Section 3.3
Ground Transportation

SECTION SUMMARY

Section 3.3, Ground Transportation, provides the following:

- A review of the ground transportation mitigation measures of the 2008 EIS/EIR;
- A description of observed existing ground transportation conditions in the study area, and the differences from the 2008 EIS/EIR;
- A discussion of the methodology used to determine whether the Revised Project would result in a new or substantially more severe significant impact on ground transportation;
- A summary of the ground transportation impacts of the Revised Project; and
- A description of revised, feasible mitigation measures proposed to reduce significant adverse impacts, as applicable.

Key Points of Section 3.3:

Four of the mitigation measures imposed in the 2008 EIS/EIR (MM TRANS-2, -3, -4, and -6, see Section 3.3.1) to mitigate potential impacts at study intersections are not included in the Revised Project; this SEIR evaluates future conditions without those measures and determines whether their removal would have new or more serious significant impacts relative to the findings of the 2008 EIR/EIR. Roadway circumstances have changed since the certification of the 2008 EIS/EIR and new information is available concerning traffic conditions at study area intersections that calls into question the need for those measures. Ten of the 17 study area intersections analyzed in the 2008 EIS/EIR have undergone physical changes, including those where mitigation measures were proposed in the 2008 EIS/EIR.

The project-specific transportation analysis of the Revised Project determined that operation of the CS Terminal under Revised Project conditions would cause a significant project-specific impact at intersection #3 (Alameda and Anaheim Streets) but would not cause a significant project-specific impact at any other study intersection. Accordingly, this study confirmed that mitigation measures TRANS--3, -4, and -6 of the 2008 EIS/EIR are not needed to mitigate significant project-specific impacts. Section 3.3.4.4 discusses the reasons for the changed findings compared to the 2008 EIS/EIRs.

Mitigation is required for the significant impact at Alameda and Anaheim Streets; accordingly, this Recirculated Draft SEIR re-imposes MM TRANS-2, which would mitigate the identified impact of the Revised Project, but modifies it to coordinate with another planned improvement of that intersection. Although implementation of the mitigation measure would avoid identified impacts, because LADOT approval is not guaranteed, the impact is significant and unavoidable. If LADOT approves the implementation of this mitigation measure, then the impact would be reduced to less than significant.

- **MM TRANS-2 Alameda & Anaheim Streets:** Provide an additional eastbound through-lane on Anaheim Street. This mitigation measure shall be implemented at the same time as the City's planned improvement project at this location, with design/construction commencing in the first quarter of 2019, subject to LADOT approval.

Implementation of MM TRANS-2 would mitigate the impact of the Revised Project. However, because LADOT approval is not guaranteed, the impact is considered significant and unavoidable. If LADOT approves the implementation of this mitigation measure then the impact would be reduced to less than significant.

The Revised Project would result in additional truck trips on the surrounding freeway system, but those added trips would not cause an increase in the demand/capacity ratio of any freeway link operating at LOS F or worse compared to the 2014 Mitigated Baseline, and would therefore not cause a significant impact.

A rail grade crossing in the project area (Henry Ford Avenue) would experience additional vehicular delay, but that delay would be below the threshold of significance.

3.3.1 Introduction

Vehicular and rail traffic associated with operation of the Revised Project would affect ground transportation resources in the immediate area of the Revised Project and the surrounding region. This section includes a description of the affected ground transportation environment, predicted impacts of the Revised Project, and mitigation measures that would reduce significant impacts.

As described in Section 2, the Approved Project as analyzed in the 2008 EIS/EIR included a number of mitigation measures, some of which have yet to be fully implemented. The Revised Project consists of continued operation of the Berths 97-109 CS Container Terminal under modified mitigation measures. This Recirculated Draft SEIR further assumes that CS Container Terminal throughput will be incrementally higher than was assumed in the 2008 EIS/EIR, in the amounts shown in Table 2-3, due to a revised assessment of Terminal capacity. Therefore, this Recirculated Draft SEIR, in analyzing the impacts of operation of the Revised Project, accounts for the impacts of both Revised Project's changes to the Approved Project, and of changed circumstances surrounding, or new information of substantial importance to, the Approved Project.

The transportation analysis for the Revised Project includes 29 key intersections and 14 freeway locations that would be used by truck and automobile traffic to gain access to and from the Project site and for which potentially significant impacts are reasonably foreseeable. In addition, this Recirculated Draft SEIR includes an analysis of the impact of the Revised Project on a rail-highway grade crossing in the project area. The technical information from the traffic analysis is included in Appendix C.

The Revised Project would not construct new roadway infrastructure and would involve negligible increases in employment compared to the Approved Project; accordingly, there is no reason to expect that the Revised Project would adversely affect public transit or pedestrian and bicycle infrastructure. Neither of those resource areas was identified in the 2008 EIS/EIR as potentially experiencing significant impacts as a result of the Approved Project. Although the NOP did not indicate that these resource areas would be addressed in the Draft SEIR, a screening analysis demonstrating that these resources would not experience new or more severe impacts due to the Revised Project is included in Appendix D.

3.3.2 Environmental Setting

3.3.2.1 Regional and Local Access

The project site is located in the West Basin Container Terminal, within an industrial area south of the Inner Harbor area of the Port of Los Angeles. The site is within the Port of Los Angeles Community Plan area in the City of Los Angeles, which is adjacent to the communities of San Pedro and Wilmington, and approximately 20 miles south of downtown Los Angeles. The site is on the eastern side of John S. Gibson Boulevard.

Access to and from the Project site is provided by a network of freeways and arterial routes, as shown on Figure 3.3-1. 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). The arterial street network that serves the proposed project area includes John S. Gibson Boulevard, Harry Bridges boulevard, Figueroa Street, Alameda Street, Anaheim Street, Henry Ford Avenue, Sepulveda

Boulevard/Willow Street, Front Street, Harbor Boulevard, and Pacific Avenue. Descriptions of the intersections and freeway segments are provided in Appendix C.

The traffic setting for the Revised Project includes those streets and intersections that would be used by both automobile and truck traffic to gain access to and from the project site and one potentially affected by a rail crossing. Twenty-nine (29) study intersections that are located near or on routes serving the project site were chosen for analysis (Figure 3.3-1); these intersections include all of the intersections analyzed in the 2008 EIS/EIR (except one that no longer exists) and several additional intersections added in response to comments on the NOP and the 2017 Draft SEIR. In addition, a traffic impact analysis is required at the following locations, pursuant to the Los Angeles County CMP (Metro, 2010):

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

The 14 freeway locations analyzed for the Recirculated Draft SEIR include the two that were analyzed in the 2008 EIS/EIR as well as 12 more segments that could be affected by the Revised Project's traffic (the 2017 Draft SEIR analyzed ten additional segments but in response to comments on that document two more were added for this analysis).

Project-related traffic on streets farther away from the project site would decrease due to expected dissipation, and it can be reasonably concluded that the project-related traffic would be less than the number of trips that would require analysis per LADOT, City of Long Beach, or City of Carson traffic impact study guidelines.

3.3.2.2 Regional and Local Roadway Changes Since the 2008 EIS/EIR

Many changes in the regional and local ground transportation network have occurred since the completion of the 2008 EIS/EIR. The Los Angeles Department of Transportation implemented intersection signalization improvements throughout the study area in the Automatized Traffic Surveillance and Control (ATSAC) programs in San Pedro and Wilmington, completed between 2009 and 2013. The computer-based, real-time traffic signal monitoring and control systems improve traffic to reduce delay time at intersections. In addition to the signal improvements of the ATSAC program, lanes were restriped at some locations. The analysis also accounts for the completion of Harbor Department's I-110/C Street Interchange Project, in addition to the improvements described in Section 3.3.1.

The 2008 EIS/EIR analyzed two rail/road at-grade crossings in the vicinity of the CS Terminal: the Henry Ford Avenue crossing and the Avalon Boulevard crossing. Significant impacts related to vehicular delay caused by project-related train traffic were identified at both locations (no feasible mitigation was available for either location). Since that time, the Wilmington Grade Separation project constructed a grade separation a short distance west of Avalon Boulevard. That overpass, which connects to Harry Bridges Boulevard, shifted traffic away from the Avalon Boulevard crossing and serves as mitigation for the impact identified in the 2008 EIS/EIR. The LAHD has proposed to vacate Avalon Boulevard south of Harry Bridges Boulevard, which would completely

eliminate the grade crossing. Accordingly, that location is not included in the Recirculated Draft SEIR's analysis.

Overall, eleven of the sixteen intersections analyzed for potential impacts in the 2008 EIS/EIR had subsequent lane reconfigurations between completion of the 2008 EIS/EIR and the 2014 baseline year used to analyze project-specific Ground Transportation impacts in this SEIR. The differences in study intersections analyzed in the 2008 EIS/EIR and those analyzed in the Recirculated Draft SEIR are noted in Figure 3.3-1 and the physical changes that have occurred since the 2008 EIS/EIR are described and illustrated in Appendix C.

These changes have substantially altered how the study intersections function, including their capacities. In addition, substantial changes in background traffic volumes and the changes to the overall ground transportation network mentioned above mean that traffic patterns in 2014 are substantially different than in 2001 (the 2008 EIS/EIR's baseline) and than the 2015 conditions modeled in the 2008 EIS/EIR. Furthermore, the network changes are part of the future scenarios in the cumulative analysis, which causes additional differences between the analyses in this SEIR and the analyses in the 2008 EIS/EIR.

Review and Status of 2008 EIS/EIR Mitigation Measures

The 2008 EIS/EIR included several mitigation measures related to roadway improvements needed to reduce the impacts of project truck traffic at certain Port-area intersections. Four of the mitigation measures (MM TRANS-2, -3, -4, and -6) had not been implemented by the dates specified in the MMRP.

MM TRANS-2: Alameda & Anaheim Streets - Provide an additional eastbound through-lane on Anaheim Street. This measure shall be implemented by 2015.

The 2008 EIS/EIR concluded that the Approved Project would result in a cumulatively considerable impact in the future years 2015 and 2030, and imposed MM TRANS-2 to mitigate that impact. However, the mitigation measure was not implemented by 2015 as required.

This intersection is being considered for improvements, however. A project under design by LADOT and the City of Los Angeles Department of Public Works, in a funding partnership with LAHD, would widen the west side of Alameda Street near the Anaheim Street intersection to provide three southbound lanes. The project would also reconstruct Alameda Street and may include re-striping Alameda Street and adjacent street intersection approaches. LAHD's funding participation in the project is estimated at $8.6 million. The project, designated SCAG FTIP ID LAF7205 in the 2017 SCAG Federal Transportation Improvement Program, is estimated to start construction by the end of 2019. However, it is not assumed in the 2014 Mitigated Baseline that is used to identify the impacts of the Revised Project's proposed elimination of Mitigation Measure TRANS-2 because it was neither completed by the time of preparation nor had a final design.

Traffic diversions caused by construction of the new Gerald Desmond Bridge have caused degradation of LOS at this intersection since 2014. A December, 2015, traffic count measured LOS F during the P.M. peak hour whereas in 2013, prior to construction, LOS was C in the P.M. peak hour. The travel demand model forecasts included as part of the cumulative analysis in Chapter 4 indicate that intersection operating conditions are

expected to return to pre-construction levels once bridge construction is completed (scheduled for the end of 2019).

The traffic counts taken in December, 2015, do not accurately represent the conditions of the Approved Project, as mitigated, at this intersection for purposes of the project-specific analysis in this SEIR. Accordingly, a count taken in November, 2013, is used in the level-of-service analysis conducted for this intersection; for all other intersections the 2015 counts are used. Use of 2013 data to describe baseline conditions at this intersection is consistent with Section C of LADOT's Traffic Study Guidelines [2013], which allows for the use of traffic counts taken within two years of the baseline year to represent baseline year conditions.

Because the Revised Project would eliminate MM TRANS-2, implementation of MM TRANS-2 is assumed in the 2014 Mitigated Baseline to show the project-specific effect of elimination of the mitigation measure.

MM TRANS-3: John S. Gibson Boulevard and I-110 Northbound (NB) Ramps - Provide an additional southbound and westbound right-turn lane on John S. Gibson Boulevard and I-110 NB ramps. Reconfigure the eastbound approach to one eastbound through-left-turn lane, and one eastbound through-right-turn lane. Provide an additional westbound right-turn lane with westbound right-turn overlap phasing. This measure shall be implemented by 2015.

The 2008 EIS/EIR determined that operation of the Approved Project would result in a cumulatively considerable impact under then-projected year 2015 conditions and also year 2030 conditions. In 2016, LAHD completed realignment of the off/on ramps but did not provide the westbound right-turn lane with overlap phasing specified by the measure. During the design phase of that project, in 2011, an update to the traffic volumes and LOS analysis indicated that this intersection would operate at a good LOS C or better under projected year 2014 conditions without the elements specified in MM TRANS-3 (Parsons, 2013). Additionally, because Caltrans rejected the re-striping for the eastbound lane, LAHD's designer conducted a supplemental traffic analysis to justify maintaining the existing striping (Parsons, 2013). Another LOS analysis conducted for this location in 2013 for the Avalon and Fries Street Segments Closure Project Draft IS/MND (LAHD, 2014) indicated that the intersection was operating at a very good LOS B or better during peak hours. Because these analyses projected that the intersection would experience good operating conditions, the Revised Project does not include MM TRANS-3. However, the need for that measure, or some other mitigation measure, in the future is assessed in the cumulative traffic analysis in this Recirculated Draft SEIR.

Because the Revised Project would eliminate MM TRANS-3, implementation of MM TRANS-3 is assumed in the 2014 Mitigated Baseline to show the effect of elimination of the mitigation measure.

MM TRANS-4: Harry Bridges Boulevard and Fries Avenue - Provide an additional westbound through-lane on Harry Bridges Boulevard. Provide an additional northbound, eastbound, and westbound right-turn lane on Fries Avenue and Harry Bridges Boulevard. This measure shall be implemented by 2015.

The 2008 EIS/EIR projected LOS D at this intersection under year 2015 conditions and determined that operation of the Approved Project would result in a cumulatively considerable impact under then-projected year 2015 and year 2030 conditions. In 2013, LAHD completed the reconstruction and widening of Harry Bridges Boulevard to provide exclusive left-lanes in both directions. LADOT required the striping for two

lanes in each direction, until such time that volumes and LOS warrant re-striping to provide three lanes in each direction. In 2014, LAHD completed the Wilmington Grade Separation, which intersects with Harry Bridges Boulevard and has resulted in a shift of traffic from Fries Avenue. These major improvements, combined with actual lower overall traffic volumes on Harry Bridges Boulevard than projected for the year 2015 in the 2008 EIS/EIR, have resulted in much improved operating conditions all along Harry Bridges Boulevard. Given the improved operating conditions, the Revised Project does not include MM TRANS-4. However, the need for that measure, or some other mitigation measure, in the future is assessed in the cumulative traffic analysis in this Recirculated Draft SEIR.

Because the Revised Project would eliminate MM TRANS-4, implementation of MM TRANS-4 is assumed in the 2014 Mitigated Baseline to show the effect of elimination of the mitigation measure.

MM TRANS-6: Navy Way and Seaside Avenue - Provide an additional eastbound through-lane on Seaside Avenue. Reconfigure the westbound approach to one left-turn lane and three through-lanes. This measure shall be implemented by 2030.

The 2008 EIS/EIR determined that operation of the Approved Project would result in a cumulatively considerable impact under year 2030 conditions. However, the actual operating condition in 2015 was LOS A. Given the excellent operating conditions, the Revised Project does not include MM TRANS-6. However, the need for that measure, or some other mitigation measure, in the future is assessed in the cumulative traffic analysis in this Recirculated Draft SEIR. Because this measure was not required to be implemented until 2030, it is not included in the 2014 Mitigated Baseline.

3.3.2.3 Baseline Traffic Conditions

For the reasons presented in sections 2.6 and 3.3.4.2 of this Recirculated Draft SEIR, the project-specific ground transportation analysis of intersections, freeways, and rail crossings uses a 2014 Mitigated Baseline comparison approach as the closest practicable approximation of a comparison to an Approved Project, as mitigated, baseline. Accordingly, for the project-specific analysis of the Revised Project, 2014 observed conditions (not including the 2008 EIS/EIR mitigation measures) are compared to the 2014 Mitigated Baseline described in Section 3.3.4.2.

Baseline Intersection Conditions

In order to develop the 2014 Mitigated Baseline intersection conditions, vehicle turning movement counts of automobiles, Port trucks, and other truck and regional traffic not related to the Port were collected at the study locations. The peak hour at each intersection is determined from traffic counts by assessing the highest volume of total traffic occurring during one consecutive hour at each location. Field-collected traffic count data are presented in Appendix C. The data indicate that, for study intersections, the A.M. or P.M. peak hour represents the highest level of traffic and therefore the "worst case" for purposes of the traffic operations analysis. However, the traffic analysis presents the results from the A.M., mid-day (M.D.), and P.M. peak hours in order to capture maximum port-related traffic, which tends to occur during the M.D. period.

As discussed earlier, intersections 25 through 29 were added in response to comments received on the 2017 Draft SEIR. Traffic counts at those intersections were taken in February 2018 and serve as a conservative representation of 2014 conditions (since there are higher volumes in 2018 due to ambient background growth).

Figure 3.3-1. Study Area and Study Intersections

LOS is a qualitative indication of an intersection's operating conditions as represented by traffic congestion and delay and the volume to capacity (V/C) ratio. For intersections, it is measured from LOS A (excellent conditions) to LOS F (very poor conditions), with LOS D typically considered to be the threshold of acceptability (Table 3.3-1).

Table 3.3-1: Level of Service Criteria—Intersections

Signalized Intersections (V/C Ratio)	Unsignalized Intersections (delay [seconds])	LOS	Traffic Conditions
0 to 0.600	≤10.0	A	Excellent. Little or no delay/congestion. No vehicle waits longer than one red light, and no approach phase is fully used.
>0.601 to 0.700	>10.0 and ≤15.0	B	Very Good. Slight congestion/delay. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
>0.701 to 0.800	>15.0 and ≤25.0	C	Good. Moderate delay/congestion. Occasionally, drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
>0.801 to 0.900	>25.0 and ≤35.0	D	Fair. Significant delay/congestion. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
>0.901 to 1.000	>35.0 and ≤50.0	E	Poor. Extreme congestion/delay. Represents the most vehicles that the intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
> 1.000	>50.0	F	Failure. Intersection failure/gridlock. Backups from nearby locations or cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Source: Transportation Research Board (TRB), 1980; TRB, 2010

The study intersections are located in the City of Los Angeles, the City of Long Beach, and the City of Carson. For purposes of this analysis, the locally defined thresholds of significance at intersections are used. Although the City of Los Angeles has a different method to assess intersection-operating conditions than that used by the City of Carson and the City of Long Beach, the methodologies are similar and generally yield similar results and conclusions. The methodologies used to assess intersection levels of service in the three cities involved are described in Appendix C, and are consistent with the methodologies used in the 2008 EIS/EIR, updated per each city's requirements.

Based on peak-hour traffic volumes and V/C ratios, all of the existing study intersections currently operate at LOS C or better during the A.M., M.D., and P.M. peak hours (Table 3.3-2), except that intersection #12 operates at LOS D in the P.M. peak, intersection #21 operates at LOS D in the P.M. peak, and intersection #23 operates at LOS D in the A.M. peak hour.

Table 3.3-2: 2014 Mitigated Baseline Intersection Level of Service

Study Intersection	A.M. Peak Hour		M.D. Peak Hour		P.M. Peak Hour	
	LOS	V/C	LOS	V/C	LOS	V/C
1. No Longer Exists	—	—	—	—	—	—
2. Harry Bridges Boulevard at Avalon Boulevard	A	0.237	A	0.175	A	0.306
3. Alameda Street at Anaheim Street	A	0.502	A	0.539	C	0.734
4. Henry Ford Avenue at Anaheim Street	A	0.360	A	0.409	A	0.367
5. Front Street/Harbor Boulevard at I-110 On-Ramps	A	0.446	A	0.289	A	0.349
6. Harbor Boulevard at Swinford Street/I-110 Off-Ramps	A	0.411	A	0.294	A	0.310
7. John S. Gibson Boulevard at I-110 NB Ramps (WBCT gate)	A	0.411	A	0.381	A	0.369
8. Pacific Avenue at Front Street	A	0.341	A	0.295	A	0.338
9. Figueroa Street at I-110 Ramps (C Street)	A	0.328	A	0.331	A	0.476
10. Harry Bridges Boulevard at Fries Avenue	A	0.090	A	0.191	A	0.241
11. Harry Bridges Boulevard and Bayview Driveway (formerly Neptune Ave)	A	0.107	A	0.107	A	0.208
12. ICTF Driveway No. 1 / Sepulveda Boulevard	A	0.374	A	0.440	A	0.513
13. ICTF Driveway No. 2/ Sepulveda Boulevard	A	0.499	A	0.545	B	0.672
14. Santa Fe Avenue and Anaheim Street [1]	A	0.549	A	0.573	B	0.663
15. Pacific Avenue/John S Gibson at Channel Street	A	0.273	A	0.482	A	0.411
16. Harry Bridges Boulevard at Broad Avenue	A	0.147	A	0.137	A	0.249
17. Navy Way at Seaside Avenue	A	0.384	A	0.280	A	0.503
18. Harry Bridges Boulevard at North Access Road	A	0.208	A	0.209	A	0.309
19. Henry Ford Avenue at Denni Street	A	0.099	A	0.243	A	0.259
20. Alameda Street at O Street	A	0.353	A	0.468	B	0.624
21. O Street at Pacific Coast Highway	A	0.533	C	0.749	D	0.854
22. Alameda Street at Sepulveda Boulevard (on Alameda Street) [1]	A	0.494	A	0.546	B	0.602
23. Sepulveda Boulevard at Alameda Street (on Sepulveda Boulevard) [1]	D	0.838	B	0.689	C	0.773
24. Front Street at Knoll Dr. (Future I-110 WB Ramps)	A	0.105	A	0.190	A	0.181
25. Gaffey Street at Miraflores Ave / SB-110	B	0.633	B	0.629	C	0.704
26. SR-47 (Terminal Island Fwy) at Ocean Blvd WB Ramps [1]	A	0.362	A	0.417	A	0.381
27. Pier S Avenue at Ocean Blvd WB Ramps [1]	B	0.655	B	0.624	C	0.755
28. Henry Ford Avenue at Pier A Way / SR-27/103 Ramp	A	0.089	A	0.196	A	0.175
29. SR-103 Off-Ramp at S. Pacific / I Street	A	0.098	A	0.100	A	0.114

Notes: Traffic counts for LOS analysis were conducted in December 2015, with the exception of location #3 which uses traffic counts obtained in November 2013, and locations #25 through #29, which were counted in February 2018.

[1] City of Carson or City of Long Beach intersection analyzed using ICU methodology according to City standards.

Baseline Freeway Conditions

In accordance with the California Department of Transportation's (Caltrans') "Guide for the Preparation of Traffic Impact Studies" (Caltrans, 2002), several freeway locations were analyzed for potential impacts using the standard methodologies described in Appendix C. Peak-hour freeway traffic counts were obtained from the Caltrans Traffic Census Program which summarizes annual automobile and truck trips along freeway segments throughout California.

The 2008 EIS/EIR analyzed two freeway segments: I-110 at C Street and I-710 at Willow Street (north of Pacific Coast Highway). The Recirculated Draft SEIR freeway analysis was conducted in accordance with a 2013 agreement between the City of Los Angeles and Caltrans (City of Los Angeles and Caltrans, 2013) that requires analysis of more segments. Accordingly, in addition to the two segments analyzed in the 2008 EIS/EIR, the Recirculated Draft SEIR analyzes twelve additional locations, including the ten analyzed in the 2017 Draft SEIR and another two added to this analysis in response to comments on that document:

- SR-47 At Vincent Thomas Bridge
- SR-47 At Commodore Schuyler Heim Bridge
- I-110 North of 223rd Street
- I-110 North of I-405
- I-710 North of I-405
- I-710 North of Alondra Boulevard
- I-710 North of Firestone Boulevard
- I-710 North of Florence Avenue
- SR-91 Between I-110 and I-710
- I-405 West of I-710
- I-110 SB Off-Ramp at Gaffey Street/Miraflores Avenue
- SR-47/103 NB Off-Ramp at Pier A Way

The CMP uses the Volume/Capacity (V/C) ratio to determine LOS. The relationship between the V/C ratio and LOS for freeway segments per the CMP is shown in Table 3.3-3. LOS F(1) through F(3) designations are assigned where severely congested (less than 25 mph) conditions prevail for more than one hour, converted to an estimate of peak hour demand in Table 3.3-1.

The baseline freeway volumes, density, and LOS (Table 3.3-4) indicate that freeway segment #5 (I-110 north of I-405) operates at LOS F both northbound and southbound during the A.M. peak hour, but all other segments operate at LOS D or better.

Baseline At-Grade Rail Crossing Conditions

The Revised Project would not affect rail traffic to and from the Berths 97-109 Terminal. However, the revised assessment of the increased cargo throughput at the CS Container Terminal compared to the assumptions of the 2008 EIS/EIR could result in increased train traffic. The Alameda Corridor eliminated all rail/street at-grade crossings between the Port Complex and downtown Los Angeles. However, the CS Terminal is located south of the terminus of the Alameda Corridor, and the track leading from the West Basin area, including the WBICTF where CS intermodal cargo is loaded onto trains, to the

Alameda Corridor crosses Henry Ford Avenue just north of the Dominguez Channel (Figure 3.3-2). That crossing, which the 2008 EIS/EIR predicted would experience significant vehicular delay from the Approved Project, is evaluated in this Recirculated Draft SEIR using the methodology described in Appendix C. Average per-vehicle delay at that crossing under baseline conditions was calculated to be 17.1 seconds (the threshold of significance for rail crossing delay is 55 seconds).

Table 3.3-3: Freeway CMP Level of Service Criteria

Freeway Level of Service (LOS)	Volume/Capacity Ratio
A	0.01–0.35
B	>0.35–0.54
C	>0.54–0.77
D	>0.77–0.93
E	>0.93–1.00
F(0)	>1.00–1.25
F(1)	>1.25–1.35
F(2)	>1.35–1.45
F(3)	>1.45

Source: Metro, 2010

Figure 3.3-2: At-Grade Crossing at Henry Ford Avenue

Source: Google Maps

While CEQA requires that impacts related to rail traffic in the vicinity of the Port be addressed in this Recirculated Draft SEIR, impacts farther away are outside the scope of a CEQA-required analysis. The regional rail system in the Inland Empire is not in the vicinity of the Revised Project, and a court decision ruled that impacts on this system are not required to be evaluated in a CEQA document. The legal decision emerged from a challenge of the LAHD's approval of the 2008 FEIR. In the legal decision, the court held: "We conclude neither the City nor the County of Riverside is in the 'vicinity' of the project. The Port did not abuse its discretion by failing to include in the recirculated Draft EIR an analysis of rail-related impacts on the City and County of Riverside."

However, because regional rail has been, and continues to be, an important issue to many stakeholders, and despite the lack of substantial evidence of any reasonably foreseeable significant adverse rail-related impacts to these areas from the Revised Project, this document includes, for informational purposes only, an analysis of the impacts in the Inland Empire of rail transport of the marine containers resulting from the additional forecasted throughput for the Revised Project compared to the Approved Project.

The geographical study area for that evaluation includes the at-grade crossings located east of the intermodal railyards at the northern end of the Alameda Corridor rail line (just east of downtown Los Angeles). Trains to and from the Revised Project would use all of the railroads' mainlines east of the downtown railyards (see Figure 3.3-3); therefore, the informational evaluation includes:

- the BNSF San Bernardino Subdivision from Hobart and Commerce Yards to San Bernardino;
- the BNSF Cajon Subdivision from San Bernardino to Barstow;
- the UP Alhambra Subdivision from LATC to Colton Crossing, the UP Los Angeles Subdivision from ELA to West Riverside Junction; and
- the UP Yuma Subdivision from Colton Crossing to Indio.

BNSF at-grade crossings between Barstow and the Nevada border and UP at-grade crossings between Indio and the Arizona border are in rural areas with low traffic volumes (typically less than 5,000 average daily trips) and therefore are not included in the study. Many road-rail grade separations have been constructed on these lines, but as of 2014 approximately 170 at-grade crossings remain in the study area: 56 of them are along the BNSF San Bernardino Subdivision, 13 along the BNSF Cajon Subdivision, 38 along the UP Alhambra Subdivision, 40 along the UP Los Angeles Subdivision, and 20 along the UP Yuma Subdivision. In the Pomona/Montclair area, the UP Alhambra and Los Angeles Subdivisions are close parallel lines, with at-grade crossings similarly close along a given road. Accordingly, the rail impacts for the 20 at-grade crossings on the two lines in this area were treated as 10 effective crossings on one railroad corridor.

The methodology for calculating rail crossing impacts is described in Section 3.4.4.1 and Appendix C. Those calculations indicate that, under baseline conditions (2014), none of the at-grade crossings analyzed experienced vehicular delays exceeding the significance threshold of 55 seconds per vehicle. Delays of 5 to 8 seconds were typical of most crossings, and the maximum calculated delay was 17.4 seconds (see tables C2-13 through C2-20 in Appendix C).

Table 3.3-4: 2014 Mitigated Baseline Freeway Level of Service

Freeway	Location	Northbound / Westbound						Southbound / Eastbound					
		A.M. Peak Hour			P.M. Peak Hour			A.M. Peak Hour			P.M. Peak Hour		
		Demand or Volume	Density (pc/mi/ln)	LOS	Demand or Volume	Density (pc/mi/ln)	LOS	Demand or Volume	Density (pc/mi/ln)	LOS	Demand or Volume	Density (pc/mi/ln)	LOS
#1 SR-47	At Vincent Thomas Bridge	1,875	17.9	B	2,765	26.5	D	2,235	21.4	C	2,760	26.4	D
#2 SR-47/SR-103	At Commodore Schuyler Heim Bridge	1,120	7.1	A	1,175	7.5	A	920	5.9	A	1,000	6.4	A
#3 I-110 [1]	South of C Street	4,450	18.0	C	2,990	12.1	B	3,250	13.2	B	4,410	17.9	B
#4 I-110	North of 223rd Street	7,910	35.6	E	5,510	22.3	C	5,820	18.9	C	7,400	24.1	C
#5 I-110	North of I-405	11,690	50.2	**F**	8,150	27.0	D	8,600	28.9	D	11,000	43.6	E
#6 I-710 [1]	North of PCH	5,970	39.6	E	5,440	34.9	D	6,330	43.9	E	5,160	32.9	D
#7 I-710 [1]	North of I-405	7,120	34.2	D	7,360	35.5	E	7,950	39.6	E	6,350	30.4	D
#8 I-710	North of Alondra Boulevard	8,160	27.0	D	7,560	24.7	C	9,510	33.4	D	8,310	27.7	D
#9 I-710 [1]	North of Firestone Boulevard	7,580	33.3	D	7,030	29.8	D	8,840	44.0	E	7,790	34.7	D
#10 I-710	North of Florence Avenue	7,030	29.8	D	6,520	27.0	D	8,200	38.0	E	7,190	30.7	D
#11 I-405 [1]	Between I-110 and I-710	9,430	33.0	D	8,610	29.0	D	7,740	25.4	C	9,630	34.1	D
#12 SR-91 [1]	West of I-710	6,400	17.3	B	7,340	19.8	C	8,090	21.8	C	8,120	21.9	C
#13 I-110	SB Off-Ramp at Gaffey Street/Miraflores Avenue [2]							614 / 2,700	15.2	B	839 / 2,640	14.7	B
#14 SR-47/103	NB Off-Ramp at Pier A Way [2]	86 / 1,034	4.6	A	345 / 830	2.8	A						

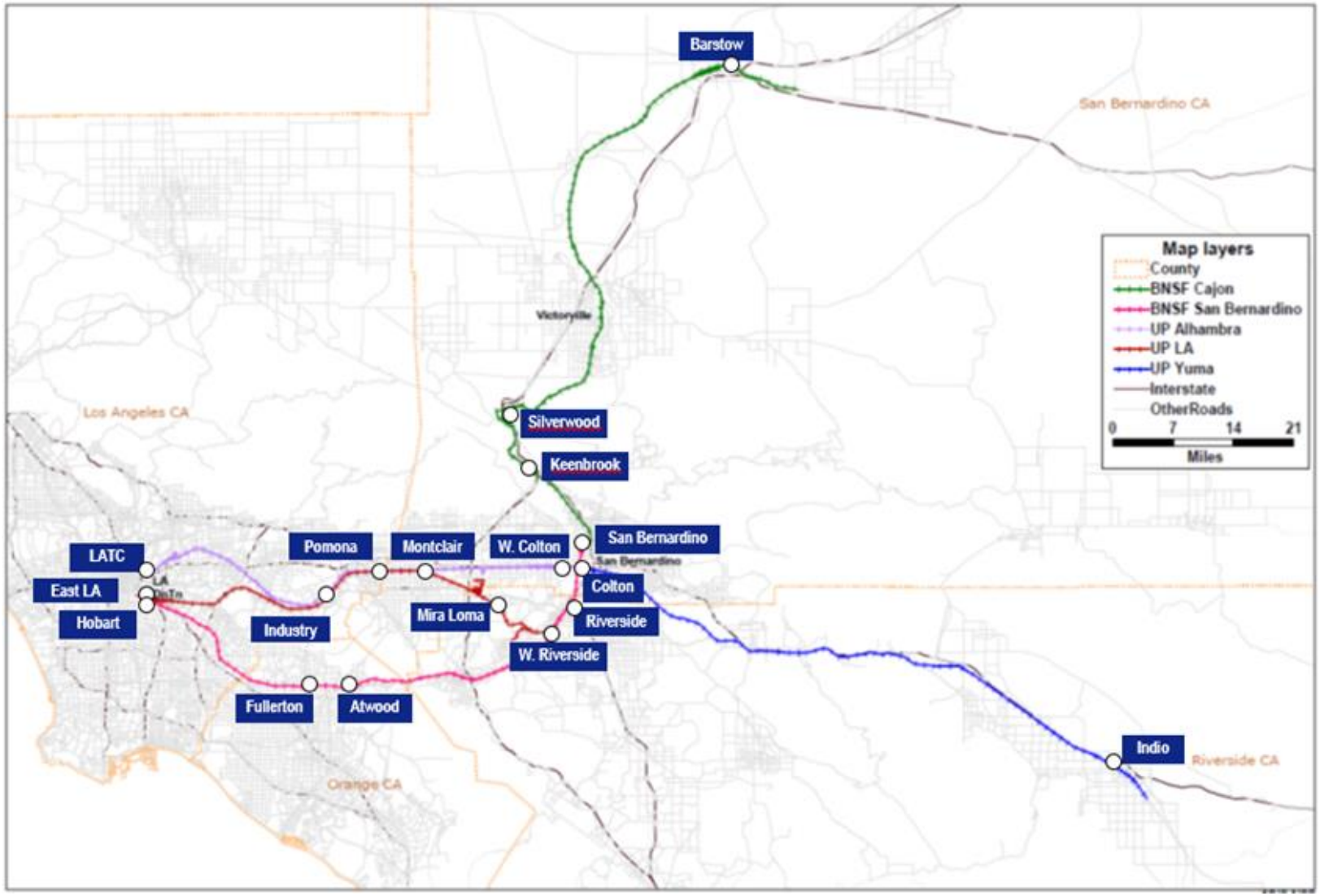
Note: Freeway operation conditions based on the methodology in the 2010 HCM where level of service is based on density (passenger car per mile per lane [pc/mi/ln]).

[1] CMP location

[2] Ramp locations include both ramp / mainline volume

BOLD = LOS F

Figure 3.3-3: Southern California Freight Rail Lines



3.3.3 Applicable Regulations

Traffic analysis in the state of California is guided by policies and standards set at the state level by Caltrans and local jurisdictions. Since the Revised Project is in the City of Los Angeles, it would adhere to the adopted City transportation policies. The cities in the study area have established threshold criteria to determine significant traffic impacts of a project in their jurisdictions. (See Section 3.3.4.4 [Thresholds of Significance].)

3.3.3.1 Intersection Operations

Cities have traffic impact study guidelines to ensure proposed projects mitigate potential transportation system impacts. Each of the cities with analysis intersections in the study area, Los Angeles, Long Beach and Carson have their own intersection analysis guidelines and thresholds of significance.

3.3.3.2 Freeway Guidelines

Caltrans does not have specific significance thresholds for freeway impact analysis, but relies on county transportation agencies to identify the thresholds and methodology in their Congestion Management Programs (CMPs). According to the Los Angeles County CMP Traffic Impact Analysis Guidelines, a project must produce a minimum of 50 trips at a CMP intersection and 150 trips on a freeway segment during a peak hour to meet the minimum threshold from CMP analysis. The CMP uses a demand-to-capacity (D/C) ratio to determine operations at CMP monitoring stations.

"An Agreement Between the City of Los Angeles and Caltrans District 7 On Freeway Impact Analysis Procedures" was co-signed by the agencies in October 2013 (City of Los Angeles and Caltrans, 2013). The agreement described freeway impact analysis screening criteria and analysis methodology, mitigation options and coordination. In accordance with that agreement, this analysis includes Highway Capacity Manual (HCM) analysis of freeway mainlines and a queuing analysis of analyzed freeway off-ramps.

3.3.3.3 Rail Operations

The California Public Utilities Commission (CPUC) has regulatory authority over rail operations and grade crossings throughout the state. However, rail operations under the Revised Project are not subject to approval or modification by the CPUC because no grade crossings would be added or modified.

3.3.3.4 SB 743

On September 27, 2013, Governor Brown signed Senate Bill (SB) 743 (Steinberg, 2013). Among other things, SB 743 creates a process to change analysis of transportation impacts under the California Environmental Quality Act (CEQA [Public Resources Code section 21000, et seq.]). Currently, environmental review of transportation impacts focuses on the delay that vehicles experience at intersections and on roadway segments. That delay is measured using a metric known as "level of service," or LOS. Mitigation for increased delay often involves increasing capacity (i.e., the width of a roadway or size of an intersection), which may increase auto use and emissions and discourage alternative forms of transportation. Under SB 743, the focus of transportation analysis will shift from driver delay to reduction of greenhouse gas emissions, creation of multimodal networks, and promotion of a mix of land uses.

Draft guidelines were developed by the Office of Planning and Research (OPR) in August 2014, with updated draft guidelines prepared in August 2015 and January 2016. In November 2017, OPR transmitted its proposed CEQA Guideline implementing Senate Bill 743 to the California Natural Resources Agency. In January 2018, the Natural Resources Agency issued a Notice of Proposed Rulemaking to start the formal administrative rulemaking process on the CEQA Guidelines. At the time of this writing, new guidelines have not yet been adopted and the final guidelines may change based on the comments received. As such, analysis of vehicle miles of travel (VMT) is not required under CEQA at this time because the proposed project's Notice of Preparation was issued before any final guidelines had been adopted. Neither the City of Los Angeles nor County of Los Angeles have adopted an alternative primary metric for CEQA transportation impact for analysis, therefore this analysis continues to use vehicle delay as a metric of potential transportation impact, along with other metrics such as bicycle and pedestrian conditions and conformity with area planning efforts. However, given the evolving nature of VMT analysis under CEQA and lack of adopted CEQA Guidelines, the analysis in this SEIR is not being formally adopted as a CEQA policy or significance criteria by the City at the time of this writing.

3.3.4 Impacts and Mitigation Measures

3.3.4.1 Methodology

The methodologies used to analyze vehicular traffic are described in detail in Appendix C. Overviews of the methodologies are presented below.

Vehicular Traffic

Impacts of the Revised Project were assessed by quantifying differences between conditions with and without the Revised Project for the baseline (Year 2014). Future-year analysis of forecasted conditions (i.e., 2015, 2030 and 2045) is included in the cumulative analysis (Section 4.2.3).

Pursuant to Caltrans' traffic study requirements, freeway roadway segments were analyzed using the operational analysis methodology provided in the *Highway Capacity Manual* (TRB, 2010). For those locations projected to be operating at LOS F, the freeway segments were also analyzed in compliance with the County of Los Angeles CMP (Metro, 2010) to utilize D/C ratio to determine LOS.

Rail Crossing Analysis

One rail grade crossing is in the project vicinity and thus needs to be evaluated under CEQA for impacts on vehicular traffic. For the Henry Ford Avenue at-grade crossing, the average total train blockage time in the P.M. peak hour (4-5 P.M.) under baseline conditions was estimated from crossing controller data and an average train length assumption of 3,100 feet.

In addition, impacts on rail crossings in the Inland Empire were evaluated in accordance with the standard methodology used by the Port (Appendix C). The results are presented for informational purposes only, as the analysis is not required under CEQA.

Throughput Assumptions

As described in Table 2-3, the Revised Project would operate with a somewhat greater throughput than assumed for the Approved Project in the 2008 EIS/EIR. Accordingly, traffic modeling for future years used the throughput projections for 2015, 2030, and 2045 presented in Table 2-3.

3.3.4.2 Baseline

As discussed in Section 2.6, in the typical case, a supplemental EIR would adopt as its baseline the full build-out of the approved project analyzed under the prior EIR, regardless of whether that project was fully constructed. It would be proper, therefore, to use the Approved Project, as mitigated, as the baseline conditions for evaluating the impacts of the Revised Project and to disclose the incremental change in environmental impacts between the Approved Project and the Revised Project. LAHD determined this approach is appropriate for analysis of cumulative Ground Transportation impacts to street intersections and at-grade rail crossings, areas in which the basic analytical techniques have not changed since the 2008 EIS/EIR. However, analysis of project-specific Ground Transportation impacts in the 2008 EIS/EIR was cumulative in nature, since it used a baseline that included other anticipated future growth not attributable to the Approved Project. Since the *Neighbors for Smart Rail v. Exposition Metro Line Const. Authority* (2013) 57 Cal.4th 439 decision regarding CEQA baselines, the LAHD no longer conducts project-specific ground transportation analyses using future background growth as a baseline. As a result, use of the 2008 EIS/EIR's impact determinations as the baseline in an analysis of project-specific Ground Transportation impacts of the Revised Project on current and future traffic conditions at intersections, on freeway segments, and at the Henry Ford Avenue rail crossing would yield results that would not serve as an appropriate basis for assessing impacts of the Revised Project. Instead, as described in Section 2.6 and Section 3.3.2.3, the project-specific analyses of intersections, freeway segments, and rail crossings in this Recirculated Draft SEIR use conditions in 2014, including any mitigation imposed under the 2008 EIS/EIR that was required to be implemented by 2015, as the baseline for the CEQA analysis. This baseline is considered to produce the closest practicable approximation of comparison to an approved project and is referred to in the balance of this section as the 2014 Mitigated Baseline.

While the 2014 Mitigated Baseline does not permit exact comparison of the impacts of the Revised Project in comparison with the impact conclusions in the 2008 EIS/EIR, it is nonetheless "conservative," in its identification of the incremental impacts of the Revised Project. As shown in Table 2-2, whereas the 2008 EIS/EIR estimated CS Terminal throughput in year 2015 at about 1,164,000 TEUs, actual throughput levels reflected in the 2014 Mitigated Baseline were lower, at 1,088,639 TEUs. This means that comparison of impacts of the Revised Project to a 2014 Mitigated Baseline will assume a greater incremental increase in throughput than would be assumed if the Recirculated Draft SEIR were to use a baseline which reflected the throughput assumptions in the 2008 EIS/EIR.

In 2014, the CS Terminal encompassed approximately 131 acres under its long-term lease and handled approximately 1,088,639 TEUs, which required approximately 550,000 truck trips, 418 trains, and 163 vessel calls (see also Project Description Section 2.7.1, and Table 2-1); this level of activity is slightly lower than predicted for 2015 by the 2008 EIS/EIR. In 2014, the CS Terminal generated an average of 2.2 trains per day in the peak month (both full-length trains and shorter cuts of cars moved in and out of the

terminal are considered trains), but because the shorter cuts were assembled into trains in the Port area, the actual number of CS trains entering the regional rail network was 1.1 per day.

3.3.4.3 Thresholds of Significance

A project in the Port is considered to have a significant transportation/circulation impact if the project would result in one or more of the following occurrences. These criteria are based on the *L.A. CEQA Thresholds Guide* (City of Los Angeles, 2006) and other criteria applied to Port projects, and are used as the basis for determining the impacts of the Revised Project.

The designations of thresholds TRANS-2, TRANS-4, and TRANS-5 match those used in the 2008 EIS/EIR. Threshold TRANS-1, which relates to construction, is not applicable to the Revised Project and is not included in the Recirculated Draft SEIR. In the case of TRANS-3, the 2008 EIS/EIR concluded that construction and operation of the CS Container Terminal would have no impact on public transportation, pedestrian and bicycle infrastructure, or alternative transportation policies or facilities. Accordingly, TRANS-3 is not included in the Recirculated Draft SEIR.

TRANS – 2: Would vehicular traffic associated with the Revised Project increase an intersection's V/C ratio in accordance with applicable guidelines?

For intersections in the cities of Carson and Long Beach (study intersections 14, 22, and 23), operations would have a significant impact on transportation/circulation if it increases an intersection's V/C ratio in accordance with the following guideline:

- V/C ratio of 0.02 or greater if the final LOS is E or F.

In the City of Los Angeles (all other study intersections), Revised Project operations would have a significant impact on transportation/circulation if it increases an intersection's V/C ratio in accordance with the following guidelines:

- V/C ratio increase greater than or equal to 0.04 if final LOS is C;
- V/C ratio increase greater than or equal to 0.02 if final LOS is D; or
- V/C ratio increase greater than or equal to 0.01 if final LOS is E or F.

TRANS – 4: Would the Revised Project result in an increase of 0.02 or more in the D/C ratio with a resulting LOS F at a CMP freeway monitoring station?

According to the CMP Traffic Impact Analysis Guidelines, an increase of 0.02 or more in the D/C ratio with a resulting LOS F at a CMP freeway monitoring station is deemed a significant impact (Metro, 2010). This applies only if a project produces 50 trips or more at a CMP intersection and 150 trips on a freeway segment. At non-CMP freeway segments, an increase of 0.02 or more in the D/C ratio with a resulting LOS F is deemed a significant impact.

TRANS –5: Would the Revised Project cause delays in regional highway traffic due to an increase in rail activity?

The Revised Project is considered to have an impact at the Henry Ford Avenue at-grade crossing if the average per-vehicle delay in the peak hour caused by the Revised Project would exceed 55 seconds.

The NOP dismissed the following criteria, which are therefore not analyzed in this Recirculated Draft SEIR:

- *Would the proposed Project substantially increase transportation hazards due to a design feature?*

  The Revised Project does not include modification of any roadways or include any design features that would be incompatible with the current zoning or land use designation. Accordingly, this issue is not discussed in the Recirculated Draft SEIR.

- *Would the proposed Project result in inadequate emergency access?*

  The 2008 EIS/EIR concluded that operation of the CS Container Terminal would not result in inadequate emergency access to, from, and within the site. Accordingly, this issue is not discussed in the Recirculated Draft SEIR.

- *Would the Project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?*

  The 2008 EIS/EIR concluded that operation of the CS Container Terminal would not result in significant impacts related to alternative transportation, and the Revised Project does not include new roadway infrastructure. Accordingly, this issue is not discussed in the Recirculated Draft SEIR.

3.3.4.4 Impact Determination

Impact TRANS-2: Would vehicular traffic associated with the Revised Project result in a significant impact in study intersection volume/capacity ratios or level of service?

Traffic conditions with the Revised Project were estimated by adding the CS Terminal's traffic at maximum throughput to the 2014 Mitigated Baseline. Table 3.3-5 summarizes the trip generation assumptions for the 2014 Mitigated Baseline and the Revised Project at maximum throughput. Appendix C contains the relevant data and worksheets.

Table 3.3-5: Trip Generation Analysis Assumptions and Input Data for China Shipping Container Terminal

Time Period	Vehicle Type	2014 Mitigated Baseline Conditions	2014 Mitigated Baseline Conditions with Revised Project (full throughput)	Difference
A.M. Peak Hour	Auto	52	221	169
	Truck	127	375	248
M.D. Peak Hour	Auto	35	96	60
	Truck	302	447	145
P.M. Peak Hour	Auto	143	302	159
	Truck	372	417	45

As Tables 3.3-6 (Revised Project Year 2014) and 3.3-7 (Revised Project at Maximum Throughput) shows, the Revised Project would exceed the significance thresholds established by the City of Los Angeles at Location #3 (Alameda Street at Anaheim Street) in the P.M. peak hour, when LOS would degrade from C to D, and the V/C ratio would increase by up to 0.096. No other intersection would experience a significant impact, even under maximum throughput conditions.

These results differ from the impact conclusions of the 2008 EIS/EIR. In that document, five locations were predicted to experience significant impacts by Year 2015: #2 (Avalon Boulevard and Harry Bridges Boulevard), #3 (Alameda Street and Anaheim Street), #7 (John S. Gibson Boulevard and I-110 Northbound Ramps), #10 (Harry Bridges Boulevard at Fries Avenue), and #16 (Harry Bridges Boulevard at Broad Avenue). Measures were imposed to mitigate those impacts as described in Section 3.3.2.3.

Much of the difference between the Recirculated Draft SEIR's results and those of the 2008 EIS/EIR is attributable to the fact that the 2008 EIS/EIR did not base its results on a project-specific analysis, which was not conducted, but rather on a cumulative impact analysis. In the Recirculated Draft SEIR, the cumulative ground transportation impact analysis and conclusion, which form Section 4.4 of Chapter 4, includes a direct comparison of the findings of the 2008 EIS/EIR to cumulative conditions in 2015, 2030 and 2045 projected from the 2014 Mitigated Baseline.

Another difference between the results arises from the fact that a number of infrastructure changes have been implemented on local roadways, including at several intersections that the 2008 EIS/EIR predicted would experience significant degradation in operating conditions. Specifically:

- Study location #2 was improved as part of the Harry Bridges Boulevard Improvement Project, as called for by the 2008 EIS/EIR's MM TRANS-1, and now operates at better LOS than was predicted by the 2008 EIS/EIR.
- Study location #7 was improved as required by MM TRANS-3 (except for the additional westbound right-turn lane) and is now predicted not to experience significant degradation in operating conditions.
- Study location #10 was improved as part of the Harry Bridges Boulevard Improvement Project, although not as called for in the 2008 EIS/EIR's MM TRANS-4, and recent LAHD data and analysis indicated traffic conditions at this location were substantially better under observed Year 2014 operating condition (LOS A, even with only two through lanes in each direction) compared to the 2015 condition modeled by the 2008 EIS/EIR.
- Study location #16 was improved as part of the Harry Bridges Boulevard Improvement Project, resulting in observed operating conditions better than were forecasted in the 2008 EIS/EIR.

In the case of study location #17 (Navy Way and Seaside Avenue), the 2008 EIS/EIR predicted a significant impact by the year 2030, and imposed MM TRANS-6. That measure was not required until 2030 and operating conditions in 2015 were excellent; accordingly, as described Section 3.3.2.2, the measure is not included in the Revised Project. Furthermore, as described in Chapter 4 Cumulative Analysis, LAHD is planning an independent project to provide a grade-separated interchange at this location. These improvements, which LAHD plans to implement before the year 2026, would eliminate any potential impact of traffic generated by the China Shipping Container Terminal.

For study intersections 25 through 29, the traffic counts conducted in February 2018 are used to represent the "2014 Baseline With Revised Project" conditions, and project trips attributed to those locations were removed to derive the "2014 Mitigated Baseline" conditions.

CEQA Impact Determination

Because the Revised Project would result in an increase in V/C of 0.096 with LOS D at study location #3 (Alameda Street and Anaheim Street) during the P.M. peak hour, it would have a significant impact and mitigation is required .

Mitigation Measures

Mitigation is required for the significant impact at Alameda and Anaheim Streets; accordingly, this Recirculated Draft SEIR re-imposes the 2008 EIS/EIR MM TRANS-2, but with a revised implementation schedule. The measure was supposed to have been completed by 2015 but was not implemented. It was not included in the Revised Project on the basis of available traffic study data, but this analysis has determined that the measure would mitigate the identified impact.

As described in Section 3.3.2.2, a project under design by LADOT and the City of Los Angeles Department of Public works and in funding partnership with LAHD would implement roadway improvements to Alameda Street. The timing of MM TRANS-2 will be coordinated with that larger improvement project which is estimated to start construction by the end of 2019. In addition, based on the anticipated approval of this SEIR and the process for design, permitting, and construction contract award, the earliest implementation for this measure would be 2019. Furthermore, the property needed to implement this measure is not controlled by the Harbor Department and therefore requires approval by LADOT. Although implementation of the mitigation measure would avoid the identified impact, because LADOT approval is not guaranteed, the impact is significant and unavoidable. If LADOT approves the implementation of this mitigation measure, then the impact would be reduced to less than significant.

> **MM TRANS-2 Alameda & Anaheim Streets:** Provide an additional eastbound through-lane on Anaheim Street. This mitigation measure shall be implemented at the same time as the City's planned improvement project at this location, with design/construction commencing in the first quarter of 2019, subject to LADOT approval.

Residual Impacts

As shown in Table 3.3-8, implementation of MM TRANS-2 would fully mitigate the impact. However, because LADOT approval is not guaranteed, the impact is significant and unavoidable. If LADOT approves the implementation of this mitigation measure, then the impact would be reduced to less than significant.

Table 3.3-6: Intersection Level of Service—2014 Mitigated Baseline Compared to 2014 Revised Project

Study Intersection	2014 Mitigated Baseline						2014 Baseline With Revised Project						Changes in V/C			Sig. Impact?
	A.M. Peak		M.D. Peak		P.M. Peak		A.M. Peak		M.D. Peak		P.M. Peak		A.M. Peak	M.D. Peak	P.M. Peak	
	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C				
1. No Longer Exists	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	-
2. Harry Bridges Boulevard at Avalon Boulevard	A	0.237	A	0.175	A	0.306	A	0.237	A	0.175	A	0.306	0.000	0.000	0.000	No
3. Alameda Street at Anaheim Street	A	0.502	A	0.539	C	0.734	A	0.571	B	0.615	D	0.829	0.069	0.076	0.095	P.M.
4. Henry Ford Avenue at Anaheim Street	A	0.360	A	0.409	A	0.367	A	0.360	A	0.409	A	0.367	0.000	0.000	0.000	No
5. Front Street/Harbor Boulevard at I-110 On-Ramps	A	0.446	A	0.289	A	0.349	A	0.446	A	0.289	A	0.349	—	—	—	-
6. Harbor Boulevard at Swinford Street/I-110 Off-Ramps	A	0.411	A	0.294	A	0.310	A	0.411	A	0.294	A	0.310	0.000	0.000	0.000	No
7. John S. Gibson Boulevard at I-110 NB Ramps (WBCT gate)	A	0.411	A	0.381	A	0.369	A	0.415	A	0.384	A	0.379	0.004	0.003	0.009	No
8. Pacific Avenue at Front Street	A	0.341	A	0.295	A	0.338	A	0.341	A	0.295	A	0.338	0.000	0.000	0.000	No
9. Figueroa Street at I-110 Ramps (C Street)	A	0.328	A	0.331	A	0.476	A	0.328	A	0.331	A	0.476	0.000	0.000	0.000	No
10. Harry Bridges Boulevard at Fries Avenue	A	0.090	A	0.191	A	0.241	A	0.147	A	0.191	A	0.241	0.058	0.000	0.000	No
11. Harry Bridges Blvd and Bayview Dr (formerly Neptune Ave)	A	0.107	A	0.107	A	0.208	A	0.107	A	0.107	A	0.208	0.000	0.000	0.000	No
12. ICTF Driveway No. 1 / Sepulveda Boulevard	A	0.374	A	0.440	A	0.513	A	0.374	A	0.440	A	0.513	0.000	0.000	0.000	No
13. ICTF Driveway No. 2/ Sepulveda Boulevard	A	0.499	A	0.545	B	0.672	A	0.499	A	0.545	B	0.672	0.000	0.000	0.000	No
14. Santa Fe Avenue and Anaheim Street [1]	A	0.549	A	0.573	B	0.663	A	0.549	A	0.573	B	0.663	0.000	0.000	0.000	No
15. Pacific Avenue/John S Gibson at Channel Street	A	0.273	A	0.482	A	0.411	A	0.273	A	0.482	A	0.411	0.000	0.000	0.000	No
16. Harry Bridges Boulevard at Broad Avenue	A	0.147	A	0.137	A	0.249	A	0.147	A	0.137	A	0.249	0.000	0.000	0.000	No
17. Navy Way at Seaside Avenue	A	0.384	A	0.280	A	0.503	A	0.384	A	0.280	A	0.503	0.000	0.000	0.000	No
18. Harry Bridges Boulevard at North Access Road	A	0.208	A	0.209	A	0.309	A	0.208	A	0.209	A	0.309	0.000	0.000	0.000	No
19. Henry Ford Avenue at Denni Street	A	0.099	A	0.243	A	0.259	A	0.099	A	0.243	A	0.259	0.000	0.000	0.000	No
20. Alameda Street at O Street	A	0.353	A	0.468	B	0.624	A	0.353	A	0.468	B	0.624	0.000	0.000	0.000	No
21. O Street at Pacific Coast Highway	A	0.533	C	0.749	D	0.854	A	0.533	C	0.749	D	0.854	0.000	0.000	0.000	No
22. Alameda Street at Sepulveda Boulevard (on Alameda St) [1]	A	0.494	A	0.546	B	0.602	A	0.494	A	0.546	B	0.602	0.000	0.000	0.000	No
23. Sepulveda Boulevard at Alameda St (on Sepulveda Blvd) [1]	D	0.838	B	0.689	C	0.773	D	0.838	B	0.689	C	0.773	0.000	0.000	0.000	No
24. Front Street at Knoll Dr. (Future I-110 WB Ramps)	A	0.105	A	0.190	A	0.181	A	0.105	A	0.190	A	0.181	0.000	0.000	0.000	No
25. Gaffey Street at Miraflores Ave / SB-110	B	0.633	B	0.629	C	0.704	B	0.633	B	0.629	C	0.704	0.000	0.000	0.000	No
26. SR-47 (Terminal Island Fwy) at Ocean Blvd WB Ramps [1]	A	0.362	A	0.417	A	0.381	A	0.362	A	0.417	A	0.381	0.000	0.000	0.000	No
27. Pier S Avenue at Ocean Blvd WB Ramps [1]	B	0.655	B	0.624	C	0.755	B	0.655	B	0.624	C	0.755	0.000	0.000	0.000	No
28. Henry Ford Avenue at Pier A Way / SR-27/103 Ramp	A	0.089	A	0.196	A	0.175	A	0.089	A	0.196	A	0.175	0.000	0.000	0.000	No
29. SR-103 Off-Ramp at S. Pacific / I Street	A	0.098	A	0.100	A	0.114	C	0.776	C	0.721	D	0.856	0.000	0.000	0.000	No

Notes:

Traffic counts for LOS analysis were conducted in December 2015, with the exception of location #3 which uses traffic counts obtained in November 2013 and locations #25 through #29 which were counted in February 2018

[1] City of Carson or City of Long Beach intersection analyzed using ICU methodology according to City standards.

Table 3.3-7: Intersection Level of Service—2014 Mitigated Baseline Compared to Revised Project at Maximum Throughput (2030 and 2045)

Study Intersection	2014 Mitigated Baseline						2014 Baseline With Revised Project at Maximum Throughput						Changes in V/C			Sig. Impact ?
	A.M. Peak		M.D. Peak		P.M. Peak		A.M. Peak		M.D. Peak		P.M. Peak		A.M. Peak	M.D. Peak	P.M. Peak	
	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C				
1. No Longer Exists	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	-
2. Harry Bridges Boulevard at Avalon Boulevard	A	0.237	A	0.175	A	0.306	A	0.242	A	0.182	A	0.313	0.004	0.007	0.007	No
3. Alameda Street at Anaheim Street	A	0.502	A	0.539	C	0.734	A	0.571	B	0.615	D	0.830	0.069	0.076	0.096	P.M.
4. Henry Ford Avenue at Anaheim Street	A	0.360	A	0.409	A	0.367	A	0.360	A	0.409	A	0.367	0.000	0.000	0.000	No
5. Front Street/Harbor Boulevard at I-110 On-Ramps	A	0.446	A	0.289	A	0.349	A	0.451	A	0.293	A	0.355	0.005	0.004	0.006	No
6. Harbor Boulevard at Swinford Street/I-110 Off-Ramps	A	0.411	A	0.294	A	0.310	A	0.488	A	0.325	A	0.313	0.076	0.031	0.003	No
7. John S. Gibson Boulevard at I-110 NB Ramps (WBCT gate)	A	0.411	A	0.381	A	0.369	A	0.469	A	0.389	A	0.384	0.057	0.008	0.015	No
8. Pacific Avenue at Front Street	A	0.341	A	0.295	A	0.338	A	0.341	A	0.297	A	0.343	0.001	0.002	0.005	No
9. Figueroa Street at I-110 Ramps (C Street)	A	0.328	A	0.331	A	0.476	A	0.328	A	0.331	A	0.523	0.000	0.000	0.047	No
10. Harry Bridges Boulevard at Fries Avenue	A	0.090	A	0.191	A	0.241	A	0.151	A	0.197	A	0.248	0.062	0.007	0.007	No
11. Harry Bridges Blvd and Bayview Dr (formerly Neptune Ave)	A	0.107	A	0.107	A	0.208	A	0.127	A	0.113	A	0.211	0.021	0.007	0.003	No
12. ICTF Driveway No. 1 / Sepulveda Boulevard	A	0.374	A	0.440	A	0.513	A	0.378	A	0.445	A	0.513	0.004	0.005	0.001	No
13. ICTF Driveway No. 2/ Sepulveda Boulevard	A	0.499	A	0.545	B	0.672	A	0.502	A	0.547	B	0.673	0.004	0.002	0.001	No
14. Santa Fe Avenue and Anaheim Street [1]	A	0.549	A	0.573	B	0.663	A	0.549	A	0.573	B	0.663	0.000	0.000	0.000	No
15. Pacific Avenue/John S Gibson at Channel Street	A	0.273	A	0.482	A	0.411	A	0.277	A	0.482	A	0.416	0.004	0.001	0.006	No
16. Harry Bridges Boulevard at Broad Avenue	A	0.147	A	0.137	A	0.249	A	0.151	A	0.139	A	0.249	0.004	0.003	0.000	No
17. Navy Way at Seaside Avenue	A	0.384	A	0.280	A	0.503	A	0.411	A	0.283	A	0.507	0.027	0.003	0.005	No
18. Harry Bridges Boulevard at North Access Road	A	0.208	A	0.209	A	0.309	A	0.230	A	0.216	A	0.317	0.022	0.007	0.008	No
19. Henry Ford Avenue at Denni Street	A	0.099	A	0.243	A	0.259	A	0.111	A	0.249	A	0.261	0.012	0.006	0.003	No
20. Alameda Street at O Street	A	0.353	A	0.468	B	0.624	A	0.365	A	0.473	B	0.624	0.012	0.005	0.001	No
21. O Street at Pacific Coast Highway	A	0.533	C	0.749	D	0.854	A	0.533	C	0.749	D	0.854	0.000	0.000	0.000	No
22. Alameda Street at Sepulveda Boulevard (on Alameda St) [1]	A	0.494	A	0.546	B	0.602	A	0.499	A	0.550	B	0.603	0.005	0.004	0.001	No
23. Sepulveda Boulevard at Alameda St (on Sepulveda Blvd) [1]	D	0.838	B	0.689	C	0.773	D	0.842	B	0.692	C	0.773	0.004	0.003	0.000	No
24. Front Street at Knoll Dr. (Future I-110 WB Ramps)	A	0.105	A	0.190	A	0.181	A	0.163	A	0.223	A	0.198	0.058	0.033	0.017	No
25. Gaffey Street at Miraflores Ave / SB-110	B	0.633	B	0.629	C	0.704	B	0.633	B	0.629	C	0.704	0.000	0.000	0.000	No
26. SR-47 (Terminal Island Fwy) at Ocean Blvd WB Ramps [1]	A	0.362	A	0.417	A	0.381	A	0.371	A	0.420	A	0.384	0.009	0.003	0.003	No
27. Pier S Avenue at Ocean Blvd WB Ramps [1]	B	0.655	B	0.624	C	0.755	B	0.664	B	0.630	C	0.762	0.009	0.006	0.007	No

Study Intersection	2014 Mitigated Baseline						2014 Baseline With Revised Project at Maximum Throughput						Changes in V/C			Sig. Impact ?
	A.M. Peak		M.D. Peak		P.M. Peak		A.M. Peak		M.D. Peak		P.M. Peak		A.M. Peak	M.D. Peak	P.M. Peak	
	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C				
28. Henry Ford Avenue at Pier A Way / SR-27/103 Ramp	A	0.089	A	0.196	A	0.175	A	0.092	A	0.196	A	0.175	0.003	0.000	0.000	No
29. SR-103 Off-Ramp at S. Pacific / I Street	A	0.098	A	0.100	A	0.114	A	0.098	A	0.100	A	0.114	0.000	0.000	0.000	No

Notes:
Traffic counts for LOS analysis were conducted in December 2015, with the exception of location #3, which uses traffic counts obtained in November 2013, and locations #25 through #29, which were counted in February 2018
[1] City of Carson or City of Long Beach intersection analyzed using ICU methodology according to City standards.

Table 3.3-8: Intersection Level of Service—2014 Mitigated Baseline Compared to Revised Project at Maximum Throughput With Mitigation

Study Intersection	2014 Mitigated Baseline						2014 Baseline With Revised Project at Maximum Throughput With Mitigation						Changes in V/C			Sig. Impact?
	A.M. Peak		M.D. Peak		P.M. Peak		A.M. Peak		M.D. Peak		P.M. Peak		A.M. Peak	M.D. Peak	P.M. Peak	
	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C				
3. Alameda Street at Anaheim Street	A	0.502	A	0.539	C	0.734	A	0.502	A	0.539	C	0.734	0.000	0.000	0.000	No

Impact TRANS-4: Would Revised Project operations result in a significant impact related to freeway congestion?

A traffic impact analysis was conducted at the freeway monitoring locations described in Section 3.4.2.1, in accordance with the CMP, TIA Guidelines (Metro, 2010) and the "Agreement Between City of Los Angeles and Caltrans District 7 On Freeway Impact Analysis Procedures" (City of Los Angeles and Caltrans, 2013). Since no significant impacts on the freeway system were identified in the 2008 EIS/EIR, the 2014 Mitigated Baseline contains no mitigation measures for freeway congestion impacts.

Caltrans targets maintaining LOS between C and D, and as Table 3.3-9 shows, six of the study segments maintain LOS of D or better in both directions and during both peak periods under the 2014 Mitigated Baseline and 2014 Revised Project conditions. The other six intersections (#4, #5, #6, #7, #9, and #10) experience LOS of E or F during at least one peak period and one direction under both analysis conditions (with and without the Revised Project).

The Revised Project would result in additional truck trips on the surrounding freeway system as a result of the increased throughput, but those added trips would not cause a degradation in levels of service (Table 3.3-9).

In no case, including Segment #5, which operates at LOS F, would the increase in D/C ratio exceed 0.02 for any freeway link operating at LOS F compared to the 2014 Mitigated baseline. The amount of Revised Project-related traffic that would be added at all other freeway links would not be of sufficient magnitude to meet or exceed the threshold of significance of the CMP relative to 2014 Mitigated Baseline conditions.

CEQA Impact Determination

Because the additional traffic from the Revised Project would not cause D/C ratios to increase by more than 0.02 at any monitoring station relative to 2014 Mitigated Baseline conditions, the Revised Project would not result in a significant impact on freeway traffic.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Table 3.3-9.1: Freeway Operating Conditions Mitigated 2014 Baseline Compared to Revised Project at Maximum Throughput AM Peak Hour Northbound/Westbound.

Freeway Segment	Location	Capacity	2014 Mitigated Baseline					Revised Project at Full Throughput					Change in D/C	Sig. Imp.
			Volume	Density Analysis		Demand to Capacity			Density Analysis		Demand to Capacity			
				Density*	LOS	D/C	LOS	Volume	Density*	LOS	D/C	LOS		
#1 SR-47	Vincent Thomas Bridge [1]	4,700	1,875	17.9	B	-		1,942	18.6	C	-		-	No
#2 SR-47/SR-103	Commodore Schuyler Heim Bridge [1]	6,750	1,120	7.1	A	-		1,121	7.1	A	-		-	No
#3 I-110	South of C St	9,400	4,450	18.0	C	-		4,536	18.4	C	-		-	No
#4 I-110	North of 223rd St [1]	9,400	7,910	35.6	E	0.84	D	7,977	36.1	E	0.85	D	0.01	No
#5 I-110	North of I-405 [1]	11,750	11,690	50.2	F	0.99	E	11,745	50.8	F	1.00	E	0.00	No
#6 I-710	North of PCH junction with Willow St	6,750	5,970	39.6	E	0.88	D	5,970	39.6	E	0.88	D	0.00	No
#7 I-710	North of I-405, south of Del Amo)	9,000	7,120	34.2	D	-		7,121	34.2	D	-		-	No
#8 I-710	North of Alondra Blvd [1]	11,750	8,160	27.0	D	-		8,179	27.1	D	-		-	No
#9 I-710	North of I-105 and north of Firestone Blvd	9,400	7,580	33.3	D	-		7,594	33.4	D	-		-	No
#10 I-710	North of Florence Ave [1]	9,400	7,030	29.8	D	-		7,041	29.8	D	-		-	No
#11 I-405	Between I-110 and I-710 at Santa Fe Ave	11,750	9,430	33.0	D	-		9,430	33.0	D	-		-	No
#12 SR-91	West of I-710 east of Alameda St/Santa Fe Ave interchange	14,100	6,400	17.3	B	-		6,402	17.3	B	-		-	No
#14 SR-47/103	NB Off-Ramp at Pier A Way [2]	-	86 / 1,034	4.6	A			86 / 1,035	4.6	A				No

Notes: Freeway operation conditions based on the methodology in the 2010 HCM where level of service is based on density (passenger car per mile per lane).
Per Caltrans traffic impact study guidelines, Caltrans targets maintaining LOS between C and D; for segments where LOS is E or F, D/C was used to determine impact significance per CMP guidelines.
* Density = passenger car/mile/lane
1: Non-CMP location
[2] Ramp locations include both ramp / mainline volume

Table 3.3-9.2: Freeway Operating Conditions Mitigated 2014 Baseline Compared to Revised Project at Maximum Throughput AM Peak Hour Southbound/Eastbound

Freeway Segment	Location	Capacity	2014 Mitigated Baseline					Revised Project at Full Throughput					Change in D/C	Sig. Imp.
			Volume	Density Analysis		Demand to Capacity			Density Analysis		Demand to Capacity			
				Density*	LOS	D/C	LOS	Volume	Density*	LOS	D/C	LOS		
#1 SR-47	Vincent Thomas Bridge [1]	4,700	2,235	21.4	C	-		2,242	21.5	C	-		-	No
#2 SR-47/SR-103	Commodore Schuyler Heim Bridge [1]	6,750	920	5.9	A	-		941	6.0	A	-		-	No
#3 I-110	South of C St	9,400	3,250	13.2	B	-		3,290	13.3	B	-		-	No
#4 I-110	North of 223rd St [1]	9,400	5,820	18.9	C	-		5,858	19.0	C	-		-	No
#5 I-110	North of I-405 [1]	11,750	8,600	28.9	D	-		8,626	29.0	D	-		-	No
#6 I-710	North of PCH junction with Willow St	6,750	6,330	43.9	E	0.94	E	6,365	44.3	E	0.94	E	0.00	No
#7 I-710	North of I-405, south of Del Amo)	9,000	7,950	39.6	E	0.88	D	7,986	39.8	E	0.89	D	0.01	No
#8 I-710	North of Alondra Blvd [1]	11,750	9,510	33.4	D	-		9,540	33.6	D	-		-	No
#9 I-710	North of I-105 and north of Firestone Blvd	9,400	8,840	44.0	E	0.94	E	8,859	44.2	E	0.94	E	0.00	No
#10 I-710	North of Florence Ave [1]	9,400	8,200	38.0	E	0.87	D	8,216	38.1	E	0.87	D	0.00	No
#11 I-405	Between I-110 and I-710 at Santa Fe Ave	11,750	7,740	25.4	C	-		7,740	25.4	C	-		-	No
#12 SR-91	West of I-710 east of Alameda St/Santa Fe Ave interchange	14,100	8,090	21.8	C	-		8,129	21.9	C	-		-	No
#13 I-110	SB Off-Ramp at Gaffey Street/Miraflores Avenue [2]	-	614 / 2,700	15.2	B			614 / 2,737	15.5	B				No

Notes: Freeway operation conditions based on the methodology in the 2010 HCM where level of service is based on density (passenger car per mile per lane).
Per Caltrans traffic impact study guidelines, Caltrans targets maintaining LOS between C and D; for segments where LOS is E or F, D/C was used to determine impact significance per CMP guidelines.
* Density = passenger car/mile/lane
1: Non-CMP location
[2] Ramp locations include both ramp / mainline volume

Table 3.3-9.3: Freeway Operating Conditions Mitigated 2014 Baseline Compared to Revised Project at Maximum Throughput PM Peak Hour Northbound/Westbound.

Freeway Segment	Location	Capacity	2014 Mitigated Baseline					Revised Project at Full Throughput					Change in D/C	Sig. Imp.
			Volume	Density Analysis		Demand to Capacity			Density Analysis		Demand to Capacity			
				Density*	LOS	D/C	LOS	Volume	Density*	LOS	D/C	LOS		
#1 SR-47	Vincent Thomas Bridge [1]	4,700	2,765	26.5	D	-		2,842	27.2	D	-		-	No
#2 SR-47/SR-103	Commodore Schuyler Heim Bridge [1]	6,750	1,175	7.5	A	-		1,187	7.6	A	-		-	No
#3 I-110	South of C St	9,400	2,990	12.1	B	-		3,108	12.6	B	-		-	No
#4 I-110	North of 223rd St [1]	9,400	5,510	22.3	C	-		5,604	22.7	C	-		-	No
#5 I-110	North of I-405 [1]	11,750	8,150	27.0	D	-		8,222	27.3	D	-		-	No
#6 I-710	North of PCH junction with Willow St	6,750	5,440	34.9	D	-		5,441	34.9	D	-		-	No
#7 I-710	North of I-405, south of Del Amo)	9,000	7,360	35.5	E	0.82	D	7,360	35.5	E	0.82	D	0.00	No
#8 I-710	North of Alondra Blvd [1]	11,750	7,560	24.7	C	-		7,583	24.8	C	-		-	No
#9 I-710	North of I-105 and north of Firestone Blvd	9,400	7,030	29.8	D	-		7,044	29.9	D	-		-	No
#10 I-710	North of Florence Ave [1]	9,400	6,520	27.0	D	-		6,530	27.0	D	-		-	No
#11 I-405	Between I-110 and I-710 at Santa Fe Ave	11,750	8,610	29.0	D	-		8,610	29.0	D	-		-	No
#12 SR-91	West of I-710 east of Alameda St/Santa Fe Ave interchange	14,100	7,340	19.8	C	-		7,340	19.8	C	-		-	No
#14 SR-47/103	NB Off-Ramp at Pier A Way [2]	-	345 / 830	2.8	A			345 / 842	2.9	A				No

Notes: Freeway operation conditions based on the methodology in the 2010 HCM where level of service is based on density (passenger car per mile per lane).
Per Caltrans traffic impact study guidelines, Caltrans targets maintaining LOS between C and D; for segments where LOS is E or F, D/C was used to determine impact significance per CMP guidelines.
* Density = passenger car/mile/lane
1: Non-CMP location
[2] Ramp locations include both ramp / mainline volume

Table 3.3-9.4: Freeway Operating Conditions Mitigated 2014 Baseline Compared to Revised Project at Maximum Throughput PM Peak Hour Southbound/Eastbound

Freeway Segment	Location	Capacity	2014 Mitigated Baseline					Revised Project at Full Throughput					Change in D/C	Sig. Imp.
			Volume	Density Analysis		Demand to Capacity			Density Analysis		Demand to Capacity			
				Density*	LOS	D/C	LOS	Volume	Density*	LOS	D/C	LOS		
#1 SR-47	Vincent Thomas Bridge [1]	4,700	2,760	26.4	D	-		2,789	26.7	D	-		-	No
#2 SR-47/SR-103	Commodore Schuyler Heim Bridge [1]	6,750	1,000	6.4	A	-		1,022	6.5	A	-		-	No
#3 I-110	South of C St	9,400	4,410	17.9	B	-		4,438	18.0	B	-		-	No
#4 I-110	North of 223rd St [1]	9,400	7,400	24.1	C	-		7,426	24.2	C	-		-	No
#5 I-110	North of I-405 [1]	11,750	11,000	43.6	E	0.94	E	11,016	43.7	E	0.94	E	0.00	No
#6 I-710	North of PCH junction with Willow St	6,750	5,160	32.9	D	-		5,204	33.2	D	-		-	No
#7 I-710	North of I-405, south of Del Amo)	9,000	6,350	30.4	D	-		6,394	30.6	D	-		-	No
#8 I-710	North of Alondra Blvd [1]	11,750	8,310	27.7	D	-		8,344	27.8	D	-		-	No
#9 I-710	North of I-105 and north of Firestone Blvd	9,400	7,790	34.7	D	-		7,807	34.9	D	-		-	No
#10 I-710	North of Florence Ave [1]	9,400	7,190	30.7	D	-		7,204	30.8	D	-		-	No
#11 I-405	Between I-110 and I-710 at Santa Fe Ave	11,750	9,630	34.1	D	-		9,630	34.1	D	-		-	No
#12 SR-91	West of I-710 east of Alameda St/Santa Fe Ave interchange	14,100	8,120	21.9	C	-		8,160	22.0	C	-		-	No
#13 I-110	SB Off-Ramp at Gaffey Street/Miraflores Avenue [2]	-	839 / 2,640	14.7	B			839 / 2674	15.0	B				No

Notes: Freeway operation conditions based on the methodology in the 2010 HCM where level of service is based on density (passenger car per mile per lane).
Per Caltrans traffic impact study guidelines, Caltrans targets maintaining LOS between C and D; for segments where LOS is E or F, D/C was used to determine impact significance per CMP guidelines.
* Density = passenger car/mile/lane
1: Non-CMP location
[2] Ramp locations include both ramp / mainline volume

Impact TRANS-5: Would the Revised Project cause delays in regional highway traffic due to an increase in rail activity?

The Revised Project would result in a peak-month average of 2.8 trains per day (including the project's off-dock intermodal traffic) entering the main rail lines by 2045. At the only crossing requiring analysis under CEQA (Henry Ford Avenue), the Revised Project's train traffic would cause an additional delay of 5.8 seconds per vehicle above 2014 baseline conditions. Since delay under baseline conditions averages 17.1 seconds (Section 3.3.2.3), total with-Project delay would be less than 55 seconds.

CEQA Impact Determination

Because the Revised Project's additional rail traffic would not cause per-vehicle delays at the Henry Ford Avenue at-grade crossing or at Inland Empire grade crossings to exceed 55 seconds, impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

INFORMATION ONLY: RAIL DELAY EAST OF THE DOWNTOWN RAILYARDS

With respect to the rail lines east of the downtown railyards (the Inland Empire), an information-only cumulative analysis of vehicular delay at the at-grade crossings along each rail line east of the downtown railyards (Chapter 4) show that train traffic from the Revised Project by 2045 would not cause delays of more than 17.4 seconds per vehicle, and that the increased per-vehicle delay compared to baseline conditions would not exceed 0.6 seconds at any crossing.

3.3.4.5 Summary of Impact Determinations

Table 3.3-10 provides a summary of the impact determinations of the Revised Project related to Ground Transportation. This table allows easy comparison of the potential impacts of the Revised Project.

Table 3.3-10: Summary Matrix of Potential Impacts and Mitigation Measures for Ground Transportation Associated with the Revised Project

Environmental Impacts	Impact Determination	Mitigation Measures	Impacts after Mitigation
TRANS-2: Would long-term vehicular traffic associated with the Revised Project significantly impact volume/capacity ratios or level of service?	Significant at study location #3 (Alameda and Anaheim)	MM TRANS-2: Additional eastbound through lane on Anaheim	**Significant and unavoidable**
TRANS-4: Would Revised Project operations result in increases considered significant related to freeway congestion?	Less than significant	No mitigation is required.	Less than significant
TRANS-5: Would the Revised Project cause an increase in rail activity and/or delays in regional highway traffic due to an increase in rail activity ?	Less than significant	No mitigation is required	Less than significant

For each type of potential impact, the table provides a description of the impact, the impact determination, any applicable mitigation measures, and residual impacts (i.e., the impact remaining after mitigation). All impacts, whether significant or not, are included in this table.

3.3.4.6 Mitigation Monitoring

Mitigation measure MM TRANS-2 would be required to be implemented concurrently with the City of Los Angeles' Alameda Street improvement project in 2019. The LAHD would monitor the implementation of the mitigation measure.

TRANS-2: Long-term vehicular traffic associated with the Revised Project would significantly impact volume/capacity ratios or level of service.	
Mitigation Measure	**MM TRANS-2. Alameda & Anaheim Streets**: Provide an additional eastbound through-lane on Anaheim Street. This mitigation measure shall be implemented at the same time as the City's planned improvement project at this location, with design/construction commencing in the first quarter of 2019, subject to LADOT approval.
Timing	Design/construction commencing in the first quarter of 2019.
Methodology	LAHD will coordinate with the City of Los Angeles' Alameda Street Improvement Project.
Responsible Parties	LAHD
Residual Impacts	Significant and unavoidable

3.3.5 Significant Unavoidable Impacts

Significant and unavoidable impacts of the Revised Project, as summarized in Table 3.3-10, are the impacts to the volume/capacity ratios or level of service at Study Location #3 (Alameda & Anaheim). Although implementation of the mitigation measure would avoid the identified impact, because LADOT approval is not guaranteed, LAHD finds that this impact is significant and unavoidable. LAHD further finds that if LADOT approves the implementation of this mitigation measure, then the impact would be reduced to less than significant.