd (b)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Avalon Boulevard and Harry Bridges Blvd	A	0.490	B	0.643	A	0.563	C	0.705	A	0.518	B	0.622
Alameda Street and Anaheim Street	F	1.069	E	0.920	F	1.104	E	0.947	F	1.076	C	0.791
Henry Ford Avenue and Anaheim Street	E	0.913	F	1.012	E	0.921	F	1.017	-----	-----	-----	-----
Harbor Blvd and SR-47 WB On-Ramp (a)	A	0.453	B	0.667	A	0.454	B	0.668	-----	-----	-----	-----
Harbor Blvd and Swinford Street/ SR-47 Ramps	C	0.784	F	1.277	C	0.785	F	1.277	-----	-----	-----	-----
John S. Gibson Blvd and I-110 NB Ramps	B	0.693	A	0.582	B	0.695	A	0.585	-----	-----	-----	-----
Figueroa Street / "C"-Street / I-110 Ramps (b)	A	0.554	A	0.565	A	0.585	A	0.591	-----	-----	-----	-----
Pacific Avenue and Front Street	B	0.647	A	0.567	B	0.651	A	0.571	-----	-----	-----	-----
Fries Avenue and Harry Bridges Blvd	A	0.455	A	0.575	A	0.579	B	0.658	-----	-----	-----	-----
Neptune Avenue and Harry Bridges Blvd	A	0.255	A	0.363	A	0.320	A	0.392	-----	-----	-----	-----
ICTF Driveway #1 and Sepulveda Blvd	A	0.355	A	0.585	A	0.361	A	0.590	-----	-----	-----	-----
ICTF Driveway #2 and Sepulveda Blvd	A	0.395	A	0.440	A	0.401	A	0.445	-----	-----	-----	-----
Santa Fe Avenue and Anaheim Street	A	0.482	B	0.629	A	0.487	B	0.633	-----	-----	-----	-----
John S. Gibson Blvd and Channel Street	C	0.710	D	0.825	C	0.710	D	0.825	-----	-----	-----	-----
Broad Avenue and Harry Bridges Blvd	A	0.364	A	0.589	A	0.404	C	0.786	A	0.404	A	0.461
Navy Way and Seaside Avenue	F	1.156	F	1.358	F	1.160	F	1.361	-----	-----	-----	-----

Notes:

(a) Signalized intersection in the future due to Harbor Boulevard Interchange Improvement

(b) Signalized intersection in the future due to C-Street Interchange Improvement, future analyses assume new intersection of John S. Gibson Boulevard / Harry Bridges Boulevard / Figueroa Street / I-110 ramps per current design plans

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

Residual Impact

Impacts would be less than significant under CEQA after implementation of the above mitigation measures.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, there would be no federal action and an impact determination is not applicable.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation is required.

Residual Impacts

No impact.

Impact TRANS-3: An increase in on-site employees due to Alternative 1 operations would result in a less than significant increase in related public transit use.

CEQA Impact Determination

Increase in work-related trips using public transit would be negligible. Port terminals generate extremely low transit demand for several reasons. The primary reason that Port workers do not use public transit is that many terminal workers must first report to union halls for dispatch before proceeding to the terminal to which they have been assigned. Most workers prefer to use a personal automobile to facilitate this disjointed travel pattern. Also, Port workers live throughout the Southern California region and do not have access to the few bus routes that serve the Port. Additionally, Port workers' incomes are generally higher than similarly skilled jobs in other areas and higher incomes correlates to lower transit usage (Pucher, Renne 2003). Finally, parking at the Port is readily available and free, which encourages workers to drive to work. Therefore, it is expected that less than ten work trips per day would be made on public transit, which could easily be accommodated by existing bus transit services and would not result in a demand for transit services which would exceed the supply of such services. Observations of transit usage in the area for bus routes that serve the proposed Project area (MTA routes 446 and 447) revealed that the buses are currently not operating near capacity and would be able to accommodate this level of increase in demand without exceeding supply. Consequently, impacts due to additional demand on local transit services would be less than significant under CEQA.

Mitigation Measures

No mitigation would be necessary.

Residual Impacts

Less than significant.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, there would be no federal action and an impact determination is not applicable.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation is required.

Residual Impacts

No impact.

Impact TRANS-4: Alternative 1 operations would result in a less than significant increase in freeway congestion.

CEQA Impact Determination

According to the Congestion Management Plan (CMP), Traffic Impact Analysis (TIA) Guidelines, a traffic impact analysis is required at the following:

- CMP arterial monitoring intersections, including freeway on-ramp or off-ramp, where the proposed Project would add 50 or more trips during either the A.M. or P.M. weekday peak hours.
- CMP freeway monitoring locations where the proposed Project would add 150 or more trips during either the A.M. or P.M. weekday peak hours.

Per CMP guidelines, an increase of 0.02 or more in the demand-to-capacity (D/C) ratio with a resulting LOS F is deemed a significant impact.

The closest CMP arterial monitoring station to Alternative 1 is Alameda Street/Pacific Coast Highway (PCH). Alternative 1 would add at least 50 trips through this intersection, and, therefore, CMP system analysis is required at this location. This intersection was recently improved as part of the Alameda Corridor Project, and the north-south through movements are grade separated. Since most proposed Project traffic at this location is north-south oriented, Alternative 1 traffic would be on the newly grade separated portion of the intersection. "O" Street is the connector between PCH and Alameda Street. Thus, the analyzed intersection is "O" Street/Alameda Street. The analysis results indicate that the Alternative would not result in more than 0.02 increase in the V/C ratio at this location; therefore, there is no CMP system impact.

The closest freeway monitoring station is located at I-110 at "C"-Street and I-710 at Willow Street. The results of the analysis indicate that Alternative 1 would not result in more than 150 additional proposed Project trips on either of the CMP freeway monitoring locations; therefore, no CMP system analysis is required at those locations.

Therefore, there would be no impacts under CEQA.

Mitigation Measures

No mitigation would be necessary.

Residual Impacts

No impact.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, there would be no federal action and an impact determination is not applicable.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation is required.

Residual Impacts

No impact.

Impact TRANS-5: Alternative 1 operations would cause an increase in rail activity, causing delays in regional traffic.

CEQA Impact Determination

Rail activity causes delay at crossings where the trains pass and cause auto and truck traffic to stop. The amount of delay is related to the length of the train, the speed of the train and the amount of auto and truck traffic that is blocked. Alternative 1 would cause an increase in either the number of trains or the amount of auto and truck traffic; however, the increase in auto and truck traffic would only affect some of the at-grade crossings. In the case of this Alternative, the affected at-grade crossings are at Avalon Boulevard and Henry Ford Avenue. The grade crossing at Fries Avenue would be eliminated as part of the Fries Avenue Grade Separation project. Impacts would be significant under CEQA.

Mitigation Measures

There are no feasible mitigation measures for this impact.

Residual Impacts

Significant and Unavoidable. There would be a significant, unavoidable transportation/ circulation impact at the Henry Ford Avenue and Avalon Boulevard grade crossings as a result of the proposed Project.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, there would be no federal action and an impact determination is not applicable.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation is required.

Residual Impacts

No impact.

3.10.3.3.2.2 Alternative 2 – Reduced Project: Project Without the 10-Acre Fill

The Reduced Project Alternative (Alternative 2) is the same as the proposed Project except the 10-acre Northwest Slip would not be filled for additional backland storage area, and the 400-foot wharf would not be built adjacent to it, which would result in decreased container movement efficiency when compared with the proposed Project. Acreage would not increase between 2015 and 2038, remaining constant at 233 acres.

Impact TRANS-1: Construction would result in a short-term, temporary increase in truck and auto traffic.

CEQA Impact Determination

There would be temporary impacts on the study area roadway system during construction of the Alternative 2 similar to the proposed Project because the construction activities would generate vehicular traffic associated with construction workers' vehicles and trucks delivering equipment and fill material to the site. This site-generated traffic would result in increased traffic volumes on the study area roadways for the duration of the construction period, which would span a period of 2 to 3 years for the various project components. Similar to the proposed Project, Alternative 2 would result in significant impact.

Mitigation Measures

Intersection **Mitigation Measure Trans #1** would be implemented to mitigate the significant impact of construction -related traffic.

Residual Impacts

Less than significant impact

NEPA Impact Determination

The Reduced Project Alternative (Alternative 2) is the same as the proposed Project except the 10-acre Northwest Slip would not be filled for additional backland storage area, and the 400-foot wharf would not be built adjacent to it, which would result in decreased container movement efficiency when compared with the proposed Project. Acreage would not increase between 2015 and 2038, remaining constant at 233 acres, There would be temporary impacts on the study area roadway system during construction of the Alternative 2 similar to the proposed Project because the construction activities would generate vehicular traffic associated with construction workers' vehicles and trucks delivering equipment and fill material to the site. This site-generated traffic would result in increased traffic volumes on the study area roadways for the duration of the construction period, which would span a period of 2 to 3 years for the various project components. Similar to the proposed Project, Alternative 2 would result in significant impact.

Mitigation Measures

Intersection **Mitigation Measure Trans #1** would be implemented to mitigate the significant impact of construction -related traffic.

Residual Impacts

Less than significant impact

Impact TRANS-2: Long-term vehicular traffic associated with Alternative 2 would significantly impact study intersection's volume/capacity ratios, or level of service.

CEQA Impact Determination.

Quantitative trip generation estimates were developed for Alternative 2 and compared to the CEQA Baseline and the proposed Project. Traffic generated from Alternative 2 using the same QuickTrip trip generation model as used for the project would be greater than the CEQA Baseline and the same as the proposed Project. Table 3.10-17 illustrates the trip generation potential of Alternative 2. As shown, in 2015 and 2038, Alternative 2 would generate the same trips as the proposed Project. Alternative 2 would also generate the same total train movements as the proposed Project.

Table 3.10-17. Trip Generation Analysis – Alternative 2

	A.M. Peak		*P.M. Peak*	
	2015	2038	2015	2038
CEQA Baseline (Year 2003 – TraPac)				
Autos	98	98	143	143
Trucks	212	212	372	372
Total	310	310	515	515
NEPA - No Federal Action at TraPac				
Autos	176	136	239	187
Trucks	249	230	357	249
Total	425	366	596	436
Proposed Project (TraPac)				
Autos	206	193	281	263
Trucks	311	360	444	390
Total	517	553	725	653
Alternative 2 (Project without 10-Acre Fill)				
Autos	206	193	281	263
Trucks	311	360	444	390
Total	517	553	725	653

The following significant intersection impacts under CEQA are forecasted for Alternative 2:

- 2015 – Alameda Street and Anaheim Street – (A.M. peak hour)
- 2038 – Avalon Boulevard and Harry Bridges Blvd – (P.M. peak hour)
  Alameda Street and Anaheim Street – (A.M. & P.M. peak hours)
  Fries Avenue and Harry Bridges Boulevard – (P.M. peak hour)
  Broad Avenue and Harry Bridges Boulevard – (P.M. peak hour)

Therefore, Alternative 2 would result in a significant traffic impact under CEQA.

Mitigation Measures

Intersection **Mitigation Measures Trans #2 through Trans #5** would be implemented to mitigate the significant impact of Project-related traffic. Tables 3.10-6 and 3.10-7 present the level-of-service results with implementation of the mitigation measures for 2015 and 2038, respectively.

Residual Impact

Impacts would be less than significant under CEQA after implementation of the above mitigation measure.

NEPA Impact Determination

Alternative 2 would result in the same traffic, TEU throughput, and total peak hour rail trips as the proposed Project, which would be an increase over No Federal Action/NEPA Baseline conditions. Alternative 2 measured against the No Federal Action/NEPA Baseline would result in adverse impacts based on the City of Los Angeles impact criteria. Three intersections would be adversely impacted based on comparison to the No Federal Action/NEPA Baseline, as follows:

- 2038 – Avalon Boulevard and Harry Bridges Blvd – (P.M. peak hour)
  Alameda Street and Anaheim Street – (A.M. & P.M. peak hours)
  Fries Avenue and Harry Bridges Boulevard – (P.M. peak hour)
  Broad Avenue and Harry Bridges Boulevard – (P.M. peak hour)

Therefore, the proposed Project would result in a significant traffic impact under NEPA.

Mitigation Measures

Intersection **Mitigation Measures Trans #2** through **Trans #5** would be implemented to mitigate the significant impact of Project-related traffic. Tables 3.10-6 and 3.10-7 present the level-of-service results with implementation of the mitigation measures for 2015 and 2038, respectively.

Residual Impacts

With application of **Mitigation Measures Trans #2, Trans #3, Trans #4** and **Trans #5,** residual impacts would be less than significant under CEQA. Tables 3.10-18 and 3.10-19 present the level-of-service results with implementation of the mitigation measures for 2015 and 2038, respectively

Impact TRANS-3: An increase in on-site employees due to proposed Project operations would result in a less than significant increase in related public transit use.

CEQA Impact Determination

Alternative 2 would result in approximately the same numbers of employees as the proposed Project. It is expected that less than ten work trips per day would be made on public transit, which could easily be accommodated by existing bus transit services and would not result in a demand for transit services which would exceed the supply of such services. Observations of transit usage in the area for bus routes that serve the proposed Project area (MTA routes 446 and 447) revealed that the buses are currently not operating near capacity and would be able to accommodate

Table 3.10-18. 2015 Intersection Level of Service Analysis – Alternative 2 (Reduced Project) vs. CEQA Baseline

Study Intersection	Year 2015 Baseline				Year 2015 Reduced Project				Year 2015 with Mitigation			
	A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay
Figueroa Street and Harry Bridges Blvd (b)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Avalon Boulevard and Harry Bridges Blvd	A	0.405	A	0.575	A	0.480	B	0.667	-----	-----	-----	-----
Alameda Street and Anaheim Street	C	0.782	B	0.692	D	0.829	C	0.726	C	0.787	C	0.726
Henry Ford Avenue and Anaheim Street	B	0.672	C	0.742	B	0.676	C	0.733	-----	-----	-----	-----
Harbor Blvd and SR-47 WB On-Ramp (a)	A	0.342	A	0.477	A	0.343	A	0.477	-----	-----	-----	-----
Harbor Blvd and Swinford Street/ SR-47 Ramps	B	0.605	D	0.894	B	0.606	D	0.896	-----	-----	-----	-----
John S. Gibson Blvd and I-110 NB Ramps	A	0.566	A	0.569	A	0.570	A	0.575	-----	-----	-----	-----
Figueroa Street / "C"-Street / I-110 Ramps (b)	A	0.469	A	0.469	A	0.505	A	0.502	-----	-----	-----	-----
Pacific Avenue and Front Street	A	0.554	A	0.486	A	0.561	A	0.493	-----	-----	-----	-----
Fries Avenue and Harry Bridges Blvd	A	0.360	A	0.472	B	0.606	B	0.685	-----	-----	-----	-----
Neptune Avenue and Harry Bridges Blvd	A	0.240	A	0.332	A	0.268	A	0.382	-----	-----	-----	-----
ICTF Driveway #1 and Sepulveda Blvd	A	0.328	A	0.563	A	0.331	A	0.569	-----	-----	-----	-----
ICTF Driveway #2 and Sepulveda Blvd	A	0.373	A	0.425	A	0.376	A	0.431	-----	-----	-----	-----
Santa Fe Avenue and Anaheim Street	A	0.410	A	0.538	A	0.413	A	0.542	-----	-----	-----	-----
John S. Gibson Blvd and Channel Street	A	0.581	B	0.682	A	0.581	B	0.682	-----	-----	-----	-----
Broad Avenue and Harry Bridges Blvd	A	0.329	A	0.501	A	0.376	A	0.546	-----	-----	-----	-----
Navy Way and Seaside Avenue	C	0.799	E	0.950	D	0.800	E	0.953	-----	-----	-----	-----

Notes:

(a) Signalized intersection in the future due to Harbor Boulevard Interchange Improvement

(b) Signalized intersection in the future due to C-Street Interchange Improvement, future analyses assume new intersection of John S. Gibson Boulevard / Harry Bridges Boulevard / Figueroa Street / I-110 ramps per current design plans

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

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Table 3.10-19. 2038 Intersection Level of Service Analysis – Alternative 2 (Reduced Project) vs. CEQA Baseline

Study Intersection	Year 2038 Baseline				Year 2038 Reduced Project				Year 2038 with Mitigation			
	A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay
Figueroa Street and Harry Bridges Blvd (b)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Avalon Boulevard and Harry Bridges Blvd	A	0.490	B	0.643	A	0.580	C	0.723	A	0.528	B	0.635
Alameda Street and Anaheim Street	F	1.069	E	0.920	F	1.104	E	0.948	F	1.076	C	0.792
Henry Ford Avenue and Anaheim Street	E	0.913	F	1.012	E	0.921	F	1.017	-----	-----	-----	-----
Harbor Blvd and SR-47 WB On-Ramp (a)	A	0.453	B	0.667	A	0.454	B	0.668	-----	-----	-----	-----
Harbor Blvd and Swinford Street/ SR-47 Ramps	C	0.784	F	1.277	C	0.785	F	1.278	-----	-----	-----	-----
John S. Gibson Blvd and I-110 NB Ramps	B	0.693	A	0.582	B	0.697	A	0.588	-----	-----	-----	-----
Figueroa Street / "C"-Street / I-110 Ramps (b)	A	0.554	A	0.565	A	0.585	A	0.592	-----	-----	-----	-----
Pacific Avenue and Front Street	B	0.647	A	0.567	B	0.653	A	0.573	-----	-----	-----	-----
Fries Avenue and Harry Bridges Blvd	A	0.455	A	0.575	B	0.668	C	0.725	B	0.627	B	0.671
Neptune Avenue and Harry Bridges Blvd	A	0.255	A	0.363	A	0.303	A	0.406	-----	-----	-----	-----
ICTF Driveway #1 and Sepulveda Blvd	A	0.355	A	0.585	A	0.361	A	0.590	-----	-----	-----	-----
ICTF Driveway #2 and Sepulveda Blvd	A	0.395	A	0.440	A	0.401	A	0.445	-----	-----	-----	-----
Santa Fe Avenue and Anaheim Street	A	0.482	B	0.629	A	0.487	B	0.633	-----	-----	-----	-----
John S. Gibson Blvd and Channel Street	C	0.710	D	0.825	C	0.710	D	0.825	-----	-----	-----	-----
Broad Avenue and Harry Bridges Blvd	A	0.364	A	0.589	A	0.403	C	0.794	A	0.403	A	0.461
Navy Way and Seaside Avenue	F	1.156	F	1.358	F	1.160	F	1.361	-----	-----	-----	-----

Notes:

(a) Signalized intersection in the future due to Harbor Boulevard Interchange Improvement

(b) Signalized intersection in the future due to C-Street Interchange Improvement, future analyses assume new intersection of John S. Gibson Boulevard / Harry Bridges Boulevard / Figueroa Street / I-110 ramps per current design plans

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

this level of increase in demand without exceeding supply. Consequently, impacts due to additional demand on local transit services would be less than significant under CEQA.

Mitigation Measures

No mitigation required.

Residual Impacts

Less than significant impacts.

NEPA Impact Determination

The proposed Project would result in a slightly higher employment level compared to the No Federal Action/NEPA Baseline due to in-water construction activities and increased throughput operations, but as discussed above, the increase in work-related trips using public transit would be negligible. Less than significant impacts under NEPA would occur.

Mitigation Measures

No mitigation required.

Residual Impacts

There would be less than significant impacts.

Impact TRANS-4: Alternative 2 operations would result in a less than significant increase in freeway congestion.

CEQA Impact Determination

Similar to the proposed Project, the closest CMP arterial monitoring station to the Alternative 2 is Alameda Street/Pacific Coast Highway (PCH). This intersection was recently improved as part of the Alameda Corridor Project, and the north-south through movements are grade separated. Since most proposed Project traffic at this location is north-south oriented, the proposed Project traffic would be on the newly grade separated portion of the intersection. "O" Street is the connector between PCH and Alameda Street. Thus, the analyzed intersection is "O" Street/Alameda Street. Like the proposed Project, Alternative 2 would not result in more than 0.02 increase in the V/C ratio at this location; therefore, there is no CMP system impact.

Consequently, traffic impacts would be less than significant under CEQA.

Mitigation Measures

No mitigation required.

Residual Impacts

Less than significant impacts.

NEPA Impact Determination

As described above, the proposed Project would not result in an increase of 0.02 or more in the D/C ratio, and therefore would not result in LOS F. Therefore, there would be less than significant impacts under NEPA.

Mitigation Measures

No mitigation required.

Residual Impacts

Less than significant impacts.

Impact TRANS-5: Proposed Project operations would cause an increase in rail activity, causing delays in regional traffic.

CEQA Impact Determination

Rail activity causes delay at crossings where the trains pass and cause auto and truck traffic to stop. The amount of delay is related to the length of the train, the speed of the train and the amount of auto and truck traffic that is blocked. Alternative 2 would cause an increase in either the number of trains or the amount of auto and truck traffic; however, the increase in auto and truck traffic would only affect some of the at-grade crossings. Similar to the proposed Project, the affected at-grade crossings for this Alternative are at Avalon Boulevard and Henry Ford Avenue.

The severity of impact created by a train blockage depends upon the time of day that the blockage occurs and, correspondingly, the volume of traffic that is affected by the blockage. For example, if a blockage occurs during the peak periods of traffic flow, the resulting delays and the number of stopped vehicles would be greater than if the blockage occurred at a non-peak time. Also, the total amount of delay would be greater at locations with high traffic volumes as compared to low-volume locations because the train crossing would stop more vehicles. Like the proposed Project, the added average vehicle delay would range up to a maximum of 91 seconds per vehicle at Henry Ford Avenue with the proposed Project. Based on the threshold of significance of 55 seconds of average vehicle delay, the proposed Project would have a significant impact at both locations.

Mitigation Measures

There are no feasible mitigation measures for this impact.

Residual Impacts

Significant and Unavoidable. There would be a significant, unavoidable transportation/ circulation impact at the Henry Ford Avenue and Avalon Boulevard grade crossings as a result of the proposed Project.

NEPA Impact Determination

Rail delay from the proposed Project would be higher when compared to the No Federal Action/NEPA Baseline, but the delay would not be adverse because the delays would occur along two low volume street segments near the port, as described above. Therefore, less than significant impacts under NEPA would occur.

Mitigation Measures

No mitigation required.

Residual Impacts

Less than significant impacts.

3.10.3.3.2.3 Alternative 3 – Reduced Wharf

The Reduced Wharf Alternative (Alternative 3) is the same as the proposed Project except the proposed new 705-foot wharf along Berths 145-147 would not be constructed, the 10-acre Northwest Slip would not be filled for additional container storage area, and the 400-foot wharf would not be built adjacent to the Northwest Slip.

Impact TRANS-1: Construction would result in a short-term, temporary increase in truck and auto traffic.

CEQA Impact Determination

There would be temporary impacts on the study area roadway system during construction of the Alternative 3 similar to the proposed Project because the construction activities would generate vehicular traffic associated with construction workers' vehicles and trucks delivering equipment and fill material to the site. This site-generated traffic would result in increased traffic volumes on the study area roadways for the duration of the construction period, which would span a period of 2 to 3 years for the various project components. Similar to the proposed Project, Alternative 3 would result in significant impact.

Mitigation Measures

Mitigation Measure Trans #1 would be implemented to mitigate the significant impact of construction -related traffic.

Residual Impacts

Less than significant impact.

NEPA Impact Determination

The Reduced Wharf Alternative (Alternative 3) is the same as the proposed Project except the proposed new 705-foot wharf along Berths 145-147 would not be constructed, the 10-acre Northwest Slip would not be filled for additional container storage area, and the 400-foot wharf would not be built adjacent to the Northwest Slip. There would be temporary impacts on the study area roadway system during construction of the Alternative 3 similar to the proposed Project because the construction activities would generate vehicular traffic associated with construction workers' vehicles and trucks delivering equipment and fill material to the site. This site-generated traffic would result in increased traffic volumes on the study area roadways for the duration of the construction period, which would span a period of 2 to 3 years for the various project components. Similar to the proposed Project, Alternative 3 would result in significant impact.

Mitigation Measures

Intersection **Mitigation Measure Trans #1** would be implemented to mitigate the significant impact of construction -related traffic.

Residual Impacts

Less than significant impact.

Impact TRANS-2: Long-term vehicular traffic associated with Alternative 3 would significantly impact study intersection's volume/capacity ratios, or level of service.

CEQA Impact Determination

Quantitative trip generation estimates were developed for Alternative 3 using the same QuickTrip trip generation model as used for the proposed Project and compared to the CEQA Baseline and the Project. Traffic generated from Alternative 3 would be less than for the proposed Project across all years of analysis and modes (truck and auto). Because Alternative 3 would have lower TEU throughput than the project, it would generate fewer truck movements to handle the containers and would require fewer employees due to the lower throughout. Table 3.10-20 illustrates the trip generation potential of Alternative 3 as compared to the baselines and the proposed Project. Alternative 3 also would generate less total train movements and fewer total peak hour rail trips than the proposed Project. As shown for 2015 and 2038, Alternative 3 would generate fewer trips compared to the proposed Project, but would generate more auto trips but fewer truck trips than the CEQA Baseline in all years. The reason that fewer truck trips would be generated compared to the CEQA baseline is that the on-dock rail facility would be added under Alternative 3, which would remove truck trips. Compared to the CEQA baseline, however, Alternative 3 would have more TEU throughput, thus requiring more employees and generating more visitors, thus more auto trips.

Table 3.10-20. Trip Generation Analysis – Alternative 3

	A.M. Peak		*P.M. Peak*	
	2015	2038	2015	2038
CEQA Baseline (Year 2003 – TraPac)				
Autos	98	98	143	143
Trucks	212	212	372	372
Total	310	310	515	515
No Federal Action/NEPA Baseline- at TraPac				
Autos	176	136	239	187
Trucks	249	230	357	249
Total	425	366	596	436
Proposed Project (TraPac)				
Autos	206	193	281	263
Trucks	311	360	444	390
Total	517	553	725	653
Alternative 3 (Reduced Wharf)				
Autos	176	164	239	224
Trucks	249	279	357	302
Total	425	443	596	526

The following significant intersection impacts under CEQA are forecasted for Alternative 3:

- 2015 – Alameda Street and Anaheim Street – (A.M. peak hour)
- 2038 – Alameda Street and Anaheim Street – (A.M. & P.M. peak hours)

Therefore, Alternative 3 would result in a significant traffic impact under CEQA.

Mitigation Measures

Intersection **Mitigation Measure Trans #2** would be implemented to mitigate the significant impact of Project-related traffic. Tables 3.10-21 and 3.10-22 present the level-of-service results with implementation of the mitigation measures for 2015 and 2038, respectively.

Residual Impact

Impacts would be less than significant under CEQA after implementation of the above mitigation measure.

Table 3.10-21. 2015 Intersection Level of Service Analysis – Alternative 3 (Reduced Wharf) vs. CEQA Baseline

Study Intersection	*Year 2015 Baseline*				*Year 2015 Reduced Wharf*				*Year 2015 with Mitigation*			
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR	
	LOS	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*
Figueroa Street and Harry Bridges Blvd (b)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Avalon Boulevard and Harry Bridges Blvd	A	0.405	A	0.575	A	0.464	B	0.641	-----	-----	-----	-----
Alameda Street and Anaheim Street	C	0.782	B	0.692	D	0.812	C	0.715	C	0.785	C	0.715
Henry Ford Avenue and Anaheim Street	B	0.672	C	0.742	B	0.675	C	0.746	-----	-----	-----	-----
Harbor Blvd and SR-47 WB On-Ramp (a)	A	0.342	A	0.477	A	0.343	A	0.477	-----	-----	-----	-----
Harbor Blvd and Swinford Street/ SR-47 Ramps	B	0.605	D	0.894	B	0.606	D	0.895	-----	-----	-----	-----
John S. Gibson Blvd and I-110 NB Ramps	A	0.566	A	0.569	A	0.569	A	0.573	-----	-----	-----	-----
Figueroa Street / "C"-Street / I-110 Ramps (b)	A	0.469	A	0.469	A	0.493	A	0.491	-----	-----	-----	-----
Pacific Avenue and Front Street	A	0.554	A	0.486	A	0.559	A	0.491	-----	-----	-----	-----
Fries Avenue and Harry Bridges Blvd	A	0.360	A	0.472	A	0.446	B	0.619	-----	-----	-----	-----
Neptune Avenue and Harry Bridges Blvd	A	0.240	A	0.332	A	0.263	A	0.367	-----	-----	-----	-----
ICTF Driveway #1 and Sepulveda Blvd	A	0.328	A	0.563	A	0.331	A	0.567	-----	-----	-----	-----
ICTF Driveway #2 and Sepulveda Blvd	A	0.373	A	0.425	A	0.375	A	0.429	-----	-----	-----	-----
Santa Fe Avenue and Anaheim Street	A	0.410	A	0.538	A	0.412	A	0.541	-----	-----	-----	-----
John S. Gibson Blvd and Channel Street	A	0.581	B	0.682	A	0.581	B	0.682	-----	-----	-----	-----
Broad Avenue and Harry Bridges Blvd	A	0.329	A	0.501	A	0.360	A	0.531	-----	-----	-----	-----
Navy Way and Seaside Avenue	C	0.799	E	0.950	C	0.800	E	0.952	-----	-----	-----	-----

Notes:

(a) Signalized intersection in the future due to Harbor Boulevard Interchange Improvement

(b) Signalized intersection in the future due to C-Street Interchange Improvement, future analyses assume new intersection of John S. Gibson Boulevard / Harry Bridges Boulevard / Figueroa Street / I-110 ramps per current design plans

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

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Table 3.10-22. 2038 Intersection Level of Service Analysis – Alternative 3 (Reduced Wharf) vs. CEQA Baseline

Study Intersection	*Year 2038 Baseline*				*Year 2038 Reduced Wharf*				*Year 2038 with Mitigation*			
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR	
	LOS	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*
Figueroa Street and Harry Bridges Blvd (b)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Avalon Boulevard and Harry Bridges Blvd	A	0.490	B	0.643	A	0.561	B	0.697	-----	-----	-----	-----
Alameda Street and Anaheim Street	F	1.069	E	0.920	F	1.093	E	0.933	F	1.076	D	0.855
Henry Ford Avenue and Anaheim Street	E	0.913	F	1.012	E	0.919	F	1.015	-----	-----	-----	-----
Harbor Blvd and SR-47 WB On-Ramp (a)	A	0.453	B	0.667	A	0.454	B	0.668	-----	-----	-----	-----
Harbor Blvd and Swinford Street/ SR-47 Ramps	C	0.784	F	1.277	C	0.785	F	1.277	-----	-----	-----	-----
John S. Gibson Blvd and I-110 NB Ramps	B	0.693	A	0.582	B	0.696	A	0.587	-----	-----	-----	-----
Figueroa Street / "C"-Street / I-110 Ramps (b)	A	0.554	A	0.565	A	0.572	A	0.582	-----	-----	-----	-----
Pacific Avenue and Front Street	B	0.647	A	0.567	B	0.652	A	0.572	-----	-----	-----	-----
Fries Avenue and Harry Bridges Blvd	A	0.455	A	0.575	A	0.589	B	0.661	-----	-----	-----	-----
Neptune Avenue and Harry Bridges Blvd	A	0.255	A	0.363	A	0.292	A	0.391	-----	-----	-----	-----
ICTF Driveway #1 and Sepulveda Blvd	A	0.355	A	0.585	A	0.360	A	0.588	-----	-----	-----	-----
ICTF Driveway #2 and Sepulveda Blvd	A	0.395	A	0.440	A	0.400	A	0.443	-----	-----	-----	-----
Santa Fe Avenue and Anaheim Street	A	0.482	B	0.629	A	0.486	B	0.631	-----	-----	-----	-----
John S. Gibson Blvd and Channel Street	C	0.710	D	0.825	C	0.710	D	0.825	-----	-----	-----	-----
Broad Avenue and Harry Bridges Blvd	A	0.364	A	0.589	A	0.389	B	0.608	-----	-----	-----	-----
Navy Way and Seaside Avenue	F	1.156	F	1.358	F	1.159	F	1.359	-----	-----	-----	-----

Notes:

(a) Signalized intersection in the future due to Harbor Boulevard Interchange Improvement

(b) Signalized intersection in the future due to C-Street Interchange Improvement, future analyses assume new intersection of John S. Gibson Boulevard / Harry Bridges Boulevard / Figueroa Street / I-110 ramps per current design plans

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

NEPA Impact Determination

Alternative 3 would result in the lower traffic rates, TEU throughput, and total peak hour rail trips as the proposed Project, which would be an increase over No Federal Action/NEPA Baseline conditions. Alternative 3 measured against the No Federal Action/NEPA Baseline would result in adverse impacts based on the City of Los Angeles impact criteria. Three intersections would be adversely impacted based on comparison to the No Federal Action/NEPA Baseline, as follows:

- 2038 – Avalon Boulevard and Harry Bridges Blvd – (P.M. peak hour)
  Alameda Street and Anaheim Street – (A.M. & P.M. peak hours)
  Fries Avenue and Harry Bridges Boulevard – (P.M. peak hour)
  Broad Avenue and Harry Bridges Boulevard – (P.M. peak hour)

Therefore, the proposed Project would result in a significant traffic impact under NEPA.

Mitigation Measures

Intersection **Mitigation Measure Trans #2** would be implemented to mitigate the significant impact of Project-related traffic. Tables 3.10-21 and 3.10-22 present the level-of-service results with implementation of the mitigation measures for 2015 and 2038, respectively.

Residual Impacts

With application of **Mitigation Measure Trans #2,** residual impacts would be less than significant under CEQA. Tables 3.10-18 and 3.10-19 present the level-of-service results with implementation of the mitigation measures for 2015 and 2038, respectively.

Impact TRANS-3: An increase in on-site employees due to proposed Project operations would result in a less than significant increase in related public transit use.

CEQA Impact Determination

Alternative 3 would result in approximately the same numbers of employees as the proposed Project. It is expected that less than ten work trips per day would be made on public transit, which could easily be accommodated by existing bus transit services and would not result in a demand for transit services which would exceed the supply of such services. Observations of transit usage in the area for bus routes that serve the proposed Project area (MTA routes 446 and 447) revealed that the buses are currently not operating near capacity and would be able to accommodate this level of increase in demand without exceeding supply. Consequently, impacts due to additional demand on local transit services would be less than significant under CEQA.

Mitigation Measures

No mitigation required.

Residual Impacts

Less than significant impacts.

NEPA Impact Determination

Alternative 3 would result in a slightly higher employment level compared to the No Federal Action/NEPA Baseline due to in-water construction activities and increased throughput operations, but as discussed above, the increase in work-related trips using public transit would be negligible. Less than significant impacts under NEPA would occur.

Mitigation Measures

No mitigation required.

Residual Impacts

There would be less than significant impacts.

Impact TRANS-4: Alternative 3 operations would result in a less than significant increase in freeway congestion.

CEQA Impact Determination

Traffic impacts associated with this alternative would be similar to but less severe than those identified under the proposed Project. Similar to the proposed Project, the closest CMP arterial monitoring station to the Alternative 3 is Alameda Street/Pacific Coast Highway (PCH). This intersection was recently improved as part of the Alameda Corridor Project, and the north-south through movements are grade separated. Since most proposed Project traffic at this location is north-south oriented, the proposed Project traffic would be on the newly grade separated portion of the intersection. "O" Street is the connector between PCH and Alameda Street. Thus, the analyzed intersection is "O" Street/Alameda Street. Like the proposed Project, Alternative 3 would not result in more than 0.02 increase in the V/C ratio at this location; therefore, there is no CMP system impact.

Consequently, traffic impacts would be less than significant under CEQA.

Mitigation Measures

No mitigation required.

Residual Impacts

Less than significant impacts.

NEPA Impact Determination

As described above, Alternative 3 would not result in an increase of 0.02 or more in the D/C ratio, and therefore would not result in LOS F. Therefore, there would be less than significant impacts under NEPA.

Mitigation Measures

No mitigation required.

Residual Impacts

Less than significant impacts.

Impact TRANS-5: Proposed Project operations would cause an increase in rail activity, causing delays in regional traffic.

CEQA Impact Determination

Rail impacts associated with this alternative would be similar to but less severe than those identified under the proposed Project. Rail activity causes delay at crossings where the trains pass and cause auto and truck traffic to stop. The amount of delay is related to the length of the train, the speed of the train and the amount of auto and truck traffic that is blocked. Alternative 3 would cause an increase in either the number of trains or the amount of auto and truck traffic; however, the increase in auto and truck traffic would only affect some of the at-grade crossings. Similar to the proposed Project, the affected at-grade crossings for this Alternative are at Avalon Boulevard and Henry Ford Avenue.

The severity of impact created by a train blockage depends upon the time of day that the blockage occurs and, correspondingly, the volume of traffic that is affected by the blockage. For example, if a blockage occurs during the peak periods of traffic flow, the resulting delays and the number of stopped vehicles would be greater than if the blockage occurred at a non-peak time. Also, the total amount of delay would be greater at locations with high traffic volumes as compared to low-volume locations because the train crossing would stop more vehicles. Like the proposed Project, the added average vehicle delay would range up to a maximum of 91 seconds per vehicle at Henry Ford Avenue with the proposed Project. Based on the threshold of significance of 55 seconds of average vehicle delay, the proposed Project would have a significant impact at both locations.

Mitigation Measures

There are no feasible mitigation measures for this impact.

Residual Impacts

Significant and Unavoidable. There would be a significant, unavoidable transportation/ circulation impact at the Henry Ford Avenue and Avalon Boulevard grade crossings as a result of the proposed Project.

NEPA Impact Determination

Rail delay from the proposed Project would be higher when compared to the No Federal Action/NEPA Baseline, but the delay would not be adverse because the delays would occur along two low volume street segments near the port, as described above. Therefore, less than significant impacts under NEPA would occur.

Mitigation Measures

No mitigation required.

Residual Impacts

Less than significant impacts.

3.10.3.3.2.4 Alternative 4 – Omni Terminal

The Omni Terminal Alternative (Alternative 4) would convert the proposed Project area into an omni cargo handling terminal, similar to the Pasha Stevedoring & Terminals L.P. (Pasha) currently operating at Berths 174-181. The omni terminal would be different from the Proposed Project in several ways. There would be no seismic upgrades to the existing wharves, no new wharf construction, no change in existing cranes, and no 10-acre fill of the Northwest Slip. Since no new fill or dredging would be needed for more backlands for containers, the omni terminal would require no federal permits for in-water construction.

Impact TRANS-1: Construction would result in a short-term, temporary increase in truck and auto traffic.

CEQA Impact Determination

There would be temporary impacts on the study area roadway system during construction of the Alternative 4 similar to the proposed Project because the construction activities would generate vehicular traffic associated with construction workers' vehicles and trucks delivering equipment and fill material to the site. This site-generated traffic would result in increased traffic volumes on the study area roadways for the duration of the construction period, which would span a period of 2 to 3 years for the various project components. Similar to the proposed Project, Alternative 3 would result in significant impact.

Mitigation Measures

Trans #1: Prior to beginning construction, the construction contractor shall prepare a detailed traffic management plan which shall include the following: detour plans, coordination with emergency services and transit providers, coordination with adjacent property owners and tenants, advanced notification of temporary bus stop loss and/or bus line relocation, identify temporary alternative bus routes, advanced notice of temporary parking loss, identify temporary parking replacement or alternative adjacent parking within a reasonable walking distance, use of designated

haul routes, use of truck staging areas, observance of hours of operations restrictions and appropriate signing for construction activities. The traffic management plan shall be submitted to Los Angeles Harbor Department (LAHD) for approval before beginning construction.

Residual Impacts

Less than significant impact.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, there would be no federal action and an impact determination is not applicable.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation is required.

Residual Impacts

No impact.

Impact TRANS-2: Long-term vehicular traffic associated with Alternative 4 would significantly impact study intersection's volume/capacity ratios, or level of service

CEQA Impact Determination

Alternative 4 would convert the proposed Project area into an omni cargo handling terminal, similar to the Pasha Stevedoring & Terminals L.P. (Pasha) currently operating at Berths 174-181. The omni terminal would be different from the Proposed Project in several ways. There would be no seismic upgrades to the existing wharves, no new wharf construction, no change in existing cranes, and no 10-acre fill of the Northwest Slip. Since no new fill or dredging would be needed for more backlands for containers, the omni terminal would require no federal permits for in-water construction.

Quantitative trip generation estimates were developed for Alternative 4 using the same QuickTrip trip generation model as used for the proposed Project and compared to the CEQA Baseline and the proposed Project. Traffic generated from Alternative 4 would be less than the CEQA Baseline and the proposed Project in 2015 and 2038. Table 3.10-23 illustrates the trip generation potential for Alternative 4. As shown, in 2015 and 2038, Alternative 4 would generate fewer trips than the CEQA Baseline and the proposed Project in all years. Alternative 4 also would generate less total train movements, TEU throughput, and total peak hour rail trips than the proposed Project. Because traffic generated from Alternative 4 would be less than the CEQA Baseline for **Impacts TRANS-1** through **TRANS-5**, impacts would be less than significant under CEQA and no mitigation measures would be required. Tables 3.10-24 and 3.10-25 present the level-of-service results for 2015 and 2038, respectively.

Table 3.10-23. Trip Generation Analysis – Alternative 4

	A.M. PEAK		P.M. PEAK	
	2015	*2038*	*2015*	*2038*
CEQA Baseline (Year 2003 – TraPac)				
Autos	98	98	143	143
Trucks	212	212	372	372
Total	310	310	515	515
Proposed Project (TraPac)				
Autos	206	193	281	263
Trucks	311	360	444	390
Total	517	553	725	653
Alternative 4 (Omni Terminal)				
Autos	59	46	80	62
Trucks	156	146	206	150
Total	215	192	286	212

Mitigation Measures

No mitigation required.

Residual Impacts

Less than significant impacts.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, there would be no federal action and an impact determination is not applicable.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation is required.

Residual Impacts

No impact.

Impact TRANS-3: An increase in on-site employees due to proposed Project operations would result in a less than significant increase in related public transit use.

Table 3.10-24. 2015 Intersection Level of Service Analysis – Alternative 4 (Omni Terminal) vs. CEQA Baseline

Study Intersection	*Year 2015 Baseline*				*Year 2015 Omni Terminal*				*Year 2015 with Mitigation*			
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR	
	LOS	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*
Figueroa Street and Harry Bridges Blvd (b)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Avalon Boulevard and Harry Bridges Blvd	A	0.405	A	0.575	A	0.407	A	0.575	-----	-----	-----	-----
Alameda Street and Anaheim Street	C	0.782	B	0.692	C	0.784	B	0.692	-----	-----	-----	-----
Henry Ford Avenue and Anaheim Street	B	0.672	C	0.742	B	0.674	C	0.742	-----	-----	-----	-----
Harbor Blvd and SR-47 WB On-Ramp (a)	A	0.342	A	0.477	A	0.342	A	0.476	-----	-----	-----	-----
Harbor Blvd and Swinford Street/ SR-47 Ramps	B	0.605	D	0.894	B	0.605	D	0.894	-----	-----	-----	-----
John S. Gibson Blvd and I-110 NB Ramps	A	0.566	A	0.569	A	0.566	A	0.568	-----	-----	-----	-----
Figueroa Street / "C"-Street / I-110 Ramps (b)	A	0.469	A	0.469	A	0.470	A	0.470	-----	-----	-----	-----
Pacific Avenue and Front Street	A	0.554	A	0.486	A	0.554	A	0.486	-----	-----	-----	-----
Fries Avenue and Harry Bridges Blvd	A	0.360	A	0.472	A	0.383	A	0.476	-----	-----	-----	-----
Neptune Avenue and Harry Bridges Blvd	A	0.240	A	0.332	A	0.249	A	0.331	-----	-----	-----	-----
ICTF Driveway #1 and Sepulveda Blvd	A	0.328	A	0.563	A	0.330	A	0.563	-----	-----	-----	-----
ICTF Driveway #2 and Sepulveda Blvd	A	0.373	A	0.425	A	0.375	A	0.426	-----	-----	-----	-----
Santa Fe Avenue and Anaheim Street	A	0.410	A	0.538	A	0.411	A	0.538	-----	-----	-----	-----
John S. Gibson Blvd and Channel Street	A	0.581	B	0.682	A	0.581	B	0.682	-----	-----	-----	-----
Broad Avenue and Harry Bridges Blvd	A	0.329	A	0.501	A	0.330	A	0.502	-----	-----	-----	-----
Navy Way and Seaside Avenue	C	0.799	E	0.950	C	0.800	E	0.950	-----	-----	-----	-----

Notes:

(a) Signalized intersection in the future due to Harbor Boulevard Interchange Improvement

(b) Signalized intersection in the future due to C-Street Interchange Improvement, future analyses assume new intersection of John S. Gibson Boulevard / Harry Bridges Boulevard / Figueroa Street / I-110 ramps per current design plans

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

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Table 3.10-25. 2038 Intersection Level of Service Analysis – Alternative 4 (Omni Terminal) vs. CEQA Baseline

Study Intersection	*Year 2038 Baseline*				*Year 2038 Omni Terminal*				*Year 2038 with Mitigation*			
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR	
	LOS	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*
Figueroa Street and Harry Bridges Blvd (b)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Avalon Boulevard and Harry Bridges Blvd	A	0.490	B	0.643	A	0.507	B	0.630	-----	-----	-----	-----
Alameda Street and Anaheim Street	F	1.069	E	0.920	F	1.074	E	0.914	-----	-----	-----	-----
Henry Ford Avenue and Anaheim Street	E	0.913	F	1.012	E	0.916	F	1.011	-----	-----	-----	-----
Harbor Blvd and SR-47 WB On-Ramp (a)	A	0.453	B	0.667	A	0.453	B	0.667	-----	-----	-----	-----
Harbor Blvd and Swinford Street/ SR-47 Ramps	C	0.784	F	1.277	C	0.784	F	1.277	-----	-----	-----	-----
John S. Gibson Blvd and I-110 NB Ramps	B	0.693	A	0.582	B	0.693	A	0.581	-----	-----	-----	-----
Figueroa Street / "C"-Street / I-110 Ramps (b)	A	0.554	A	0.565	A	0.549	A	0.559	-----	-----	-----	-----
Pacific Avenue and Front Street	B	0.647	A	0.567	B	0.646	A	0.567	-----	-----	-----	-----
Fries Avenue and Harry Bridges Blvd	A	0.455	A	0.575	A	0.455	A	0.543	-----	-----	-----	-----
Neptune Avenue and Harry Bridges Blvd	A	0.255	A	0.363	A	0.268	A	0.354	-----	-----	-----	-----
ICTF Driveway #1 and Sepulveda Blvd	A	0.355	A	0.585	A	0.358	A	0.584	-----	-----	-----	-----
ICTF Driveway #2 and Sepulveda Blvd	A	0.395	A	0.440	A	0.398	A	0.439	-----	-----	-----	-----
Santa Fe Avenue and Anaheim Street	A	0.482	B	0.629	A	0.484	B	0.629	-----	-----	-----	-----
John S. Gibson Blvd and Channel Street	C	0.710	D	0.825	C	0.710	D	0.825	-----	-----	-----	-----
Broad Avenue and Harry Bridges Blvd	A	0.364	A	0.589	A	0.356	A	0.583	-----	-----	-----	-----
Navy Way and Seaside Avenue	F	1.156	F	1.358	F	1.158	F	1.357	-----	-----	-----	-----

Notes:

(a) Signalized intersection in the future due to Harbor Boulevard Interchange Improvement

(b) Signalized intersection in the future due to C-Street Interchange Improvement, future analyses assume new intersection of John S. Gibson Boulevard / Harry Bridges Boulevard / Figueroa Street / I-110 ramps per current design plans

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

CEQA Impact Determination

Alternative 4 would result in approximately the same numbers of employees as the proposed Project. It is expected that less than ten work trips per day would be made on public transit, which could easily be accommodated by existing bus transit services and would not result in a demand for transit services which would exceed the supply of such services. Observations of transit usage in the area for bus routes that serve the proposed Project area (MTA routes 446 and 447) revealed that the buses are currently not operating near capacity and would be able to accommodate this level of increase in demand without exceeding supply. Consequently, impacts due to additional demand on local transit services would be less than significant under CEQA.

Mitigation Measures

No mitigation required.

Residual Impacts

Less than significant impacts.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, there would be no federal action and an impact determination is not applicable.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation is required.

Residual Impacts

No impact.

Impact TRANS-4: Alternative 4 operations would result in a less than significant increase in freeway congestion.

CEQA Impact Determination

Traffic impacts associated with this alternative would be similar to but less severe than those identified under the proposed Project. Similar to the proposed Project, the closest CMP arterial monitoring station to the Alternative 4 is Alameda Street/Pacific Coast Highway (PCH). This intersection was recently improved as part of the Alameda Corridor Project, and the north-south through movements are grade separated. Since most proposed Project traffic at this location is north-south oriented, the proposed Project traffic would be on the newly grade separated portion of the intersection. "O" Street is the connector between PCH and Alameda Street. Thus, the analyzed intersection is "O" Street/Alameda Street. Like the proposed Project, Alternative 4

would not result in more than 0.02 increase in the V/C ratio at this location; therefore, there is no CMP system impact. Consequently, traffic impacts would be less than significant under CEQA.

Mitigation Measures

No mitigation required.

Residual Impacts

Less than significant impacts.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, there would be no federal action and an impact determination is not applicable.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation is required.

Residual Impacts

No impact.

Impact TRANS-5: Proposed Project operations would cause an increase in rail activity, causing delays in regional traffic.

CEQA Impact Determination

Rail impacts associated with this alternative would be much reduced than those identified under the proposed Project. Rail activity causes delay at crossings where the trains pass and cause auto and truck traffic to stop. The amount of delay is related to the length of the train, the speed of the train and the amount of auto and truck traffic that is blocked. Alternative 4 would cause a decrease in the number of trains and the amount of auto and truck traffic. Therefore, traffic impacts for Alternative 4 would be less than significant.

Mitigation Measures

No mitigation required.

Residual Impacts

Less than significant impacts.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, there would be no federal action and an impact determination is not applicable.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation is required.

Residual Impacts

No impact.

3.10.3.3.2.5 Alternative 5 – Landside Terminal Improvements

Under the Landside Terminal Improvements Alternative (Alternative 5), no new developments in Harbor waters would occur (e.g., dredging, filling, and wharf reconstruction/upgrades). Backland infrastructure improvements, however would take place, including the Harry Bridges Boulevard widening and buffer area as well as the rail yard relocation. Terminal acreage would increase from 176 acres in 2003 to 190 acres in 2015 and remain at that level through 2038. The increased acreage for backlands infrastructure upgrades would be located entirely within Port boundaries and would be well within industrial areas at the Port. The extent of on-land ground disturbances would be somewhat less than the proposed Project. All mitigation measures of the proposed Project, except for mitigations relating to dredging and new cranes, would apply. Because no federal action would occur, NEPA would not apply and no impacts would occur.

Impact TRANS-1: Construction would result in a short-term, temporary increase in truck and auto traffic.

CEQA Impact Determination

There would be temporary impacts on the study area roadway system during construction of the Alternative 5 similar to the proposed Project because the construction activities would generate vehicular traffic associated with construction workers' vehicles and trucks delivering equipment and fill material to the site. This site-generated traffic would result in increased traffic volumes on the study area roadways for the duration of the construction period, which would span a period of 2 to 3 years for the various project components. Similar to the proposed Project, Alternative 5 would result in a significant impact.

Mitigation Measures

Mitigation Measure Trans #1 would be implemented to mitigate the significant impact of construction-related traffic.

Residual Impacts

Less than significant impact.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, there would be no federal action and an impact determination is not applicable.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation is required.

Residual Impacts

Less than significant impact.

Impact TRANS-2: Long-term vehicular traffic associated with Alternative 5 would significantly impact study intersection's volume/capacity ratios, or level of service

CEQA Impact Determination

Quantitative trip generation estimates were developed for Alternative 5 using the same QuickTrip trip generation model as used for the proposed Project and compared to the CEQA Baseline and the proposed Project. Traffic generated from Alternative 5 would be less than for the proposed Project. Table 3.10-26 illustrates the trip generation potential of Alternative 5 as compared to the baselines and the proposed Project. As shown for 2015 and 2038, Alternative 5 would generate fewer trips compared to the proposed Project, and would generate more auto trips but fewer truck trips than the CEQA Baseline in all years. Alternative 5 also would generate less total train movements, TEU throughput, and total peak hour rail trips than the proposed Project.

The following significant intersection impacts under CEQA are forecasted for Alternative 5:

- 2015 – Alameda Street and Anaheim Street – (A.M. peak hour)
- 2038 – Alameda Street and Anaheim Street – (A.M. peak hour)

Therefore, Alternative 5 would result in a significant traffic impact under CEQA.

Mitigation Measures

With application of **Mitigation Measure Trans #3**, residual impacts would be less than significant under CEQA. Tables 3.10-27 and 3.10-28 present the level-of-service results with implementation of the mitigation measures for 2015 and 2038, respectively.

Table 3.10-26. Trip Generation Analysis – Alternative 5

	A.M. Peak		*P.M. Peak*	
	2015	2038	2015	2038
CEQA Baseline (Year 2003 – TraPac)				
Autos	98	98	143	143
Trucks	212	212	372	372
Total	310	310	515	515
Proposed Project (TraPac)				
Autos	206	193	281	263
Trucks	311	360	444	390
Total	517	553	725	653
Alternative 5 (Landside Terminal Improvements)				
Autos	160	137	218	187
Trucks	227	230	324	249
Total	387	367	542	436

Residual Impacts

Less than significant impact.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, there would be no federal action and an impact determination is not applicable.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation is required.

Residual Impacts

No impact.

Impact TRANS-3: An increase in on-site employees due to Alternative 5 operations would result in a less than significant increase in related public transit use.

CEQA Impact Determination

Increase in work-related trips using public transit would be negligible. Port terminals generate extremely low transit demand for several reasons. The primary reason that Port workers do not use public transit is that many terminal workers must first report to

Table 3.10-27. 2015 Intersection Level of Service Analysis – Alternative 5 (Landside Terminal Improvements) vs. CEQA Baseline

Study Intersection	*Year 2015 Baseline*				*Year 2015 Landside Terminal Imp*				*Year 2015 with Mitigation*			
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR	
	LOS	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*
Figueroa Street and Harry Bridges Blvd (b)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Avalon Boulevard and Harry Bridges Blvd	A	0.405	A	0.575	A	0.456	B	0.630	-----	-----	-----	-----
Alameda Street and Anaheim Street	C	0.782	B	0.692	D	0.806	C	0.710	C	0.784	C	0.710
Henry Ford Avenue and Anaheim Street	B	0.672	C	0.742	B	0.675	C	0.745	-----	-----	-----	-----
Harbor Blvd and SR-47 WB On-Ramp (a)	A	0.342	A	0.477	A	0.343	A	0.477	-----	-----	-----	-----
Harbor Blvd and Swinford Street/ SR-47 Ramps	B	0.605	D	0.894	B	0.606	D	0.895	-----	-----	-----	-----
John S. Gibson Blvd and I-110 NB Ramps	A	0.566	A	0.569	A	0.569	A	0.573	-----	-----	-----	-----
Figueroa Street / "C"-Street / I-110 Ramps (b)	A	0.469	A	0.469	A	0.488	A	0.487	-----	-----	-----	-----
Pacific Avenue and Front Street	A	0.554	A	0.486	A	0.558	A	0.490	-----	-----	-----	-----
Fries Avenue and Harry Bridges Blvd	A	0.360	A	0.472	A	0.431	A	0.595	-----	-----	-----	-----
Neptune Avenue and Harry Bridges Blvd	A	0.240	A	0.332	A	0.260	A	0.361	-----	-----	-----	-----
ICTF Driveway #1 and Sepulveda Blvd	A	0.328	A	0.563	A	0.331	A	0.566	-----	-----	-----	-----
ICTF Driveway #2 and Sepulveda Blvd	A	0.373	A	0.425	A	0.375	A	0.428	-----	-----	-----	-----
Santa Fe Avenue and Anaheim Street	A	0.410	A	0.538	A	0.412	A	0.540	-----	-----	-----	-----
John S. Gibson Blvd and Channel Street	A	0.581	B	0.682	A	0.581	B	0.682	-----	-----	-----	-----
Broad Avenue and Harry Bridges Blvd	A	0.329	A	0.501	A	0.353	A	0.525	-----	-----	-----	-----
Navy Way and Seaside Avenue	C	0.799	E	0.950	C	0.800	E	0.952	-----	-----	-----	-----

Notes:

(a) Signalized intersection in the future due to Harbor Boulevard Interchange Improvement

(b) Signalized intersection in the future due to C-Street Interchange Improvement, future analyses assume new intersection of John S. Gibson Boulevard / Harry Bridges Boulevard / Figueroa Street / I-110 ramps per current design plans

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

1

Table 3.10-28. 2038 Intersection Level of Service Analysis – Alternative 5 (Landside Terminal Improvements) vs. CEQA Baseline

Study Intersection	Year 2038 Baseline				Year 2038 Landside Terminal Imp				Year 2038 with Mitigation			
	A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay
Figueroa Street and Harry Bridges Blvd (b)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Avalon Boulevard and Harry Bridges Blvd	A	0.490	B	0.643	A	0.546	B	0.679	-----	-----	-----	-----
Alameda Street and Anaheim Street	F	1.069	E	0.920	F	1.086	E	0.925	F	1.073	D	0.848
Henry Ford Avenue and Anaheim Street	E	0.913	F	1.012	E	0.918	F	1.013	-----	-----	-----	-----
Harbor Blvd and SR-47 WB On-Ramp (a)	A	0.453	B	0.667	A	0.454	B	0.668	-----	-----	-----	-----
Harbor Blvd and Swinford Street/ SR-47 Ramps	C	0.784	F	1.277	C	0.785	F	1.277	-----	-----	-----	-----
John S. Gibson Blvd and I-110 NB Ramps	B	0.693	A	0.582	B	0.695	A	0.585	-----	-----	-----	-----
Figueroa Street / "C"-Street / I-110 Ramps (b)	A	0.554	A	0.565	A	0.564	A	0.574	-----	-----	-----	-----
Pacific Avenue and Front Street	B	0.647	A	0.567	B	0.651	A	0.571	-----	-----	-----	-----
Fries Avenue and Harry Bridges Blvd	A	0.455	A	0.575	A	0.540	B	0.613	-----	-----	-----	-----
Neptune Avenue and Harry Bridges Blvd	A	0.255	A	0.363	A	0.284	A	0.380	-----	-----	-----	-----
ICTF Driveway #1 and Sepulveda Blvd	A	0.355	A	0.585	A	0.359	A	0.586	-----	-----	-----	-----
ICTF Driveway #2 and Sepulveda Blvd	A	0.395	A	0.440	A	0.399	A	0.442	-----	-----	-----	-----
Santa Fe Avenue and Anaheim Street	A	0.482	B	0.629	A	0.485	B	0.630	-----	-----	-----	-----
John S. Gibson Blvd and Channel Street	C	0.710	D	0.825	C	0.710	D	0.825	-----	-----	-----	-----
Broad Avenue and Harry Bridges Blvd	A	0.364	A	0.589	A	0.382	B	0.600	-----	-----	-----	-----
Navy Way and Seaside Avenue	F	1.156	F	1.358	F	1.159	F	1.359	-----	-----	-----	-----

Notes:

(a) Signalized intersection in the future due to Harbor Boulevard Interchange Improvement

(b) Signalized intersection in the future due to C-Street Interchange Improvement, future analyses assume new intersection of John S. Gibson Boulevard / Harry Bridges Boulevard / Figueroa Street / I-110 ramps per current design plans

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

union halls for dispatch before proceeding to the terminal to which they have been assigned. Most workers prefer to use a personal automobile to facilitate this disjointed travel pattern. Also, Port workers live throughout the Southern California region and do not have access to the few bus routes that serve the Port. Additionally, Port workers' incomes are generally higher than similarly skilled jobs in other areas and higher incomes correlates to lower transit usage (Pucher, Renne 2003). Finally, parking at the Port is readily available and free, which encourages workers to drive to work. Therefore, it is expected that less than ten work trips per day would be made on public transit, which could easily be accommodated by existing bus transit services and would not result in a demand for transit services which would exceed the supply of such services. Observations of transit usage in the area for bus routes that serve the proposed Project area (MTA routes 446 and 447) revealed that the buses are currently not operating near capacity and would be able to accommodate this level of increase in demand without exceeding supply. Consequently, impacts due to additional demand on local transit services would be less than significant under CEQA.

Mitigation Measures

No mitigation would be necessary.

Residual Impacts

Less than significant impacts.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, there would be no federal action and an impact determination is not applicable.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation is required.

Residual Impacts

No impact.

Impact TRANS-4: Alternative 5 operations would result in a less than significant increase in freeway congestion.

CEQA Impact Determination

Traffic impacts associated with this alternative would be similar to but less severe than those identified under the proposed Project. Similar to the proposed Project, the closest CMP arterial monitoring station to the Alternative 5 is Alameda Street/Pacific Coast Highway (PCH). This intersection was recently improved as part of the Alameda Corridor Project, and the north-south through movements are grade separated. Since most proposed Project traffic at this location is north-south oriented, the proposed

Project traffic would be on the newly grade separated portion of the intersection. "O" Street is the connector between PCH and Alameda Street. Thus, the analyzed intersection is "O" Street/Alameda Street. Like the proposed Project, Alternative 5 would not result in more than 0.02 increase in the V/C ratio at this location; therefore, there is no CMP system impact. There would be no impacts under CEQA.

Mitigation Measures

No mitigation would be necessary.

Residual Impacts

No impacts.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, there would be no federal action and an impact determination is not applicable.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation is required.

Residual Impacts

No impact.

Impact TRANS-5: Alternative 5 operations would cause an increase in rail activity, causing delays in regional traffic.

Rail activity causes delay at crossings where the trains pass and cause auto and truck traffic to stop. The amount of delay is related to the length of the train, the speed of the train and the amount of auto and truck traffic that is blocked. Alternative 5 would cause an increase in either the number of trains or the amount of auto and truck traffic; however, the increase in auto and truck traffic would only affect some of the at-grade crossings. In the case of this Alternative, the affected at-grade crossings are at Avalon Boulevard and Henry Ford Avenue. The grade crossing at Fries Avenue would be eliminated as part of the Fries Avenue Grade Separation project.

Therefore, impacts would be significant under CEQA.

Mitigation Measures

There are no feasible mitigation measures for this impact.

Residual Impacts

Significant and Unavoidable. There would be a significant, unavoidable transportation/ circulation impact at the Henry Ford Avenue and Avalon Boulevard grade crossings as a result of the Alternative 5.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, there would be no federal action and an impact determination is not applicable.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation is required.

Residual Impacts

No impact.

3.10.3.3.3 Summary of Impact Determinations

Table 3.10-29 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 3.10.3.3.1 and 3.10.3.3.2. 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, or City of Los Angeles significance criteria, Port 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. Note that impact descriptions for each of the alternatives are the same as for the proposed Project, unless otherwise noted.

1

Table 3.10-29. Summary Matrix of Potential Impacts and Mitigation Measures for Transportation and Circulation Associated with the Proposed Project and Alternatives

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
3.10 Transportation/Circulation				
Proposed Project	**TRANS-1:** Construction would result in a short-term, temporary increase in truck and auto traffic.	CEQA: **Significant** impact	**Trans #1:** Prior to beginning construction, the construction contractor shall prepare a detailed traffic management plan which shall include the following: detour plans, coordination with emergency services and transit providers, coordination with adjacent property owners and tenants, advanced notification of temporary bus stop loss and/or bus line relocation, identify temporary alternative bus routes, advanced notice of temporary parking loss, identify temporary parking replacement or alternative adjacent parking within a reasonable walking distance, use of designated haul routes, use of truck staging areas, observance of hours of operations restrictions and appropriate signing for construction activities. The traffic management plan shall be submitted to LAHD for approval before beginning construction.	CEQA: Less than significant impact
		NEPA: **Significant** impact	**Trans #1**	NEPA: Less than significant impact

2

Table 3.10-29. Summary Matrix of Potential Impacts and Mitigation Measures for Transportation and Circulation Associated with the Proposed Project and Alternatives (continued)

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
3.10 Transportation/Circulation (continued)				
Proposed Project (continued)	**TRANS-2:** Long-term vehicular traffic associated with the proposed Project would significantly impact four study intersections' volume/capacity ratios, or level of service.	CEQA: **Significant** impact	**Trans #2:** Avalon Boulevard and Harry Bridges Boulevard – Provide an additional eastbound through-lane on Harry Bridges Boulevard. **Trans #3:** Alameda Street and Anaheim Street – Provide additional northbound and southbound through-lanes on Alameda Street, and provide a northbound free right-turn lane from northbound Alameda Street to eastbound Anaheim Street. **Trans #4:** Fries Avenue and Harry Bridges Boulevard – Add dual northbound left-turn lanes from northbound Fries Avenue to westbound Harry Bridges Boulevard, and provide an additional northbound right-turn lane from northbound Fries Avenue to eastbound Harry Bridges Boulevard. **Trans #5:** Broad Avenue and Harry Bridges Boulevard –Provide an additional eastbound through-lane on Harry Bridges Boulevard. **Trans #6:** Figueroa Street and Harry Bridges Boulevard – Provide dual southbound left-turn lanes from southbound Figueroa Street to eastbound Harry Bridges Boulevard and change southbound left-turn phasing from a permitted phase to protected phase.	CEQA: Less than significant impact after mitigation

Table 3.10-29. Summary Matrix of Potential Impacts and Mitigation Measures for Transportation and Circulation Associated with the Proposed Project and Alternatives (continued)

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
3.10 Transportation/Circulation (continued)				
Proposed Project (continued)	**TRANS-2** (continued)	CEQA: **Significant** impact (continued)	**Trans #7**: Figueroa Street/C-Street and I-110 Ramps – Signalize this intersection, provide dual northbound left-turn lanes from northbound Figueroa Street to the I-110 northbound on-ramp, and re-stripe the eastbound shared left-through-right lane to an exclusive right turn only lane.	CEQA: Less than significant impact after mitigation (continued)
		NEPA: **Significant** impact	**Trans #2, Trans #3**, **Trans #4** and **Trans #5**	NEPA: Less than significant impact after mitigation
	TRANS-3: An increase in on-site employees due to proposed Project operations would result in a less than significant increase in related public transit use.	CEQA: Less than significant impact	Mitigation not required	CEQA: Less than significant impact
		NEPA: Less than significant impact	Mitigation not required	NEPA: Less than significant impact
	TRANS-4: Proposed Project operations would result in a less than significant increase in freeway congestion.	CEQA: Less than significant impact	Mitigation not required	CEQA: Less than significant impact
		NEPA: Less than significant impact	Mitigation not required	NEPA: Less than significant impact
	TRANS-5: Proposed Project operations would cause an increase in rail activity, causing potential delays in regional traffic.	CEQA: Significant impact	Mitigation not available	CEQA: Significant and unavoidable impact
		NEPA: Less than significant impact	Mitigation not required	NEPA: Less than significant impact

Table 3.10-29. Summary Matrix of Potential Impacts and Mitigation Measures for Transportation and Circulation Associated with the Proposed Project and Alternatives (continued)

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
3.10 Transportation/Circulation (continued)				
Alternative 1	**TRANS-1**	CEQA: No impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: No impact NEPA: Not applicable
	TRANS-2	CEQA: **Significant** impact NEPA: Not applicable	**Trans #2, Trans #3**, **Trans #4** and **Trans #5** Mitigation not required	CEQA: Less than significant impact after mitigation NEPA: Not applicable
	TRANS-3	CEQA: Less than significant impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Not applicable
	TRANS-4	CEQA: No impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: No impact NEPA: Not applicable
	TRANS-5	CEQA: **Significant** impact NEPA: Not applicable	Mitigation not available Mitigation not required	CEQA: **Significant** and unavoidable impact NEPA: Not applicable
Alternative 2	**TRANS-1**	CEQA: **Significant** impact Construction-related traffic would be short-term and temporary. LADOT traffic study policies do not require analysis of, or establish thresholds of significance, for short-term, temporary impacts. NEPA: **Significant** impact	**Trans #1** Mitigation not required beyond normal construction practices as described for CEQA	CEQA: Less than significant impact NEPA: Less than significant impact

Table 3.10-29. Summary Matrix of Potential Impacts and Mitigation Measures for Transportation and Circulation Associated with the Proposed Project and Alternatives (continued)

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
3.10 Transportation/Circulation (continued)				
Alternative 2 (continued)	**TRANS-2**	CEQA: **Significant** impact	**Trans #2, Trans #3**, **Trans #4** and **Trans #5**	CEQA: Less than significant impact after mitigation
		NEPA: **Significant** impact	**Trans #2, Trans #3**, **Trans #4** and **Trans #5**	NEPA: Less than significant impact after mitigation
	TRANS-3	CEQA: Less than significant impact	Mitigation not required	CEQA: Less than significant impact
		NEPA: Less than significant impact	Mitigation not required	NEPA: Less than significant impact
	TRANS-4	CEQA: Less than significant impact	Mitigation not required	CEQA: Less than significant impact
		NEPA: Less than significant impact	Mitigation not required	NEPA: Less than significant impact
	TRANS-5	CEQA: **Significant** impact	Mitigation not available	CEQA: **Significant** and unavoidable impact
		NEPA: Less than significant impact	Mitigation not required	NEPA: Less than significant impact
Alternative 3	**TRANS-1**	CEQA: **Significant** impact Construction-related traffic would be short-term and temporary. LADOT traffic study policies do not require analysis of, or establish thresholds of significance, for short-term, temporary impacts.	**Trans #1**	CEQA: Less than significant impact
		NEPA: **Significant** impact	**Trans #1**	NEPA: Less than significant impact

Table 3.10-29. Summary Matrix of Potential Impacts and Mitigation Measures for Transportation and Circulation Associated with the Proposed Project and Alternatives (continued)

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
3.10 Transportation/Circulation (continued)				
Alternative 3 (continued)	**TRANS-2**	CEQA: **Significant** impact	**Trans #2**	CEQA: Less than significant impact after mitigation
		NEPA: **Significant** impact	**Trans #2**	NEPA: Less than significant impact after mitigation
	TRANS-3	CEQA: Less than significant impact	Mitigation not required	CEQA: Less than significant impact
		NEPA: Less than significant impact	Mitigation not required	NEPA: Less than significant impact
	TRANS-4	CEQA: Less than significant impact	Mitigation not required	CEQA: Less than significant impact
		NEPA: Less than significant impact	Mitigation not required	NEPA: Less than significant impact
	TRANS-5	CEQA: Significant impact	Mitigation not available	CEQA: Significant and unavoidable impact
		NEPA: Less than significant impact	Mitigation not required	NEPA: Less than significant impact
Alternative 4	**TRANS-1**	EQA: **Significant** impact	**Trans #1**	CEQA: Less than significant impact
		NEPA: Not applicable	Mitigation not required	NEPA: Not applicable
	TRANS-2	CEQA: Less than significant impact	Mitigation not required	CEQA: Less than significant impact
		NEPA: Not applicable	Mitigation not required	NEPA: Not applicable
	TRANS-3	CEQA: Less than significant impact	Mitigation not required	CEQA: Less than significant impact
		NEPA: Not applicable	Mitigation not required	NEPA: Not applicable

Table 3.10-29. Summary Matrix of Potential Impacts and Mitigation Measures for Transportation and Circulation Associated with the Proposed Project and Alternatives (continued)

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
3.10 Transportation/Circulation (continued)				
Alternative 4 (continued)	**TRANS-4**	CEQA: Less than significant impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Not applicable
	TRANS-5	CEQA: Less than significant impact NEPA: Not applicable	Mitigation not available Mitigation not required	CEQA: Less than significant impact NEPA: Not applicable
Alternative 5	**TRANS-1**	CEQA: **Significant** impact Construction-related traffic would be short-term and temporary. LADOT traffic study policies do not require analysis of, or establish thresholds of significance, for short-term, temporary impacts. NEPA: Not applicable	**Trans #1** Mitigation not required	CEQA: Less than significant impact NEPA: Not applicable
	TRANS-2	CEQA: **Significant** impact NEPA: Not applicable	**Trans #3** Mitigation not required	CEQA: Less than significant impact after mitigation NEPA: Not applicable
	TRANS-3	CEQA: Less than significant impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Not applicable
	TRANS-4	CEQA: Less than significant impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Not applicable
	TRANS-5	CEQA: **Significant** impact NEPA: Not applicable	Mitigation not available Mitigation not required	CEQA: **Significant** and unavoidable impact NEPA: Not applicable

* Unless otherwise noted, all impact descriptions for each of the Alternatives are the same as those described for the Proposed Project.

3.10.3.4 Mitigation Monitoring

Trans #1: Figueroa Street/C-Street/I-110 Ramps	
Mitigation Measure	**Trans #1:** Prior to beginning construction, the construction contractor shall prepare a detailed traffic management plan which shall include the following: detour plans, coordination with emergency services and transit providers, coordination with adjacent property owners and tenants, advanced notification of temporary bus stop loss and/or bus line relocation, identify temporary alternative bus routes, advanced notice of temporary parking loss, identify temporary parking replacement or alternative adjacent parking within a reasonable walking distance, use of designated haul routes, use of truck staging areas, observance of hours of operations restrictions and appropriate signing for construction activities. The traffic management plan shall be submitted to LAHD for approval before beginning construction.
Timing	2008 to 2009
Methodology	
Responsible Parties	LAHD
Residual Impacts	Not Significant after Mitigation
Trans #2: Avalon Boulevard and Harry Bridges Boulevard	
Mitigation Measure	**Trans #2:** Add an additional eastbound through-lane
Timing	Prior to or concurrent with proposed Project by 2038
Methodology	
Responsible Parties	LAHD
Residual Impacts	Not Significant after Mitigation
Trans #3: Alameda Street and Anaheim Street	
Mitigation Measure	**Trans #3:** Add additional northbound and southbound through-lanes, and provide a northbound free right-turn lane
Timing	Prior to or concurrent with proposed Project by 2015
Methodology	
Responsible Parties	LAHD
Residual Impacts	Not Significant after Mitigation
Trans #4: Fries Avenue and Harry Bridges Boulevard	
Mitigation Measure	**Trans #4:** Add dual northbound left-turn lanes and an additional northbound right-turn lane
Timing	Prior to or concurrent with proposed Project by 2038
Methodology	
Responsible Parties	LAHD
Residual Impacts	Not Significant after Mitigation
Trans #5: Broad Avenue and Harry Bridges Boulevard	
Mitigation Measure	**Trans #5:** Add additional eastbound through-lane
Timing	Prior to or concurrent with proposed Project by 2038
Methodology	

Responsible Parties	LAHD
Residual Impacts	Not Significant after Mitigation
Trans #6: Figueroa Street and Harry Bridges Boulevard	
Mitigation Measure	**Trans #6:** Add dual southbound left-turn lanes. Change southbound left-turn phasing from a permitted phase to protected phase.
Timing	Prior to or concurrent with proposed Project by 2038
Methodology	
Responsible Parties	LAHD
Residual Impacts	Not Significant after Mitigation
Trans #7: Figueroa Street/C-Street/I-110 Ramps	
Mitigation Measure	**Trans #7:** Signalize this intersection, add dual northbound left-turn lanes, and re-stripe the eastbound shared left-through-right lane to an exclusive right-turn only lane.
Timing	Prior to or concurrent with proposed Project by 2015
Methodology	
Responsible Parties	LAHD
Residual Impacts	Not Significant after Mitigation
Trans #8: Henry Ford Avenue and Anaheim Street	
Mitigation Measure	**Trans #8:** Add additional eastbound and westbound through-lanes
Timing	Prior to or concurrent with proposed Project by 2038
Methodology	
Responsible Parties	LAHD
Residual Impacts	Not Significant after Mitigation
Trans #9: Harbor Boulevard and Swinford Street	
Mitigation Measure	**Trans #9:** Add additional southbound through-lane
Timing	Prior to or concurrent with proposed Project by 2015
Methodology	
Responsible Parties	LAHD
Residual Impacts	Not Significant after Mitigation
Trans #10: Navy Way and Seaside Avenue	
Mitigation Measure	**Trans #10:** Add additional eastbound through-lane
Timing	Prior to or concurrent with proposed Project by 2015
Methodology	
Responsible Parties	LAHD
Residual Impacts	Not Significant after Mitigation

1

3.10.4 Significant Unavoidable Impacts

There would be a significant, unavoidable transportation/circulation impact as a result of the proposed Project and Alternatives 1, 2, 3, and 5. There would be a significant, unavoidable transportation/circulation impact at the Henry Ford Avenue and Avalon Boulevard grade crossings as a result of the proposed Project and these alternatives.

3.10.5 CEQA Baseline Without Regional Growth

As discussed in Section 3.10.1.1, the CEQA Baseline, is defined as year 2003 traffic volumes plus non-Project traffic growth, was compared against the proposed Project conditions for the horizon years. The impact using this methodology accounts for the proposed Project itself as well as regional traffic growth, proposed local development projects, and traffic increases resulting from Port terminal throughput growth that is not attributable to the proposed Project. The following analysis presents the Impact analysis as compared to the CEQA baseline that does not include regional growth.

As shown, all impacts using the a CEQA baseline that does not include regional growth does not result in significant impacts when compared to the proposed Project or Alternatives. Therefore, Project significance and mitigation is determined using the analysis in Section 3.10.1.

3.10.5.1 CEQA Baseline

For purposes of this section, the CEQA Baseline for determining the significance of potential impacts under CEQA is December 2003. CEQA Baseline conditions are described in Table 2-2 of Section 2.4. Background regional growth has not been added to this baseline.

The CEQA Baseline represents the setting at a fixed point in time, with no project growth over time, and differs from the "No Project" Alternative (discussed in Section 2.5.1) in that the No Project Alternative addresses what is likely to happen at the site over time, starting from the baseline conditions. The No Project Alternative allows for growth at the proposed Project site that would occur without any required additional approvals.

3.10.5.2 Impacts and Mitigation

3.10.5.2.1 Proposed Project

3.10.5.2.1.1 Construction Impacts

Impact TRANS-1: Construction would result in a short-term, temporary increase in truck and auto traffic.

CEQA Impact Determination

There would be temporary impacts on the study area roadway system during construction of the proposed Project because the construction activities would generate vehicular traffic associated with construction workers' vehicles and trucks delivering equipment and fill material to the site. This site-generated traffic would result in increased traffic volumes on the study area roadways for the duration of the construction period, which would span a period of 2 to 3 years for the various project components.

The average levels of traffic generated by the construction activities and hours of construction operation have been estimated for each component of the proposed Project, as shown below. The construction schedule and traffic levels have been estimated based on a number of similar construction projects at the Port of Los Angeles. These construction estimates are based on information contained in the Draft West basin EIR Transportation and Circulation section which are in turn based on construction phasing estimates, construction worker needs, truck traffic estimates by type, grading quantity estimates, materials quantity estimates and other construction quantity estimates for a typical container terminal project.

- **Construction Traffic**
  - Berths 136-139
    - Auto Trips per Day: 50
    - Truck Trips per Day: 50
    - Total Daily Traffic: 100
  - Berths 142-147
    - Auto Trips per Day: 100
    - Truck Trips per Day: 100
    - Total Daily Traffic: 200
- **Hours of Construction Operation**
  - Monday through Friday: 7:00 AM to 5:00 PM
  - Saturday: 8:00 AM to 5:00 PM

The construction worker and truck trips were assessed at all study intersections during the AM and PM peak hours. Thus for the AM peak hour there would be an assumed 75 inbound worker trips and 15 truck trips (150 daily truck trips divided into 10 hour work shift), and during the PM peak hour there would be 75 outbound worker trips and 15 truck trips. These truck trips were estimated based on other similar Port construction Projects. Based on the results of the construction traffic analysis the construction scenario would not result in any significant circulation system impact.

Mitigation Measures

MM Trans #1: Prior to beginning construction, the construction contractor shall prepare a detailed traffic management plan which shall include the following: detour plans, coordination with emergency services and transit providers, coordination with adjacent property owners and tenants, advanced notification of temporary bus stop loss and/or bus line relocation, identify temporary alternative bus routes, advanced

notice of temporary parking loss, identify temporary parking replacement or alternative adjacent parking within a reasonable walking distance, use of designated haul routes, use of truck staging areas, observance of hours of operations restrictions and appropriate signing for construction activities. The traffic management plan shall be submitted to LAHD for approval before beginning construction.

Residual Impacts

Less than significant impact.

3.10.5.2.1.2 Operational Impacts

Impact TRANS-2: Long-term vehicular traffic associated with the proposed Project would significantly impact four study intersection's volume/capacity ratios, or level of service.

CEQA Impact Determination

CEQA Baseline traffic conditions with the proposed Project for the years 2015 and 2038 were estimated by adding traffic resulting from the terminal expansion and associated throughput growth on top of existing 2003 traffic. Port traffic growth was developed using the "QuickTrip" truck generation model (see section 3.10.3.1.4). Table 3.10-30 summarizes the TEU throughput for the CEQA Baseline and Project and also includes the assumed operating parameters that were used to develop the trip generation forecasts. Traffic generated by the Project was estimated to determine potential impacts of the Project on study area roadways. The following section summarizes some of the key parameters used in the trip generation estimate. These operating parameters are derived from and consistent with the parameters developed and applied in *the Port of Los Angeles Baseline Transportation Study* and the *Port of Los Angeles Roadway Study*:

- **Work shifts.** To achieve the forecast TEU throughput volumes, the Port's terminals must handle more cargo during the non-peak hours than they do currently. Consistent with the Port of Los Angeles Baseline Transportation Study, the Port's Roadway Study and other on-going port-area transportation studies, it is expected that the gate moves would be distributed as follows: 80 percent day shift, 10 percent night shift, and 10 percent hoot shift in 2015; and 60 percent day shift, 20 percent night shift, and 20 percent hoot shift in 2038. Current shift splits as of 2001 showed over 90 percent of TEU throughput during the day shift. The 80/10/10 split assumption was determined jointly by Ports of Long Beach and Los Angeles staff and is currently being achieved at or better than these levels through the Pier-Pass Program. A greater reduction in day time throughput was only assumed in the longer term (2038) to be reasonably conservative given expected changes in long term port operations.
- **Auto Trip Generation**. The baseline and with-Project employee trip rates are based on the *Ports of Long Beach and Los Angeles Transportation Study* trip generation methodology which estimates employment trips based on TEU throughput using trip generation rates.
- **TEU Throughput Growth**. Additional TEUs per month resulting from the Project are shown in Table 3.10-30. These are based on forecasts of overall port wide growth and estimates of terminal capacity.

Table 3.10-30. Trip Generation Analysis Assumptions and Input Data for Berths 136-147 Terminal

Berths 136-147	*CEQA Baseline*	*Proposed Project*	
	2003	2015	2038
Gross Acres	176	233	243
Resultant TEU's (annual)	891,976	1,747,500	2,389,000
Peak Month Factor	0.091	0.091	0.083
Monthly TEU's	81,170	159,023	198,287
KEY TRIP GENERATION MODEL INPUT FACTORS			
Shift Split (%) (day/2nd/night)	90/10/0	80/10/10	60/20/20
On-Dock Rail %	0%	31%	29%
% Double Cycle Trucks	29%	35%	45%
Percentage of Weekly Gate Traffic Allocated to Weekend	15%	15%	15%
TRIP GENERATION RESULTS – A.M. PEAK			
Project Added Auto Trips	-----	108	94
Project Added Truck Trips	-----	99	148
Project Added Total Trips	-----	207	242
TRIP GENERATION RESULTS – P.M. PEAK			
Project Added Auto Trips	-----	138	120
Project Added Truck Trips	-----	72	18
Project Added Total Trips	-----	210	138
Note: The trips generated for the proposed Project represent incremental increases relative to CEQA Baseline.			

- **On-Dock Rail Usage**. On-dock rail refers to a rail terminal that is located within or adjacent to the terminal that is used to build trains that take containers to and from the terminal via rail. Those containers thus do not travel by truck; they enter or leave the terminal on rail cars. As the percentage of containers moved via on-dock rail is increased, the percentage of containers moved by truck is decreased since the container must move via either truck or rail car. Building and operating on-dock rail facilities is a key method to reduce truck trips to and from the container terminal. It is expected that the use of on-dock rail will increase throughout the Port over time for many reasons, including the construction of expanded on-dock rail facilities, improvements and enhancements to existing on-dock rail facilities, improvements in rail operations technologies, increased demand for rail movements as opposed to truck movements, improved container management procedures and other factors. The amount of throughout that can be handled by on-dock rail versus by truck is based on the capacity of the on-dock rail facility, including the overall size of the on-dock rail yard, the number of linear feet of rail track in the facility, the number and type of equipment servicing the rail yard, the physical layout of the rail yard and how it interacts with the rest of the terminal and other design and operational factors. Those factors determine the number of trains that can be built within given time periods, the size of the trains and the overall level of terminal throughput that can be carried in and out of the terminal on rail cars, Increased on-dock rail usage due to expanded rail yards at the project site is based on the above assumptions, and is as follows:

- Year 2015
  - Eastbound: 18.8 percent (of total throughput)
  - Westbound: 12.7 percent (includes 3 percent westbound empties)
- Year 2038
  - Eastbound: 18.6 percent (of total throughput)
  - Westbound: 10.7 percent (includes 3 percent westbound empties)

- **Weekend Terminal Operations.** Weekend throughput is assumed to be 15 percent in 2015 and 2038.

The net increase in truck trip generation includes the increased percent of cargo moved via the expanded on-dock rail facilities, as noted. A rail yard capacity analysis was conducted for the expanded terminal to ensure that the proposed new rail yard could accommodate the projected on-dock container volumes. The Project trip generation estimates are summarized in Table 3.10-2. Note that TEU growth increases for future years, but peak hour trips do not increase proportionately with TEU growth. This is because in future years, on-dock rail usage would increase and work shift splits would change as described above. Both of these actions would shift more activity to the second shift and night shift and away from the day shift. Therefore, although total trips increase in 2015 and 2038, some of the increase occurs during off-peak time periods due to the operating parameters described above.

Appendix E contains all of the CEQA Baseline, No Federal Action/NEPA baseline and future with-Project traffic forecasts and LOS calculation worksheets. Figure 3.10-2 illustrates the assumed trip distribution percentages of Project traffic. Trip distribution was based on data from the Port Travel Demand Model, which is based on truck driver origin/destination surveys (actual surveys of truck drivers at the gates), as well as from Longshore Worker place of residence data.

Tables 3.10-31 and 3.10-32 summarize the CEQA Baseline and future with-Project intersection operating conditions at each study intersection for the 2015 and 2038 scenarios, respectively. The CEQA Baseline and with-Project intersection operating conditions for each year were compared to determine regional impacts, and then the impacts were assessed using the City of Los Angeles criteria for significant impacts.

CEQA Impact Determination

Based on the results of the traffic study as presented in Tables 3.10-31 and 3.10-32 and more fully set forth in Appendix E, the proposed Project would not result in a significant circulation system impact at any of the study intersections. The amount of Project-related traffic that would be added at all other study locations would not be of sufficient magnitude to meet or exceed the threshold of significance of the respective city. This is true even for some intersections that would operate in the future at LOS E or F, but the level of Project-related traffic would be small enough that it would not trigger a significant traffic impact, based on the established thresholds.

There would be no impact under CEQA.

Table 3.10-31. Intersection Level of Service Analysis – 2015 Proposed Project vs. CEQA Baseline

Study Intersection	2003 CEQA Baseline				CEQA Baseline + 2015 Project				Change in V/C		Significantly Impacted
	A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour				
	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	A.M.	P.M.	
Figueroa Street and Harry Bridges Blvd	A	0.402	A	0.442	A	0.492	A	0.441	0.090	-0.001	No
Avalon Boulevard and Harry Bridges Blvd	A	0.297	A	0.399	A	0.333	A	0.447	0.036	0.048	No
Alameda Street and Anaheim Street	B	0.633	A	0.536	B	0.636	A	0.549	0.003	0.013	No
Henry Ford Avenue and Anaheim Street	A	0.525	A	0.573	A	0.529	A	0.575	0.004	0.002	No
Harbor Blvd and SR-47 WB On-Ramp (a)	A	9.6	B	10.5	A	9.6	B	10.5	0.0	0.0	No
Harbor Blvd and Swinford Street/ SR-47 Ramps	A	0.599	E	0.962	A	0.599	E	0.963	0.000	0.001	No
John S. Gibson Blvd and I-110 NB Ramps	A	0.492	A	0.413	A	0.495	A	0.417	0.003	0.004	No
Figueroa Street / "C"-Street / I-110 Ramps (b)	B	12.2	C	18.7	B	14.0	C	24.7	1.8	6.0	No
Pacific Avenue and Front Street	A	0.511	A	0.445	A	0.515	A	0.450	0.004	0.005	No
Fries Avenue and Harry Bridges Blvd	A	0.287	A	0.375	B	0.629	A	0.597	0.342	0.222	No
Neptune Avenue and Harry Bridges Blvd	A	0.207	A	0.315	A	0.279	A	0.340	0.072	0.025	No
ICTF Driveway #1 and Sepulveda Blvd	A	0.342	A	0.565	A	0.345	A	0.567	0.003	0.002	No
ICTF Driveway #2 and Sepulveda Blvd	A	0.388	A	0.436	A	0.391	A	0.438	0.003	0.002	No
Santa Fe Avenue and Anaheim Street	A	0.379	A	0.495	A	0.381	A	0.496	0.002	0.001	No
John S. Gibson Blvd and Channel Street	A	0.568	B	0.663	A	0.568	B	0.663	0.000	0.000	No
Broad Avenue and Harry Bridges Blvd	A	0.235	A	0.316	A	0.269	A	0.439	0.034	0.123	No
Navy Way and Seaside Avenue	A	0.534	B	0.603	A	0.535	B	0.605	0.001	0.002	No

Notes:

(a) Unsignalized intersection

(b) All-way stop-controlled intersection

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

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Table 3.10-32. Intersection Level of Service Analysis – 2038 Proposed Project vs. CEQA Baseline

Study Intersection	*2003 CEQA Baseline*				*CEQA Baseline + 2038 Project*				*Change in V/C*		*Significantly Impacted*
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR				
	LOS	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*A.M.*	*P.M.*	
Figueroa Street and Harry Bridges Blvd	A	0.402	A	0.442	A	0.478	A	0.429	0.076	-0.013	No
Avalon Boulevard and Harry Bridges Blvd	A	0.297	A	0.399	A	0.323	A	0.435	0.026	0.036	No
Alameda Street and Anaheim Street	B	0.633	A	0.536	B	0.665	A	0.551	0.032	0.015	No
Henry Ford Avenue and Anaheim Street	A	0.525	A	0.573	A	0.533	A	0.581	0.008	0.008	No
Harbor Blvd and SR-47 WB On-Ramp (a)	A	9.6	B	10.5	A	9.6	B	10.5	0.0	0.0	No
Harbor Blvd and Swinford Street/ SR-47 Ramps	A	0.599	E	0.962	A	0.599	E	0.962	0.000	0.000	No
John S. Gibson Blvd and I-110 NB Ramps	A	0.492	A	0.413	A	0.521	A	0.432	0.029	0.019	No
Figueroa Street / "C"-Street / I-110 Ramps (b)	B	12.2	C	18.7	B	14.9	C	21.6	2.7	2.9	No
Pacific Avenue and Front Street	A	0.511	A	0.445	A	0.515	A	0.449	0.004	0.004	No
Fries Avenue and Harry Bridges Blvd	A	0.287	A	0.375	B	0.637	A	0.564	0.350	0.189	No
Neptune Avenue and Harry Bridges Blvd	A	0.207	A	0.315	A	0.289	A	0.333	0.082	0.018	No
ICTF Driveway #1 and Sepulveda Blvd	A	0.342	A	0.565	A	0.355	A	0.566	0.013	0.001	No
ICTF Driveway #2 and Sepulveda Blvd	A	0.388	A	0.436	A	0.394	A	0.437	0.006	0.001	No
Santa Fe Avenue and Anaheim Street	A	0.379	A	0.495	A	0.385	A	0.495	0.006	0.000	No
John S. Gibson Blvd and Channel Street	A	0.568	B	0.663	A	0.591	B	0.683	0.023	0.020	No
Broad Avenue and Harry Bridges Blvd	A	0.235	A	0.316	A	0.260	A	0.435	0.025	0.119	No
Navy Way and Seaside Avenue	A	0.534	B	0.603	A	0.547	B	0.621	0.013	0.018	No

Notes:

(a) Unsignalized intersection

(b) All-way stop-controlled intersection

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

Mitigation Measures

No mitigation required.

Residual Impact

No impacts.

Impact TRANS-3: An increase in on-site employees due to proposed Project operations would result in a less than significant increase in related public transit use.

CEQA Impact Determination

Although the Project would result in additional on-site employees, the increase in work-related trips using public transit would be negligible. Port terminals generate extremely low transit demand for several reasons. The primary reason that Port workers do not use public transit is that many terminal workers must first report to union halls for dispatch before proceeding to the terminal to which they have been assigned. Most workers prefer to use a personal automobile to facilitate this disjointed travel pattern. Also, Port workers live throughout the Southern California region and do not have access to the few bus routes that serve the Port. Additionally, Port workers' incomes are generally higher than similarly skilled jobs in other areas and higher incomes correlates to lower transit usage, Finally, parking at the Port is readily available and free, which encourages workers to drive to work. Therefore, it is expected that less than ten work trips would be made on public transit, which could easily be accommodated by existing bus transit services and would not result in a demand for transit services which would exceed the supply of such services. Observations of transit usage in the area for bus routes that serve the project area (MTA routes 446 and 447) revealed that the buses are currently not operating near capacity and would be able to accommodate this level of increase in demand without exceeding supply. Consequently, impacts due to additional demand on local transit services would be less than significant under CEQA.

Mitigation Measures

No mitigation required.

Residual Impacts

Less than significant impacts.

Impact TRANS-4: Proposed Project operations would result in a less than significant increase in freeway congestion.

CEQA Impact Determination

According to the Congestion Management Plan (CMP), Traffic Impact Analysis (TIA) Guidelines, a traffic impact analysis is required at the following:

- CMP arterial monitoring intersections, including freeway on-ramp or off-ramp, where the Project would add 50 or more trips during either the A.M. or P.M. weekday peak hours.
- CMP freeway monitoring locations where the Project would add 150 or more trips during either the A.M. or P.M. weekday peak hours.

Per CMP guidelines, an increase of 0.02 or more in the demand-to-capacity (D/C) ratio with a resulting LOS F is deemed a significant impact.

The closest CMP arterial monitoring station to the Project is Alameda Street/Pacific Coast Highway. The Project would add at least 50 trips through this intersection, and, therefore, CMP system analysis is required at this location. This intersection was recently improved as part of the Alameda Corridor Project, and the north-south through movements are grade separated. Since most Project traffic at this location is north-south oriented, the Project traffic would be on the newly grade separated portion of the intersection. "O" Street is the connector between PCH and Alameda Street. Thus, the analyzed intersection is "O" Street/Alameda Street. The analysis results indicate that the Project would not result in more than 0.02 increase in the V/C ratio at this location; therefore, there is no CMP system impact.

The closest freeway monitoring station is located at I-110 at "C"-Street and I-710 at Willow Street. The results of the analysis indicate that the Project would not result in more than 150 additional Project trips on either of the CMP freeway monitoring locations; therefore, no CMP system analysis is required at those locations.

Consequently, traffic impacts would be less than significant under CEQA.

Mitigation Measures

No mitigation required.

Residual Impacts

Less than significant impacts.

Impact TRANS-5: Proposed Project operations would cause an increase in rail activity, causing delays in regional traffic.

CEQA Impact Determination

Rail activity causes delay at crossings where the trains pass and cause auto and truck traffic to stop. The amount of delay is related to the length of the train, the speed of the train and the amount of auto and truck traffic that is blocked. The proposed Project would cause an increase in either the number of trains or the amount of auto and truck traffic; however, the increase in auto and truck traffic would only affect some of the at-grade crossings. In the case of this project, the affected at-grade crossings are at Avalon Boulevard and Henry Ford Avenue. The grade crossing at Fries Avenue would be eliminated as part of the Fries Avenue Grade Separation project.

The Project would not have any significant impact on regional rail corridors north of the Project site since the Alameda Corridor project has been completed. The completion of the corridor has eliminated all of the regional at-grade rail/highway crossings between the Port and the downtown rail yards; therefore, there would be no change in vehicular delay at any of those crossings due to Project-related rail activity (they are now all grade separated). Rail trips are not controlled by the Port. Currently, the unit trains built at the on-dock and near dock facilities can be picked up by BNSF and/or UP. Both rail companies use the Alameda Corridor to travel to the downtown rail yards. To the east of the downtown rail yards, some of the trains are broken down, reconfigured and otherwise modified at the location of the downtown rail yards from that point to the east. Other trains remain unit trains through the downtown rail yard; there are approximately nine major routes with a number of sub-routes that the trains can take to leave the State. The rail operators, and not the Port, make the choice of what routes the trains will take, the day they will move and the time of day the trains will move. Furthermore, the rail mainline tracks were designed and built to accommodate the anticipated rail activity in the region. Rail volumes on the mainline are controlled and limited by the capacity of the mainline itself, thus by definition the project's trains could not traverse the mainline unless it still has remaining capacity. The number of trains generated by the project would not cause the mainline rail tracks to exceed the regional capacity. Once the regional mainline rail track capacity would be exceeded due to increases in regional rail activity, separate environmental studies on the mainline expansion would be undertaken by the rail companies, not by each shipper or carrier generating rail volumes. Thus, rail related impacts due to the project are limited to the at-grade crossings that are located south of the downtown rail yards, and focus on the at-grade crossings in and near the Port.

Between the Project rail yards and the beginning of the corridor, there are two local grade crossings (Avalon Boulevard and Henry Ford Avenue). The rail impact analysis is based on peak hour vehicle delay at those two affected rail crossings. Although Project operations alone would not result in an additional train during the peak hour on a regular basis, it is possible that the cumulative development of the West Basin (Berths 97-109, Berths 121-131, Berths 136-147) may together result in an added train during the peak hour. Therefore, it is assumed that one additional train would occur during the peak hour. This is a very conservative analysis methodology since the Project itself would not regularly result in a full train added during the peak hour.

An additional train would result in additional vehicle delay at the two crossing locations. Vehicular traffic must stop at these crossings and wait while the trains pass by, and the duration of the traffic delay is dependent upon the speed and length of the train. For example, a typical train in the Port is a 28-car train and is approximately 8,760 feet long and travels at an average speed of about 14 km per hour (9 miles per hour) outside the port. Assuming that the automatic gates at each crossing would close 28 seconds prior to the arrival of a train and that they would open 8 seconds after the train clears the crossing, each train passage would block a given street for 11.7 minutes. These assumptions are based on typical train lengths and speeds that occur in the Port.

The severity of impact created by a train blockage depends upon the time of day that the blockage occurs and, correspondingly, the volume of traffic that is affected by the blockage. For example, if a blockage occurs during the peak periods of traffic flow, the resulting delays and the number of stopped vehicles would be greater than if the

blockage occurred at a non-peak time. Also, the total amount of delay would be greater at locations with high traffic volumes as compared to low-volume locations because the train crossing would stop more vehicles

For this analysis, the following formula has been used to determine the amount of delay at each crossing for each train passage.

$$Delay = \left(\frac{Tb^2 \times q \times nl}{2 \times 60 \times \left(1 - \frac{q}{25}\right)} \right) \times f$$

Where:

Tb = gate blockage time in minutes
q = average arrival rate in vehicles per minute per lane
f = train frequency in trains per hour
nl = number of lanes

This formula has been applied to the two "public" railroad crossings between the Project and beginning of the corridor (crossings internal to port terminals which do not serve public roadways are not assessed in this study). Since the average arrival rate for vehicles is dependent upon the time of day that the train movement occurs, it has been assumed that the train movements occur throughout the 24-hour day and that the probability of a blockage during any particular hour is 1:24, which represents an even distribution of train movements. For the peak hour, one train is assumed, which is a conservative assumption since there would not be a train on many days during the peak hour.

Total traffic delays at each individual grade crossing were computed for the A.M. and P.M. peak hours. This is the worst case, since many train movements would occur outside of the peak hours. There are no adopted or standard guidelines for determining whether an impact due to rail blockage of a roadway is significant. In the case of the Project, the two at-grade crossings are located on relatively low-volume minor arterial roadways, which serve primarily port traffic.

Table 3.10-33 summarizes the vehicle delay that is anticipated at the crossings due to the Project rail activity during the peak hours. As shown, the delay calculations were performed at crossings at Avalon Boulevard and Henry Ford Avenue. The results indicate that the added average vehicle delay would range up to a maximum of 80 seconds per vehicle at Henry Ford Avenue with the project. Based on the threshold of significance of 55 seconds of average vehicle delay, the project would have a significant impact at both locations.

Mitigation Measures

No mitigation measures are available.

Residual Impacts

There would be a significant, unavoidable transportation/circulation impact at the Henry Ford Avenue and Avalon Boulevard grade crossings as a result of the Project.

Table 3.10-33. Rail Crossing Vehicle Delay Due to Proposed Project

A.M. PEAK HOUR		
Rail Crossing	*Average Delay **per Vehicle** (sec/veh)*	
	YEAR 2015	YEAR 2038
1. Avalon Blvd (With Project)	70	70
2. Henry Ford Avenue (With Project)	78	78
P.M. PEAK HOUR		
Rail Crossing	*Average Delay **per Vehicle** (sec/veh)*	
	YEAR 2015	YEAR 2038
1. Avalon Blvd (With Project)	70	70
2. Henry Ford Avenue (With Project)	80	80

3.10.5.2.2 Alternatives

3.10.5.2.2.1 Alternative 1 – No Project Alternative

Impact TRANS-1: Construction would not result in a short-term, temporary increase in truck and auto traffic.

CEQA Impact Determination

The No Project Alternative considers what would reasonably be expected to occur on the site in the absence of issuance of both a federal permit by the USACE and a discretionary land use decision by the Port of Los Angeles. This alternative would not allow implementation of the Project or other physical improvements at Berths 136-147. Therefore, under this alternative, there would be no impacts on traffic related to construction. Forecasted increases in cargo throughput would still occur as greater operational efficiencies are made

Mitigation Measures

No mitigation would be necessary.

Residual Impacts

No impacts.

Impact TRANS-2: Long-term vehicular traffic associated with Alternative 1 would not significantly impact the study intersection's volume/capacity ratios, or level of service.

CEQA Impact Determination

The No Project Alternative considers what would reasonably be expected to occur on the site in the absence of issuance of both a federal permit by the USACE and a discretionary land use decision by the Port of Los Angeles. This alternative would not allow implementation of the Project or other physical improvements at Berths 136-147. Therefore, under this alternative, there would be no impacts on traffic related to construction. Forecasted increases in cargo throughput would still occur as greater operational efficiencies are made.

Alternative 1 traffic conditions for the years 2015 and 2038 were estimated by adding future traffic associated with Berths 136-147 to the CEQA 2003 baseline traffic volumes. Table 3.10-34 summarizes the TEU throughput for the CEQA Baseline and No Project Alternative and also the assumed operating parameters that were used to develop the trip generation forecasts. Traffic generated by Alternative 1 was estimated to determine potential impacts of this alternative on study area roadways.

Appendix E contains all of the CEQA Baseline and the No Project Alternative traffic forecasts and LOS calculation worksheets.

Tables 3.10-35 and 3.10-36 summarize the CEQA Baseline and the No Project Alternative intersection operating conditions at each study intersection for the 2015 and 2038 scenarios, respectively. The CEQA Baseline and the No Project Alternative intersection operating conditions for each year were compared to determine the impact of this alternative, and then the impacts were assessed using the City of Los Angeles criteria for significant impacts.

Based on the results of the traffic study as presented in Tables 3.10-35 and 3.10-36, the No Project Alternative would not result in a significant circulation system impact at any of the study intersections, relative to CEQA Baseline conditions. As noted in section 3.10.2, the City of Los Angeles has adopted thresholds of significance for traffic impacts at intersections. Based on those thresholds, none of the study intersection locations would be significantly impacted by traffic that would be added by the No Project Alternative over and above CEQA Baseline conditions. There would not be any significant impacts under CEQA related to long-term vehicular traffic.

The amount of traffic under the No Project Alternative that would be added at all other study locations would not be of sufficient magnitude to meet or exceed the threshold of significance of the respective city. This is true even for some intersections that would operate in the future at LOS E or F.

Table 3.10-34. Trip Generation Analysis Assumptions and Input Data for Berths 136-147 Terminal

Berths 136-147	CEQA BASELINE	NO PROJECT	
	2003	*2015*	*2038*
Gross Acres	176	176	176
Resultant TEU's (annual)	891,976	1,355,200	1,697,000
Peak Month Factor	0.091	0.091	0.083
Monthly TEU's	81,170	123,323	140,851
KEY TRIP GENERATION MODEL INPUT FACTORS			
Shift Split (%) (day/2nd/night)	90/10/0	80/10/10	60/20/20
On-Dock Rail %	0%	0%	0%
% Double Cycle Trucks	29%	35%	45%
Percentage of Weekly Gate Traffic Allocated to Weekend	15%	15%	15%
TRIP GENERATION RESULTS – A.M. PEAK			
Auto Trips Added under No Project	-----	61	38
Truck Trips Added under No Project	-----	153	165
Total Trips Added under No Project	-----	214	203
TRIP GENERATION RESULTS – P.M. PEAK			
Auto Trips Added under No Project	-----	74	44
Truck Trips Added under No Project	-----	147	34
Total Trips Added under No Project	-----	221	78
The trips generated for the No Project represent incremental increases relative to CEQA Baseline.			

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Table 3.10-35. Intersection Level of Service Analysis – 2015 Alternative 1 (No-Project) vs. CEQA Baseline

Study Intersection	*2003 CEQA Baseline*				*CEQA Baseline + 2015 No Project*				*Change in V/C*		*Significantly Impacted*
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR				
	LOS	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*A.M.*	*P.M.*	
Figueroa Street and Harry Bridges Blvd	A	0.402	A	0.442	A	0.481	A	0.518	0.079	0.076	No
Avalon Boulevard and Harry Bridges Blvd	A	0.297	A	0.399	A	0.336	A	0.442	0.039	0.043	No
Alameda Street and Anaheim Street	B	0.633	A	0.536	B	0.638	A	0.555	0.005	0.019	No
Henry Ford Avenue and Anaheim Street	A	0.525	A	0.573	A	0.529	A	0.577	0.004	0.004	No
Harbor Blvd and SR-47 WB On-Ramp (a)	A	9.6	B	10.5	A	9.6	B	10.5	0.0	0.0	No
Harbor Blvd and Swinford Street/ SR-47 Ramps	A	0.599	E	0.962	A	0.599	E	0.962	0.000	0.000	No
John S. Gibson Blvd and I-110 NB Ramps	A	0.492	A	0.413	A	0.494	A	0.415	0.002	0.002	No
Figueroa Street / "C"-Street / I-110 Ramps (b)	B	12.2	C	18.7	C	15.1	D	28.9	2.9	10.2	No
Pacific Avenue and Front Street	A	0.511	A	0.445	A	0.514	A	0.448	0.003	0.003	No
Fries Avenue and Harry Bridges Blvd	A	0.287	A	0.375	A	0.350	A	0.431	0.063	0.056	No
Neptune Avenue and Harry Bridges Blvd	A	0.207	A	0.315	A	0.245	A	0.329	0.038	0.014	No
ICTF Driveway #1 and Sepulveda Blvd	A	0.342	A	0.565	A	0.345	A	0.569	0.003	0.004	No
ICTF Driveway #2 and Sepulveda Blvd	A	0.388	A	0.436	A	0.391	A	0.439	0.003	0.003	No
Santa Fe Avenue and Anaheim Street	A	0.379	A	0.495	A	0.382	A	0.497	0.003	0.002	No
John S. Gibson Blvd and Channel Street	A	0.568	B	0.663	A	0.568	B	0.663	0.000	0.000	No
Broad Avenue and Harry Bridges Blvd	A	0.235	A	0.316	A	0.281	A	0.443	0.046	0.127	No
Navy Way and Seaside Avenue	A	0.534	B	0.603	A	0.535	B	0.605	0.001	0.002	No

Notes:

(a) Unsignalized intersection

(b) All-way stop-controlled intersection

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

Table 3.10-36. Intersection Level of Service Analysis – 2038 Alternative 1 (No-Project) vs. CEQA Baseline

Study Intersection	*2003 CEQA Baseline*				*CEQA Baseline + 2038 No Project*				*Change in V/C*		*Significantly Impacted*
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR				
	LOS	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*A.M.*	*P.M.*	
Figueroa Street and Harry Bridges Blvd	A	0.402	A	0.442	A	0.446	A	0.474	0.044	0.032	No
Avalon Boulevard and Harry Bridges Blvd	A	0.297	A	0.399	A	0.313	A	0.417	0.016	0.018	No
Alameda Street and Anaheim Street	B	0.633	A	0.536	B	0.665	A	0.550	0.032	0.014	No
Henry Ford Avenue and Anaheim Street	A	0.525	A	0.573	A	0.533	A	0.581	0.008	0.008	No
Harbor Blvd and SR-47 WB On-Ramp (a)	A	9.6	B	10.5	A	9.6	B	10.5	0.0	0.0	No
Harbor Blvd and Swinford Street/ SR-47 Ramps	A	0.599	E	0.962	A	0.599	E	0.962	0.000	0.000	No
John S. Gibson Blvd and I-110 NB Ramps	A	0.492	A	0.413	A	0.519	A	0.430	0.027	0.017	No
Figueroa Street / "C"-Street / I-110 Ramps (b)	B	12.2	C	18.7	C	15.0	C	21.2	2.8	2.5	No
Pacific Avenue and Front Street	A	0.511	A	0.445	A	0.512	A	0.447	0.001	0.002	No
Fries Avenue and Harry Bridges Blvd	A	0.287	A	0.375	A	0.357	A	0.387	0.070	0.012	No
Neptune Avenue and Harry Bridges Blvd	A	0.207	A	0.315	A	0.244	A	0.320	0.037	0.005	No
ICTF Driveway #1 and Sepulveda Blvd	A	0.342	A	0.565	A	0.355	A	0.566	0.013	0.001	No
ICTF Driveway #2 and Sepulveda Blvd	A	0.388	A	0.436	A	0.394	A	0.437	0.006	0.001	No
Santa Fe Avenue and Anaheim Street	A	0.379	A	0.495	A	0.385	A	0.496	0.006	0.001	No
John S. Gibson Blvd and Channel Street	A	0.568	B	0.663	A	0.591	B	0.683	0.023	0.020	No
Broad Avenue and Harry Bridges Blvd	A	0.235	A	0.316	A	0.262	A	0.433	0.027	0.117	No
Navy Way Seaside Avenue	A	0.534	B	0.603	A	0.547	B	0.621	0.013	0.018	No

Notes:

(a) Unsignalized intersection

(b) All-way stop-controlled intersection

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

Mitigation Measures

No mitigation would be necessary.

Residual Impact

No impacts.

Impact TRANS-3: An increase in on-site employees due to Alternative 1 operations would result in a less than significant increase in related public transit use.

Mitigation Measures

Mitigation measures would be the same or less than the proposed Project.

Residual Impacts

Less than significant impacts.

Impact TRANS-4: Alternative 1 operations would result in a less than significant increase in freeway congestion.

Mitigation Measures

Mitigation measures would be the same or less than the proposed Project.

Residual Impacts

Less than significant impacts.

Impact TRANS-5: Alternative 1 operations would cause an increase in rail activity, causing delays in regional traffic.

Mitigation Measures

Mitigation measures would be the same or less than the proposed Project.

Residual Impacts

Less than significant impacts.

3.10.5.2.2.2 Alternative 2 – Reduced Project: Project Without the 10-Acre Fill

CEQA Impact Determination

Alternative 2 is the same as the proposed Project except the 10-acre Northwest Slip would not be filled for additional backland storage area, and the 400-foot wharf would not be built adjacent to it, which would result in decreased container movement

efficiency when compared with the Project. Acreage would not increase between 2015 and 2038, remaining constant at 233 acres.

Quantitative trip generation estimates were developed for Alternative 2 and compared to the CEQA Baseline and the Project. Traffic generated from Alternative 2 using the same QuickTrip trip generation model as used for the project would be greater than the CEQA Baseline and the same as the Project. Table 3.10-37 illustrates the trip generation potential of Alternative 2. As shown, in 2015 and 2038, Alternative 2 would generate the same trips as the Project. Alternative 2 would also generate the same total train movements as the Project.

Table 3.10-37. Trip Generation Analysis – Alternative 2

	A.M. Peak		*P.M. Peak*	
	2015	2038	2015	2038
CEQA Baseline (Year 2003 – TraPac)				
Autos	98	98	143	143
Trucks	212	212	372	372
Total	310	310	515	515
Proposed Project (TraPac)				
Autos	206	193	281	263
Trucks	311	360	444	390
Total	517	553	725	653
Alternative 2 (Project without 10-Acre Fill)				
Autos	206	193	281	263
Trucks	311	360	444	390
Total	517	553	725	653

Tables 3.10-38 and 3.10-39 summarize the CEQA Baseline and the Alternative 2 intersection operating conditions at each study intersection for the 2015 and 2038 scenarios, respectively. The CEQA Baseline and the Alternative 2 intersection operating conditions for each year were compared to determine the impact of this alternative, and then the impacts were assessed using the City of Los Angeles criteria for significant impacts.

Based on the results of the traffic study as presented in Tables 3.10-38 and 3.10-39, Alternative 2 would not result in a significant circulation system impact at any of the study intersections, relative to CEQA Baseline conditions.

Traffic impacts associated with this alternative would be the same as those identified under **Impacts TRANS-1** through **TRANS- 5** for the Project. In summary, there would be a less than significant impact under CEQA for Alternative 2 for **Impacts TRANS-1**, **TRANS-3**, **TRANS-4** and **TRANS-5**. There would not be any significant impacts described under **Impact TRANS-2**. No mitigation measures would be required and there would not be any residual impacts.

Table 3.10-38. Intersection Level of Service Analysis – 2015 Alternative 2 (Reduced Project) vs. CEQA Baseline

Study Intersection	*2003 CEQA Baseline*				*CEQA Baseline + 2015 Alternative 2*				*Change in V/C*		*Significantly Impacted*
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR				
	LOS	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*A.M.*	*P.M.*	
Figueroa Street and Harry Bridges Blvd	A	0.402	A	0.442	A	0.492	A	0.441	0.090	-0.001	No
Avalon Boulevard and Harry Bridges Blvd	A	0.297	A	0.399	A	0.333	A	0.447	0.036	0.048	No
Alameda Street and Anaheim Street	B	0.633	A	0.536	B	0.636	A	0.549	0.003	0.013	No
Henry Ford Avenue and Anaheim Street	A	0.525	A	0.573	A	0.529	A	0.575	0.004	0.002	No
Harbor Blvd and SR-47 WB On-Ramp (a)	A	9.6	B	10.5	A	9.6	B	10.5	0.0	0.0	No
Harbor Blvd and Swinford Street/ SR-47 Ramps	A	0.599	E	0.962	A	0.599	E	0.963	0.000	0.001	No
John S. Gibson Blvd and I-110 NB Ramps	A	0.492	A	0.413	A	0.495	A	0.417	0.003	0.004	No
Figueroa Street / "C"-Street / I-110 Ramps (b)	B	12.2	C	18.7	B	14.0	C	24.7	1.8	6.0	No
Pacific Avenue and Front Street	A	0.511	A	0.445	A	0.515	A	0.450	0.004	0.005	No
Fries Avenue and Harry Bridges Blvd	A	0.287	A	0.375	B	0.629	A	0.597	0.342	0.222	No
Neptune Avenue and Harry Bridges Blvd	A	0.207	A	0.315	A	0.279	A	0.340	0.072	0.025	No
ICTF Driveway #1 and Sepulveda Blvd	A	0.342	A	0.565	A	0.345	A	0.567	0.003	0.002	No
ICTF Driveway #2 and Sepulveda Blvd	A	0.388	A	0.436	A	0.391	A	0.438	0.003	0.002	No
Santa Fe Avenue and Anaheim Street	A	0.379	A	0.495	A	0.381	A	0.496	0.002	0.001	No
John S. Gibson Blvd and Channel Street	A	0.568	B	0.663	A	0.568	B	0.663	0.000	0.000	No
Broad Avenue and Harry Bridges Blvd	A	0.235	A	0.316	A	0.269	A	0.439	0.034	0.123	No
Navy Way and Seaside Avenue	A	0.534	B	0.603	A	0.535	B	0.605	0.001	0.002	No

Notes:

(a) Unsignalized intersection

(b) All-way stop-controlled intersection

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

Table 3.10-39. Intersection Level of Service Analysis – 2038 Alternative 2 (Reduced Project) vs. CEQA Baseline

Study Intersection	*2003 CEQA Baseline*				*CEQA Baseline + 2038 Alternative 2*				*Change in V/C*		*Significantly Impacted*
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR				
	LOS	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*A.M.*	*P.M.*	
Figueroa Street and Harry Bridges Blvd	A	0.402	A	0.442	A	0.478	A	0.429	0.076	-0.013	No
Avalon Boulevard and Harry Bridges Blvd	A	0.297	A	0.399	A	0.323	A	0.435	0.026	0.036	No
Alameda Street and Anaheim Street	B	0.633	A	0.536	B	0.665	A	0.551	0.032	0.015	No
Henry Ford Avenue and Anaheim Street	A	0.525	A	0.573	A	0.533	A	0.581	0.008	0.008	No
Harbor Blvd and SR-47 WB On-Ramp (a)	A	9.6	B	10.5	A	9.6	B	10.5	0.0	0.0	No
Harbor Blvd and Swinford Street/ SR-47 Ramps	A	0.599	E	0.962	A	0.599	E	0.962	0.000	0.000	No
John S. Gibson Blvd and I-110 NB Ramps	A	0.492	A	0.413	A	0.521	A	0.432	0.029	0.019	No
Figueroa Street / "C"-Street / I-110 Ramps (b)	B	12.2	C	18.7	B	14.9	C	21.6	2.7	2.9	No
Pacific Avenue and Front Street	A	0.511	A	0.445	A	0.515	A	0.449	0.004	0.004	No
Fries Avenue and Harry Bridges Blvd	A	0.287	A	0.375	B	0.637	A	0.564	0.350	0.189	No
Neptune Avenue and Harry Bridges Blvd	A	0.207	A	0.315	A	0.289	A	0.333	0.082	0.018	No
ICTF Driveway #1 and Sepulveda Blvd	A	0.342	A	0.565	A	0.355	A	0.566	0.013	0.001	No
ICTF Driveway #2 and Sepulveda Blvd	A	0.388	A	0.436	A	0.394	A	0.437	0.006	0.001	No
Santa Fe Avenue and Anaheim Street	A	0.379	A	0.495	A	0.385	A	0.495	0.006	0.000	No
John S. Gibson Blvd and Channel Street	A	0.568	B	0.663	A	0.591	B	0.683	0.023	0.020	No
Broad Avenue and Harry Bridges Blvd	A	0.235	A	0.316	A	0.260	A	0.435	0.025	0.119	No
Navy Way Seaside Avenue	A	0.534	B	0.603	A	0.547	B	0.621	0.013	0.018	No

Notes:

(a) Unsignalized intersection

(b) All-way stop-controlled intersection

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

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3.10.5.2.2.3 Alternative 3 – Reduced Wharf

CEQA Impact Determination

Alternative 3 is the same as the proposed Project except the proposed new 705-foot wharf along Berths 145-147 would not be constructed, the 10-acre Northwest Slip would not be filled for additional container storage area, and the 400-foot wharf would not be built adjacent to the Northwest Slip.

Quantitative trip generation estimates were developed for Alternative 3 using the same QuickTrip trip generation model as used for the project and compared to the CEQA Baseline and the Project. Traffic generated from Alternative 3 would be less than for the Project across all years of analysis and modes (truck and auto). Because Alternative 3 would have lower TEU throughput than the project, it would generate fewer truck movements to handle the containers and would require fewer employees due to the lower throughout. Table 3.10-40 illustrates the trip generation potential of Alternative 3 as compared to the CEQA Baseline and the Project. Alternative 3 also would generate less total train movements and fewer total peak hour rail trips than the Project. As shown for 2015 and 2038, Alternative 3 would generate fewer trips compared to the Project, but would generate more auto trips but fewer truck trips than the CEQA Baseline in all years. The reason that fewer truck trips would be generated compared to the CEQA baseline is that the on-dock rail facility would be added under Alternative 3, which would remove truck trips. Compared to the CEQA baseline, however, Alternative 3 would have more TEU throughput, thus requiring more employees and generating more visitors, thus more auto trips.

Table 3.10-40. Trip Generation Analysis – Alternative 3

	A.M. Peak		*P.M. Peak*	
	2015	2038	2015	2038
CEQA Baseline (Year 2003 – TraPac)				
Autos	98	98	143	143
Trucks	212	212	372	372
Total	310	310	515	515
Proposed Project (TraPac)				
Autos	206	193	281	263
Trucks	311	360	444	390
Total	517	553	725	653
Alternative 3 (Reduced Wharf)				
Autos	176	164	239	224
Trucks	249	279	357	302
Total	425	443	596	526

Tables 3.10-41 and 3.10-42 summarize the CEQA Baseline and the Alternative 3 intersection operating conditions at each study intersection for the 2015 and 2038 scenarios, respectively. The CEQA Baseline and the Alternative 3 intersection operating conditions for each year were compared to determine the impact of this alternative, and then the impacts were assessed using the City of Los Angeles criteria for significant impacts.

Based on the results of the traffic study as presented in Tables 3.10-41 and 3.10-42, Alternative 3 would not result in a significant circulation system impact at any of the study intersections, relative to CEQA Baseline conditions.

Traffic impacts associated with this alternative would be the same as those identified under **Impacts TRANS-1** through **TRANS- 5** for the Project. In summary, there would be a less than significant impact under CEQA for Alternative 3 for **Impacts TRANS-1**, **TRANS-3**, **TRANS-4** and **TRANS-5**. There would not be any significant impacts described under **Impact TRANS-2**. No mitigation measures would be required and there would not be any residual impacts.

3.10.5.2.2.4 Alternative 4 – Omni Terminal

CEQA Impact Determination

Alternative 4 would convert the proposed Project area into an omni cargo handling terminal, similar to the Pasha Stevedoring & Terminals L.P. (Pasha) currently operating at Berths 174-181. The omni terminal would be different from the Project in several ways. There would be no seismic upgrades to the existing wharves, no new wharf construction, no change in existing cranes, and no 10-acre fill of the Northwest Slip. Since no new fill or dredging would be needed for more backlands for containers, the omni terminal would require no federal permits for in-water construction.

Quantitative trip generation estimates were developed for Alternative 4 using the same QuickTrip trip generation model as used for the project and compared to the CEQA Baseline and the Project. Traffic generated from Alternative 4 would be less than the CEQA Baseline and the Project in 2015 and 2038. Table 3.10-43 illustrates the trip generation potential for Alternative 4. As shown, in 2015 and 2038, Alternative 4 would generate fewer trips than the CEQA Baseline and the Project in all years. Alternative 4 also would generate less total train movements, TEU throughput, and total peak hour rail trips than the Project. Because traffic generated from Alternative 4 would be less than the CEQA Baseline for **Impacts TRANS-1** through **TRANS-5**, impacts would be less than significant under CEQA and no mitigation measures would be required. Tables 3.10-44 and 3.10-45 present the level-of-service results for 2015 and 2038, respectively.

Table 3.10-41. Intersection Level of Service Analysis – 2015 Alternative 3 (Reduced Wharf) vs. CEQA Baseline

Study Intersection	*2003 CEQA Baseline*				*CEQA Baseline + 2015 Alternative 3*				*Change in V/C*		*Significantly Impacted*
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR				
	LOS	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*A.M.*	*P.M.*	
Figueroa Street and Harry Bridges Blvd	A	0.402	A	0.442	A	0.465	A	0.418	0.063	-0.024	No
Avalon Boulevard and Harry Bridges Blvd	A	0.297	A	0.399	A	0.311	A	0.423	0.014	0.024	No
Alameda Street and Anaheim Street	B	0.633	A	0.536	B	0.633	A	0.538	0.000	0.002	No
Henry Ford Avenue and Anaheim Street	A	0.525	A	0.573	A	0.528	A	0.573	0.003	0.000	No
Harbor Blvd and SR-47 WB On-Ramp (a)	A	9.6	B	10.5	A	9.6	B	10.5	0.0	0.0	No
Harbor Blvd and Swinford Street/ SR-47 Ramps	A	0.599	E	0.962	A	0.599	E	0.962	0.000	0.000	No
John S. Gibson Blvd and I-110 NB Ramps	A	0.492	A	0.413	A	0.494	A	0.416	0.002	0.003	No
Figueroa Street / "C"-Street / I-110 Ramps (b)	B	12.2	C	18.7	B	12.8	C	19.3	0.6	0.6	No
Pacific Avenue and Front Street	A	0.511	A	0.445	A	0.514	A	0.449	0.003	0.004	No
Fries Avenue and Harry Bridges Blvd	A	0.287	A	0.375	A	0.560	A	0.534	0.273	0.159	No
Neptune Avenue and Harry Bridges Blvd	A	0.207	A	0.315	A	0.263	A	0.326	0.056	0.011	No
ICTF Driveway #1 and Sepulveda Blvd	A	0.342	A	0.565	A	0.344	A	0.565	0.002	0.000	No
ICTF Driveway #2 and Sepulveda Blvd	A	0.388	A	0.436	A	0.390	A	0.436	0.002	0.000	No
Santa Fe Avenue and Anaheim Street	A	0.379	A	0.495	A	0.381	A	0.495	0.002	0.000	No
John S. Gibson Blvd and Channel Street	A	0.568	B	0.663	A	0.568	B	0.663	0.000	0.000	No
Broad Avenue and Harry Bridges Blvd	A	0.235	A	0.316	A	0.253	A	0.321	0.018	0.005	No
Navy Way and Seaside Avenue	A	0.534	B	0.603	A	0.535	B	0.603	0.001	0.000	No

Notes:

(a) Unsignalized intersection

(b) All-way stop-controlled intersection

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

Table 3.10-42. Intersection Level of Service Analysis – 2038 Alternative 3 (Reduced Wharf) vs. CEQA Baseline

Study Intersection	2003 CEQA Baseline				CEQA Baseline + 2038 Alternative 3				Change in V/C		Significantly Impacted
	A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour				
	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	A.M.	P.M.	
Figueroa Street and Harry Bridges Blvd	A	0.402	A	0.442	A	0.450	A	0.407	0.048	-0.035	No
Avalon Boulevard and Harry Bridges Blvd	A	0.297	A	0.399	A	0.307	A	0.371	0.010	-0.028	No
Alameda Street and Anaheim Street	B	0.633	A	0.536	B	0.654	A	0.539	0.021	0.003	No
Henry Ford Avenue and Anaheim Street	A	0.525	A	0.573	A	0.531	A	0.578	0.006	0.005	No
Harbor Blvd and SR-47 WB On-Ramp (a)	A	9.6	B	10.5	A	9.6	B	10.5	0.0	0.0	No
Harbor Blvd and Swinford Street/ SR-47 Ramps	A	0.599	E	0.962	A	0.599	E	0.962	0.000	0.000	No
John S. Gibson Blvd and I-110 NB Ramps	A	0.492	A	0.413	A	0.520	A	0.431	0.028	0.018	No
Figueroa Street / "C"-Street / I-110 Ramps (b)	B	12.2	C	18.7	B	13.3	C	17.3	1.1	-1.4	No
Pacific Avenue and Front Street	A	0.511	A	0.445	A	0.514	A	0.449	0.003	0.004	No
Fries Avenue and Harry Bridges Blvd	A	0.287	A	0.375	A	0.550	A	0.500	0.263	0.125	No
Neptune Avenue and Harry Bridges Blvd	A	0.207	A	0.315	A	0.274	A	0.317	0.067	0.002	No
ICTF Driveway #1 and Sepulveda Blvd	A	0.342	A	0.565	A	0.354	A	0.564	0.012	-0.001	No
ICTF Driveway #2 and Sepulveda Blvd	A	0.388	A	0.436	A	0.393	A	0.435	0.005	-0.001	No
Santa Fe Avenue and Anaheim Street	A	0.379	A	0.495	A	0.383	A	0.494	0.004	-0.001	No
John S. Gibson Blvd and Channel Street	A	0.568	B	0.663	A	0.591	B	0.683	0.023	0.020	No
Broad Avenue and Harry Bridges Blvd	A	0.235	A	0.316	A	0.245	A	0.312	0.010	-0.004	No
Navy Way Seaside Avenue	A	0.534	B	0.603	A	0.546	B	0.620	0.012	0.017	No

Notes:

(a) Unsignalized intersection

(b) All-way stop-controlled intersection

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

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Table 3.10-43. Trip Generation Analysis – Alternative 4

	A.M. PEAK		P.M. PEAK	
	2015	*2038*	*2015*	*2038*
CEQA Baseline (Year 2003 – TraPac)				
Autos	98	98	143	143
Trucks	212	212	372	372
Total	310	310	515	515
Proposed Project (TraPac)				
Autos	206	193	281	263
Trucks	311	360	444	390
Total	517	553	725	653
Alternative 4 (Omni Terminal)				
Autos	59	46	80	62
Trucks	156	146	206	150
Total	215	192	286	212

3.10.5.2.2.5 Alternative 5 – Landside Terminal Improvements

CEQA Impact Determination

Alternative 5 comprises only the upland components of the proposed Project, including new terminal buildings, new truck gates, an on-dock rail yard on the site of the Pier A Rail yard, the Harry Bridges Buffer Area and roadway widening, and the paving, fencing, utilities, and lighting necessary for the reconfigured terminal. The Pier A Rail yard would be relocated as in the proposed Project, and PHL's operations transferred to the new rail yard. The new terminal's area would be 233 acres because it would include the 5-ac fill placed by the Channel Deepening project.

Quantitative trip generation estimates were developed for Alternative 5 using the same QuickTrip trip generation model as used for the project and compared to the CEQA Baseline and the Project. Traffic generated from Alternative 5 would be less than for the Project. Table 3.10-46 illustrates the trip generation potential of Alternative 5 as compared to the CEQA Baseline and the Project. As shown for 2015 and 2038, Alternative 5 would generate fewer trips compared to the Project, and would generate more auto trips but fewer truck trips than the CEQA Baseline in all years. Alternative 5 also would generate less total train movements, TEU throughput, and total peak hour rail trips than the Project.

Table 3.10-44. Intersection Level of Service Analysis – 2015 Alternative 4 (Omni Terminal) vs. CEQA Baseline

Study Intersection	*2003 CEQA Baseline*				*CEQA Baseline + 2015 Alternative 4*				*Change in V/C*		*Significantly Impacted*
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR				
	LOS	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*A.M.*	*P.M.*	
Figueroa Street and Harry Bridges Blvd	A	0.402	A	0.442	A	0.417	A	0.377	0.015	-0.065	No
Avalon Boulevard and Harry Bridges Blvd	A	0.297	A	0.399	A	0.260	A	0.325	-0.037	-0.074	No
Alameda Street and Anaheim Street	B	0.633	A	0.536	B	0.629	A	0.515	-0.004	-0.021	No
Henry Ford Avenue and Anaheim Street	A	0.525	A	0.573	A	0.527	A	0.569	0.002	-0.004	No
Harbor Blvd and SR-47 WB On-Ramp (a)	A	9.6	B	10.5	A	9.6	B	10.4	0.0	-0.1	No
Harbor Blvd and Swinford Street/ SR-47 Ramps	A	0.599	E	0.962	A	0.599	E	0.962	0.000	0.000	No
John S. Gibson Blvd and I-110 NB Ramps	A	0.492	A	0.413	A	0.491	A	0.410	-0.001	-0.003	No
Figueroa Street / "C"-Street / I-110 Ramps (b)	B	12.2	C	18.7	B	11.4	B	13.9	-0.8	-4.8	No
Pacific Avenue and Front Street	A	0.511	A	0.445	A	0.509	A	0.444	-0.002	-0.001	No
Fries Avenue and Harry Bridges Blvd	A	0.287	A	0.375	A	0.461	A	0.419	0.174	0.044	No
Neptune Avenue and Harry Bridges Blvd	A	0.207	A	0.315	A	0.233	A	0.295	0.026	-0.020	No
ICTF Driveway #1 and Sepulveda Blvd	A	0.342	A	0.565	A	0.344	A	0.561	0.002	-0.004	No
ICTF Driveway #2 and Sepulveda Blvd	A	0.388	A	0.436	A	0.389	A	0.432	0.001	-0.004	No
Santa Fe Avenue and Anaheim Street	A	0.379	A	0.495	A	0.380	A	0.492	0.001	-0.003	No
John S. Gibson Blvd and Channel Street	A	0.568	B	0.663	A	0.568	B	0.663	0.000	0.000	No
Broad Avenue and Harry Bridges Blvd	A	0.235	A	0.316	A	0.206	A	0.284	-0.029	-0.032	No
Navy Way and Seaside Avenue	A	0.534	B	0.603	A	0.535	B	0.601	0.001	-0.002	No

Notes:

(a) Unsignalized intersection

(b) All-way stop-controlled intersection

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

Table 3.10-45. Intersection Level of Service Analysis – 2038 Alternative 4 (Omni Terminal) vs. CEQA Baseline

Study Intersection	*2003 CEQA Baseline*				*CEQA Baseline + 2038 Alternative 4*				*Change in V/C*		*Significantly Impacted*
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR				
	LOS	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*A.M.*	*P.M.*	
Figueroa Street and Harry Bridges Blvd	A	0.402	A	0.442	A	0.402	A	0.364	0.000	-0.078	No
Avalon Boulevard and Harry Bridges Blvd	A	0.297	A	0.399	A	0.263	A	0.313	-0.034	-0.086	No
Alameda Street and Anaheim Street	B	0.633	A	0.536	B	0.637	A	0.516	0.004	-0.020	No
Henry Ford Avenue and Anaheim Street	A	0.525	A	0.573	A	0.528	A	0.575	0.003	0.002	No
Harbor Blvd and SR-47 WB On-Ramp (a)	A	9.6	B	10.5	A	9.6	B	10.4	0.0	-0.1	No
Harbor Blvd and Swinford Street/ SR-47 Ramps	A	0.599	E	0.962	A	0.599	E	0.962	0.000	0.000	No
John S. Gibson Blvd and I-110 NB Ramps	A	0.492	A	0.413	A	0.517	A	0.426	0.025	0.013	No
Figueroa Street / "C"-Street / I-110 Ramps (b)	B	12.2	C	18.7	B	11.3	B	13.0	-0.9	-5.7	No
Pacific Avenue and Front Street	A	0.511	A	0.445	A	0.509	A	0.444	-0.002	-0.001	No
Fries Avenue and Harry Bridges Blvd	A	0.287	A	0.375	A	0.445	A	0.394	0.158	0.019	No
Neptune Avenue and Harry Bridges Blvd	A	0.207	A	0.315	A	0.224	A	0.288	0.017	-0.027	No
ICTF Driveway #1 and Sepulveda Blvd	A	0.342	A	0.565	A	0.352	A	0.560	0.010	-0.005	No
ICTF Driveway #2 and Sepulveda Blvd	A	0.388	A	0.436	A	0.391	A	0.431	0.003	-0.005	No
Santa Fe Avenue and Anaheim Street	A	0.379	A	0.495	A	0.381	A	0.491	0.002	-0.004	No
John S. Gibson Blvd and Channel Street	A	0.568	B	0.663	A	0.591	B	0.683	0.023	0.020	No
Broad Avenue and Harry Bridges Blvd	A	0.235	A	0.316	A	0.214	A	0.274	-0.021	-0.042	No
Navy Way Seaside Avenue	A	0.534	B	0.603	A	0.545	B	0.618	0.011	0.015	No

Notes:

(a) Unsignalized intersection

(b) All-way stop-controlled intersection

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

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Table 3.10-46. Trip Generation Analysis – Alternative 5

	A.M. Peak		*P.M. Peak*	
	2015	2038	2015	2038
CEQA Baseline (Year 2003 – TraPac)				
Autos	98	98	143	143
Trucks	212	212	372	372
Total	310	310	515	515
Proposed Project (TraPac)				
Autos	206	193	281	263
Trucks	311	360	444	390
Total	517	553	725	653
Alternative 5 (Landside Terminal Improvements)				
Autos	160	137	218	187
Trucks	227	230	324	249
Total	387	367	542	436

Tables 3.10-47 and 3.10-48 summarize the CEQA Baseline and the Alternative 5 intersection operating conditions at each study intersection for the 2015 and 2038 scenarios, respectively. The CEQA Baseline and the Alternative 5 intersection operating conditions for each year were compared to determine the impact of this alternative, and then the impacts were assessed using the City of Los Angeles criteria for significant impacts.

Based on the results of the traffic study as presented in Tables 3.10-47 and 3.10-48, Alternative 5 would not result in a significant circulation system impact at any of the study intersections, relative to CEQA Baseline conditions.

Traffic impacts associated with this alternative would be the same as those identified under **Impacts TRANS-1** through **TRANS- 5** for the Project. In summary, there would be a less than significant impact under CEQA for Alternative 5 for **Impacts TRANS-1**, **TRANS-3**, **TRANS-4** and **TRANS-5**. There would not be any significant impacts described under **Impact TRANS-2**. No mitigation measures would be required and there would not be any residual impacts.

Table 3.10-47. Intersection Level of Service Analysis – 2015 Alternative 5 (Landside Terminal Improvements) vs. CEQA Baseline

Study Intersection	*2003 CEQA Baseline*				*CEQA Baseline + 2015 Alternative 5*				*Change in V/C*		*Significantly Impacted*
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR				
	LOS	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*A.M.*	*P.M.*	
Figueroa Street and Harry Bridges Blvd	A	0.402	A	0.442	A	0.455	A	0.410	0.053	-0.032	No
Avalon Boulevard and Harry Bridges Blvd	A	0.297	A	0.399	A	0.302	A	0.372	0.005	-0.027	No
Alameda Street and Anaheim Street	B	0.633	A	0.536	B	0.632	A	0.533	-0.001	-0.003	No
Henry Ford Avenue and Anaheim Street	A	0.525	A	0.573	A	0.528	A	0.572	0.003	-0.001	No
Harbor Blvd and SR-47 WB On-Ramp (a)	A	9.6	B	10.5	A	9.6	B	10.5	0.0	0.0	No
Harbor Blvd and Swinford Street/ SR-47 Ramps	A	0.599	E	0.962	A	0.599	E	0.962	0.000	0.000	No
John S. Gibson Blvd and I-110 NB Ramps	A	0.492	A	0.413	A	0.494	A	0.415	0.002	0.002	No
Figueroa Street / "C"-Street / I-110 Ramps (b)	B	12.2	C	18.7	B	12.5	C	17.8	0.3	-0.9	No
Pacific Avenue and Front Street	A	0.511	A	0.445	A	0.514	A	0.448	0.003	0.003	No
Fries Avenue and Harry Bridges Blvd	A	0.287	A	0.375	A	0.535	A	0.510	0.248	0.135	No
Neptune Avenue and Harry Bridges Blvd	A	0.207	A	0.315	A	0.257	A	0.319	0.050	0.004	No
ICTF Driveway #1 and Sepulveda Blvd	A	0.342	A	0.565	A	0.344	A	0.565	0.002	0.000	No
ICTF Driveway #2 and Sepulveda Blvd	A	0.388	A	0.436	A	0.390	A	0.435	0.002	-0.001	No
Santa Fe Avenue and Anaheim Street	A	0.379	A	0.495	A	0.381	A	0.494	0.002	-0.001	No
John S. Gibson Blvd and Channel Street	A	0.568	B	0.663	A	0.568	B	0.663	0.000	0.000	No
Broad Avenue and Harry Bridges Blvd	A	0.235	A	0.316	A	0.246	A	0.314	0.011	-0.002	No
Navy Way and Seaside Avenue	A	0.534	B	0.603	A	0.535	B	0.603	0.001	0.000	No

Notes:

(a) Unsignalized intersection

(b) All-way stop-controlled intersection

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

Table 3.10-48. Intersection Level of Service Analysis – 2038 Alternative 5 (Landside Terminal Improvements) vs. CEQA Baseline

Study Intersection	*2003 CEQA Baseline*				*CEQA Baseline + 2038 Alternative 5*				*Change in V/C*		*Significantly Impacted*
	A.M. PEAK HOUR		P.M. PEAK HOUR		A.M. PEAK HOUR		P.M. PEAK HOUR				
	LOS	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*LOS*	*V/C or Delay*	*A.M.*	*P.M.*	
Figueroa Street and Harry Bridges Blvd	A	0.402	A	0.442	A	0.433	A	0.392	0.031	-0.050	No
Avalon Boulevard and Harry Bridges Blvd	A	0.297	A	0.399	A	0.284	A	0.355	-0.013	-0.044	No
Alameda Street and Anaheim Street	B	0.633	A	0.536	B	0.647	A	0.532	0.014	-0.004	No
Henry Ford Avenue and Anaheim Street	A	0.525	A	0.573	A	0.530	A	0.577	0.005	0.004	No
Harbor Blvd and SR-47 WB On-Ramp (a)	A	9.6	B	10.5	A	9.6	B	10.5	0.0	0.0	No
Harbor Blvd and Swinford Street/ SR-47 Ramps	A	0.599	E	0.962	A	0.599	E	0.962	0.000	0.000	No
John S. Gibson Blvd and I-110 NB Ramps	A	0.492	A	0.413	A	0.519	A	0.430	0.027	0.017	No
Figueroa Street / "C"-Street / I-110 Ramps (b)	B	12.2	C	18.7	B	12.5	C	15.5	0.3	-3.2	No
Pacific Avenue and Front Street	A	0.511	A	0.445	A	0.512	A	0.447	0.001	0.002	No
Fries Avenue and Harry Bridges Blvd	A	0.287	A	0.375	A	0.512	A	0.461	0.225	0.086	No
Neptune Avenue and Harry Bridges Blvd	A	0.207	A	0.315	A	0.246	A	0.307	0.039	-0.008	No
ICTF Driveway #1 and Sepulveda Blvd	A	0.342	A	0.565	A	0.353	A	0.563	0.011	-0.002	No
ICTF Driveway #2 and Sepulveda Blvd	A	0.388	A	0.436	A	0.392	A	0.433	0.004	-0.003	No
Santa Fe Avenue and Anaheim Street	A	0.379	A	0.495	A	0.382	A	0.493	0.003	-0.002	No
John S. Gibson Blvd and Channel Street	A	0.568	B	0.663	A	0.591	B	0.683	0.023	0.020	No
Broad Avenue and Harry Bridges Blvd	A	0.235	A	0.316	A	0.237	A	0.300	0.002	-0.016	No
Navy Way Seaside Avenue	A	0.534	B	0.603	A	0.546	B	0.619	0.012	0.016	No

Notes:

(a) Unsignalized intersection

(b) All-way stop-controlled intersection

* City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology. Unsignalized intersections were analyzed using the Highway Capacity Manual methodology which is based on estimated vehicle delay.

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3.10.5.3 Mitigation Monitoring

TRA-1: Construction Mitigation	
Mitigation Measure	**TRA-1:** Prior to beginning construction, the construction contractor shall prepare a detailed traffic management plan which shall include the following: detour plans, coordination with emergency services and transit providers, coordination with adjacent property owners and tenants, advanced notification of temporary bus stop loss and/or bus line relocation, identify temporary alternative bus routes, advanced notice of temporary parking loss, identify temporary parking replacement or alternative adjacent parking within a reasonable walking distance, use of designated haul routes, use of truck staging areas, observance of hours of operations restrictions and appropriate signing for construction activities. The traffic management plan shall be submitted to LAHD for approval before beginning construction.
Timing	2008 to 2009
Methodology	
Responsible Parties	LAHD
Residual Impacts	Not Significant after Mitigation

3.10.6 Significant Unavoidable Impacts

There would be no significant, unavoidable transportation/circulation impacts as a result of the proposed Project or its alternatives.

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