

5.14 Transportation and Traffic



5.14 TRANSPORTATION AND TRAFFIC

This Section is based on the *Lincoln Specific Plan Traffic Impact Analysis* (Traffic Impact Analysis) prepared by RBF Consulting on October 2014; see Appendix 11.16, *Traffic Impact Analysis*.

The following four analysis scenarios are addressed below:

- Existing Conditions;
- Forecast Existing With Project Conditions;
- Forecast Year 2020 Without Project Conditions; and
- Forecast Year 2020 With Project Conditions.

Both the Forecast Existing With Alternative Project Conditions and the Forecast Year 2020 With Alternative Project Conditions scenarios analyzed in the Traffic Impact Analysis are addressed in Section 7.0, *Alternatives*.

5.14.1 EXISTING ENVIRONMENTAL SETTING

INTERSECTION ANALYSIS METHODOLOGY

Study Intersections

Level of service (LOS) is commonly used as a qualitative description of intersection operation and is based on the capacity of the intersection and the volume of traffic using the intersection. The *Intersection Capacity Utilization (ICU)* analysis method is utilized by the City of Whittier, City of Pico Rivera, City of Santa Fe Springs, County of Los Angeles, and in the Los Angeles County Congestion Management Program (CMP) to determine the operating LOS of signalized intersections. The ICU analysis methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding volume to capacity (V/C) ratios shown in Table 5.14-1, *ICU LOS & V/C Ratios for Signalized Intersections*.

**Table 5.14-1
ICU LOS & V/C Ratios for Signalized Intersections**

LOS	V/C Ratio
A	< 0.60
B	> 0.60 < 0.70
C	> 0.70 < 0.80
D	> 0.80 < 0.90
E	> 0.90 < 1.00
F	> 1.00
Source: <i>Lincoln Specific Plan Traffic Impact Analysis</i> , RBF Consulting, October 2014.	
Notes: V/C = volume to capacity ratio.	



Whittier utilizes the Highway Capacity Manual (HCM) intersection analysis methodology to analyze the operation of unsignalized intersections. The HCM analysis methodology describes the operation of an unsignalized intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding stopped delay experienced per vehicle for unsignalized intersections shown in Table 5.14-2, HCM LOS and Delay Ranges for Unsignalized Intersections.

**Table 5.14-2
HCM LOS and Delay Ranges for Unsignalized Intersections**

LOS	Delay (seconds/vehicle)
A	< 10.0
B	> 10.0 to < 15.0
C	> 15.0 to < 25.0
D	> 25.0 to < 35.0
E	> 35.0 to < 50.0
F	> 50.0

Source: *Lincoln Specific Plan Traffic Impact Analysis*, RBF Consulting, October 2014.

Level of service is based on the average stopped delay per vehicle for all movements of signalized intersections and all-way stop-controlled intersections; for one-way or two-way stop-controlled intersections, LOS is based on the worst stop-controlled approach.

State Highway Intersections

Caltrans advocates use of HCM intersection analysis methodology to analyze the operation of signalized intersections. The HCM analysis methodology describes the operation of a signalized intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding stopped delay experienced per vehicle as shown in Table 5.14-3, State Highway Intersection HCM LOS and Delay Ranges.

**Table 5.14-3
State Highway Intersection HCM LOS and Delay Ranges**

LOS	Delay (seconds/vehicle)
	Signalized Intersections
A	≤ 10.0
B	> 10.0 to ≤ 20.0
C	> 20.0 to ≤ 35.0
D	> 35.0 to ≤ 55.0
E	> 55.0 to ≤ 80.0
F	> 80.0

Source: *Lincoln Specific Plan Traffic Impact Analysis*, RBF Consulting, October 2014.



LOS is based on the average stopped delay per vehicle for all movements of signalized intersections. Caltrans endeavors to maintain a target LOS of D or better on State Highway facilities.

STUDY AREA

Study Area Intersections

This analysis evaluates 57 study area intersections, as identified through coordination with City and Caltrans Staff. Table 5.14-4, Study Intersection by Jurisdiction, outlines the study area intersections and identifies the jurisdictions under which they will be analyzed. Exhibit 5.14-1, Study Intersection Locations, shows the location of the study intersections, which are analyzed for the following six analysis scenarios:

**Table 5.14-4
Study Intersection by Jurisdiction**

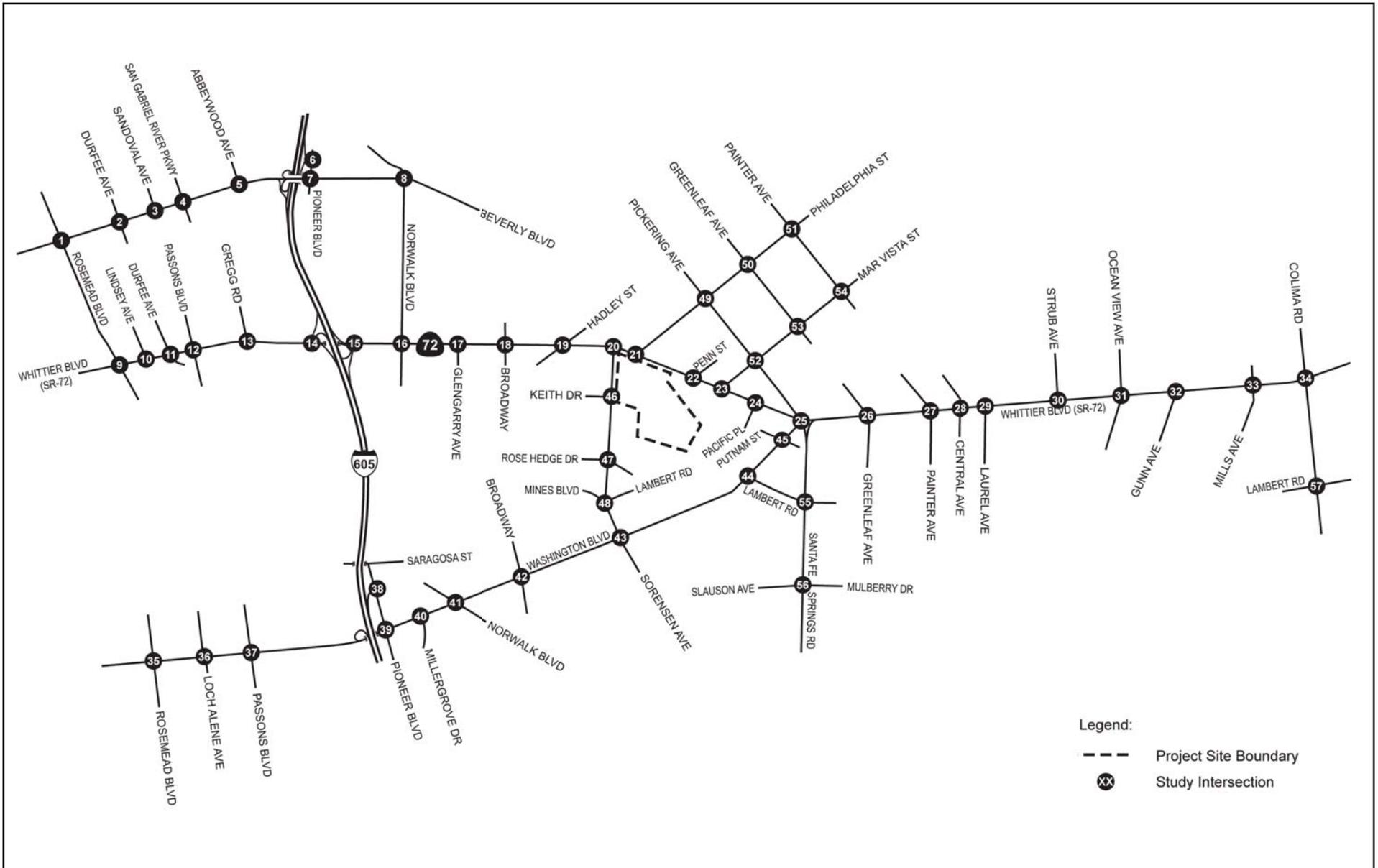
Study Intersection		Jurisdiction				
		City of Whittier	City of Pico Rivera	City of Santa Fe Springs	County of Los Angeles	Caltrans
1	Rosemead Boulevard/Beverly Boulevard		X			
2	Durfee Avenue/Beverly Boulevard		X			
3	Sandoval Avenue/Beverly Boulevard		X			
4	San Gabriel River Parkway/Beverly Boulevard		X			
5	Abbeywood Avenue/Beverly Boulevard		X			
6	Pioneer Road/I-605 NB Ramps Deveron Drive					X
7	Pioneer Road/Beverly Boulevard	X				
8	Norwalk Boulevard/Beverly Boulevard	X				
9	Rosemead Boulevard/Whittier Boulevard					X
10	Lindsey Avenue/Whittier Boulevard					X
11	Durfee Avenue/Whittier Boulevard					X
12	Passons Boulevard/Whittier Boulevard					X
13	Gregg Road/Whittier Boulevard					X
14	I-605 SB Off Ramp/Whittier Boulevard					X
15	I-605 NB Off Ramp/Whittier Boulevard					X
16	Norwalk Boulevard/Whittier Boulevard					X
17	Glengarry Avenue/Whittier Boulevard					X
18	Broadway/Whittier Boulevard					X
19	Whittier Boulevard/Hadley Street					X
20	Sorensen Avenue/Whittier Boulevard					X
21	Whittier Boulevard/Philadelphia Street					X
22	Whittier Boulevard/Penn Street					X
23	Whittier Boulevard/Mar Vista Street					X
24	Whittier Boulevard/Pacific Place					X
25	Pickering-Santa Fe Springs Road/Whittier Boulevard					X



**Table 5.14-4 [continued]
Study Intersection by Jurisdiction**

	Study Intersection	Jurisdiction				
		City of Whittier	City of Pico Rivera	City of Santa Fe Springs	County of Los Angeles	Caltrans
26	Greenleaf Avenue/Whittier Boulevard					X
27	Painter Avenue/Whittier Boulevard					X
28	Central Avenue/Whittier Boulevard					X
29	Laurel Avenue/Whittier Boulevard					X
30	Strub Avenue/Whittier Boulevard					X
31	Ocean View Avenue/Whittier Boulevard					X
32	Gunn Avenue/Whittier Boulevard					X
33	Mills Avenue/Whittier Boulevard					X
34	Colima Road/Whittier Boulevard					X
35	Rosemead Boulevard/Washington Boulevard		X			
36	Loch Alene Avenue/Washington Boulevard		X			
37	Passons Boulevard/Washington Boulevard		X			
38	Pioneer Boulevard/I-605 NB Off-Ramp (to Washington Boulevard)					X
39	Pioneer Boulevard/Washington Boulevard				X	
40	Millergrove Drive/Washington Boulevard				X	
41	Norwalk Boulevard/Washington Boulevard			X	X	
42	Broadway/Washington Boulevard			X	X	
43	Sorensen Avenue/Washington Boulevard			X	X	
44	Lambert Road/Washington Boulevard	X				
45	Putnam Street/Washington Boulevard	X				
46	Sorensen Avenue/Keith Drive	X			X	
47	Sorensen Avenue/Rose Hedge Drive				X	
48	Sorensen Avenue/Mines Boulevard-Lambert Road				X	
49	Pickering Avenue/Philadelphia Street	X				
50	Greenleaf Avenue/Philadelphia Street	X				
51	Painter Avenue/Philadelphia Street	X				
52	Pickering Avenue/Mar Vista Street	X				
53	Greenleaf Avenue/Mar Vista Street	X				
54	Painter Avenue/Mar Vista Street	X				
55	Santa Fe Springs Road/Lambert Road	X				
56	Santa Fe Springs Road/Slauson Avenue-Mulberry Drive	X		X		
57	Colima Road/Lambert Road	X			X	

Note: Jurisdiction under which the study intersection is analyzed is shown in "X".



Source: RBF Consulting, Lincoln Specific Plan Traffic Impact Analysis, October 2014.

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Study Intersection Locations

Exhibit 5.14-1



State Highway Intersections

The following 27 State Highway study intersections are located in the vicinity of the Project site:¹

9. Rosemead Boulevard/Whittier Boulevard (SR-72);
10. Lindsey Avenue/Whittier Boulevard (SR-72);
11. Durfee Avenue/Whittier Boulevard (SR-72);
12. Parsons Boulevard/Whittier Boulevard (SR-72);
13. Gregg Road/Whittier Boulevard (SR-72);
14. I-605 Southbound Off Ramp/Whittier Boulevard (SR-72);
15. I-605 Northbound Off Ramp/Whittier Boulevard (SR-72);
16. Norwalk Boulevard/Whittier Boulevard (SR-72);
17. Glengarry Avenue/Whittier Boulevard (SR-72);
18. Broadway/Whittier Boulevard (SR-72);
19. Whittier Boulevard (SR-72)/Hadley Street;
20. Sorensen Avenue/Whittier Boulevard (SR-72);
21. Whittier Boulevard (SR-72)/Philadelphia Street;
22. Whittier Boulevard (SR-72)/Penn Street;
23. Whittier Boulevard (SR-72)/Mar Vista Street;
24. Whittier Boulevard (SR-72)/Pacific Place;
25. Pickering-Santa Fe Springs Road/Whittier Boulevard (SR-72);
26. Greenleaf Avenue/Whittier Boulevard (SR-72);
27. Painter Avenue/Whittier Boulevard (SR-72);
28. Central Avenue/Whittier Boulevard (SR-72);
29. Laurel Avenue/Whittier Boulevard (SR-72);
30. Strub Avenue/Whittier Boulevard (SR-72);
31. Ocean View Avenue/Whittier Boulevard (SR-72);
32. Gunn Avenue/Whittier Boulevard (SR-72);
33. Mills Avenue/Whittier Boulevard (SR-72);
34. Colima Rd/Whittier Boulevard (SR-72); and
38. Pioneer Boulevard/I-605 Northbound Off-Ramp (to Washington Boulevard).

Study Area Roadways

The characteristics of the roadway system in the vicinity of the Project site are described below:

- Interstate 605 (I-605) provides regional access for the Project site as a ten-lane freeway facility, traversing Los Angeles Basin and San Gabriel Valley in a generally north-south orientation. I-605 originates on the south end at the interchange with Interstate 405 (I-405) and State Route 22 (SR-22) in Seal Beach and continues northward to its terminus at the junction with Interstate 210 (I-210) in Duarte.
- Rosemead Boulevard is a four-lane divided roadway with a generally landscaped median trending in a north-south direction. The posted speed limit is 40 miles per hour on Rosemead Boulevard within the Project vicinity; on-street parking is prohibited.

¹ Note - the numbering for the list of intersections is not intended to be sequential, but corresponds to intersection numbering on [Exhibit 5.14-1](#).



- Lindsey Avenue is a two-lane undivided roadway trending in a north-south direction. There is no posted speed limit on Lindsey Avenue within the Project vicinity; on-street parking is permitted.
- Durfee Avenue is a two-lane undivided roadway north of Whittier Boulevard (SR-72) and a divided roadway with a painted median south of Whittier Boulevard (SR-72). The posted speed limit is 25 miles per hour on Durfee Avenue within the Project vicinity; on-street parking is permitted north of Whittier Boulevard (SR-72).
- Loch Alene Avenue is a two-lane undivided roadway trending in a north-south direction. The speed limit is 25 miles per hour on Loch Alene Avenue within the Project vicinity; on-street parking is permitted.
- Sandoval Avenue is a two-lane undivided roadway trending in a north-south direction. There is no posted speed limit on Sandoval Avenue within the Project vicinity; on-street parking is permitted.
- Passons Boulevard is a two-lane undivided roadway trending in a north-south direction north of Washington Boulevard and a four-lane undivided roadway south of Washington Boulevard. The posted speed limit is 25 miles per hour on Passons Boulevard within the Project vicinity; on-street parking is permitted.
- San Gabriel River Parkway is a four-lane undivided roadway trending in a north-south direction. The posted speed limit is 45 miles per hour on San Gabriel River Parkway within the Project vicinity; on-street parking is permitted.
- Gregg Road is a two-lane undivided roadway trending in a north-south direction. There is no posted speed limit on Gregg Road within the Project vicinity; on-street parking is prohibited.
- Abbeywood Avenue is a two-lane undivided roadway trending in a north-south direction. There is no posted speed limit on Abbeywood Avenue within the Project vicinity; on-street parking is permitted.
- Pioneer Boulevard is a two-lane undivided roadway near Beverly Boulevard where it ends trending in a north-south direction. Pioneer Boulevard continues as a four-lane divided roadway with a painted median north of Washington Boulevard and with a raised median south of Washington Boulevard. The posted speed limit is 35 miles per hour on Pioneer Boulevard within the Project vicinity; on-street parking is permitted.
- Norwalk Boulevard is a four-lane divided within the Project vicinity. The posted speed limit varies between 40 and 45 miles per hour on Norwalk Boulevard within the Project vicinity; on-street parking is permitted.
- Miller Grove Drive is a two-lane undivided roadway trending in a north-south direction. The posted speed limit is 25 miles per hour on Miller Grove Drive within the Project vicinity; on-street parking is permitted.
- Glengarry Avenue is a two-lane undivided roadway trending in a north-south direction. The posted speed limit is 25 miles per hour on Glengarry Avenue within the Project vicinity; on-street parking is permitted.



- Broadway is a four-lane undivided roadway trending in a north-south direction north of Washington Boulevard, and a two-lane undivided roadway south of Washington Boulevard. The posted speed limit is 35 miles per hour on Broadway within the Project vicinity; on-street parking is permitted.
- Sorensen Avenue varies between a two-lane undivided and four-lane divided roadway trending in a north-south direction. The posted speed limit ranges between 30 to 35 miles per hour on Sorensen Avenue within the Project vicinity; on-street parking is permitted.
- Santa Fe Springs Road is a four-lane divided roadway with a generally landscaped raised median trending in a north-south direction. The posted speed limit is 40 miles per hour on Santa Fe Springs Road within the Project vicinity; on-street parking is permitted.
- Greenleaf Avenue is a two-lane undivided roadway trending in a north-south direction north of Mar Vista Street. Greenleaf Avenue is a four-lane divided roadway with a painted median south of Mar Vista Street. The posted speed limit is 30 miles per hour on Greenleaf Avenue within the Project vicinity; on-street parking is permitted north of Mar Vista Street.
- Painter Avenue is a four-lane undivided roadway trending in a north-south direction north of Mar Vista Street and a four-lane divided roadway with a painted median south of Mar Vista Street. The posted speed limit ranges between 30 and 35 miles per hour on Painter Avenue within the Project vicinity; on-street parking is generally permitted.
- Central Avenue is a two-lane undivided roadway trending in a north-south direction. There is no posted speed limit on Central Avenue within the Project vicinity; on-street parking is permitted.
- Laurel Avenue is a two-lane undivided roadway trending in a north-south direction. The posted speed limit is 30 miles per hour on Laurel Avenue within the Project vicinity; on-street parking is permitted.
- Strub Avenue is a two-lane undivided roadway trending in a north-south direction. The posted speed limit is 25 miles per hour on Strub Avenue within the Project vicinity; on-street parking is permitted.
- Ocean View Avenue is a two-lane undivided roadway trending in a north-south direction. There is no posted speed limit on Ocean View Avenue within the Project vicinity; on-street parking is permitted.
- Gunn Avenue is a two-lane undivided roadway trending in a north-south direction. The posted speed limit is 30 miles per hour on Gunn Avenue within the Project vicinity; on-street parking is permitted.
- Mills Avenue is a two-lane undivided roadway trending in a north-south direction north of Whittier Boulevard (SR-72) and a two-lane divided roadway with a painted median south of Whittier Boulevard (SR-72). The posted speed limit is 40 miles per hour on Mills Avenue south of Whittier Boulevard (SR-72) within the Project vicinity; on-street parking is permitted.



- Colima Road is a four-lane divided roadway with a raised median trending in a north-south direction. The posted speed limit is 40 miles per hour on Colima Road within the Project vicinity; on-street parking is permitted.
- Pickering Avenue is a two-lane undivided roadway trending in a north-south direction north of Mar Vista Street. Pickering Avenue is a four-lane undivided roadway south of Mar Vista Street. The posted speed limit ranges from 25 to 30 miles per hour on Pickering Avenue within the Project vicinity; on-street parking is permitted.
- Pacific Place is a two-lane undivided roadway trending in a north-south direction. There is no posted speed limit on Pacific Place within the Project vicinity; on-street parking is permitted.
- Hadley Street is a four-lane undivided roadway trending in an east-west direction. The posted speed limit is 35 miles per hour on Hadley Street within the Project vicinity; on-street parking is prohibited.
- Putnam Street is a two-lane undivided roadway trending in an east-west direction. There is no posted speed limit on Putnam Street within the Project vicinity; on-street parking is permitted.
- Lambert Road is a four-lane undivided roadway trending in an east-west direction west of Santa Fe Springs Road and a four-lane divided roadway with a painted median east of Santa Fe Springs Road. The posted speed limit is 40 miles per hour on Lambert Road within the Project vicinity; on-street parking is prohibited.
- Slauson Avenue – Mulberry Drive is a six-lane undivided roadway trending in an east-west direction. Slauson Avenue changes name to Mulberry Drive east of Santa Fe Springs Road. The posted speed limit is 40 miles per hour on Slauson Avenue – Mulberry Drive within the Project vicinity; on-street parking is prohibited.
- Beverly Boulevard is a six-lane divided roadway with a painted median trending in an east-west direction west of Abbeywood Avenue, and a four-lane divided roadway with a raised median west of Abbeywood Avenue. The posted speed limit is 40 miles per hour on Beverly Boulevard within the Project vicinity; on-street parking is generally prohibited.
- Whittier Boulevard (SR-72) is a six-lane undivided roadway east of Hadley Street. West of Hadley Street, Whittier Boulevard (SR-72) varies between a six-lane divided landscaped median and a four-lane undivided roadway. Whittier Boulevard (SR-72) narrows to a four-lane divided roadway between Philadelphia Street and Mar Vista Street. The posted speed limit on Whittier Boulevard (SR-72) varies between 35 and 45 miles per hour on Whittier Boulevard (SR-72) within the Project vicinity; on-street parking is permitted between I-605 and Norwalk Boulevard, Glengarry Avenue and Broadway, Santa Fe Springs Road and Greenleaf Avenue, and between Laurel Avenue and Gunn Avenue.
- Washington Boulevard is a six-lane divided roadway between I-605 and Norwalk Boulevard, but Washington Boulevard is generally a four-lane roadway with alternating painted and raised landscaped medians. The speed limit is 40 to 45 miles per hour within the Project vicinity; on-street parking is permitted between Broadway and Sorensen Avenue.



EXISTING TRAFFIC CONDITIONS

Existing Conditions Traffic Volumes

To determine existing operation of the study intersections, weekday a.m. peak period and p.m. peak period traffic movement counts were collected in May 2013, May 2014, and August 2014 during typical weekday conditions. Based on the growth factors provided in the Los Angeles County 2010 CMP, traffic movement counts collected in May 2013 were increased by 1-percent in accordance with City of Whittier staff direction and common traffic impact analysis methodology. Based on comparison of summer and non-summer traffic movement counts at nearby intersections, the a.m. peak period traffic movement counts collected in August 2014 were increased by 25-percent to adjust for traffic patterns associated with schools in accordance with City of Whittier staff direction and common traffic impact analysis methodology. The a.m. peak period intersection counts were collected from 7:00 a.m. to 9:00 a.m.; the p.m. peak period intersection counts were collected from 4:00 p.m. to 6:00 p.m. The traffic volumes used in this analysis were taken from the highest hour within the two-hour peak period counted. Detailed traffic count data sheets are contained in Appendix A of [Appendix 11.16](#).

Exhibit 4 of the Traffic Impact Analysis shows existing conditions a.m. and p.m. peak hour volumes at the study intersections. Exhibit 5 of the Traffic Impact Analysis shows existing study area geometry.

Existing Conditions City/County Study Intersection Peak Hour LOS

[Table 5.14-5, Existing Conditions Peak Hour City/County Study Intersection LOS](#), summarizes existing conditions a.m. peak hour and p.m. peak hour LOS of the study intersections; detailed LOS analysis sheets are contained in Appendix B of [Appendix 11.16](#).

As shown in [Table 5.14-5](#), the City/County study intersections are currently operating at an acceptable LOS (LOS D or better) according to agency-established performance criteria, except the following study intersections:

- Intersection 1 (Rosemead Boulevard/Beverly Boulevard) p.m. peak hour only;
- Intersection 8 (Norwalk Boulevard/Beverly Boulevard) a.m. peak hour only;
- Intersection 39 (Pioneer Boulevard/Washington Boulevard) both a.m. and p.m. peak hours);
- Intersection 41 (Norwalk Boulevard/Washington Boulevard) both a.m. and p.m. peak hours; and
- Intersection 57 (Colima Road/Lambert Road) both a.m. and p.m. peak hours.



**Table 5.14-5
Existing Conditions Peak Hour City/County Study Intersection LOS**

	Study Intersection	Jurisdiction	Existing Conditions ICU (Delay) – LOS	
			AM Peak Hour	PM Peak Hour
1	Rosemead Boulevard/Beverly Boulevard	PR	0.82 – D	0.91 – E
2	Durfee Avenue/Beverly Boulevard	PR	0.65 – B	0.71 – C
3	Sandoval Avenue/Beverly Boulevard	PR	0.52 – A	0.49 – A
4	San Gabriel River Parkway/Beverly Boulevard	PR	0.79 – C	0.88 – D
5	Abbeywood Avenue/Beverly Boulevard	PR	0.60 – A	0.72 – C
7	Pioneer Road/Beverly Boulevard	W	0.73 – C	0.75 – C
8	Norwalk Boulevard/Beverly Boulevard	W	0.91 – E	0.89 – D
35	Rosemead Boulevard/Washington Boulevard	PR	0.87 – D	0.85 – D
36	Loch Alene Avenue/Washington Boulevard	PR	0.70 – B	0.49 – A
37	Passons Boulevard/Washington Boulevard	PR	0.86 – D	0.75 – C
39	Pioneer Boulevard/Washington Boulevard	LAC	0.99 – E	0.95 – E
40	Miller Grove Drive/Washington Boulevard	LAC	0.60 – A	0.54 – A
41	Norwalk Boulevard/Washington Boulevard	LAC/SFS	0.98 – E	0.93 – E
42	Broadway/Washington Boulevard	LAC/SFS	0.83 – D	0.84 – D
43	Sorensen Avenue/Washington Boulevard	LAC/SFS	0.82 – D	0.74 – C
44	Lambert Road/Washington Boulevard	W	0.73 – C	0.63 – B
45	Putnam Street/Washington Boulevard	W	0.49 – A	0.51 – A
46	Sorensen Avenue/Keith Drive	W/LAC	(12.2) – B	(13.2) – B
47	Sorensen Avenue/Rose Hedge Drive	LAC	(8.9) – A	(9.3) – A
48	Sorensen Avenue/Mines Boulevard-Lambert Road	LAC	0.48 – A	0.54 – A
49	Pickering Avenue/Philadelphia Street	W	0.67 – B	0.67 – B
50	Greenleaf Avenue/Philadelphia Street	W	0.34 – A	0.46 – A
51	Painter Avenue/Philadelphia Street	W	0.50 – A	0.62 – B
52	Pickering Avenue/Mar Vista Street	W	0.67 – B	0.63 – B
53	Greenleaf Avenue/Mar Vista Street	W	0.50 – A	0.55 – A
54	Painter Avenue/Mar Vista Street	W	0.69 – B	0.84 – D
55	Santa Fe Springs Road/Lambert Road	W	0.77 – C	0.76 – C
56	Santa Fe Springs Road/Slauson Avenue	W/SFS	0.77 – C	0.66 – B
57	Colima Road/Lambert Road	W/LAC	0.98 – E	0.92 – E

Notes:

ICU = intersection capacity utilization; delay shown in seconds; deficient intersection operation shown in **bold**.
PR = City of Pico Rivera; W = City of Whittier; LAC = Los Angeles County; SFS = City of Santa Fe Springs.



Existing Conditions State Highway Study Intersection Peak Hour LOS

The State Highway intersection analysis has been prepared in accordance with the Caltrans *Guide for the Preparation of Traffic Impact Studies* (State of California Department of Transportation, December 2002). This section evaluates the existing conditions at the State Highway study intersections.

Table 5.14-6, Existing Conditions Peak Hour State Highway Study Intersection LOS, summarizes existing conditions a.m. peak hour and p.m. peak hour LOS of the State Highway study intersections; detailed LOS analysis sheets are contained in Appendix F of Appendix 11.16.

**Table 5.14-6
Existing Conditions Peak Hour State Highway Study Intersection LOS**

Study Intersection		Delay - LOS	
		AM Peak Hour	PM Peak Hour
9	Rosemead Boulevard/Whittier Boulevard (SR-72)	34.1 – C	39.7 – D
10	Lindsey Avenue/Whittier Boulevard (SR-72)	8.8 – A	14.5 – B
11	Durfee Avenue/Whittier Boulevard (SR-72)	21.0 – C	20.7 – C
12	Passons Boulevard/Whittier Boulevard (SR-72)	18.6 – B	21.1 – C
13	Gregg Road/Whittier Boulevard (SR-72)	5.8 – A	10.0 – A
14	I-605 SB Ramps/Whittier Boulevard (SR-72)	15.3 – B	14.9 – B
15	I-605 NB Ramps/Whittier Boulevard (SR-72)	22.7 – C	19.0 – B
16	Norwalk Boulevard/Whittier Boulevard (SR-72)	36.7 – D	40.9 – D
17	Glengarry Avenue/Whittier Boulevard (SR-72)	2.9 – A	3.0 – A
18	Broadway/Whittier Boulevard (SR-72)	15.8 – B	14.6 – B
19	Whittier Boulevard (SR-72)/Hadley Street	26.3 – C	25.7 – C
20	Sorensen Avenue/Whittier Boulevard (SR-72)	20.4 – C	20.9 – C
21	Whittier Boulevard (SR-72)/Philadelphia Street	19.2 – B	16.1 – B
22	Whittier Boulevard (SR-72)/Penn Street	23.3 – C	25.2 – D
23	Whittier Boulevard (SR-72)/Mar Vista Street	18.2 – B	12.3 – B
24	Whittier Boulevard (SR-72)/Pacific Place	5.8 – A	13.3 – B
25	Pickering-Santa Fe Springs Road/Whittier Boulevard (SR-72)	159.8 – F*	117.2 – F*
26	Greenleaf Avenue/Whittier Boulevard (SR-72)	26.5 – C	28.4 – C
27	Painter Avenue/Whittier Boulevard (SR-72)	32.8 – C	38.5 – D
28	Central Avenue/Whittier Boulevard (SR-72)	6.2 – A	14.9 – B
29	Laurel Avenue/Whittier Boulevard (SR-72)	9.4 – A	13.6 – B
30	Strub Avenue/Whittier Boulevard (SR-72)	11.5 – B	6.0 – A
31	Ocean View Avenue/Whittier Boulevard (SR-72)	18.3 – B	14.3 – B
32	Gunn Avenue/Whittier Boulevard (SR-72)	14.4 – B	12.1 – B
33	Mills Avenue/Whittier Boulevard (SR-72)	26.0 – C	28.6 – C
34	Colima Road/Whittier Boulevard (SR-72)	41.4 – D	37.8 – D
38	Pioneer Boulevard/I-605 NB Off-Ramp (to Washington Boulevard)	14.7 – B	24.1 – C
Notes: * = volume to capacity is greater than 1.0, LOS F; Delay shown in seconds per vehicle; deficient intersection operation shown in bold . NB = Northbound; SB = Southbound.			



As shown in Table 5.14-6, the State Highway study intersections are currently operating at an acceptable LOS (LOS D or better) according to Caltrans performance criteria for existing conditions, except the following:

- Intersection 25 – Pickering-Santa Fe Springs Road/Whittier Boulevard (SR-72) (both a.m. and p.m. peak hours).

Existing Conditions State Highway Study Intersection Traffic Signal Warrants

The unsignalized study intersections have been evaluated for signalization based on the peak hour volume warrant in the California Manual on Uniform Traffic Control Devices (CA MUTCD), 2012 Edition.

The intersection of Whittier Boulevard (SR-72)/Penn Street currently satisfies the peak hour volume traffic signal warrant during both the a.m. peak hour and p.m. peak hour; detailed signal warrant analysis sheets are contained in Appendix G of Appendix 11.16.

Existing Conditions Freeway Study Segments Volume to Capacity Ratios

The forecast peak hour V/C ratios at the following State Highway mainline freeway segments identified for analysis by Caltrans staff include:

- I-605 north of Beverly Boulevard;
- I-605 between Beverly Boulevard and Whittier Boulevard (SR-72);
- I-605 between Whittier Boulevard (SR-72) and Washington Boulevard; and
- I-605 south of Washington Boulevard.

In accordance with Caltrans staff direction, annual average daily traffic volumes for I-605 mainline were obtained from Caltrans *2013 Traffic Counts* and were converted to a.m. peak hour and p.m. peak hour traffic volumes based on the applicable peak hour and directional factors contained in the Caltrans *2013 Peak Hour Volume Data*.

Table 5.14-7, Existing Conditions Freeway Study Segments Volume to Capacity Ratios, summarizes existing conditions traffic volumes and V/C ratios for the study area freeway segments.

As shown in Table 5.14-7, the following I-605 northbound freeway study segments are currently operating in an over capacity condition during the a.m. and p.m. peak hours:

- I-605 between Beverly Boulevard and Whittier Boulevard (SR-72);
- I-605 between Whittier Boulevard (SR-72) and Beverly Boulevard; and
- I-605 north of Beverly Boulevard.



**Table 5.14-7
Existing Conditions Freeway Study Segments Volume to Capacity Ratios**

Segment	Caltrans 2-Way Peak Month ADT Volume	Direction	Capacity	AM Peak Hour		PM Peak Hour	
				1-Way Peak Hour Volume	V/C	1-Way Peak Hour Volume	V/C
I-605 south of Washington Boulevard	244,000	NB	9,600	9,078	0.95	9,130	0.95
		SB	9,600	8,051	0.84	8,096	0.84
I-605 between Washington Boulevard and Whittier Boulevard	263,000	NB	9,600	9,785	1.02	9,841	1.03
		SB	9,600	8,677	0.90	8,727	0.91
I-605 between Whittier Boulevard and Beverly Boulevard	268,000	NB	9,600	9,971	1.04	10,028	1.04
		SB	9,600	8,842	0.92	8,893	0.93
I-605 north of Beverly Boulevard	266,000	NB	9,600	9,897	1.03	9,953	1.04
		SB	9,600	8,776	0.91	8,826	0.92

Notes:
* = volume to capacity greater than 1.0 shown in **bold**.
NB = Northbound; SB = Southbound.

5.14.2 EXISTING REGULATORY SETTING

CALIFORNIA DEPARTMENT OF TRANSPORTATION

Caltrans publishes a document entitled *Guide for the Preparation of Traffic Impact Studies*, which provides guidelines and recommended elements of traffic studies for projects that could potentially impact state facilities such as State Route highways and freeway facilities. This is a State-level document that is used by each of the Caltrans District offices.

The Guide defines when traffic studies should be conducted to address impacts to state facilities, but does not define quantitative impact standards. The Guide states that Measures of Effectiveness (MOEs) are used to evaluate Caltrans facilities, and that the agency strives to maintain a LOS value of C on its facilities. However, the Guide states that the appropriate target LOS varies by facility and congestion level, and is defined differently by Caltrans depending on the analyzed facility.

LOS ANGELES COUNTY

METROPOLITAN TRANSPORTATION AUTHORITY

The Los Angeles County Metropolitan Transportation Authority (Metro) is responsible for the continuous improvement of an efficient and effective transportation system for the County of Los Angeles. Metro's service area covers approximately 1,433 square miles. State statute requires that a congestion management program be developed, adopted, and updated biennially for every county that includes an urbanized area and requires that it include every city and the county government within that county. As the Congestion Management Agency for Los Angeles County, Metro is responsible for implementing the CMP for the County.

Since the CMP became effective with the passage of Proposition 111 in 1990, it has become an effective tool in linking transportation, land use, and air quality decisions for the Country. The CMP addresses the impact of local growth on the regional transportation system. Statutory



elements of the CMP include Highway and Roadway System monitoring, multi-modal system performance analysis, the Transportation Demand Management Program, the Land Use Analysis Program, and local conformance for all of the County's jurisdictions.

Congestion Management Plan

Pursuant to Proposition 111, every county in California is required to develop a CMP that examines the relationships between land use, transportation, and air quality. The CMP addresses the impact of local growth on the regional transportation system. Proposition 111 also established a nine percent per gallon gas tax, staged over a five-year period, for the purpose of funding transportation-related improvements statewide. In order to be eligible for the revenues associated with Proposition 111, the CMP legislation (originally AB 471, amended by AB 1791) requires that a CMP be developed, adopted, and updated biennially for every county that includes an urbanized area and shall include every city and the county government within that county. Statutory elements of the CMP include Highway and Roadway System monitoring, multi-modal system performance analysis, the Transportation Demand Management Program, the Land Use Analysis Program, and local conformance for all the county's jurisdictions.

As the Congestion Management Agency for Los Angeles County, Metro is responsible for implementing Los Angeles County's CMP. Metro serves as Los Angeles County's transportation planner and coordinator, designer, builder and operator.

The purpose of the CMP is to develop a coordinated approach to managing and decreasing traffic congestion by linking the various transportation, land use and air quality planning programs throughout the County. The program is consistent with that of the Regional Transportation Plan (RTP) prepared by the Southern California Association of Governments (SCAG). The CMP program requires review of significant individual projects, which might on their own impact the CMP transportation system.

According to the 2010 CMP, those proposed projects, which meet the following criteria, shall be evaluated:

- All CMP arterial monitoring intersections, including monitored freeway on- or off-ramp intersections, where the proposed Project would add 50 or more trips during either the a.m. or p.m. weekday peak hours (of adjacent street traffic).
- Mainline freeway monitoring locations where the Project would add 150 or more trips, in either direction, during either the AM or PM weekday peak hours.

Based on these criteria, the following CMP intersections have been identified for further CMP analysis:

- Rosemead Boulevard/Whittier Boulevard (SR-72) - CMP Station #123;
- Norwalk Boulevard/Whittier Boulevard (SR-72) - CMP Station #163;
- Painter Avenue/Whittier Boulevard (SR-72) - CMP Station #164;
- Colima Road/Whittier Boulevard (SR-72) - CMP Station #162; and
- Rosemead Boulevard/Washington Boulevard - CMP Station #122.



CITY OF WHITTIER

General Plan Transportation Element

The Transportation Element is intended to guide the development of the City's transportation system in a manner that is compatible with the development envisioned under the Land Use Element. The purpose of the Transportation Element is to provide a safe, effective, and efficient transportation system for the City. It includes the general location for proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities. It is comprised of information on the existing and future conditions of the system, relevant plans and programs which influence circulation in Whittier, and the corresponding goals and policies to ensure that all components of the circulation system will meet the needs of the City. Key issues and opportunities unique to the City including the transportation system, internal circulation, public transportation, multi-use paths, pedestrian safety, and street extensions were used as the basis for formulating the Transportation Element's goals and policies. In addition, the Transportation Element addresses the improvements needed to provide adequate capacity for future land uses and development and potential demand management strategies and mass transit services.

BICYCLE TRANSPORTATION PLAN

The Whittier Greenway Trail is a Class I multi-purpose path located in the Project's vicinity. The City maintains a system of bikeways that consists of approximately 40 miles of Class I, II, and III bikeways within City limits. The Bicycle Transportation Plan proposes an additional 12 miles of Class I, II and III routes, totaling approximately 49 miles of existing and proposed bikeways within Whittier. Bicycle Transportation Plan Figure 1 illustrates a map of the entire bikeway system and the Plan is further discussed in Section 5.12, *Public Services and Recreation*.

Whittier Municipal Code

WMC Chapter 18-67, *Transportation Demand Management* sets forth requirements for major new developments to provide facilities that encourage and accommodate the use of carpools, vanpools, bus pools, public transit, walking and bicycling as alternatives to single occupant vehicles. According to WMC Section 18.67.030, before approval of any development project, the Applicant shall make the provision for, as a minimum, all of the applicable Transportation Demand Management (TDM) and trip reduction measures, as specified in WMC § 18.67.030 (B): *Development Standards*, which include the following among others:

1. Non-residential development of 25,000 square feet or more shall provide the following to the satisfaction of the city:
 - A. A bulletin board, display case, or kiosk displaying transportation information located where the greatest number of employees are likely to see it. Information in the area shall include, but is not limited to, the following:
 1. Current maps, routes and schedules for public transit serving the site;
 2. Telephone numbers for referrals on transportation information including numbers for the regional ridesharing agency and local transit operators;
 3. Ridesharing promotional material supplied by commuter-oriented organizations;



4. Bicycle route and facility information, including regional/local bicycle maps and bicycle safety information;
 5. A listing of facilities available for carpoolers, vanpoolers, bicyclists, transit riders and pedestrians at the site.
2. Non-residential development of 50,000 square feet or more shall comply with WMC Section 10.68.030(B)(1) above and shall provide all of the following measures to the satisfaction of the city:
- A. Not less than ten percent of employee parking area shall be located as close as is practical to the employee entrance(s), and shall be reserved for use by potential carpool/vanpool vehicles, without displacing handicapped and customer parking needs. This preferential carpool/vanpool parking area shall be identified on the site plan upon application for building permit, to the satisfaction of the city. A statement that preferential carpool/vanpool spaces for employees are available and a description of the method for obtaining such spaces must be included on the required transportation information board. Spaces will be signed/striped as demand warrants; provided that at all times at least one space for projects of fifty thousand square feet to one hundred thousand square feet and two spaces for projects over one hundred thousand square feet will be signed/striped for carpool/vanpool vehicles.
 - B. Preferential parking spaces reserved for vanpools must be accessible to vanpool vehicles. When located within a parking structure, a minimum vertical interior clearance of seven feet two inches shall be provided for those spaces and access ways to be used by such vehicles. Adequate turning radii and parking space dimensions shall also be included in vanpool parking areas.
 - C. Bicycle racks or other secure bicycle parking shall be provided to accommodate four bicycles per the first fifty thousand square feet of non-residential development and one bicycle per each additional fifty thousand square feet of non-residential development. Calculations which result in a fraction of 0.5 or higher shall be rounded up to the nearest whole number. A bicycle parking facility may also be a fully enclosed space or locker accessible only to the owner or operator of the bicycle, which protects the bike from inclement weather. Specific facilities and location (e.g., provision of racks, lockers, or locked room) shall be to the satisfaction of the city. Development of 25,000 square feet or more: a bulletin board, display case or kiosk displaying transportation information located where the greatest number of employees are likely to see it (ESMC includes specific requirements regarding content).
3. Non-residential development of one hundred thousand square feet or more shall comply with WMC Sections 10.68.030(B)(1) and 10.68.030(B)(2) above, and shall provide all of the following measures to the satisfaction of the city:
- A. A safe and convenient zone in which vanpool and carpool vehicles may deliver or board their passengers.
 - B. Sidewalks or other designated pathways following direct and safe routes from the external pedestrian circulation system to each building in the development.



- C. If determined necessary by the city to mitigate the project impact, bus stop improvements must be provided. The city will consult with the local bus service providers in determining appropriate improvements. When locating bus stops and/or planning entrances, entrances must be designed to provide safe and efficient access to nearby transit station/stops.
- D. Safe and convenient access from the external circulation system to bicycle parking facilities on-site.

WMC Section 12.16.080, *Improvement Standards* states that all streets required to be improved pursuant to this chapter shall be constructed and improved in accordance with the provisions of this code and the following standards:

- A. Width of Various Streets and Highways.
 - 1. State highways shall be dedicated to a minimum width of one hundred feet and improved with eighty feet of roadway and twenty feet of sidewalk, including parkway. Each one-half of the highway shall consist of forty feet of graded roadway, curbs and gutters, and ten feet of sidewalk and parkway, with at least five feet thereof paved.
 - 2. Arterial streets shall be dedicated to a minimum width of eighty feet with sixty-four feet of roadway and sixteen feet of sidewalk, including parkway. Each one-half of the highway shall consist of thirty-two feet of graded roadway, curbs and gutters, and eight feet of sidewalk and parkway with at least five feet thereof paved.
 - 3. Collector streets shall be dedicated to a minimum width of sixty feet with forty feet of roadway and twenty feet of sidewalk, including parkway. Each one-half of the highway shall consist of twenty feet of graded roadway, curbs and gutters, and ten feet of sidewalk and parkway, with at least five feet thereof paved.
No property owner required to make a dedication under this chapter shall be required to pay any paving costs of the roadway required in this section.
- B. Street Construction. All construction and improvement of streets required to be made by this chapter shall be done in accordance with the latest standard specifications of the county road department entitled "Standard Specifications," three copies of which are on file in the office of the city clerk, or any specifications hereafter adopted by the city council and filed with the city clerk.
- C. Variations. The city engineer may approve and allow such variations and deviations from the requirements of improvement and construction as he may determine to be necessary where the variation is caused by a condition of the terrain and the existing improvement contiguous to the real property involved

5.14.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

CITY OF WHITTIER

Performance Criteria. As stated in the City of Whittier General Plan Transportation Element, the City goal for peak hour intersection operation is LOS D or better.



Thresholds of Significance. To determine whether the addition of Project-generated trips results in a significant impact at a study intersection, and thus requires mitigation, Whittier has established the following thresholds of significance based on the Los Angeles County CMP Manual (2010):

- A significant project impact occurs at a study intersection when the addition of Project-generated trips causes an ICU increase of 0.04 while operating at LOS C; or
- A significant project impact occurs at a study intersection when the addition of Project-generated trips causes an ICU increase of 0.02 while operating at LOS D; or
- A significant project impact occurs at a study intersection when the addition of Project-generated trips causes an ICU increase of 0.01 while operating at LOS E or F.²

CITY OF PICO RIVERA

Performance Criteria. The City of Pico Rivera goal for peak hour intersection operation is LOS D or better.

Thresholds of Significance. To determine whether the addition of Project-generated trips results in a significant impact at a study intersection, and thus requires mitigation, Pico Rivera has established the following thresholds of significance:

- A significant project impact occurs at a study intersection when the addition of Project-generated trips causes an ICU increase of 0.04 while operating at LOS C; or
- A significant project impact occurs at a study intersection when the addition of Project-generated trips causes an ICU increase of 0.02 while operating at LOS D; or
- A significant project impact occurs at a study intersection when the addition of Project-generated trips causes an ICU increase of 0.01 while operating at LOS E or F.

CITY OF SANTA FE SPRINGS

Performance Criteria. According to the City of Santa Fe Springs Circulation Element (January 11, 1994), the City goal for peak hour intersection operation is LOS D or better.

Thresholds of Significance. To determine whether the addition of Project-generated trips results in a significant impact at a study intersection, and thus requires mitigation, Santa Fe Springs has established the following thresholds of significance:

- A significant project impact occurs at a study intersection when the addition of Project-generated trips causes an ICU increase of 0.04 while operating at LOS C; or
- A significant project impact occurs at a study intersection when the addition of Project-generated trips causes an ICU increase of 0.02 while operating at LOS D; or

² Pursuant to Senate Bill 743, in August 2014 the Governor's Office of Planning and Research released draft Guidelines that would require a vehicle miles traveled (VMT) threshold of significance be used in lieu of a LOS threshold of significance. By statute the Guidelines are not applicable to Projects that commence CEQA review prior to the Guidelines taking effect. Therefore, the draft Guidelines are not applicable to this Project.



- A significant project impact occurs at a study intersection when the addition of Project-generated trips causes an ICU increase of 0.01 while operating at LOS E or F.

COUNTY OF LOS ANGELES

Performance Criteria. Although the Los Angeles County CMP identifies the target peak hour intersection operation to be LOS E or better, common practice has assumed a target of LOS D or better for non-CMP intersections within Los Angeles County. Thus, this analysis conservatively assumes a goal for peak hour operation at County of Los Angeles non-CMP intersections of LOS D or better.

Thresholds of Significance. To determine whether the addition of Project-generated trips results in a significant impact at a study intersection, and thus requires mitigation, the County of Los Angeles has established the following thresholds of significance based on the County of Los Angeles Department of Public Works, Traffic Impact Analysis Report Guidelines (January 1, 1997):

- A significant project impact occurs at a study intersection when the addition of Project-generated trips causes an ICU increase of 0.04 while operating at LOS C; or
- A significant project impact occurs at a study intersection when the addition of Project-generated trips causes an ICU increase of 0.02 while operating at LOS D; or
- A significant project impact occurs at a study intersection when the addition of Project-generated trips causes an ICU increase of 0.01 while operating at LOS E or F.

The County of Los Angeles also considers whether the addition of Project-generated trips results in a significant impact at two-lane roadways, if the two-lane roadway is used for access. The Project is determined to have a significant impact on two-lane roadways when it adds the percentages shown in Table 5.14-8, Two-Lane Roadway Thresholds of Significance, based on LOS of the pre-project conditions.

**Table 5.14-8
Two-Lane Roadway Thresholds of Significance**

Directional Split	Total Capacity (PCPH)	Project-Related Percentages Increase in Passenger Cars Per Hour (PCPH)		
		Pre-Project LOS		
		C	D	E/F
50/50	2,800	4	2	1
60/40	2,650	4	2	1
70/30	2,500	4	2	1
80/20	2,300	4	2	1
90/10	2,100	4	2	1
100/0	2,000	4	2	1

Source: Lincoln Specific Plan Traffic Impact Analysis, RBF Consulting, October 2014.



CMP

Performance Criteria. The goal for CMP peak hour intersection operation is LOS E or better.

Thresholds of Significance. To determine whether the addition of Project-generated trips results in a significant impact at the CMP study intersections, and thus requires mitigation, the Los Angeles County CMP utilizes the following threshold of significance:

- A significant project impact occurs when a proposed Project increases traffic demand at a CMP study facility by two-percent or more of capacity ($V/C > 0.02$), causing or worsening LOS F ($V/C > 1.00$).

STATE HIGHWAY

Performance Criteria. Based on City of Whittier's consultation with Caltrans, the goal for State Highway study intersections is LOS D or better, consistent with City of Whittier performance criteria.

Thresholds of Significance. While Caltrans has not established traffic thresholds of significance, this traffic analysis utilizes the following traffic thresholds of significance based on discussions with Caltrans staff:

- A significant project impact occurs at a State Highway study intersection when the addition of Project-generated trips causes the peak hour level of service of the study intersection to change from acceptable operation (LOS D or better) to deficient operation (LOS E or F).
- A significant project impact occurs at a State Highway study intersection when the addition of Project-generated trips to an intersection which operates at a deficient LOS (LOS E or F) without the project causes the intersection delay to increase.

CEQA SIGNIFICANCE CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by Appendix G of the *CEQA Guidelines*, as amended, and used by the City of Whittier in its environmental review process. The Initial Study Checklist includes questions relating to Transportation and Traffic. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant adverse environmental impact if it would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;
- Conflict with an applicable congestion management program, including, but not limited to LOS standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;



- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks; refer to Section 8.0, *Effects Found Not To Be Significant*;
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access; refer to Section 5.7, *Hazards and Hazardous Materials*;
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Based on these standards/criteria, the Project's effects have been categorized as either a "less than significant impact" or a "potentially significant impact." If a potentially significant impact cannot be reduced to a less than significant level through the application of goals, policies, standards or mitigation, it is categorized as a significant and unavoidable impact. The standards used to evaluate the significance of impacts are often qualitative rather than quantitative because appropriate quantitative standards are either not available for many types of impacts or are not applicable for some types of projects.

5.14.4 IMPACTS AND MITIGATION MEASURES

LOCAL AND REGIONAL TRANSPORTATION FACILITIES

- **THE PROJECT WOULD GENERATE TRAFFIC VOLUMES THAT WOULD CONFLICT WITH APPLICABLE CIRCULATION SYSTEM PERFORMANCE CRITERIA.**

Impact Analysis: The Project proposes to establish a maximum allowable development within the Specific Plan area boundaries of 750 dwelling units (DU) and 208,350 square feet of commercial land uses (20,017 square feet of commercial uses within existing structures to be adaptively reused; 188,333 square feet of commercial uses within new structures); and 4.6 acres of open space.

Table 5.14-9, *Existing and Proposed Land Use Summary*, summarizes the existing and proposed land uses for the Project site.

The Project also includes offsite roadway and utility improvements along Whittier Boulevard, Sorensen Avenue, and an Elmer Avenue extension to provide enhanced access to perimeter public streets, internal streets, and the site. Non-vehicular circulation elements are also proposed to accommodate pedestrian and bicycle travel. Exhibit 3-7, *Entries and Signalization*, shows the various access points proposed to the Project site from surrounding roadways.



**Table 5.14-9
Existing and Proposed Land Use Summary**

Planning Area	Description	Acres	Institutional (SF) ¹	Commercial (SF)	Commercial Re-Use (SF)	Commercial ² New (SF)	Residential ² (DU) ¹
EXISTING							
	Correctional Facility (52 Buildings) ³	73.7	420,173				
	Auto Recycling (4 Buildings) ⁴	2.3		6,105			
	<i>Total Existing</i>	76.0	420,173	6,105			
PROPOSED							
Demolish							
	Correctional Facility (50 Buildings)		-400,156				
	Auto Recycling (4 Buildings) ⁵			-6,105			
	<i>Subtotal Demolish</i>		-400,156	-6,105			
Proposed							
1	The Market	12.9				170,000	
2	Heritage Court • Superintendent's Residence ^{3,6} • Administration Building ^{3,6} • New Construction • Roads	2.8 0.9			8,767 11,250	5,833	
3	Medium Density Res. (7.1-15 DU/AC) ¹ Open Space Roads	9.5 1.2 2.0					139
4	Medium Density Res. (7.1-15 DU/AC) Open Space Roads	10.1 0.8 1.3					91
5	Medium Density Res. (7.1-15 DU/AC) Roads	7.6 2.5					96
6	Med. High Density Res. (15.1-25 DU/AC) Roads	6.2 2.1					128
7	High Density Res. (25.1-35 DU/AC) Roads	8.1 1.5					296
8	Open Space Roads	2.6 1.0					
9	Future Expansion Area ⁷	2.0				12,500	
	Total Project	75.6			20,017	188,333	750
	Total Demolition		-406,261				
	Buildout Residential	41.5					750
	Buildout Commercial	17.7			208,350		
	Buildout Open Space	4.6					
	Buildout Roads	11.4					

1. SF = square feet; DU = dwelling units; DU/AC = dwelling units per acre.
2. Danielian Associates, Lincoln Specific Plan Table 2-1, August 2014.
3. CH2M Hill, *Building Demo Square Foot Quantities Table*.
4. Written Correspondence: Jeff Adams, Planning Services Manager, City of Whittier, December 16, 2013.
5. It is assumed that existing commercial uses would continue until such time as market conditions cause the property owner to wish to redevelop the site.
6. Although commercial (retail/office) uses are contemplated for these buildings, they may be dedicated to a non- or for-profit organization for institutional uses.
7. Includes approximately 6,150 square feet of existing commercial use (auto recycling business), which would retain its current function in the near term, although it is proposed to integrate with Heritage Court in the future.
Note: Site acreage totals for existing and proposed vary slightly due to rounding.



PROJECT TRIP GENERATION

To calculate trips forecast to be generated by the Project, *Institute of Transportation Engineers (ITE) Trip Generation Manual (Institute of Transportation Engineers, 9th Edition, 2012)* trip generation rates were utilized with the exception of localized trip generation rates for condominium/townhome land uses provided in the City of Whittier Traffic Impact Analysis Report Preparation Guidelines (May 2, 2011). It is important to note the localized trip generation rates utilized for the condominium/townhome land uses are more conservative than the ITE trip generation rates for the same land use. Table 5.14-10, *ITE Trip Generation Rates for Project Land Uses*, summarizes the ITE trip generation rates used to calculate the number of trips forecast to be generated by the Project.

**Table 5.14-10
ITE Trip Generation Rates for Project Land Uses**

Land Use (ITE Code) ¹	Units ²	AM Peak Hour Trip Generation Rate			PM Peak Hour Trip Generation Rate			Daily Trip Generation Rate
		In	Out	Total	In	Out	Total	
Single-Family Detached Residential (210)	du	0.19	0.56	0.75	0.63	0.37	1.00	9.52
Apartment (220)	du	0.10	0.41	0.51	0.40	0.22	0.62	6.65
Condominium/Townhome (--) ³	du	0.06	0.48	0.54	0.47	0.26	0.73	8.00
Medical/Dental Office (720)	tsf	0.42	0.11	0.53	0.36	0.70	1.06	8.91
Shopping Center (820) ⁴	tsf	0.88	0.54	1.42	2.65	2.87	5.52	62.32
Supermarket (850)	tsf	2.11	1.29	3.40	4.83	4.65	9.48	102.24
Drive-In Bank (912)	tsf	6.89	5.19	12.08	12.15	12.15	24.30	148.15
Quality Restaurant (931)	tsf	0.45	0.36	0.81	5.02	2.47	7.49	89.95
High-Turnover Restaurant (932)	tsf	5.95	4.86	10.81	5.91	3.94	9.85	127.15
Fast-Food Restaurant (934)	tsf	23.16	22.26	45.42	16.98	15.67	32.65	496.12
General Office (710)	tsf	1.37	0.19	1.56	0.25	1.24	1.49	11.03
Specialty Retail (826) ⁵	tsf	0.60	0.36	0.96	1.19	1.52	2.71	44.32
Large Format Retail (815)	tsf	0.72	0.34	1.06	2.49	2.49	4.98	57.24

Notes:

1. Source: 2012 ITE Trip Generation Manual, 9th Edition.
2. du = dwelling units; tsf = thousand square feet
3. Source: Traffic Impact Analysis Report Preparation Guidelines, City of Whittier, May 2, 2011.
4. Based on ITE fitted curve equations, where X = 127.850 thousand square feet:
 AM Peak Hour: $\ln(T) = 0.61 \ln(X) + 2.24$, 62% entering, 38% exiting;
 PM Peak Hour: $\ln(T) = 0.67 \ln(X) + 3.31$, 48% entering, 52% exiting; and
 Daily: $\ln(T) = 0.65 \ln(X) + 5.83$, 50% entering, 50% exiting.
5. Trip generation rate for a.m. peak hour based on shopping center rate (ITE Land Use 820).

PROJECT TRIP ADJUSTMENTS

ITE Internal Trip Capture Adjustments. As documented in ITE's *Trip Generation Manual*, an internal trip capture reduction is applicable when a project has mixed land uses (such as the Project), in which a trip originates from a land use located at the site and ends at a land use located within the same site. For example, a development with residential and commercial land uses has the potential to generate a pedestrian trip from the residential land use to a



commercial land use within the same site in lieu of generating a vehicular trip to an offsite commercial land use.

Consistent with industry standards, internal trip capture has been calculated as directed in *ITE Trip Generation Manual*. Detailed internal trip capture summary calculation sheets are contained in Appendix C of Appendix 11.16. Table 5.14-11, *ITE Internal Trip Capture Percentages for Project*, shows the Project internal capture rates utilized in the analysis for the Project.

**Table 5.14-11
ITE Internal Trip Capture Percentages for Project**

<i>ITE Internal Trip Capture Percentage</i>			
Description	AM Peak Hour	PM Peak Hour	Daily
Project	0%	16%	15%

ITE Pass-By Trip Adjustment. As documented in ITE’s *Trip Generation Manual*, a pass-by trip reduction is applicable to commercial land uses located along busy arterial highways attracting vehicle trips already on the roadway; this is particularly the case when the roadway is experiencing peak operating conditions. For example, during the p.m. peak hour, a motorist already traveling along Whittier Boulevard (SR-72) between work and home or other destinations may stop at the Project site. A pass-by discount under this example would reduce/eliminate both the inbound trip and the outbound trip from the surrounding roadway circulation system since the vehicle was already traveling on the roadway. Without the pass-by trip discount, two trips would be generated: an inbound trip to the Project site, and an outbound trip from the Project site.

Table 5.14-12, *Pass-by Trip Reduction Percentage Applicable to Project*, summarizes the pass-by trip reductions applicable to the Project land uses as documented in the *ITE Trip Generation Manual* and utilized in this analysis.

**Table 5.14-12
Pass-by Trip Reduction Percentage Applicable to Project**

Land Use	AM Peak Hour	PM Peak Hour
Retail	0%	34%
Shopping Center	0%	34%
Supermarket	0%	36%
Drive-In Bank	0%	47%
Quality Restaurant	0%	44%
High-Turnover Restaurant	0%	43%
Fast-Food Restaurant with Drive-Through	0%	49%
Note: Pass-by trip reduction percentages as identified by 2012 <i>ITE Trip Generation Manual</i> , 9 th Edition.		



Table 5.14-13, *Forecast Trip Generation of Project*, summarizes the trip generation of the Project utilizing the ITE trip rates contained in Table 5.14-10, the applicable ITE internal trip capture adjustments contained in Table 5.14-11, and the applicable ITE pass-by trip adjustments contained in Table 5.14-12.

**Table 5.14-13
Forecast Trip Generation of the Project**

Land Use	AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips
	In	Out	Total	In	Out	Total	
187-du Single-Family Detached Residential	36	105	141	118	69	187	1,780
296-du Apartments	30	121	151	118	65	183	1,968
267-du Condominium/Townhome	16	128	144	125	69	194	2,136
<i>ITE Internal Trip Capture Reduction (16% PM, 15% Daily)</i>	--	--	--	-58	-32	-90	-883
Residential Subtotal	82	354	436	303	171	474	5,001
8.0-tsf Medical/Dental Office	3	1	4	3	6	9	71
<i>ITE Internal Trip Capture Reduction (16% PM, 15% Daily)</i>	--	--	--	0	-1	-1	-11
127.850-tsf Shopping Center	112	69	181	339	367	706	7,967
<i>ITE Internal Trip Capture Reduction (16% PM, 15% Daily)</i>	--	--	--	-54	-59	-113	-1,195
<i>ITE Pass-by Reduction for Shopping Center (34% PM)</i>	--	--	--	-97	-105	-202	-202
38.0-tsf Supermarket	80	49	129	184	177	361	3,885
<i>ITE Internal Trip Capture Reduction (16% PM, 15% Daily)</i>	--	--	--	-29	-28	-58	-583
<i>ITE Pass-by Reduction for Supermarket (36% PM)</i>	--	--	--	-56	-54	-110	-110
4.50-tsf Drive-In Bank	31	23	54	55	55	110	667
<i>ITE Internal Trip Capture Reduction (16% PM, 15% Daily)</i>	--	--	--	-9	-9	-18	-100
<i>ITE Pass-by Reduction for Drive-In Bank (47% PM)</i>	--	--	--	-22	-22	-44	-44
9.0-tsf Quality Restaurant	4	3	7	45	22	67	810
<i>ITE Internal Trip Capture Reduction (16% PM, 15% Daily)</i>	--	--	--	-7	-4	-11	-122
<i>ITE Pass-by Reduction for Quality Restaurant (44% PM)</i>	--	--	--	-17	-8	-25	-25
14.0-tsf High-Turnover Restaurant	83	68	151	83	55	138	1,780
<i>ITE Internal Trip Capture Reduction (16% PM, 15% Daily)</i>	--	--	--	-13	-9	-22	-267
<i>ITE Pass-by Reduction for High-Turnover Rest. (43% PM)</i>	--	--	--	-30	-20	-50	-50
7.0-tsf Fast-Food Restaurant with Drive-Through	162	156	318	119	110	229	3,473
<i>ITE Internal Trip Capture Reduction (16% PM, 15% Daily)</i>	--	--	--	-19	-18	-37	-521
<i>ITE Pass-by Reduction for Fast-Food Rest. (49% PM)</i>	--	--	--	-49	-45	-94	-94
Commercial Subtotal	475	369	844	426	410	835	15,329
Total Project Trip Generation	557	723	1,280	729	581	1,309	20,330
Notes: du = dwelling unit, tsf = thousand square feet.							



As shown in Table 5.14-13, the Project is forecast to generate approximately 20,330 daily trips, which includes approximately 1,280 a.m. peak hour trips and approximately 1,309 p.m. peak hour trips. It should be noted that the ITE trip rates shown in Table 5.14-10 represent conservative assumptions for Project trip generation, and likely overstate traffic impacts that would occur as residential and commercial land uses are implemented.

PROJECT TRIP DISTRIBUTION

Trip distribution for the Project has been assigned in accordance with the procedures described on Exhibit D-5 of the *Los Angeles County 2010 CMP*, in conjunction with U.S. Census Bureau data and discussions with City and Caltrans staff.

Exhibits 8 through 12 of the Traffic Impact Analysis show forecast trip percent distributions of Project-generated trips.

PROJECT TRIP ASSIGNMENT

Table 5.14-14, Trip Purpose Percent Breakdowns by Land Use Type, shows the applicable trip purpose breakdowns by land use type as shown on Exhibit D-2 of the Los Angeles County 2010 CMP.

**Table 5.14-14
Trip Purpose Percent Breakdowns by Land Use Type**

Land Use	Trip Purpose		
	Work	Non-Work	Total
Single-Family Residential	25%	75%	100%
Multi-Family Residential	30%	70%	100%
Shopping Center	20%	80%	100%
Office	65%	35%	100%
Medical Office	30%	70%	100%
Restaurants	15%	85%	100%

Source: Lincoln Specific Plan Traffic Impact Analysis, RBF Consulting, October 2014.

Table 5.14-15, Trip Purpose Breakdown of Project Trip Generation, shows the trip purpose breakdown of Project trip generation utilizing the trip purpose percent breakdowns shown in Table 5.14-14. Exhibit 13 of the Traffic Impact Analysis shows the corresponding assignment of Project-generated a.m. and p.m. peak hour trips assuming the trip percent distributions shown in Exhibits 8 through 11 of the Traffic Impact Analysis.

**Table 5.14-15
Trip Purpose Breakdown of Project Trip Generation**

Land Use	AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips
	In	Out	Total	In	Out	Total	
Residential Work Related Trips	23	101	124	86	49	135	1,424
Residential Non-Work Related Trips	59	253	312	217	123	340	3,577
Non-Residential Work Related Trips	83	62	145	80	79	159	2,823
Non-Residential Non-Work Related Trips	392	307	699	345	333	678	12,507



Forecast Existing With Project Conditions

This section addresses the impacts associated with adding Project-generated trips to existing conditions traffic volumes. The existing with Project scenario is a hypothetical scenario that assumes the Project would be fully implemented at the present time, with no other changes to area traffic volumes. Forecast existing with Project conditions a.m. and p.m. peak hour volumes were derived by adding forecast Project-generated trips to existing conditions traffic volumes.

FORECAST EXISTING WITH PROJECT TRAFFIC VOLUMES

Forecast existing with Project conditions a.m. and p.m. peak hour volumes were derived by adding forecast Project-generated trips to existing conditions traffic volumes. Exhibit 15 of the Traffic Impact Analysis shows forecast existing with Project conditions a.m. and p.m. peak hour volumes at the study intersections.

FORECAST EXISTING WITH PROJECT CONDITIONS CITY/COUNTY STUDY INTERSECTION PEAK HOUR LOS

Table 5.14-16, *Forecast Existing With Project Conditions Peak Hour City/County Study Intersection LOS*, summarizes forecast existing with Project conditions a.m. peak hour and p.m. peak hour LOS of the study intersections; detailed LOS analysis sheets are contained in Appendix C of [Appendix 11.16](#).

As shown in [Table 5.14-16](#), with the addition of Project-generated trips, the following six (6) City/County study intersections are forecast to operate at a deficient LOS (LOS E or worse) according to agency performance criteria for forecast existing with Project conditions:

- Intersection 1 – Rosemead Boulevard/Beverly Boulevard (p.m. peak hour only);
- Intersection 8 – Norwalk Boulevard/Beverly Boulevard (both a.m. and p.m. peak hours);
- Intersection 39 – Pioneer Boulevard/Washington Boulevard (both a.m. and p.m. peak hours);
- Intersection 41 – Norwalk Boulevard/Washington Boulevard (both a.m. and p.m. peak hours);
- Intersection 43 – Sorensen Avenue/Washington Boulevard (a.m. peak hour only); and
- Intersection 57 – Colima Road/Lambert Road (both a.m. and p.m. peak hours).

As also shown in [Table 5.14-16](#), based on the applicable agency-established thresholds of significance, the addition of Project-generated trips is forecast to result in a significant impact at the following seven (7) City/County study intersections for forecast existing with Project conditions:

- Intersection 1 – Rosemead Boulevard/Beverly Boulevard (p.m. peak hour only);
- Intersection 8 – Norwalk Boulevard/Beverly Boulevard (both a.m. and p.m. peak hours);
- Intersection 39 – Pioneer Boulevard/Washington Boulevard (both a.m. and p.m. peak hours);
- Intersection 41 – Norwalk Boulevard/Washington Boulevard (both a.m. and p.m. peak hours);
- Intersection 42 – Broadway/Washington Boulevard (both a.m. and p.m. peak hours);
- Intersection 43 – Sorensen Avenue/Washington Boulevard (a.m. peak hour only); and
- Intersection 57 – Colima Road/Lambert Road (both a.m. and p.m. peak hours).



Table 5.14-16
Forecast Existing With Project Conditions
Peak Hour City/County Study Intersection LOS

Study Intersection	Jurisdiction	Existing Conditions		Forecast Existing With Project Conditions		Delta V/C		Significant Impact?
		ICU (Delay) - LOS		ICU (Delay) - LOS		AM Peak Hour	PM Peak Hour	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour			
1 Rosemead Blvd/Beverly Blvd	PR	0.82 - D	0.91 - E	0.83 - D	0.92 - E	0.01	0.01	Yes
2 Durfee Ave/Beverly Blvd	PR	0.65 - B	0.71 - C	0.66 - B	0.72 - C	0.01	0.01	No
3 Sandoval Ave/Beverly Blvd	PR	0.52 - A	0.49 - A	0.53 - A	0.50 - A	0.01	0.01	No
4 San Gabriel River Pkwy/Beverly Blvd	PR	0.79 - C	0.88 - D	0.81 - D	0.89 - D	0.02	0.01	No
5 Abbeywood Ave/Beverly Blvd	PR	0.60 - A	0.72 - C	0.61 - B	0.73 - C	0.01	0.01	No
7 Pioneer Rd/Beverly Blvd	W	0.73 - C	0.75 - C	0.74 - C	0.77 - C	0.01	0.02	No
8 Norwalk Blvd/Beverly Blvd	W	0.91 - E	0.89 - D	0.95 - E	0.93 - E	0.04	0.04	Yes
35 Rosemead Blvd/Washington Blvd	PR	0.87 - D	0.85 - D	0.87 - D	0.86 - D	0.00	0.01	No
36 Loch Alene Ave/Washington Blvd	PR	0.70 - B	0.49 - A	0.71 - C	0.49 - A	0.01	0.00	No
37 Passons Blvd/Washington Blvd	PR	0.86 - D	0.75 - C	0.87 - D	0.77 - C	0.01	0.02	No
39 Pioneer Blvd/Washington Blvd	LAC	0.99 - E	0.95 - E	1.01 - F	0.96 - E	0.02	0.01	Yes
40 Millergrove Dr/Washington Blvd	LAC	0.60 - A	0.54 - A	0.61 - B	0.55 - A	0.01	0.01	No
41 Norwalk Blvd/Washington Blvd	LAC/SFS	0.98 - E	0.93 - E	1.01 - F	0.96 - E	0.03	0.03	Yes
42 Broadway/Washington Blvd	LAC/SFS	0.83 - D	0.84 - D	0.86 - D	0.86 - D	0.03	0.02	Yes
43 Sorensen Ave/Washington Blvd	LAC/SFS	0.82 - D	0.74 - C	0.91 - E	0.81 - D	0.09	0.07	Yes
44 Lambert Rd/Washington Blvd	W	0.73 - C	0.63 - B	0.73 - C	0.63 - B	0.00	0.00	No
45 Putnam St/Washington Blvd	W	0.49 - A	0.51 - A	0.49 - A	0.51 - A	0.00	0.00	No
46 Sorensen Ave/Keith Dr	W/LAC	(12.2) - B	(13.2) - B	(15.0) - B	(15.7) - C	(2.8)	(2.5)	No



**Table 5.14-16 [continued]
Forecast Existing With Project Conditions
Peak Hour City/County Study Intersection LOS**

Study Intersection	Jurisdiction	Existing Conditions		Forecast Existing With Project Conditions		Delta V/C		Significant Impact?	
		ICU (Delay) - LOS		ICU (Delay) - LOS		AM Peak Hour	PM Peak Hour		
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour				
47	Sorensen Ave/Rose Hedge Dr	LAC	(8.9) – A	(9.3) – A	(10.8) – B	(11.5) – B	(1.9)	(2.2)	No
48	Sorensen Ave/Mines Blvd-Lambert Rd	LAC	0.48 – A	0.54 – A	0.57 – A	0.63 – B	0.09	0.09	No
49	Pickering Ave/Philadelphia St	W	0.67 – B	0.67 – B	0.68 – B	0.69 – B	0.01	0.02	No
50	Greenleaf Ave/Philadelphia St	W	0.34 – A	0.46 – A	0.36 – A	0.47 – A	0.02	0.01	No
51	Painter Ave/Philadelphia St	W	0.50 – A	0.62 – B	0.50 – A	0.63 – B	0.00	0.01	No
52	Pickering Ave/Mar Vista St	W	0.67 – B	0.63 – B	0.67 – B	0.64 – B	0.00	0.01	No
53	Greenleaf Ave/ Mar Vista St	W	0.50 – A	0.55 – A	0.51 – A	0.56 – A	0.01	0.01	No
54	Painter Ave/ Mar Vista St	W	0.69 – B	0.84 – D	0.69 – B	0.85 – D	0.00	0.01	No
55	Santa Fe Springs Rd/Lambert Rd	W	0.77 – C	0.76 – C	0.79 – C	0.78 – C	0.02	0.02	No
56	Santa Fe Springs Rd/Slauson Ave	W/SFS	0.77 – C	0.66 – B	0.78 – C	0.68 – B	0.01	0.02	No
57	Colima Rd/Lambert Rd	W/LAC	0.98 – E	0.92 – E	0.98 – E	0.94 – E	0.00	0.02	Yes

Notes:
ICU = intersection capacity utilization; delay shown in seconds; deficient intersection operation shown in **bold**;
PR = City of Pico Rivera; W = City of Whittier; LAC = Los Angeles County; SFS = City of Santa Fe Springs.

**FORECAST EXISTING WITH PROJECT CONDITIONS
CITY/COUNTY STUDY INTERSECTION MITIGATION MEASURES**

Table 5.14-17, *Summary of Forecast Existing With Project Conditions City/County Study Intersection Mitigation Measures*, summarizes the Project study intersection improvements which are identified as mitigation measures to lessen the traffic impacts at the significantly impacted City/County study intersections. It should be noted that, while there are seven significantly impacted intersections identified in Table 5.14-16, only six mitigation measures are identified in Table 5.14-17. This is because mitigation at Intersection 57 (Colima Road/Lambert Road) was determined to be infeasible due to right-of-way limitations. For informational purposes, the Project fair share contribution is also shown as calculated by the number of p.m. peak hour trips entering the intersection according to the following formula:

$$\text{Project Fair Share} = \frac{\text{Project p.m. peak hour trips}}{\text{Total new trips [future – existing traffic]}} \times 100\%$$



**Table 5.14-17
Summary of Forecast Existing With Project Conditions City/
County Study Intersection Mitigation Measures and Fair Share**

Jurisdiction	Mitigation Measure Improvement	Project Fair Share
PR	Mitigation Measure TRA-1, Intersection 1 (Rosemead Boulevard/Beverly Boulevard) <ul style="list-style-type: none"> • Add one additional northbound through lane¹ 	11.6%
W	Mitigation Measure TRA-2, Intersection 8 (Norwalk Boulevard/Beverly Boulevard) <ul style="list-style-type: none"> • Add one additional northbound left-turn lane. 	29.1%
LAC	Mitigation Measure TRA-3, Intersection 39 (Pioneer Boulevard/Washington Boulevard) <ul style="list-style-type: none"> • Restripe existing southbound shared through/right-turn lane to a dedicated right-turn lane with right-turn overlap signal phasing. 	29.1%
LAC/ SFS	Mitigation Measure TRA-4, Intersection 41 (Norwalk Boulevard/Washington Boulevard) <ul style="list-style-type: none"> • Add one additional westbound through lane¹ 	31.2%
LAC/ SFS	Mitigation Measure TRA-5, Intersection 42 (Broadway/Washington Boulevard) <ul style="list-style-type: none"> • Restripe the northbound approach to Add one shared through/left-turn lane and one shared through/right-turn lane; and • Add one dedicated southbound right-turn lane. 	40.9%
LAC/ SFS	Mitigation Measure TRA-6, Intersection 43 (Sorensen Avenue/Washington Boulevard) <ul style="list-style-type: none"> • Add one additional westbound through lane (modify receiving lanes as necessary). 	40.0%
<p>Note:</p> <p>1. Identified as a conceptual improvement in the SR-91/I-605/I-405 Congestion Hot Spots Feasibility Report (RBF Consulting/URS/Iteris, March 26, 2013).</p>		

Table 5.14-18, *Mitigated Forecast Existing With Project Conditions Peak Hour City/County Study Intersection LOS*, shows the forecast LOS of the significantly impacted City/County study intersections assuming implementation of the identified mitigation measures for forecast existing with Project conditions. Detailed LOS analysis sheets are contained in Appendix B of Appendix 11.16.

As shown in Table 5.14-18, assuming implementation of Mitigation Measures TRA-1 through TRA-6, the Project’s traffic impacts at Intersection 1 (Rosemead Blvd/Beverly Blvd), Intersection 8 (Norwalk Blvd/Beverly Blvd), Intersection 39 (Pioneer Blvd/Washington Blvd), Intersection 41 (Norwalk Blvd/Washington Blvd), Intersection 42 (Broadway/Washington Blvd), and Intersection 43 (Sorensen Ave/Washington Blvd) would be reduced below agency criteria for forecast existing with Project conditions. Notwithstanding Public Resources Code Section 21081(a)(2) which authorizes a public agency to make a finding that a mitigation measure is within another agency’s responsibility and jurisdiction, Mitigation Measures TRA-1 through TRA-6 would reduce traffic impacts through payment of a fair share contribution by the Project Applicant to the affected jurisdiction, at a percentage specified in the mitigation measures outlined herein.



**Table 5.14-18
Mitigated Forecast Existing With Project Conditions
Peak Hour City/County Study Intersection LOS**

Study Intersection	Jurisdiction	Existing Conditions		Forecast Existing With Project Conditions		Delta V/C		Significant Impact?	
		ICU (Delay) - LOS		ICU (Delay) - LOS		AM Peak Hour	PM Peak Hour		
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour				
1	Rosemead Blvd/ Beverly Blvd	PR	0.82 – D	0.91 – E	0.83 – D	0.85 – D	0.01	-0.06	No
8	Norwalk Blvd/ Beverly Blvd	W	0.91 – E	0.89 – D	0.88 – D	0.90 – D	-0.03	0.01	No
39	Pioneer Blvd/ Washington Blvd	LAC	0.99 – E	0.95 – E	0.95 – E	0.92 – E	-0.04	-0.03	No
41	Norwalk Blvd/ Washington Blvd	LAC/SFS	0.98 – E	0.93 – E	0.89 – D	0.93 – E	-0.09	0.00	No
42	Broadway/ Washington Blvd	LAC/SFS	0.83 – D	0.84 – D	0.82 – D	0.79 – C	-0.01	-0.05	No
43	Sorensen Ave/ Washington Blvd	LAC/SFS	0.82 – D	0.74 – C	0.81 – D	0.74 – C	-0.01	0.00	No
57	Colima Rd/ Lambert Rd	W/LAC	0.98 – E	0.92 – E	0.98 – E	0.94 – E	0.00	0.02	Yes

Notes:
ICU = intersection capacity utilization; delay shown in seconds; deficient intersection operation shown in **bold**;
PR = City of Pico Rivera; W = City of Whittier; LAC = Los Angeles County; SFS = City of Santa Fe Springs.

The fair share contribution would be collected prior to issuance of the first building permit for the proposed Project, and thus in advance of imposition of the respective mitigation improvements, and held in a dedicated account for said improvements. The timing for implementation of the mitigation measures would be subject to an agreement with the cities of Pico Rivera and Santa Fe Springs, which would include but not be limited to, a traffic monitoring program used in conjunction with buildout of the Project. For mitigation measures in unincorporated Los Angeles County, the improvement concepts, timing for mitigation, and fair share percentages would be provided to the County of Los Angeles Department of Public Works Traffic and Lighting Division for review and approval. Similarly, the City of Whittier would utilize a traffic monitoring program to determine timing for implementation of improvements within its jurisdiction. The improvements identified under Mitigation Measures TRA-1 through TRA-6 would be implemented on a fair share basis. The City of Whittier and the affected jurisdictions would determine the timing of mitigation that is required to reduce impacts to a less than significant level, as described above. However, until implementation of the mitigation measure, the following intersections would remain a significant and unavoidable impact for forecast existing with Project conditions:

- Intersection 1 (Rosemead Boulevard/Beverly Boulevard);
- Intersection 8 (Norwalk Boulevard/Beverly Boulevard);
- Intersection 39 (Pioneer Boulevard/Washington Boulevard);
- Intersection 41 (Norwalk Boulevard/Washington Boulevard);
- Intersection 42 (Broadway/Washington Boulevard); and
- Intersection 43 (Sorensen Avenue/Washington Boulevard).



Impacts at Intersection 57 (Colima Road/Lambert Road) would also be significant and unavoidable since there is no feasible mitigation available, due to right-of-way limitations.

FORECAST EXISTING WITH PROJECT CONDITIONS STATE HIGHWAY STUDY INTERSECTION PEAK HOUR LOS

Table 5.14-19, *Forecast Existing With Project Conditions Peak Hour State Highway Study Intersection LOS*, summarizes forecast existing with Project conditions a.m. peak hour and p.m. peak hour LOS of the State Highway study intersections; detailed LOS analysis sheets are contained in Appendix F of [Appendix 11.16](#).

As shown in [Table 5.14-19](#), with the addition of Project-generated trips, the State Highway study intersections are forecast to continue to operate at an acceptable LOS (LOS D or better) according to Caltrans performance criteria for forecast existing with Project conditions, except the following:

- Intersection 22 – Whittier Boulevard (SR-72)/Penn Street (both a.m. and p.m. peak hours);
- Intersection 25 – Pickering-Santa Fe Springs Road/Whittier Boulevard (SR-72) (both a.m. and p.m. peak hours).

As also shown in [Table 5.14-19](#), based on the Caltrans thresholds of significance, the addition of Project-generated trips is forecast to result in a significant impact at the following two (2) State Highway intersections for forecast existing with Project conditions:

- Intersection 22 – Whittier Boulevard (SR-72)/Penn Street (both a.m. and p.m. peak hours);
- Intersection 25 – Pickering-Santa Fe Springs Road/Whittier Boulevard (SR-72) (both a.m. and p.m. peak hours).

FORECAST EXISTING WITH PROJECT CONDITIONS STATE HIGHWAY STUDY INTERSECTION MITIGATION MEASURES

The following mitigation measures are identified to lessen the traffic impacts at the impacted State Highway study intersections as shown in [Table 5.14-20](#), *Summary of Forecast Existing With Project Conditions State Highway Study Intersection Mitigation Measures and Fair Share*. The Project fair share contribution is also shown for informational purposes.

Table 5.14-21, *Mitigated Forecast Existing With Project Conditions Peak Hour State Highway Study Intersection LOS*, shows the forecast LOS of the significantly impacted State Highway study intersections assuming implementation of the identified mitigation measures for forecast existing with Project conditions. Detailed State Highway LOS analysis sheets are contained in Appendix F of [Appendix 11.16](#).

As shown [Table 5.14-21](#), assuming implementation of Mitigation Measures TRA-7 and TRA-8, the Project's traffic impacts at State Highway study Intersection 22 (Whittier Blvd (SR-72)/Penn St) would be reduced below agency criteria for forecast existing with Project conditions. Notwithstanding Public Resources Code Section 21081(a)(2), which authorizes a public agency to make a finding that a mitigation measure is within another agency's responsibility and jurisdiction, Mitigation Measures TRA-7 and TRA-8 would reduce traffic impacts through payment of a fair share contribution by the Project Applicant to Caltrans, at a percentage specified in the mitigation measures outlined herein.



Table 5.14-19
Forecast Existing With Project Conditions
Peak Hour State Highway Study Intersection LOS

Study Intersection		Existing Conditions		Forecast Existing With Project Conditions		Significant Impact
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
		Delay - LOS	Delay - LOS	Delay - LOS	Delay - LOS	
9	Rosemead Blvd/ Whittier Blvd (SR-72)	34.1 – C	39.7 – D	34.4 – C	40.4 – D	No
10	Lindsey Ave/ Whittier Blvd (SR-72)	8.8 – A	14.5 – B	8.9 – A	14.4 – B	No
11	Durfee Ave/ Whittier Blvd (SR-72)	21.0 – C	20.7 – C	21.0 – C	20.6 – C	No
12	Passons Blvd/ Whittier Blvd (SR-72)	18.6 – B	21.1 – C	19.1 – B	21.5 – C	No
13	Gregg Rd/ Whittier Blvd (SR-72)	5.8 – A	10.0 – A	5.8 – A	9.8 – A	No
14	I-605 SB Ramps/ Whittier Blvd (SR-72)	15.3 – B	14.9 – B	15.5 – B	15.3 – B	No
15	I-605 NB Ramps/ Whittier Blvd (SR-72)	22.7 – C	19.0 – B	23.4 – C	19.2 – B	No
16	Norwalk Blvd/ Whittier Blvd (SR-72)	36.7 – D	40.9 – D	41.4 – D	50.8 – D	No
17	Glengarry Ave/ Whittier Blvd (SR-72)	2.9 – A	3.0 – A	2.9 – A	3.0 – A	No
18	Broadway/ Whittier Blvd (SR-72)	15.8 – B	14.6 – B	15.8 – B	14.4 – B	No
19	Whittier Blvd (SR-72)/ Hadley St	26.3 – C	25.7 – C	26.8 – C	25.7 – C	No
20	Sorensen Ave/ Whittier Blvd (SR-72)	20.4 – C	20.9 – C	27.5 – C	30.1 – C	No
21	Whittier Blvd (SR-72)/ Philadelphia St	19.2 – B	16.1 – B	22.0 – C	21.3 – C	No
22	Whittier Blvd (SR-72)/ Penn St	23.3 – C	25.2 – D	35.8 – E	47.0 – E	Yes
23	Whittier Blvd (SR-72)/ Mar Vista St	18.2 – B	12.3 – B	18.2 – B	12.5 – B	No
24	Whittier Blvd (SR-72)/ Pacific Pl	5.8 – A	13.3 – B	5.2 – A	12.5 – B	No
25	Pickering-Santa Fe Springs Rd/ Whittier Blvd (SR-72)	159.8 – F*	117.2 – F*	198.9 – F*	171.6 – F*	Yes
26	Greenleaf Ave/ Whittier Blvd (SR-72)	26.5 – C	28.4 – C	26.4 – C	28.4 – C	No
27	Painter Ave/ Whittier Blvd (SR-72)	32.8 – C	38.5 – D	33.6 – C	40.8 – D	No
28	Central Ave/ Whittier Blvd (SR-72)	6.2 – A	14.9 – B	6.1 – A	14.5 – B	No
29	Laurel Ave/ Whittier Blvd (SR-72)	9.4 – A	13.6 – B	9.4 – A	13.0 – B	No
30	Strub Ave/ Whittier Blvd (SR-72)	11.5 – B	6.0 – A	11.9 – B	6.2 – A	No
31	Ocean View Ave/ Whittier Blvd (SR-72)	18.3 – B	14.3 – B	18.8 – B	14.5 – B	No



**Table 5.14-19 [continued]
Forecast Existing With Project Conditions
Peak Hour State Highway Study Intersection LOS**

Study Intersection		Existing Conditions		Forecast Existing With Project Conditions		Significant Impact
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
		Delay - LOS	Delay - LOS	Delay - LOS	Delay - LOS	
32	Gunn Ave/ Whittier Blvd (SR-72)	14.4 – B	12.1 – B	15.0 – B	12.5 – B	No
33	Mills Ave/ Whittier Blvd (SR-72)	26.0 – C	28.6 – C	26.4 – C	28.9 – C	No
34	Colima Rd/ Whittier Blvd (SR-72)	41.4 – D	37.8 – D	44.8 – D	39.2 – D	No
38	Pioneer Bl/ I-605 NB Off-Ramp (to Washington Blvd)	14.7 – B	24.1 – C	15.0 – B	23.8 – C	No

Notes: * = volume to capacity is greater than 1.0, LOS F; delay shown in seconds; deficient intersection operation shown in **bold**.

**Table 5.14-20
Summary of Forecast Existing With Project Conditions
State Highway Study Intersection Mitigation Measures and Fair Share**

Jurisdiction	Mitigation Measure Improvement	Project Fair Share
Caltrans	Mitigation Measure TRA-7, Intersection 22 (Whittier Boulevard (SR-72)/Penn Street) <ul style="list-style-type: none"> Install a traffic signal. 	68.0%
Caltrans	Mitigation Measure TRA-8, Intersection 25 (Pickering-Santa Fe Springs Road/Whittier Boulevard (SR-72)) <ul style="list-style-type: none"> Add one additional westbound through lane along Whittier Boulevard (SR-72).¹ 	44.0%

Note:
1. Identified as a conceptual improvement in the SR-91/I-605/I-405 Congestion Hot Spots Feasibility Report (RBF Consulting/URS/Iteris, March 26, 2013).

**Table 5.14-21
Mitigated Forecast Existing With Project Conditions
Peak Hour State Highway Study Intersection LOS**

Study Intersection		Existing Conditions		Mitigated Forecast Existing With Project Conditions		Significant Impact?
		Delay - LOS		Delay - LOS		
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
22	Whittier Blvd (SR-72)/ Penn St	23.3 – C	25.2 – D	13.1 – B	11.8 – B	No
25	Pickering-Santa Fe Springs Rd/ Whittier Blvd (SR-72)	159.8 – F*	117.2 – F*	159.0 – F*	138.9 – F*	Yes

Notes: * = volume to capacity is greater than 1.0, LOS F; delay shown in seconds; deficient intersection operation shown in **bold**.



The fair share contribution would be collected prior to issuance of the first building permit for the proposed Project, and thus in advance of imposition of the respective mitigation improvements, and held in a dedicated account for said improvements. The improvement concepts, timing for mitigation, and fair share percentages would be provided to Caltrans for review and approval.

The improvements identified under Mitigation Measures TRA-7 and TRA-8 would be implemented on a fair share basis. The City of Whittier and Caltrans would determine the timing of mitigation that is required to reduce impacts to a less than significant level, as described above. However, until implementation of the mitigation measure, the following intersections would remain a significant and unavoidable impact:

- Intersection 22 – Whittier Boulevard (SR-72)/Penn Street;
- Intersection 25 – Pickering-Santa Fe Springs Road/Whittier Boulevard (SR-72).

**FORECAST EXISTING WITH PROJECT CONDITIONS
FREEWAY STUDY SEGMENTS VOLUME TO CAPACITY RATIOS**

Table 5.14-22, Forecast Existing With Project Conditions Freeway Study Segments Volume to Capacity Ratios, summarizes existing with Project conditions traffic volumes and V/C ratios for the study area freeway segments.

**Table 5.14-22
Forecast Existing With Project Conditions
Freeway Study Segments Volume to Capacity Ratios**

Segment	Direction	Capacity	AM Peak Hour		PM Peak Hour	
			1-Way Peak Hour Volume	V/C	1-Way Peak Hour Volume	V/C
I-605 south of Washington Blvd	NB	9,600	9,118	0.95	9,192	0.96
	SB	9,600	8,114	0.85	8,142	0.85
I-605 between Washington Blvd and Whittier Blvd	NB	9,600	9,812	1.02	9,882	1.03
	SB	9,600	8,719	0.91	8,758	0.91
I-605 between Whittier Blvd and Beverly Blvd	NB	9,600	10,012	1.04	10,059	1.05
	SB	9,600	8,870	0.92	8,933	0.93
I-605 north of Beverly Blvd	NB	9,600	9,957	1.04	9,999	1.04
	SB	9,600	8,818	0.92	8,886	0.93

Note: V/C = volume to capacity; volume to capacity ratio greater than 1.0 shown in **bold**.

As shown in Table 5.14-22, the following I-605 northbound freeway study segments are forecast to continue to operate in an over capacity condition for both forecast existing with Project conditions during the a.m. and p.m. peak hours: I-605 between Washington Boulevard and Whittier Boulevard (SR-72); I-605 between Whittier Boulevard (SR-72) and Beverly Boulevard; and I-605 north of Beverly Boulevard.

The SR-91/I-605/I-405 Congestion Hot Spots Feasibility Report (RBF Consulting/URS/Iteris, March, 26 2013) has identified multiple improvement concepts that would potentially eliminate some or all of the deficiencies identified in the State Highway freeway study segments analysis; however, the timing of implementation of these improvements is uncertain. As such, the



Project's contribution towards an existing deficiency on I-605 is considered a significant and unavoidable impact.

**FORECAST EXISTING WITH PROJECT CONDITIONS
FUTURE EXPANSION AFFECTED INTERSECTION LOS**

To determine forecast impacts of Project-generated trips without and with the future additional access to Whittier Boulevard (SR-72) through the future expansion area, a sensitivity analysis and evaluation has been prepared. The additional access to Whittier Boulevard (SR-72) through the future expansion area would redistribute Project trips onto the adjacent roadway system, specifically altering the operation of the Project access locations and the following study intersections:

- Sorensen Avenue/Whittier Boulevard (SR-72);
- Whittier Boulevard (SR-72)/Philadelphia Street; and
- Sorensen Avenue/Keith Drive.

Table 5.14-23, Forecast Existing With Project Conditions Peak Hour Future Expansion Affected Intersection LOS, summarizes the forecast existing with Project conditions a.m. and p.m. peak hour LOS of the study intersections affected by the additional access to Whittier Boulevard (SR-72) through the future expansion area; detailed LOS analysis sheets for the sensitivity analysis are contained in Appendix D of Appendix 11.16.

**Table 5.14-23
Forecast Existing With Project Conditions
Peak Hour Future Expansion Affected Intersection LOS**

Study Intersection	Existing Conditions		Forecast Existing With Project Conditions			
			Without Future Expansion Access		With Future Expansion Access	
	Delay - LOS		Delay - LOS		Delay - LOS	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Sorensen Ave/ Whittier Blvd (SR-72)	20.4 – C	20.9 – C	27.5 – C	30.1 – C	27.4 – C	29.9 – C
Whittier Blvd (SR-72)/ Philadelphia St	19.2 – B	16.1 – B	22.0 – C	21.3 – C	21.7 – C	21.0 – C
Sorensen Ave/ Keith Dr	12.2 – B	13.2 – B	15.0 – B	15.7 – C	14.6 – B	15.3 – C
Sorensen Ave/ North Project Access	--	--	13.7 – B	16.9 – C	13.2 – B	16.6 – C
Sorensen Ave/ South Project Access	--	--	13.8 – B	17.0 – C	13.3 – B	16.7 – C
Whittier Blvd (SR-72)/ North Project Access	--	--	14.1 – B	21.6 – C	12.3 – B	14.7 – B
Whittier Blvd (SR-72)/ South Project Access (Future Expansion Access)	--	--	--	--	11.5 – B	12.0 – B

Note: delay shown in seconds.



As shown in [Table 5.14-23](#), the affected study intersections and Project access points would continue to operate at an acceptable LOS (LOS D or better) with or without the additional access to Whittier Boulevard (SR-72) through the future expansion area for forecast existing with Project conditions.

FORECAST EXISTING WITH PROJECT CONDITIONS TWO-LANE ROADWAY ANALYSIS

The Project is forecast to add Project trips to Sorensen Avenue, a two-lane roadway in the Project vicinity. In accordance with County of Los Angeles requirements, the following two-lane roadway segments of Sorensen Avenue provide direct driveway access for residential units and have been evaluated based on the County of Los Angeles thresholds of significance for two-lane roadways: Sorensen Avenue between Keith Drive and Rose Hedge Drive; and Sorensen Avenue between Rose Hedge Drive and Mines Boulevard/Lambert Road.

In accordance with the County of Los Angeles guidelines, the two-lane roadway capacity was determined based on an approximate directional split of 60/40 for existing and future conditions peak hour volumes. [Table 5.14-24, Existing and Forecast Existing With Project Conditions Two-Lane Roadway Analysis](#), shows the two-lane roadway analysis for forecast existing with Project conditions.

**Table 5.14-24
Existing and Forecast Existing with Project Conditions
Two-Lane Roadway Analysis**

Segment	Peak Hour	Existing Conditions					Forecast Existing With Project Conditions		Significant Impact?
		Peak Hour Volumes			Capacity (PCPH)	V/C LOS	2-Way Peak Hour Volumes	V/C LOS	
		Direction		2-Way					
		NB	SB						
Sorensen between Keith Dr and Rose Hedge Dr	AM	308	273	581	2,650	0.22 - A	826	0.31 - A	No
	PM	361	360	721	2,650	0.27 - A	974	0.37 - A	No
Sorensen between Rose Hedge Dr and Mines/Lambert Rd	AM	108	184	292	2,650	0.11 - A	515	0.19 - A	No
	PM	228	168	396	2,650	0.15 - A	627	0.24 - A	No

Note: PCPH = Passenger Cars Per Hour.

As shown in [Table 5.14-24](#), based on the applicable agency-established thresholds of significance, the addition of Project-generated trips is forecast to result in no significant impacts at the County of Los Angeles two-lane roadway study segments for forecast existing with Project conditions.

Forecast Year 2020 Without Project Conditions

Consistent with the *Los Angeles County CMP (Metro, 2010)* future growth forecasts for the southeast area of Los Angeles County, forecast year 2020 without Project traffic volumes were derived by applying an annual growth rate of 0.99 percent per year over a six year period to existing traffic volumes to account for background and cumulative growth. It should be noted this is a conservative assumption since the growth rate is applied to all study intersection movements.



Additionally, forecast year 2020 without Project traffic volumes include the addition of trips associated with 26 cumulative projects identified by City staff that are expected to be constructed and generating trips by forecast year 2020. Table 5.14-25, Forecast Trip Generation of Cumulative Projects, summarizes trips forecast to be generated by the cumulative projects. As shown in Table 5.14-25, the cumulative projects are forecast to generate forecast to generate approximately 21,424 daily trips, which includes approximately 1,685 a.m. peak hour trips and approximately 1,788 p.m. peak hour trips.

**Table 5.14-25
Forecast Trip Generation of Cumulative Projects**

Cumulative Project Name ¹	Juris Diction ²	Trips Generated ³							Daily
		AM Peak Hour Trips			PM Peak Hour Trips				
		In	Out	Total	In	Out	Total		
1	Morningstar Christian Chapel	W	5	3	8	4	4	8	126
2	14640-14660 Whittier Blvd Condos	W	3	24	27	24	13	37	400
3	Self-Storage Project	W	5	4	9	8	8	16	151
4	Assisted Living Facility	W	9	5	14	10	12	22	277
5	Starbucks	W	151	151	302	37	37	74	1,796
6	Greenway Place	W	0	23	23	19	0	19	238
7	S. Chen Condos	W	1	6	7	6	3	9	96
8	Popeyes Development ⁴	W	45	43	88	32	30	62	1,737
9	LA Fitness	W	27	27	54	76	58	134	1,251
10	Village at Heritage Springs	SFS	65	328	393	338	191	529	5,504
11	Panattoni Development	SFS	79	20	99	26	79	105	1,171
12	Freeway Springs	SFS	108	27	135	36	108	144	1,595
13	USA Consolidators	SFS	31	4	35	5	32	37	265
14	Smith/Norwalk Project	SFS	76	10	86	11	80	91	654
15	Ryder Trucks	SFS	15	2	17	2	16	18	132
16	Durable USA	SFS	44	6	50	7	46	53	381
17	Keanna Development	SFS	3	24	27	24	13	37	400
18	McMaster Carr Office Remodel & Expansion	SFS	11	2	13	2	10	12	88
19	Extended Stay Hotel	PR	27	19	46	27	25	52	703
20	Warehouse/Manufacturing Development	PR	3	1	4	2	3	5	22
21	SoCalGas CNG Station ⁵	PR	10	10	20	16	16	32	621
22	Warehouse Development	PR	21	5	26	7	21	28	307
23	Norms Restaurant ⁶	PR	55	42	97	47	43	90	1,730
24	Fast5Express ⁷	PR	18	18	36	41	41	82	900
25	Duplex Development	PR	0	1	1	1	0	1	13
26	Candlelight Residential	LAC	17	51	68	57	34	91	866
Forecast Total Cumulative Project Trip Generation			829	856	1,685	865	923	1,788	21,424

Notes:

1. For additional information on each cumulative project, refer to Section 4.0, *Basis of Cumulative Analysis*.
2. PR = City of Pico Rivera; W = City of Whittier; LAC = Los Angeles County; SFS = City of Santa Fe Springs.
3. Trip generation based on *2012 ITE Trip Generation Manual, 9th Edition*.
4. Trip generation includes pass-by trip reduction of 49% during the a.m. peak hour and 50% p.m. peak hour, based on *2012 ITE Trip Generation Manual, 9th Edition*.
5. Trip generation includes pass-by trip reduction of 58% during the a.m. peak hour and 42% p.m. peak hour, based on *2012 ITE Trip Generation Manual, 9th Edition*.
6. Trip generation includes pass-by trip reduction of 43% p.m. peak hour, based on *2012 ITE Trip Generation Manual, 9th Edition*.
7. Trip generation based on Traffic Generation Rates (San Diego Association of Governments, April 2002).



It should be noted that this traffic analysis uses both a growth factor and a list of related projects to determine potential cumulative impacts. This approach provides a conservative estimate of cumulative traffic conditions because the growth factors are based on regional modeling efforts that already estimate the general effect of cumulative development, and the growth factor is applied to all traffic movement volumes at the study intersections.

FORECAST YEAR 2020 WITHOUT PROJECT CONDITIONS TRAFFIC VOLUMES

Exhibit 17 of the Traffic Impact Analysis shows forecast year 2020 without Project conditions a.m. and p.m. peak hour traffic volumes at the study intersections.

FORECAST YEAR 2020 WITHOUT PROJECT CONDITIONS CITY/COUNTY STUDY INTERSECTION PEAK HOUR LOS

Table 5.14-26, Forecast Year 2020 Without Project Conditions Peak Hour Study Intersection LOS, summarizes forecast year 2020 without Project conditions a.m. peak hour and p.m. peak hour LOS of the City/County study intersections; detailed LOS analysis sheets are contained in Appendix B of Appendix 11.16.

As shown in Table 5.14-26, with the addition of ambient growth and cumulative project trips, the following eight (8) City/County study intersections are forecast to operate at a deficient LOS according to applicable agency-established performance criteria for forecast year 2020 without Project conditions:

- Intersection 1 – Rosemead Boulevard/Beverly Boulevard (Pico Rivera - p.m. peak hour only);
- Intersection 4 – San Gabriel River Parkway/Beverly Boulevard (Pico Rivera - p.m. peak hour only);
- Intersection 8 – Norwalk Boulevard/Beverly Boulevard (Whittier - both a.m. and p.m. peak hours);
- Intersection 35 – Rosemead Boulevard/Washington Boulevard (Pico Rivera - both a.m. and p.m. peak hours);
- Intersection 37 – Passons Boulevard/Washington Boulevard (Pico Rivera - a.m. peak hour only);
- Intersection 39 – Pioneer Boulevard/Washington Boulevard (Los Angeles County - both a.m. and p.m. peak hours);
- Intersection 41 – Norwalk Boulevard/Washington Boulevard (Los Angeles County and Santa Fe Springs - both a.m. and p.m. peak hours); and
- Intersection 57 – Colima Road/Lambert Road (Whittier/Los Angeles County - both a.m. and p.m. peak hours).

FORECAST YEAR 2020 WITHOUT PROJECT CONDITIONS STATE HIGHWAY STUDY INTERSECTION PEAK HOUR LOS

Table 5.14-27, Forecast Year 2020 Without Project Conditions Peak Hour State Highway Study Intersection LOS, summarizes forecast year 2020 without Project conditions a.m. peak hour and p.m. peak hour LOS of the State Highway study intersections; detailed LOS analysis sheets are contained in Appendix F of Appendix 11.16.



Table 5.14-26
Forecast Year 2020 Without Project
Conditions Peak Hour Study Intersection LOS

Study Intersection		Jurisdiction	Forecast Near-Term Without Project Conditions	
			AM Peak Hour	PM Peak Hour
			V/C – LOS	V/C – LOS
1	Rosemead Boulevard/Beverly Boulevard	PR	0.88 – D	0.97 – E
2	Durfee Avenue/Beverly Boulevard	PR	0.70 – B	0.75 – C
3	Sandoval Avenue/Beverly Boulevard	PR	0.55 – A	0.52 – A
4	San Gabriel River Parkway/Beverly Boulevard	PR	0.85 – D	0.93 – E
5	Abbeywood Avenue/Beverly Boulevard	PR	0.64 – B	0.77 – C
7	Pioneer Road/Beverly Boulevard	W	0.78 – C	0.80 – C
8	Norwalk Boulevard/Beverly Boulevard	W	1.02 – F	0.95 – E
35	Rosemead Boulevard/Washington Boulevard	PR	0.93 – E	0.92 – E
36	Loch Alene Avenue/Washington Boulevard	PR	0.75 – C	0.52 – A
37	Passons Boulevard/Washington Boulevard	PR	0.91 – E	0.80 – C
39	Pioneer Boulevard/Washington Boulevard	LAC	1.06 – F	1.01 – F
40	Millergrove Drive/Washington Boulevard	LAC	0.63 – B	0.57 – A
41	Norwalk Boulevard/Washington Boulevard	LAC/SFS	1.05 – F	0.99 – E
42	Broadway/Washington Boulevard	LAC/SFS	0.88 – D	0.89 – D
43	Sorensen Avenue/Washington Boulevard	LAC/SFS	0.87 – D	0.78 – C
44	Lambert Road/Washington Boulevard	W	0.77 – C	0.67 – B
45	Putnam Street/Washington Boulevard	W	0.52 – A	0.55 – A
46	Sorensen Avenue/Keith Drive	W/LAC	(12.5) – B	(13.7) – B
47	Sorensen Avenue/Rose Hedge Drive	LAC	(9.1) – A	(9.5) – A
48	Sorensen Avenue/Mines Boulevard-Lambert Road	LAC	0.51 – A	0.58 – A
49	Pickering Avenue/Philadelphia Street	W	0.70 – B	0.71 – C
50	Greenleaf Avenue/Philadelphia Street	W	0.36 – A	0.48 – A
51	Painter Avenue/Philadelphia Street	W	0.52 – A	0.66 – B
52	Pickering Avenue/Mar Vista Street	W	0.71 – C	0.67 – B
53	Greenleaf Avenue/Mar Vista Street	W	0.53 – A	0.58 – A
54	Painter Avenue/Mar Vista Street	W	0.72 – C	0.89 – D
55	Santa Fe Springs Road/Lambert Road	W	0.82 – D	0.81 – D
56	Santa Fe Springs Road/Slauson Avenue	W/SFS	0.81 – D	0.70 – B
57	Colima Road/Lambert Road	W/LAC	1.03 – F	0.98 – E

Notes:

ICU = intersection capacity utilization; deficient intersection operation shown in **bold**;
PR = City of Pico Rivera; W = City of Whittier; LAC = Los Angeles County; SFS = City of Santa Fe Springs.



**Table 5.14-27
Forecast Year 2020 Without Project Conditions
Peak Hour State Highway Study Intersection LOS**

Study Intersection		Forecast Year 2020 Without Project Conditions	
		AM Peak Hour	PM Peak Hour
		Delay – LOS	Delay – LOS
9	Rosemead Boulevard/Whittier Boulevard (SR-72)	36.1 – D	44.0 – D
10	Lindsey Avenue/Whittier Boulevard (SR-72)	8.9 – A	14.6 – B
11	Durfee Avenue/Whittier Boulevard (SR-72)	21.7 – C	21.0 – C
12	Passons Boulevard/Whittier Boulevard (SR-72)	19.6 – B	21.5 – C
13	Gregg Road/Whittier Boulevard (SR-72)	6.1 – A	10.2 – B
14	I-605 SB Ramps/Whittier Boulevard (SR-72)	15.6 – B	15.4 – B
15	I-605 NB Ramps/Whittier Boulevard (SR-72)	24.1 – C	19.3 – B
16	Norwalk Boulevard/Whittier Boulevard (SR-72)	42.0 – D	47.4 – D
17	Glengarry Avenue/Whittier Boulevard (SR-72)	3.0 – A	3.1 – A
18	Broadway/Whittier Boulevard (SR-72)	16.5 – B	15.1 – B
19	Whittier Boulevard (SR-72)/Hadley Street	27.2 – C	26.4 – C
20	Sorensen Avenue/Whittier Boulevard (SR-72)	21.2 – C	22.1 – C
21	Whittier Boulevard (SR-72)/Philadelphia Street	20.2 – C	16.7 – B
22	Whittier Boulevard (SR-72)/Penn Street	28.7 – D	32.3 – D
23	Whittier Boulevard (SR-72)/Mar Vista Street	18.9 – B	12.6 – B
24	Whittier Boulevard (SR-72)/Pacific Place	5.8 – A	13.4 – B
25	Pickering-Santa Fe Springs Road/Whittier Boulevard (SR-72)	191.0 – F*	143.4 – F*
26	Greenleaf Avenue/Whittier Boulevard (SR-72)	27.5 – C	29.5 – C
27	Painter Avenue/Whittier Boulevard (SR-72)	35.1 – D	45.1 – D
28	Central Avenue/Whittier Boulevard (SR-72)	6.4 – A	15.0 – B
29	Laurel Avenue/Whittier Boulevard (SR-72)	9.8 – A	13.6 – B
30	Strub Avenue/Whittier Boulevard (SR-72)	12.4 – B	6.2 – A
31	Ocean View Avenue/Whittier Boulevard (SR-72)	19.7 – B	15.0 – B
32	Gunn Avenue/Whittier Boulevard (SR-72)	15.4 – B	12.9 – B
33	Mills Avenue/Whittier Boulevard (SR-72)	27.6 – C	31.1 – C
34	Colima Road/Whittier Boulevard (SR-72)	48.5 – D	41.4 – D
38	Pioneer Boulevard/I-605 NB Off-Ramp (to Washington Boulevard)	16.0 – C	30.2 – D
Notes: * = volume to capacity is greater than 1.0, LOS F; delay shown in seconds; deficient intersection operation shown in bold .			

As shown in Table 5.14-27, with the addition of ambient growth and cumulative project trips, the State Highway study intersections are forecast to continue operating at an acceptable LOS (LOS D or better) according to Caltrans performance criteria, with the exception of the Pickering-Santa Fe Springs Road/Whittier Boulevard (SR-72) intersection, which is forecast to continue operating at LOS F during both the a.m. peak hour and p.m. peak hour, for forecast year 2020 without Project conditions.



**FORECAST YEAR 2020 WITHOUT PROJECT CONDITIONS
FREEWAY STUDY SEGMENTS VOLUME TO CAPACITY RATIOS**

Table 5.14-28, *Forecast Year 2020 Without Project Conditions Freeway Study Segments Volume to Capacity Ratios*, summarizes forecast year 2020 without Project conditions traffic volumes and V/C ratios for the study area freeway segments.

**Table 5.14-28
Forecast Year 2020 Without Project Conditions
Freeway Study Segments Volume to Capacity Ratios**

Segment	Caltrans 2-Way Peak Month ADT Volume	Direction	Capacity	AM Peak Hour		PM Peak Hour	
				1-Way Peak Hour Volume	V/C	1-Way Peak Hour Volume	V/C
I-605 south of Washington Boulevard	244,000	NB	9,600	9,671	1.01	9,714	1.01
		SB	9,600	8,581	0.89	8,612	0.90
I-605 between Washington Boulevard and Whittier Boulevard	263,000	NB	9,600	10,417	1.09	10,465	1.09
		SB	9,600	9,247	0.96	9,278	0.97
I-605 between Whittier Boulevard and Beverly Boulevard	268,000	NB	9,600	10,624	1.11	10,667	1.11
		SB	9,600	9,421	0.98	9,466	0.99
I-605 north of Beverly Boulevard	266,000	NB	9,600	10,537	1.10	10,584	1.10
		SB	9,600	9,345	0.97	9,394	0.98

Note: V/C = volume to capacity; volume to capacity ratio greater than 1.0 shown in **bold**.

As shown in Table 5.14-28, all I-605 northbound freeway study segments are forecast to operate in an over capacity condition for forecast year 2020 without Project conditions during the a.m. and p.m. peak hours.

Forecast Year 2020 With Project Conditions

This section analyzes the traffic conditions associated with the addition of Project-generated trips to forecast year 2020 without Project conditions.

FORECAST YEAR 2020 WITH PROJECT CONDITIONS TRAFFIC VOLUMES

Forecast year 2020 with Project conditions were derived by adding the Project-generated trips to forecast year 2020 without Project conditions. Forecast year 2020 with Project conditions assumes the circulatory improvements to the roadway network immediately adjacent to the Project site boundary will be implemented as part of the Project (see Exhibit 7 of Appendix 11.16).

Exhibit 18 of the Traffic Impact Analysis shows forecast year 2020 with Project conditions a.m. and p.m. peak hour volumes at the study intersections.



**FORECAST YEAR 2020 WITH PROJECT CONDITIONS
CITY/COUNTY STUDY INTERSECTION PEAK HOUR LOS**

Table 5.14-29, *Forecast Year 2020 With Project Conditions Peak Hour Study Intersection LOS*, summarizes the forecast year 2020 with Project conditions a.m. and p.m. peak hour LOS of the City/County study intersections; detailed LOS analysis sheets are contained in Appendix B of Appendix 11.16.

**Table 5.14-29
Forecast Year 2020 With Project Conditions
Peak Hour City/County Study Intersection LOS**

Study Intersection	Jurisdiction	Forecast Year 2020 Without Project Conditions		Forecast Year 2020 With Project Conditions		Delta V/C		Significant Impact?
		ICU (Delay) – LOS		ICU (Delay) – LOS		AM Peak Hour	PM Peak Hour	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour			
1 Rosemead Blvd/ Beverly Blvd	PR	0.88 – D	0.97 – E	0.89 – D	0.97 – E	0.01	0.00	No
2 Durfee Ave/ Beverly Blvd	PR	0.70 – B	0.75 – C	0.71 – C	0.76 – C	0.01	0.01	No
3 Sandoval Ave/ Beverly Blvd	PR	0.55 – A	0.52 – A	0.56 – A	0.52 – A	0.01	0.00	No
4 San Gabriel River Pkwy/ Beverly Blvd	PR	0.85 – D	0.93 – E	0.86 – D	0.94 – E	0.01	0.01	Yes
5 Abbeywood Ave/ Beverly Blvd	PR	0.64 – B	0.77 – C	0.65 – B	0.78 – C	0.01	0.01	No
7 Pioneer Rd/ Beverly Blvd	W	0.78 – C	0.80 – C	0.79 – C	0.82 – D	0.01	0.02	No
8 Norwalk Blvd/ Beverly Blvd	W	1.02 – F	0.95 – E	1.06 – F	0.99 – E	0.04	0.04	Yes
35 Rosemead Blvd/ Washington Blvd	PR	0.93 – E	0.92 – E	0.93 – E	0.92 – E	0.00	0.00	No
36 Loch Alene Ave/ Washington Blvd	PR	0.75 – C	0.52 – A	0.76 – C	0.53 – A	0.01	0.01	No
37 Passons Blvd/ Washington Blvd	PR	0.91 – E	0.80 – C	0.92 – E	0.81 – D	0.01	0.01	Yes
39 Pioneer Blvd/ Washington Blvd	LAC	1.06 – F	1.01 – F	1.08 – F	1.02 – F	0.02	0.01	Yes
40 Millergrove Dr/ Washington Blvd	LAC	0.63 – B	0.57 – A	0.65 – B	0.59 – A	0.02	0.02	No
41 Norwalk Blvd/ Washington Blvd	LAC/ SFS	1.05 – F	0.99 – E	1.08 – F	1.01 – F	0.03	0.02	Yes
42 Broadway/ Washington Blvd	LAC/ SFS	0.88 – D	0.89 – D	0.91 – E	0.92 – E	0.03	0.03	Yes
43 Sorensen Ave/ Washington Blvd	LAC/ SFS	0.87 – D	0.78 – C	0.96 – E	0.86 – D	0.09	0.08	Yes
44 Lambert Rd/ Washington Blvd	W	0.77 – C	0.67 – B	0.77 – C	0.68 – B	0.00	0.01	No
45 Putnam St/ Washington Blvd	W	0.52 – A	0.55 – A	0.52 – A	0.55 – A	0.00	0.00	No



**Table 5.14-29 [continued]
Forecast Year 2020 With Project Conditions
Peak Hour City/County Study Intersection LOS**

Study Intersection	Jurisdiction	Forecast Year 2020 Without Project Conditions		Forecast Year 2020 With Project Conditions		Delta V/C		Significant Impact?
		ICU (Delay) – LOS		ICU (Delay) – LOS		AM Peak Hour	PM Peak Hour	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour			
46 Sorensen Ave/ Keith Dr	W/ LAC	(12.5) – B	(13.7) – B	(15.5) – C	(16.2) – C	(3.0)	(2.5)	No
47 Sorensen Ave/ Rose Hedge Dr	LAC	(9.1) – A	(9.5) – A	(11.1) – B	(11.9) – B	(2.0)	(2.4)	No
48 Sorensen Ave/ Mines Blvd-Lambert Rd	LAC	0.51 – A	0.58 – A	0.59 – A	0.66 – B	0.08	0.08	No
49 Pickering Ave/ Philadelphia St	W	0.70 – B	0.71 – C	0.72 – C	0.73 – C	0.02	0.02	No
50 Greenleaf Ave/ Philadelphia St	W	0.36 – A	0.48 – A	0.37 – A	0.49 – A	0.01	0.01	No
51 Painter Ave/ Philadelphia St	W	0.52 – A	0.66 – B	0.52 – A	0.66 – B	0.00	0.00	No
52 Pickering Ave/ Mar Vista St	W	0.71 – C	0.67 – B	0.71 – C	0.68 – B	0.00	0.01	No
53 Greenleaf Ave/ Mar Vista St	W	0.53 – A	0.58 – A	0.54 – A	0.59 – A	0.01	0.01	No
54 Painter Ave/ Mar Vista St	W	0.72 – C	0.89 – D	0.72 – C	0.90 – D	0.00	0.01	No
55 Santa Fe Springs Rd/ Lambert Rd	W	0.82 – D	0.81 – D	0.83 – D	0.83 – D	0.01	0.02	Yes
56 Santa Fe Springs Rd/ Slauson Ave	W/ SFS	0.81 – D	0.70 – B	0.82 – D	0.72 – C	0.01	0.02	No
57 Colima Rd/ Lambert Rd	W/LAC	1.03 – F	0.98 – E	1.04 – F	0.99 – E	0.01	0.01	Yes

Notes:
ICU = intersection capacity utilization; delay shown in seconds; deficient intersection operation shown in **bold**.
PR = City of Pico Rivera; W = City of Whittier; LAC = Los Angeles County; SFS = City of Santa Fe Springs.

As shown in Table 5.14-29, with the addition of Project-generated trips, the study intersections are forecast to continue to operate at an acceptable LOS (LOS D or better) according to agency performance criteria for forecast year 2020 with Project conditions, except the following:

- Intersection 1 – Rosemead Boulevard/Beverly Boulevard (Pico Rivera - p.m. peak hour only);
- Intersection 4 – San Gabriel River Parkway/Beverly Boulevard (Pico Rivera - p.m. peak hour only);
- Intersection 8 – Norwalk Boulevard/Beverly Boulevard (Whittier - both a.m. and p.m. peak hours);
- Intersection 35 – Rosemead Boulevard/Washington Boulevard (Pico Rivera - both a.m. and p.m. peak hours);



- Intersection 37 – Passons Boulevard/Washington Boulevard (Pico Rivera - a.m. peak hour only);
- Intersection 39 – Pioneer Boulevard/Washington Boulevard (Los Angeles County - both a.m. and p.m. peak hours);
- Intersection 41 – Norwalk Boulevard/Washington Boulevard (Los Angeles County and Santa Fe Springs - both a.m. and p.m. peak hours);
- Intersection 42 – Broadway/Washington Boulevard (Los Angeles County and Santa Fe Springs - both a.m. and p.m. peak hours);
- Intersection 43 – Sorensen/Washington Boulevard (Los Angeles County and Santa Fe Springs - a.m. peak hour only); and
- Intersection 57 – Colima Road/Lambert Road (Whittier/Los Angeles County - both a.m. and p.m. peak hours).

As also shown in [Table 5.14-29](#), the addition of Project-generated trips is forecast to cause a significant impact at the following nine (9) City/County study intersections based on agency-established thresholds of significance for forecast year 2020 with Project conditions:

- Intersection 4 – San Gabriel River Parkway/Beverly Boulevard (Pico Rivera - p.m. peak hour only);
- Intersection 8 – Norwalk Boulevard/Beverly Boulevard (Whittier - both a.m. and p.m. peak hours);
- Intersection 37 – Passons Boulevard/Washington Boulevard (Pico Rivera - a.m. peak hour only);
- Intersection 39 – Pioneer Boulevard/Washington Boulevard (Los Angeles County - both a.m. and p.m. peak hours);
- Intersection 41 – Norwalk Boulevard/Washington Boulevard (Los Angeles County and Santa Fe Springs - both a.m. and p.m. peak hours);
- Intersection 42 – Broadway/Washington Boulevard (Los Angeles County and Santa Fe Springs - both a.m. and p.m. peak hours);
- Intersection 43 – Sorensen/Washington Boulevard (Los Angeles County and Santa Fe Springs - a.m. peak hour only); and
- Intersection 55 – Santa Fe Springs/Lambert Road (Whittier - p.m. peak hour only); and
- Intersection 57 – Colima Road/Lambert Road (Whittier/Los Angeles County - both a.m. and p.m. peak hours).

FORECAST YEAR 2020 WITH PROJECT CONDITIONS CITY/COUNTY STUDY INTERSECTION MITIGATION MEASURES

The following mitigation measures are identified to lessen the traffic impacts at the impacted City/County study intersections for forecast year 2020 with Project conditions, as shown in [Table 5.14-30](#), *Summary of Forecast Year 2020 With Project Conditions City/County Study Intersection Mitigation Measures and Fair Share*. It should be noted that, while there are nine significantly impacted intersections identified in [Table 5.14-29](#), only eight mitigation measures are identified in [Table 5.14-30](#). This is because mitigation at Intersection 57 (Colima Road/Lambert Road) was determined to be infeasible due to right-of-way limitations. The Project fair share contribution is also shown for informational purposes.



Table 5.14-30
Summary of Forecast Year 2020 With Project Conditions
City/County Study Intersection Mitigation Measures and Fair Share

Jurisdiction	Mitigation Measure Improvement	Project Fair Share
W	Mitigation Measure TRA-2, Intersection 8 (Norwalk Boulevard/Beverly Boulevard) <ul style="list-style-type: none"> Add one additional northbound left-turn lane. 	29.1%
LAC	Mitigation Measure TRA-3, Intersection 39 (Pioneer Boulevard/Washington Boulevard) <ul style="list-style-type: none"> Restripe existing southbound shared through/right-turn lane to a dedicated right-turn lane with right-turn overlap signal phasing. 	29.1%
LAC/SFS	Mitigation Measure TRA-4, Intersection 41 (Norwalk Boulevard/Washington Boulevard) <ul style="list-style-type: none"> Add one additional westbound through lane¹ 	31.2%
LAC/SFS	Mitigation Measure TRA-5, Intersection 42 (Broadway/Washington Boulevard) <ul style="list-style-type: none"> Restripe the northbound approach to Add one shared through/left-turn lane and one shared through/right-turn lane; and Add one dedicated southbound right-turn lane. 	40.9%
LAC/SFS	Mitigation Measure TRA-6, Intersection 43 (Sorensen Avenue/Washington Boulevard) <ul style="list-style-type: none"> Add one additional westbound through lane (modify receiving lanes as necessary). 	40.0%
PR	Mitigation Measure TRA-9, Intersection 4 (San Gabriel River Parkway/Beverly Boulevard) <ul style="list-style-type: none"> Restripe northbound left-turn lane to a shared through/left-turn lane. 	21.1%
PR	Mitigation Measure TRA-10, Intersection 37 (Passons Boulevard/Washington Boulevard) <ul style="list-style-type: none"> Restripe southbound approach to consist of one left-turn lane, one shared through/left-turn lane, and one shared through/right-turn lane; Restripe northbound right-turn lane to a shared through/right-turn lane (modify receiving lanes as necessary); and Provide north-south split signal phasing. 	26.8%
W	Mitigation Measure TRA-11, Intersection 55 (Santa Fe Springs/Lambert Road) <ul style="list-style-type: none"> Restripe northbound dedicated right-turn lane to a shared through/right-turn lane (modify receiving lanes as necessary). 	30.8%
Note: 1. Identified as a conceptual improvement in the SR-91/I-605/I-405 Congestion Hot Spots Feasibility Report (RBF Consulting/URS/Iteris, March, 26 2013).		

Table 5.14-31, *Mitigated Forecast Year 2020 With Project Conditions Peak Hour City/County Study Intersection LOS*, shows the forecast LOS of the significantly impacted City/County study intersections assuming implementation of the identified mitigation measures for forecast year 2020 with Project conditions. Detailed LOS analysis sheets are contained in Appendix B of Appendix 11.16.

As shown in Table 5.14-31, assuming implementation of Mitigation Measures TRA-2 through TRA-6, and TRA-9 through TRA-11, the Project's traffic impacts at Intersection 4 (San Gabriel River Pkwy/Beverly Blvd), Intersection 8 (Norwalk Blvd/Beverly Blvd), Intersection 37 (Passons Blvd/Washington Blvd), Intersection 39 (Pioneer Blvd/Washington Blvd), Intersection 41 (Norwalk Blvd/Washington Blvd), Intersection 42 (Broadway/Washington Blvd), Intersection 43 (Sorensen Ave/Washington Blvd), and Intersection 55 (Santa Fe Springs Rd/Lambert Rd) would be reduced below agency criteria for forecast year 2020 with Project conditions. Notwithstanding Public Resources Code Section 21081(a)(2), which authorizes a public agency to make a finding that a mitigation measure is within another agency's responsibility and jurisdiction, Mitigation Measures TRA-2 through TRA-6 and TRA-9 through TRA-11 would



reduce traffic impacts through payment of a fair share contribution by the Project Applicant to the affected jurisdiction, at a percentage specified in the mitigation measures outlined herein.

**Table 5.14-31
Mitigated Forecast Year 2020 With Project Conditions
Peak Hour City/County Study Intersection LOS**

Study Intersection	Jurisdiction	Forecast Year 2020 Without Project Conditions		Mitigated Forecast Year 2020 With Project Conditions		Delta V/C		Significant Impact?
		ICU (Delay) - LOS		ICU (Delay) - LOS		AM Peak Hour	PM Peak Hour	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour			
4 San Gabriel River Pkwy/ Beverly Blvd	PR	0.85 – D	0.93 – E	0.83 – D	0.87 – D	-0.02	-0.06	No
8 Norwalk Blvd/ Beverly Blvd	W	1.02 – F	0.95 – E	0.99 – E	0.95 – E	-0.03	0.00	No
37 Passons Blvd/ Washington Blvd	PR	0.91 – E	0.80 – C	0.88 – D	0.79 – C	-0.03	-0.01	No
39 Pioneer Blvd/ Washington Blvd	LAC	1.06 – F	1.01 – F	1.01 – F	0.98 – E	-0.05	-0.03	No
41 Norwalk Blvd/ Washington Blvd	LAC/ SFS	1.05 – F	0.99 – E	0.95 – E	0.98 – E	-0.10	-0.01	No
42 Broadway/ Washington Blvd	LAC/ SFS	0.88 – D	0.89 – D	0.87 – D	0.84 – D	-0.01	-0.05	No
43 Sorensen Ave/ Washington Blvd	LAC/ SFS	0.87 – D	0.78 – C	0.85 – D	0.79 – C	-0.02	0.01	No
55 Santa Fe Springs Rd/ Lambert Rd	W	0.82 – D	0.81 – D	0.83 – D	0.80 – C	0.01	-0.01	No
57 Colima Rd/ Lambert Rd	W/LAC	1.03 – F	0.98 – E	1.04 – F	0.99 – E	0.01	0.01	Yes

Notes:
 ICU = intersection capacity utilization; deficient intersection operation shown in **bold**;
 PR = City of Pico Rivera; W = City of Whittier; LAC = Los Angeles County; SFS = City of Santa Fe Springs.

The fair share contribution would be collected prior to issuance of the first building permit for the proposed Project, and thus in advance of imposition of the respective mitigation improvements, and held in a dedicated account for said improvements. The timing for implementation of the mitigation measures would be subject to an agreement with the cities of Pico Rivera and Santa Fe Springs, which would include but not be limited to, a traffic monitoring program used in conjunction with buildout of the Project. For mitigation measures in unincorporated Los Angeles County, the improvement concepts, timing for mitigation, and fair share percentages would be provided to the County of Los Angeles Department of Public Works Traffic and Lighting Division for review and approval. Similarly, the City of Whittier would utilize a traffic monitoring program to determine timing for implementation of improvements within its jurisdiction. The improvements identified under Mitigation Measures TRA-2 through TRA-6, and TRA-9 through TRA-11 would be implemented on a fair share basis. The City of Whittier and the affected jurisdictions would determine the timing of mitigation that is required to reduce impacts to a less than significant level, as described above. However, until implementation of the mitigation measure, the following intersections would remain a significant and unavoidable impact for forecast year 2020 with Project conditions:



- Intersection 4 (San Gabriel River Pkwy/Beverly Blvd);
- Intersection 8 (Norwalk Blvd/Beverly Blvd);
- Intersection 37 (Passons Blvd/Washington Blvd);
- Intersection 39 (Pioneer Blvd/Washington Blvd);
- Intersection 41 (Norwalk Blvd/Washington Blvd);
- Intersection 42 (Broadway/Washington Blvd);
- Intersection 43 (Sorensen Ave/Washington Blvd); and
- Intersection 55 (Santa Fe Springs Rd/Lambert Rd).

Impacts at Intersection 57 (Colima Road/Lambert Road) would also be significant and unavoidable since there is no feasible mitigation available, due to right-of-way limitations.

**FORECAST YEAR 2020 WITH PROJECT CONDITIONS STATE HIGHWAY STUDY
INTERSECTION PEAK HOUR LOS**

Table 5.14-32, *Forecast Year 2020 With Project Conditions Peak Hour State Highway Study Intersection LOS*, summarizes forecast year 2020 with Project conditions a.m. peak hour and p.m. peak hour LOS of the State Highway study intersections; detailed LOS analysis sheets are contained in Appendix F of [Appendix 11.16](#).

**Table 5.14-32
Forecast Year 2020 With Project Conditions
Peak Hour State Highway Study Intersection LOS**

Study Intersection		Forecast Year 2020 Without Project Conditions		Forecast Year 2020 With Project Conditions		Significant Impact?
		Delay – LOS		Delay – LOS		
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
9	Rosemead Blvd/ Whittier Blvd (SR-72)	36.1 – D	44.0 – D	36.5 – D	45.0 – D	No
10	Lindsey Ave/ Whittier Blvd (SR-72)	8.9 – A	14.6 – B	9.0 – A	14.6 – B	No
11	Durfee Ave/ Whittier Blvd (SR-72)	21.7 – C	21.0 – C	21.8 – C	20.9 – C	No
12	Passons Blvd/ Whittier Blvd (SR-72)	19.6 – B	21.5 – C	20.2 – C	21.9 – C	No
13	Gregg Rd/ Whittier Blvd (SR-72)	6.1 – A	10.2 – B	6.2 – A	10.1 – B	No
14	I-605 SB Ramps/ Whittier Blvd (SR-72)	15.6 – B	15.4 – B	15.9 – B	15.9 – B	No
15	I-605 NB Ramps/ Whittier Blvd (SR-72)	24.1 – C	19.3 – B	25.3 – C	20.0 – B	No
16	Norwalk Blvd/ Whittier Blvd (SR-72)	42.0 – D	47.4 – D	51.1 – D*	63.1 – E*	Yes
17	Glengarry Ave/ Whittier Blvd (SR-72)	3.0 – A	3.1 – A	3.0 – A	3.1 – A	No
18	Broadway/ Whittier Blvd (SR-72)	16.5 – B	15.1 – B	16.8 – B	15.4 – B	No
19	Whittier Blvd (SR-72)/ Hadley St	27.2 – C	26.4 – C	28.3 – C	26.9 – C	No



**Table 5.14-32 [continued]
Forecast Year 2020 With Project Conditions
Peak Hour State Highway Study Intersection LOS**

Study Intersection		Forecast Year 2020 Without Project Conditions		Forecast Year 2020 With Project Conditions		Significant Impact?
		Delay – LOS		Delay – LOS		
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
20	Sorensen Ave/ Whittier Blvd (SR-72)	21.2 – C	22.1 – C	29.6 – C	33.9 – C	No
21	Whittier Blvd (SR-72)/ Philadelphia St	20.2 – C	16.7 – B	22.2 – C	21.3 – C	No
22	Whittier Blvd (SR-72)/ Penn St	28.7 – D	32.3 – D	48.7 – E	67.5 – F	Yes
23	Whittier Blvd (SR-72)/ Mar Vista St	18.9 – B	12.6 – B	19.2 – B	13.1 – B	No
24	Whittier Blvd (SR-72)/ Pacific Pl	5.8 – A	13.4 – B	5.3 – A	12.7 – B	No
25	Pickering-Santa Fe Springs Rd/ Whittier Blvd (SR-72)	191.0 – F*	143.4 – F*	234.0 – F*	204.0 – F*	Yes
26	Greenleaf Ave/ Whittier Blvd (SR-72)	27.5 – C	29.5 – C	27.9 – C	30.0 – C	No
27	Painter Ave/ Whittier Blvd (SR-72)	35.1 – D	45.1 – D	36.8 – D	50.2 – D	No
28	Central Ave/ Whittier Blvd (SR-72)	6.4 – A	15.0 – B	6.4 – A	14.8 – B	No
29	Laurel Ave/ Whittier Blvd (SR-72)	9.8 – A	13.6 – B	10.0 – A	13.1 – B	No
30	Strub Ave/ Whittier Blvd (SR-72)	12.4 – B	6.2 – A	13.1 – B	6.5 – A	No
31	Ocean View Ave/ Whittier Blvd (SR-72)	19.7 – B	15.0 – B	20.5 – C	15.3 – B	No
32	Gunn Ave/ Whittier Blvd (SR-72)	15.4 – B	12.9 – B	16.1 – B	13.5 – B	No
33	Mills Ave/ Whittier Blvd (SR-72)	27.6 – C	31.1 – C	28.2 – C	31.8 – C	No
34	Colima Rd/ Whittier Blvd (SR-72)	48.5 – D	41.4 – D	53.6 – D*	43.9 – D	Yes
38	Pioneer Bl/ I-605 NB Off-Ramp (to Washington Blvd)	16.0 – C	30.2 – D	16.3 – C	29.8 – D	No

Notes:

* = volume to capacity is greater than 1.0, delay shown in seconds per vehicle; deficient intersection operation shown in **bold**;
NB = Northbound; SB = Southbound.

As shown in Table 5.14-32, with the addition of Project-generated trips, the State Highway study intersections are forecast to continue to operate at an acceptable LOS (LOS C or better) according to Caltrans performance criteria for forecast year 2020 with Project conditions, except the following:



- Intersection 16 – Norwalk Boulevard/Whittier Boulevard (SR-72) (Caltrans - both a.m. and p.m. peak hours);
- Intersection 22 – Whittier Boulevard (SR-72)/Penn Street (Caltrans - both a.m. and p.m. peak hours);
- Intersection 25 – Pickering-Santa Fe Springs Road/Whittier Boulevard (SR-72) (Caltrans - both a.m. and p.m. peak hours); and
- Intersection 34 – Colima Road/Whittier Boulevard (SR-72) (Caltrans - a.m. peak hour only).

As also shown in Table 5.14-32, based on the thresholds of significance, the Project is forecast to result in significant traffic impacts at the following four (4) State Highway intersections for forecast year 2020 with Project conditions:

- Intersection 16 – Norwalk Boulevard/Whittier Boulevard (SR-72) (Caltrans - both a.m. and p.m. peak hours);
- Intersection 22 – Whittier Boulevard (SR-72)/Penn Street (Caltrans - both a.m. and p.m. peak hours);
- Intersection 25 – Pickering-Santa Fe Springs Road/Whittier Boulevard (SR-72) (Caltrans - both a.m. and p.m. peak hours); and
- Intersection 34 – Colima Road/Whittier Boulevard (SR-72) (Caltrans - a.m. peak hour only).

**FORECAST YEAR 2020 WITH PROJECT CONDITIONS
STATE HIGHWAY STUDY INTERSECTION MITIGATION MEASURES**

Table 5.14-33, Summary of Forecast Year 2020 With Project Conditions State Highway Study Intersection Mitigation Measures and Fair Share, identifies the following mitigation measures to lessen the traffic impacts at the impacted State Highway study intersections for forecast year 2020 with Project conditions. In addition, the Project fair share contribution is shown for informational purposes.

**Table 5.14-33
Summary of Forecast Year 2020 With Project Conditions State Highway Study
Intersection Mitigation Measures and Fair Share**

Jurisdiction	Mitigation Measure Improvement	Project Fair Share
Caltrans	Mitigation Measure TRA-7, Intersection 22 (Whittier Boulevard (SR-72)/Penn Street) <ul style="list-style-type: none"> • Install a traffic signal. 	68.0%
Caltrans	Mitigation Measure TRA-8, Intersection 25 (Pickering-Santa Fe Springs Road/Whittier Boulevard (SR-72)) <ul style="list-style-type: none"> • Add one additional westbound through lane along Whittier Boulevard (SR-72).² 	44.0%
Caltrans	Mitigation Measure TRA-12, Intersection 16 (Norwalk Boulevard/Whittier Boulevard (SR-72)) <ul style="list-style-type: none"> • Provide north-south protected/permitted signal phasing;² • Add one eastbound dedicated right-turn lane;^{1,2} • Add one westbound dedicated right-turn lane.^{1,2} 	55.1%
Caltrans	Mitigation Measure TRA-13, Intersection 34 (Colima Road/Whittier Boulevard (SR-72)). <ul style="list-style-type: none"> • Add one additional northbound left-turn lane.² 	24.6%
Notes: 1. Recommended mitigation based on CMP analysis. 2. Identified as a conceptual improvement in the SR-91/I-605/I-405 Congestion Hot Spots Feasibility Report (RBF Consulting/URS/ Iteris, March 26, 2013).		



Table 5.14-34, *Mitigated Forecast Year 2020 With Project Conditions AM & PM Peak Hour State Highway Study Intersection LOS*, shows the forecast LOS of the significantly impacted State Highway study intersections assuming implementation of the identified mitigation measures for forecast year 2020 with Project conditions; detailed State Highway LOS analysis sheets are contained in Appendix F of Appendix 11.16.

**Table 5.14-34
Mitigated Forecast Year 2020 With Project Conditions
AM & PM Peak Hour State Highway Study Intersection LOS**

Study Intersection		Forecast Year 2020 Without Project Conditions		Mitigated Forecast Year 2020 With Project Conditions		Significant Impact?
		Delay – LOS		Delay – LOS		
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
16	Norwalk Blvd/ Whittier Blvd (SR-72)	42.0 – D	47.4 – D	37.7 – D	45.3 – D	No
22	Whittier Blvd (SR-72)/ Penn St	28.7 – D	32.3 – D	13.9 – B	12.4 – B	No
25	Pickering-Santa Fe Springs Rd/ Whittier Blvd (SR-72)	191.0 – F*	143.4 – F*	191.8 – F*	169.1 – F*	Yes
34	Colima Rd/ Whittier Blvd (SR-72)	48.5 – D	41.4 – D	41.7 – D	39.8 – D	No
Notes: * = volume to capacity is greater than 1.0, LOS F; delay shown in seconds per vehicle; deficient intersection operation shown in bold ;						

As shown in Table 5.14-34, assuming implementation of the identified Mitigation Measures TRA-7, TRA-12, and TRA-13, the Project’s traffic impacts at Intersection 16 (Norwalk Boulevard/Whittier Boulevard (SR-72), Intersection 22 (Whittier Boulevard (SR-72)/Penn Street), and Intersection 34 (Colima Road/Whittier Boulevard (SR-72)). would be reduced below agency criteria for forecast year 2020 with Project conditions. Notwithstanding Public Resources Code Section 21081(a)(2), which authorizes a public agency to make a finding that a mitigation measure is within another agency’s responsibility and jurisdiction, Mitigation Measures TRA-7, TRA-8, TRA-12, and TRA-13 would reduce traffic impacts through payment of a fair share contribution by the Project Applicant to Caltrans, at a percentage specified in the mitigation measures outlined herein.

The fair share contribution would be collected prior to issuance of the first building permit for the proposed Project, and thus in advance of imposition of the respective mitigation improvements, and held in a dedicated account for said improvements. The improvement concepts, timing for mitigation, and fair share percentages would be provided to Caltrans for review and approval. The improvements identified under Mitigation Measures TRA-7, TRA-8, TRA-12, and TRA-13 would be implemented on a fair share basis. The City of Whittier and Caltrans would determine the timing of mitigation that is required to reduce impacts to a less than significant level, as described above. However, until implementation of the mitigation measure, the following intersections would remain a significant and unavoidable impact for forecast year 2020 with Project conditions:

- Intersection 16 – Norwalk Boulevard/Whittier Boulevard (SR-72);
- Intersection 22 – Whittier Boulevard (SR-72)/Penn Street;



- Intersection 25 – Pickering-Santa Fe Springs Road/Whittier Boulevard (SR-72); and
- Intersection 34 – Colima Road/Whittier Boulevard (SR-72).

**FORECAST YEAR 2020 WITH PROJECT CONDITIONS
OFF-RAMP PEAK HOUR QUEUE ANALYSIS**

Table 5.14-35, *Forecast Year 2020 With Project Conditions Off-Ramp Queue Analysis*, summarizes the results of the peak hour vehicular queue analysis at the State-controlled study intersections off-ramps for the evaluated scenarios; detailed State Highway queue analysis sheets are contained in Appendix F of Appendix 11.16. As shown in Table 5.14-35, adequate capacity is currently provided to accommodate forecast peak hour vehicular queues at the State Highway study intersection off-ramps for forecast year 2020 with Project conditions.

**Table 5.14-35
Forecast Year 2020 With Project Conditions
Off-Ramp Queue Analysis**

Location	Movement	Turn-Lane Storage Provided (feet)	95 th Percentile Off-Ramp Queue (Feet) ¹						Additional Off-Ramp Storage Between Turn Lanes and Gore Point ²	Adequate Off-Ramp Storage Provided?
			AM Peak Hour			PM Peak Hour				
			Queue Length	Queue Exceeding Turn Lane Storage	Sum of Queue Exceeding Turn Lane Storage	Queue Length	Queue Exceeding Turn Lane Storage	Sum of Queue Exceeding Turn Lane Storage		
I-605 NB Off-Ramp at Pioneer Blvd (to Beverly Blvd)	EB Left	485	n/a	n/a	0	n/a	n/a	0	650	Yes ³
	EB Right	485	192	0		84	0		485	Yes
I-605 SB Off-Ramp at Whittier Blvd (SR-72)	SB Left	740	480	0	260	540	0	140	460	Yes
	SB Shared Left-Right	740	0	0		0	0			
	SB Right	160	420	260		300	140			
I-605 NB Off-Ramp at Whittier Blvd (SR-72)	NB Left	475	390	0	270	450	0	145	770	Yes
	NB Shared Left-Right	475	690	215		0	0			
	NB Right	335	390	55		480	145			
I-605 NB Off-Ramp at Pioneer Blvd (to Washington Blvd)	EB Right	160	21	0	0	201	41	41	540	Yes
	EB Right	160	87	0		69	0			

Notes:
 NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound; n/a = not applicable (HCM analysis worksheet does not report queue length for 3-way stop-control intersections).

1. Based on 95th-percentile vehicle queue assuming 30 feet of queue length per vehicle.
2. Additional off-ramp storage measured from the end of the turn lanes to the gore point.
3. Visual observations indicate adequate off-ramp storage is currently provided and the Project does not add trips to the off-ramp.



**FORECAST YEAR 2020 WITH PROJECT CONDITIONS
FREEWAY STUDY SEGMENTS VOLUME TO CAPACITY RATIOS**

Table 5.14-36, *Forecast Year 2020 With Project Conditions Freeway Study Segments Volume to Capacity Ratios*, summarizes forecast year 2020 with Project conditions traffic volumes and V/C ratios for the study area freeway segments.

**Table 5.14-36
Forecast Year 2020 With Project Conditions
Freeway Study Segments Volume to Capacity Ratios**

Segment	Direction	Capacity	AM Peak Hour		PM Peak Hour	
			1-Way Peak Hour Volume	V/C	1-Way Peak Hour Volume	V/C
I-605 south of Washington Boulevard	NB	9,600	9,711	1.01	9,776	1.02
	SB	9,600	8,644	0.90	8,658	0.90
I-605 between Washington Boulevard and Whittier Boulevard	NB	9,600	10,444	1.09	10,506	1.09
	SB	9,600	9,289	0.97	9,309	0.97
I-605 between Whittier Boulevard and Beverly Boulevard	NB	9,600	10,665	1.11	10,698	1.11
	SB	9,600	9,449	0.98	9,506	0.99
I-605 north of Beverly Boulevard	NB	9,600	10,597	1.10	10,630	1.11
	SB	9,600	9,387	0.98	9,454	0.98

Note: V/C = volume to capacity; volume to capacity ratio greater than 1.0 shown in **bold**.

As shown in Table 5.14-36, all I-605 northbound freeway study segments are forecast to operate in an over capacity condition for forecast year 2020 with Project conditions during the a.m. and p.m. peak hours.

The SR-91/I-605/I-405 Congestion Hot Spots Feasibility Report (RBF Consulting/URS/Iteris, March, 26 2013) has identified multiple improvement concepts that would potentially eliminate some or all of the deficiencies identified in the State Highway freeway study segments analysis; however, the timing of implementation of these improvements is uncertain. As such, the Project's contribution towards an existing deficiency on I-605 is considered a significant and unavoidable impact.

**FORECAST YEAR 2020 WITH PROJECT CONDITIONS
FUTURE EXPANSION AFFECTED INTERSECTION LOS**

Table 5.14-37, *Forecast Year 2020 With Project Conditions Peak Hour Future Expansion Affected Intersection LOS*, summarizes the forecast year 2020 with Project conditions a.m. and p.m. peak hour LOS of the study intersections affected by the additional access to Whittier Boulevard (SR-72) through the future expansion area; detailed LOS analysis sheets for the sensitivity analysis are contained in Appendix D of Appendix 11.16.



Table 5.14-37
Forecast Year 2020 With Project Conditions
Peak Hour Future Expansion Affected Intersection LOS

Study Intersection	Forecast Year 2020 Without Project Conditions		Forecast Year 2020 With Project Conditions			
			Without Future Expansion Access		With Future Expansion Access	
	Delay - LOS		Delay - LOS		Delay - LOS	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Sorensen Ave/Whittier Blvd (SR-72)	21.2 – C	22.1 – C	29.6 – C	33.9 – C	29.5 – C	33.7 – C
Whittier Blvd (SR-72)/Philadelphia St	20.2 – C	16.7 – B	22.2 – C	21.3 – C	22.0 – C	21.1 – C
Sorensen Ave/Keith Dr	12.5 – B	13.7 – B	15.5 – C	16.2 – C	15.0 – B	15.8 – C
Sorensen Ave/North Project Access	--	--	14.0 – B	17.5 – C	13.5 – B	17.2 – C
Sorensen Ave/South Project Access	--	--	14.1 – B	17.6 – C	13.6 – B	17.2 – C
Whittier Blvd (SR-72)/North Project Access	--	--	14.7 – B	25.4 – D	12.9 – B	15.9 – C
Whittier Blvd (SR-72)/South Project Access (Future Expansion Access)	--	--	--	--	11.3 – B	12.1 – B

Note: delay shown in seconds.

As shown in [Table 5.14-37](#), the affected study intersections and Project access points would continue to operate at an acceptable LOS (LOS D or better) with or without the additional access to Whittier Boulevard (SR-72) through the future expansion area for forecast year 2020 with Project conditions. The additional access to Whittier Boulevard (SR-72) through the future expansion area is forecast to result in no changes to the findings of the analysis in terms of significant traffic impacts with respect to the applicable agency-established thresholds of significance regarding Level of Service and intersection operation.

FORECAST YEAR 2020 WITH PROJECT CONDITIONS
TWO-LANE ROADWAY ANALYSIS

[Table 5.14-38](#), *Forecast Year 2020 With Project Conditions Two-Lane Roadway Analysis*, shows the roadway two-lane roadway analysis for forecast year 2020 with Project conditions.

Table 5.14-38
Forecast Year 2020 With Project Conditions Two-Lane Roadway Analysis

Segment	Peak Hour	Existing Conditions				Forecast Existing With Project Conditions		Significant Impact?	
		Peak Hour Volumes			Capacity (PCPH)	V/C LOS	2-Way Peak Hour Volumes		V/C LOS
		Direction		2-Way					
		NB	SB						
Sorensen between Keith Dr and Rose Hedge Dr	AM	330	290	620	2,650	0.23 - A	865	0.33 - A	No
	PM	386	385	771	2,650	0.29 - A	1024	0.39 - A	No
Sorensen between Rose Hedge Dr and Mines/Lambert Rd	AM	108	184	292	2,650	0.11 - A	515	0.19 - A	No
	PM	228	168	396	2,650	0.15 - A	627	0.24 - A	No

Note: PCPH = Passenger Cars Per Hour.



As shown in Table 5.14-38, based on the applicable agency-established thresholds of significance, the addition of Project-generated trips is forecast to result in no significant impacts at the County of Los Angeles two-lane roadway study segments for forecast year 2020 with Project conditions.

Summary of Significant Impacts

Overall, despite implementation of all feasible mitigation, impacts at the following intersections would remain significant and unavoidable:

Forecast Existing With Project Conditions City/County Study Intersections

- Intersection 1 – Rosemead Blvd/Beverly Blvd (p.m. peak hour only)
- Intersection 8 – Norwalk Blvd/Beverly Blvd (both a.m. and p.m. peak hours)
- Intersection 39 – Pioneer Blvd/Washington Blvd (both a.m. and p.m. peak hours)
- Intersection 41 – Norwalk Blvd/Washington Blvd (both a.m. and p.m. peak hours)
- Intersection 42 – Broadway/Washington Blvd (both a.m. and p.m. peak hours)
- Intersection 43 – Sorensen Ave/Washington Blvd (a.m. peak hour only)
- Intersection 57 – Colima Road/Lambert Road (both a.m. and p.m. peak hours)

Forecast Existing With Project Conditions State Highway Study Intersections

- Intersection 22 – Whittier Boulevard (SR-72)/Penn Street (both a.m. and p.m. peak hours)
- Intersection 25 – Pickering-Santa Fe Springs Road/Whittier Boulevard (SR-72) (both a.m. and p.m. peak hours).

Forecast Existing With Project Conditions State Highway Segments

- I-605 Northbound between Washington Boulevard and Whittier Boulevard
- I-605 Northbound between Whittier Boulevard and Beverly Boulevard
- I-605 Northbound north of Beverly Boulevard

Forecast Year 2020 With Project Conditions City/County Study Intersections

- Intersection 4 – San Gabriel River Pkwy/Beverly Blvd (p.m. peak hour only)
- Intersection 8 – Norwalk Blvd/Beverly Blvd (both a.m. and p.m. peak hours)
- Intersection 37 – Passons Blvd/Washington Blvd (a.m. peak hour only)
- Intersection 39 – Pioneer Blvd/Washington Blvd (both a.m. and p.m. peak hours)
- Intersection 41 – Norwalk Blvd/Washington Blvd (both a.m. and p.m. peak hours)
- Intersection 42 – Broadway/Washington Blvd (both a.m. and p.m. peak hours)
- Intersection 43 – Sorensen Ave/Washington Blvd (a.m. peak hour only)
- Intersection 55 – Santa Fe Springs Rd/Lambert Rd (p.m. peak hour only)
- Intersection 57 – Colima Road/Lambert Road (both a.m. and p.m. peak hours)

Forecast Year 2020 With Project Conditions State Highway Study Intersections

- Intersection 16 – Norwalk Boulevard/Whittier Boulevard (SR-72) (both a.m. and p.m. peak hours)



- Intersection 22 – Whittier Boulevard (SR-72)/Penn Street (both a.m. and p.m. peak hours)
- Intersection 25 – Pickering-Santa Fe Springs Road/Whittier Boulevard (SR-72) (both a.m. and p.m. peak hours)
- Intersection 34 – Colima Road/Whittier Boulevard (SR-72) (both a.m. and p.m. peak hours)

Forecast Year 2020 With Project Conditions State Highway Segments

- I-605 Northbound south of Washington Boulevard
- I-605 Northbound between Washington Boulevard and Whittier Boulevard
- I-605 Northbound between Whittier Boulevard and Beverly Boulevard
- I-605 Northbound north of Beverly Boulevard

Mitigation Measures:

- TRA-1 Intersection 1 – Rosemead Boulevard/Beverly Boulevard (Pico Rivera) – Before issuance of the first building permit for the Project, the Project Applicant shall make a proportionate fair share contribution to implement the following:
- a. Add one additional northbound through lane.
- TRA-2 Intersection 8 – Norwalk Boulevard/Beverly Boulevard (Whittier) – Before issuance of the first building permit for the Project, the Project Applicant shall make a proportionate fair share contribution to implement the following:
- a. Add one additional northbound left-turn lane.
- TRA-3 Intersection 39 – Pioneer Boulevard/Washington Boulevard (Los Angeles County) – Before issuance of the first building permit for the Project, the Project Applicant shall make a proportionate fair share contribution to implement the following:
- a. Restripe existing southbound shared through/right-turn lane to a dedicated right-turn lane with right-turn overlap signal phasing.
- TRA-4 Intersection 41 – Norwalk Boulevard/Washington Boulevard (Los Angeles County / Santa Fe Springs) – Before issuance of the first building permit for the Project, the Project Applicant shall make a proportionate fair share contribution to implement the following:
- a. Add one additional westbound through lane.
- TRA-5 Intersection 42 – Broadway/Washington Boulevard (Los Angeles County / Santa Fe Springs) – Before issuance of the first building permit for the Project, the Project Applicant shall make a proportionate fair share contribution to implement the following:
- a. Restripe the northbound approach to Add one shared through/left-turn lane and one shared through/right-turn lane; and
 - b. Add one dedicated southbound right-turn lane.



- TRA-6 Intersection 43 – Sorensen Avenue/Washington Boulevard (Los Angeles County / Santa Fe Springs) – Before issuance of the first building permit for the Project, the Project Applicant shall make a proportionate share contribution to implement the following:
- a. Add one additional westbound through lane (modify receiving lanes as necessary).
- TRA-7 Intersection 22 – Whittier Boulevard (SR-72)/Penn Street (Caltrans) – Before issuance of the first building permit for the Project, the Project Applicant shall make a proportionate fair share contribution to implement the following:
- a. Install a traffic signal.
- TRA-8 Intersection 25 – Pickering-Santa Fe Springs Road/Whittier Boulevard (SR-72) (Caltrans) – Before issuance of the first building permit for the Project, the Project Applicant shall make a proportionate fair share contribution to implement the following:
- a. Add one additional westbound through lane along Whittier Boulevard (SR-72).
- TRA-9 Intersection 4 – San Gabriel River Parkway/Beverly Boulevard (Pico Rivera) – Before issuance of the first building permit for the Project, the Project Applicant shall make a proportionate fair share contribution to implement the following:
- a. Restripe northbound left-turn lane to a shared through/left-turn lane.
- TRA-10 Intersection 37 – Passons Boulevard/Washington Boulevard (Pico Rivera) – Before issuance of the first building permit for the Project, the Project Applicant shall make a proportionate fair share contribution to implement the following:
- a. Restripe southbound approach to consist of one left-turn lane, one shared through/left-turn lane, and one shared through/right-turn lane;
 - b. Restripe northbound right-turn lane to a shared through/right-turn lane (modify receiving lanes as necessary); and
 - c. Provide north-south split signal phasing.
- TRA-11 Intersection 55 – Santa Fe Springs/Lambert Road (Whittier) – Before issuance of the first building permit for the Project, the Project Applicant shall make a proportionate fair share contribution to implement the following:
- a. Restripe northbound dedicated right-turn lane to a shared through/right-turn lane (modify receiving lanes as necessary).
- TRA-12 Intersection 16 – Norwalk Boulevard/Whittier Boulevard (SR-72) (Caltrans) – Before issuance of the first building permit for the Project, the Project Applicant shall make a proportionate fair share contribution to implement the following:
- a. Provide north-south protected/permitted signal phasing;



- b. Add one eastbound dedicated right-turn lane; and
- c. Add one westbound dedicated right-turn lane.

TRA-13 Intersection 34 – Colima Road/Whittier Boulevard (SR-72) (Caltrans) – Before issuance of the first building permit for the Project, the Project Applicant shall make a proportionate fair share contribution to implement the following:

- a. Add one additional northbound left-turn lane.

Level of Significance: Significant and Unavoidable Impact.

COMPLIANCE WITH CONGESTION MANAGEMENT PROGRAM

- **THE PROJECT WOULD CONFLICT WITH THE LOS ANGELES COUNTY CONGESTION MANAGEMENT PROGRAM LOS STANDARDS.**

Impact Analysis: The purpose of the CMP is to develop a coordinated approach to managing and decreasing traffic congestion by linking the various transportation, land use and air quality planning programs throughout the County. The program is consistent with that of the Southern California Association of Governments (SCAG). The CMP program requires review of significant individual projects, which might on their own impact the CMP transportation system.

According to the CMP, those proposed projects, which meet the following criteria, shall be evaluated:

- All CMP arterial monitoring intersections, including monitored freeway on- or off-ramp intersections, where the Project would add 50 or more trips during either the a.m. or p.m. weekday peak hours (of adjacent street traffic).
- Mainline freeway monitoring locations where the Project would add 150 or more trips, in either direction, during either the AM or PM weekday peak hours.

This analysis evaluates the following CMP study intersections within the study area:

- Rosemead Boulevard/Whittier Boulevard (SR-72) – CMP Station #123;
- Norwalk Boulevard/Whittier Boulevard (SR-72) – CMP Station #163;
- Painter Avenue/Whittier Boulevard (SR-72) – CMP Station #164;
- Colima Road/Whittier Boulevard (SR-72) – CMP Station #162; and
- Rosemead Boulevard/Washington Boulevard – CMP Station #122.

Refer to Section 5.1, *Land Use and Planning*, for a discussion of the Project's consistency with the *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): Towards a Sustainable Future*.

CMP Performance Criteria and Thresholds of Significance

Performance Criteria. The goal for CMP peak hour intersection operation is LOS E or better.



Thresholds of Significance. To determine whether the addition of Project-generated trips results in a significant impact at the CMP study facility, and thus requires mitigation, the Los Angeles County CMP utilizes the following threshold of significance:

- A significant project impact occurs when a proposed project increases traffic demand at a CMP study facility by two-percent or more of capacity ($V/C > 0.02$), causing or worsening LOS F ($V/C > 1.00$).

Forecast Existing With Project Conditions

FORECAST EXISTING WITH PROJECT CONDITIONS CMP STUDY INTERSECTION PEAK HOUR LOS

This section addresses the impacts associated with adding Project-generated trips to Existing Conditions traffic volumes. The existing with Project scenario is a hypothetical scenario that assumes the Project would be fully implemented at the present time, with no other changes to area traffic volumes.

Table 5.14-39, Forecast Existing With Project Conditions CMP Study Intersection Peak Hour LOS, summarizes forecast existing with Project conditions a.m. peak hour and p.m. peak hour LOS of the CMP study intersections; detailed LOS analysis sheets are contained in Appendix E of Appendix 11.16.

**Table 5.14-39
Forecast Existing With Project Conditions
Peak Hour CMP Study Intersection LOS**

CMP Study Intersection	Existing Conditions		Forecast Existing With Project Conditions		Change in ICU		Significant Impact?
	ICU – LOS		ICU – LOS		AM Peak Hour	PM Peak Hour	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour			
9 Rosemead Blvd/ Whittier Blvd (SR-72)	0.80 – C	0.89 – D	0.82 – D	0.90 – D	0.02	0.01	No
16 Norwalk Blvd/ Whittier Blvd (SR-72)	0.91 – E	0.95 – E	0.99 – E	1.01 – F	0.08	0.06	Yes
27 Painter Ave/ Whittier Blvd (SR-72)	0.84 – D	0.93 – E	0.88 – D	0.97 – E	0.04	0.04	No
34 Colima Rd/ Whittier Blvd (SR-72)	0.94 – E	0.85 – D	0.97 – E	0.89 – D	0.03	0.04	No
35 Rosemead Blvd/ Washington Blvd	0.87 – D	0.85 – D	0.87 – D	0.86 – D	0.00	0.01	No

Notes:
ICU = intersection capacity utilization; deficient intersection operation shown in **bold**.

As shown in Table 5.14-39, with the addition of Project-generated trips, the following CMP study intersections are forecast to operate at a deficient LOS (LOS F) according to CMP performance criteria for forecast existing with Project conditions:

- Intersection 16 – Norwalk Blvd/Whittier Blvd (SR-72) (p.m. peak hour only).



Based on the CMP thresholds of significance, the addition of Project-generated trips is forecast to result in a significant impact at the Norwalk Boulevard/Whittier Boulevard (SR-72) CMP study intersection for forecast existing with Project conditions during the p.m. peak hour only.

FORECAST EXISTING WITH PROJECT CONDITIONS CMP STUDY INTERSECTION MITIGATION MEASURES

Table 5.14-40, *Summary of Forecast Existing With Project Conditions CMP Study Intersection Mitigation Measure*, summarizes the Project study intersection improvement which is identified as a mitigation measure to lessen the traffic impacts at the significantly impacted CMP study intersection.

**Table 5.14-40
Summary of Forecast Existing With Project Conditions
CMP Study Intersection Mitigation Measure**

Jurisdiction	Mitigation Measure Improvement	Project Fair Share
Caltrans	Mitigation Measure TRA-14, Intersection 16 (Norwalk Boulevard/Whittier Boulevard (SR-72)) <ul style="list-style-type: none"> • Add one eastbound dedicated right-turn lane.¹ 	55.1%
Note: 1. Identified as a conceptual improvement in the SR-91/I-605/I-405 Congestion Hot Spots Feasibility Report (RBF Consulting/URS/Iteris, March, 26 2013).		

Table 5.14-41 shows the forecast LOS of the significantly impacted CMP study intersection assuming implementation of the identified mitigation measure for forecast existing with Project conditions. Detailed State Highway LOS analysis sheets are contained in Appendix E of Appendix 11.16.

**Table 5.14-41
Mitigated Forecast Existing With Project Conditions
Peak Hour CMP Study Intersection LOS**

CMP Study Intersection		Existing Conditions		Forecast Existing With Project Conditions		Change in ICU		Significant Impact?
		ICU – LOS		ICU – LOS		AM Peak Hour	PM Peak Hour	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour			
16	Norwalk Blvd/ Whittier Blvd (SR-72)	0.91 – E	0.95 – E	0.99 – E	0.96 – E	0.08	0.01	No

Notes: ICU = intersection capacity utilization; deficient intersection operation shown in **bold**.

As shown Table 5.14-41, assuming implementation of Mitigation Measure TRA-14, the traffic impact at CMP study Intersection 16 (Norwalk Blvd/Whittier Blvd (SR-72)) would be reduced below agency criteria for forecast existing with Project conditions. Notwithstanding Public Resources Code Section 21081(a)(2), which authorizes a public agency to make a finding that a mitigation measure is within another agency’s responsibility and jurisdiction, Mitigation Measure



TRA-14 would traffic impacts through payment of a fair share contribution by the Project Applicant to Caltrans, at a percentage specified in the mitigation measures outlined herein.

The fair share contribution would be collected prior to issuance of the first building permit for the proposed Project, and thus in advance of imposition of the respective mitigation improvements, and held in a dedicated account for said improvements. The improvement concepts, timing for mitigation, and fair share percentages would be provided to Caltrans for review and approval.

The improvements identified under Mitigation Measures TRA-14 would be implemented on a fair share basis. The City of Whittier and Caltrans would determine the timing of mitigation that is required to reduce impacts to a less than significant level, as described above. However, until implementation of the mitigation measure, the following intersection would remain a significant and unavoidable impact:

- Intersection 16 – Norwalk Blvd/Whittier Blvd (SR-72) (p.m. peak hour only).

FORECAST YEAR 2020 WITH PROJECT CONDITIONS CMP STUDY INTERSECTION PEAK HOUR LOS

Table 5.14-42, Forecast Year 2020 With Project Conditions CMP Study Intersection Peak Hour LOS, summarizes forecast year 2020 with Project conditions a.m. peak hour and p.m. peak hour LOS of the CMP study intersections; detailed CMP LOS analysis sheets are contained in Appendix E of Appendix 11.16.

As shown in Table 5.14-42, with the addition of Project-generated trips, the following CMP study intersections are forecast to operate at a deficient LOS (LOS F) according to CMP performance criteria for forecast year 2020 with Project conditions:

- Intersection 16 – Norwalk Boulevard/Whittier Boulevard (SR-72) (both a.m. and p.m. peak hours);
- Intersection 27 – Painter Avenue/Whittier Boulevard (SR-72) (p.m. peak hour only); and
- Intersection 34 – Colima Road/Whittier Boulevard (SR-72) (a.m. peak hour only).

As also shown in Table 5.14-42, based on CMP thresholds of significance, the addition of Project-generated trips is forecast to result in a significant impact at the following CMP study intersections for forecast year 2020 with Project conditions:

- Intersection 16 – Norwalk Boulevard/Whittier Boulevard (SR-72) (both a.m. and p.m. peak hours);
- Intersection 27 – Painter Avenue/Whittier Boulevard (SR-72) (p.m. peak hour only); and
- Intersection 34 – Colima Road/Whittier Boulevard (SR-72) (a.m. peak hour only).

FORECAST YEAR 2020 WITH PROJECT CONDITIONS CMP STUDY INTERSECTION MITIGATION MEASURES

As shown in Table 5.14-43, Summary of Forecast Year 2020 With Project Conditions CMP Study Intersection Mitigation Measures, the following study intersection improvements are recommended as mitigation measures to address the forecast traffic impacts at the significantly impacted CMP study intersections for forecast year 2020 with Project conditions:



**Table 5.14-42
Forecast Year 2020 With Project Conditions
Peak Hour CMP Study Intersection LOS**

CMP Study Intersection		Existing Conditions		Forecast Existing With Project Conditions		Change in ICU		Significant Impact?
		ICU – LOS		ICU – LOS		AM Peak Hour	PM Peak Hour	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour			
9	Rosemead Blvd/ Whittier Blvd (SR-72)	0.86 – D	0.95 – E	0.87 – D	0.96 – E	0.01	0.01	No
16	Norwalk Blvd/ Whittier Blvd (SR-72)	0.98 – E	1.01 – F	1.06 – F	1.07 – F	0.08	0.06	Yes
27	Painter Ave/ Whittier Blvd (SR-72)	0.90 – D	1.01 – F	0.94 – E	1.05 – F	0.04	0.04	Yes
34	Colima Rd/ Whittier Blvd (SR-72)	1.00 – E	0.92 – E	1.03 – F	0.96 – E	0.03	0.04	Yes
35	Rosemead Blvd/ Washington Blvd	0.93 – E	0.92 – E	0.93 – E	0.92 – E	0.00	0.00	No

Notes:
ICU = intersection capacity utilization; deficient intersection operation shown in **bold**.

**Table 5.14-43
Summary of Forecast Year 2020 With Project Conditions
CMP Study Intersection Mitigation Measures**

Juris diction	Mitigation Measure Improvement	Project Fair Share
Caltrans	Mitigation Measure TRA-13, Intersection 34 (Colima Road/Whittier Boulevard (SR-72)). • Add one additional northbound left-turn lane.	24.6%
Caltrans	Mitigation Measure TRA-14, Intersection 16 (Norwalk Boulevard/Whittier Boulevard (SR-72)) • Add one dedicated eastbound right-turn lane. ¹	55.1%
Caltrans	Mitigation Measure TRA-15, Intersection 16 (Norwalk Boulevard/Whittier Boulevard (SR-72)) • Add one dedicated westbound right-turn lane. ¹	55.1%
Caltrans	Mitigation Measure TRA-16, Intersection 27 (Painter Avenue/Whittier Boulevard (SR-72)) • Add one additional eastbound through lane (modify receiving lanes as necessary). ¹	38.1%

Note:
1. Identified as a conceptual improvement in the SR-91/I-605/I-405 Congestion Hot Spots Feasibility Report (RBF Consulting/URS/Iteris, March, 26 2013).

Table 5.14-44, *Mitigated Forecast Year 2020 With Project Conditions Peak Hour CMP Study Intersection LOS*, shows the forecast LOS of the significantly impacted CMP study intersections assuming implementation of the identified mitigation measures for forecast year 2020 with Project conditions; detailed CMP LOS analysis sheets are contained in Appendix E of Appendix 11.16.



**Table 5.14-44
Mitigated Forecast Year 2020 With Project Conditions
Peak Hour CMP Study Intersection LOS**

CMP Study Intersection		Existing Conditions		Forecast Existing With Project Conditions		Change in ICU		Significant Impact?
		ICU – LOS		ICU – LOS		AM Peak Hour	PM Peak Hour	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour			
16	Norwalk Blvd/ Whittier Blvd (SR-72)	0.98 – E	1.01 – F	1.00 – E	1.02 – F	0.02	0.01	No
27	Painter Ave/ Whittier Blvd (SR-72)	0.90 – D	1.01 – F	0.94 – E	0.96 – E	0.04	-0.05	No
34	Colima Rd/ Whittier Blvd (SR-72)	1.00 – E	0.92 – E	0.95 – E	0.91 – E	-0.05	-0.01	No

Notes:
ICU = intersection capacity utilization; deficient intersection operation shown in **bold**.

As shown in Table 5.14-44, assuming implementation of the Mitigation Measures TRA-13, TRA-15, and TRA-16, the Project’s traffic impacts at the significantly impacted CMP study intersections are forecast to be reduced below agency criteria for forecast year 2020 with Project conditions.

Notwithstanding Public Resources Code Section 21081(a)(2), which authorizes a public agency to make a finding that a mitigation measure is within another agency’s responsibility and jurisdiction, Mitigation Measure TRA-13, TRA-15, and TRA-16 would reduce traffic impacts through payment of a fair share contribution by the Project Applicant to Caltrans, at a percentage specified in the mitigation measures outlined herein.

The fair share contribution would be collected prior to issuance of the first building permit for the proposed Project, and thus in advance of imposition of the respective mitigation improvements, and held in a dedicated account for said improvements. The improvement concepts, timing for mitigation, and fair share percentages would be provided to Caltrans for review and approval.

The improvements identified under Mitigation Measures TRA-13, TRA-15, and TRA-16 would be implemented on a fair share basis. The City of Whittier and Caltrans would determine the timing of mitigation that is required to reduce impacts to a less than significant level, as described above. However, until implementation of the mitigation measure, the following intersections would remain a significant and unavoidable impact:

- Intersection 16 – Norwalk Boulevard/Whittier Boulevard (SR-72) (both a.m. and p.m. peak hours);
- Intersection 27 – Painter Avenue/Whittier Boulevard (SR-72) (p.m. peak hour only); and
- Intersection 34 – Colima Road/Whittier Boulevard (SR-72) (a.m. peak hour only).

Mitigation Measures: Refer to Mitigation Measure TRA-13, above, and Mitigation Measures TRA-14 through TRA-16 immediately below.



- TRA-14 Intersection 16 - Norwalk Boulevard/Whittier Boulevard (SR-72) (Caltrans) – Before issuance of the first building permit for the Project, the Project Applicant shall make a proportionate fair share contribution to implement the following:
- a. Add one eastbound dedicated right-turn lane.³
- TRA-15 Intersection 16 – Norwalk Boulevard/Whittier Boulevard (SR-72) (Caltrans) – Before issuance of the first building permit for the Project, the Project Applicant shall make a proportionate fair share contribution to implement the following:
- a. Add one dedicated westbound right-turn lane.⁴
- TRA-16 Intersection 27 – Painter Avenue/Whittier Boulevard (SR-72) (Caltrans) – Before issuance of the first building permit for the Project, the Project Applicant shall make a proportionate fair share contribution to implement the following:
- a. Add one additional eastbound through lane (modify receiving lanes as necessary).

Level of Significance: Significant and Unavoidable Impact.

HAZARDOUS DESIGN FEATURES

- **THE PROJECT WOULD NOT SUBSTANTIALLY INCREASE HAZARDS DUE TO A PROPOSED DESIGN FEATURE.**

Impact Analysis: The proposed Project would include the development of a series of internal roadways including public streets, roundabouts, alleys, and private drives. All roads on-site would be paved and would comply with existing City and Los Angeles County Fire Department (LACFD) requirements for emergency access. On-site roads would undergo a detailed site plan review by the City and LACFD to ensure that appropriate widths, turning radii, and signage comply with existing standards for safety and circulation. Thus, the project is not expected to result in hazardous traffic conditions related to on-site circulation or internal access.

The Project would also include numerous offsite improvements to accommodate vehicular traffic and provide adequate access to the site. As noted within Section 3.0, Project Description, the Project would include improvements along Whittier Boulevard and Sorensen Avenue adjacent to the site, in addition to the extension of Elmer Avenue into the site. The Project would also include numerous access points to the site from Whittier Boulevard/Sorensen Avenue.

The design for all offsite roadway improvements along Whittier Boulevard and Sorensen Avenue would be reviewed by Caltrans and/or the City prior to final plan approval, to ensure consistency with Caltrans/City design requirements for safety (roadway geometrics, signage, modifications to existing signalization, etc.). The Project would not result in the creation of any roadway features (e.g., sharp curves or dangerous intersections) having the potential to result in a substantial increase in hazards. In addition, the Project does not propose any land uses that

³ This mitigation applies to forecast existing with Project conditions.

⁴ This mitigation applies to forecast year 2020 with Project conditions, and also assumes implementation of Mitigation Measure TRA-14.



would involve incompatible features or equipment that could cause a hazard on roadways in the Project area. As such, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

PUBLIC TRANSIT, BICYCLE AND PEDESTRIAN FACILITIES

- **THE PROJECT WOULD NOT CONFLICT WITH ADOPTED POLICIES, PLANS, OR PROGRAMS REGARDING PUBLIC TRANSIT, BICYCLE, AND PEDESTRIAN FACILITIES**

Impact Analysis:

Public Transit

The transit services that are available in the Project's vicinity are as follows:

- Los Angeles County Metropolitan Transportation Authority (MTA) Bus Line Route 270 travels along Beverly Boulevard, through downtown Whittier along Greenleaf Avenue, Painter Avenue, Mar Vista Street, and intersects Whittier Boulevard (SR-72) towards Santa Fe Springs Road;
- Los Angeles County Metropolitan Transportation Authority (MTA) Bus Line Express Route 577 travels along I-605;
- Montebello Municipal Bus Line Route 10 travels along Whittier Boulevard (SR-72) and Route 50 travels along Washington Boulevard;
- Norwalk Transit Bus Line Route 1 travels along Norwalk Boulevard; and
- Los Angeles County Sunshine Shuttle travels along Broadway, Hadley Street, Sorensen Avenue and Washington Boulevard.

The Project is forecast to generate approximately 20,330 daily trips, which includes approximately 1,280 a.m. peak hour trips and approximately 1,309 p.m. peak hour trips. In accordance with CMP guidelines, person trips can be estimated using a 1.4 factor to convert total vehicle trips to person trips, which results in a total of approximately 1,792 a.m. peak hour person trips, approximately 1,833 p.m. peak hour person trips, and approximately 28,462 daily person trips generated by the Project.

Based on CMP guidelines for determining trips assigned to transit, the following factor applicable to the Project it utilized:

- 3.5 percent of Total Person Trips Generated.

Table 5.14-45, CMP Transit Trip Generation of the Project, shows the calculation of Project-generated transit trips, utilizing CMP guidelines.



**Table 5.14-45
CMP Transit Trip Generation of the Project**

Trips	AM Peak Hour Trips	PM Peak Hour Trips	Daily Trips
Trip Generation of Project (Veh)	1,280	1,309	20,330
Person Trips Conversion Factor	1.4	1.4	1.4
Person Trips of the Project	1,792	1,833	28,462
3.5% Transit Trips Conversion Factor	3.5%	3.5%	3.5%
Total Transit Trips of the Project	63	64	996
Note: Veh = Vehicles			

As shown in Table 5.14-45, based on the CMP guidelines, and the proximity of the various Project land uses in relation to available transit in the Project vicinity, the Project is forecast to generate approximately 63 a.m. peak hour transit trips, approximately 64 p.m. peak hour transit trips, and approximately 996 daily transit trips. Since multiple transit services are currently provided in the Project vicinity, no significant CMP transit impacts are forecast to occur.

Bicycle and Pedestrian Facilities

As described in Lincoln Specific Plan Section 3.1, Master Plan of Circulation, the Project would provide infrastructure and access for various modes of travel, including automobiles, transit, bicycles, and pedestrian. The proposed Master Plan of Circulation considers the perimeter public streets (Whittier Boulevard and Sorensen Avenue), regional trails (the Whittier Greenway Trail), site access, internal streets, roundabouts, alleys/private drives, and non-vehicular circulation elements accommodating the pedestrian and bicycle. The Project is subject to compliance with WMC Chapter 18.67, which sets forth the requirements for new developments to implement applicable TDM and trip reduction measures, and provide facilities that encourage and accommodate the use of pedestrian and bicycle commuting (among other alternative modes). The reduction in vehicle trips achieved through the Project's proposed pedestrian/bicycle design features and compliance with WMC Chapter 18.67 can be expected to lessen the Project's vehicular traffic impacts, which would be in furtherance of protecting the environment and health for the City's residents.

In addition, the *Whittier Bicycle Transportation Plan*, adopted in February 26, 2013, involves comprehensive goals and objectives for the City's bikeway system, particularly warranting special focus on the Whittier Greenway Trail on enhancing existing and potential connections to the abandoned rail line as well as its impact to the overall network. It provides the opportunity to consider changes in adjacent land uses within close proximity to the Whittier Greenway Trail to improve local business and advocate mixed use developments with lower parking requirements. The Project would include the construction of the proposed Freedom Trail, a Class I multi-purpose path that navigates through the community connecting parks, land uses, and the adjacent hospital. According to the *Bicycle Transportation Plan*, bicyclists and pedestrians are most likely to use Class I routes as the paths are designed as routes separate from vehicular traffic.

Thus, the Project would not conflict with policies related to public transit, bicycle, or pedestrian facilities. Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.



Level of Significance: Less Than Significant Impact.

CUMULATIVE IMPACTS

- **THE PROJECT, COMBINED WITH CUMULATIVE DEVELOPMENT, WOULD GENERATE TRAFFIC VOLUMES THAT WOULD CONFLICT WITH APPLICABLE CIRCULATION SYSTEM PERFORMANCE CRITERIA.**

Impact Analysis: For purposes of transportation and traffic impact analysis, cumulative impacts are considered for cumulative projects located in the Project's study area, as identified in [Table 4-1](#), and illustrated on [Exhibit 4-1](#).

Project implementation would establish a maximum allowable development within the Specific Plan area boundaries of 750 DU, 208,350 square feet of commercial land uses approximately 4.6 acres of open space, and offsite roadway and utility improvements. Therefore, the Project's incremental effects to traffic and circulation, resulting from the proposed land uses' increased traffic volumes, are cumulatively considerable.

As outlined in [Table 4-1](#), and illustrated on [Exhibit 4-1](#), the related projects and other possible development would occur in the cities of Whittier, Santa Fe Springs, and Pico Rivera, as well as unincorporated Los Angeles County. Based on the projects identified in [Table 4-1](#), cumulative development would result in new residential, commercial, institutional, retail, restaurant, and hotel uses that would result in increased traffic volumes.

The forecast without Project traffic volumes are derived by addition of trips associated with 26 cumulative projects expected to be constructed and generating trips by Project buildout. The forecast long-range with Project traffic volumes are derived by adding Project-generated trips to trips associated with the 26 cumulative projects. As concluded above, despite implementation of all feasible mitigation, impacts to numerous City/County, State Highway, and CMP facilities would remain significant and unavoidable for the forecast Year 2020 with Project conditions. Therefore, the combined cumulative traffic and circulation impacts associated with the Project's incremental effects and those of the cumulative projects would be significant and unavoidable for the identified intersections. However, cumulative projects would be evaluated on a project-by-project basis, as they are implemented within the City of Whittier and the other cities/communities. Each cumulative project would undergo a similar plan review process as the Project, to determine whether preparation of a Traffic Impact Analysis is warranted, and the potential traffic and circulation impacts. Each cumulative project would be analyzed within the context of their respective traffic study areas.

Mitigation Measures: Refer to Mitigation Measures TRA-1 through TRA-16, above.

Level of Significance: Significant and Unavoidable Impact.

5.14.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Despite implementation of all feasible mitigation measures, Project impacts involving the following intersections would remain significant and unavoidable.⁵

⁵ Facilities listed under the forecast year 2020 scenario are considered significant on both a Project-level and cumulative basis.



Forecast Existing With Project Conditions City/County Study Intersections

- Intersection 1 – Rosemead Blvd/Beverly Blvd (p.m. peak hour only)
- Intersection 8 – Norwalk Blvd/Beverly Blvd (both a.m. and p.m. peak hours)
- Intersection 39 – Pioneer Blvd/Washington Blvd (both a.m. and p.m. peak hours)
- Intersection 41 – Norwalk Blvd/Washington Blvd (both a.m. and p.m. peak hours)
- Intersection 42 – Broadway/Washington Blvd (both a.m. and p.m. peak hours)
- Intersection 43 – Sorensen Ave/Washington Blvd (a.m. peak hour only)
- Intersection 57 – Colima Road/Lambert Road (both a.m. and p.m. peak hours)

Forecast Existing With Project Conditions State Highway Study Intersections

- Intersection 22 – Whittier Boulevard (SR-72)/Penn Street (both a.m. and p.m. peak hours)
- Intersection 25 – Pickering-Santa Fe Springs Road/Whittier Boulevard (SR-72) (both a.m. and p.m. peak hours).

Forecast Existing With Project Conditions State Highway Segments

- I-605 Northbound between Washington Boulevard and Whittier Boulevard
- I-605 Northbound between Whittier Boulevard and Beverly Boulevard
- I-605 Northbound north of Beverly Boulevard

Forecast Existing With Project Conditions CMP Study Intersections

- Intersection 16 – Norwalk Boulevard/Whittier Boulevard (SR-72) (p.m. peak hour only)

Forecast Year 2020 With Project Conditions City/County Study Intersections

- Intersection 4 – San Gabriel River Pkwy/Beverly Blvd (p.m. peak hour only)
- Intersection 8 – Norwalk Blvd/Beverly Blvd (both a.m. and p.m. peak hours)
- Intersection 37 – Passons Blvd/Washington Blvd (both a.m. and p.m. peak hours)
- Intersection 39 – Pioneer Blvd/Washington Blvd (both a.m. and p.m. peak hours)
- Intersection 41 – Norwalk Blvd/Washington Blvd (both a.m. and p.m. peak hours)
- Intersection 42 – Broadway/Washington Blvd (both a.m. and p.m. peak hours)
- Intersection 43 – Sorensen Ave/Washington Blvd (a.m. peak hour only)
- Intersection 55 – Santa Fe Springs Rd/Lambert Rd (p.m. peak hour only)
- Intersection 57 – Colima Road/Lambert Road (both a.m. and p.m. peak hours)

Forecast Year 2020 With Project Conditions State Highway Study Intersections

- Intersection 16 – Norwalk Boulevard/Whittier Boulevard (SR-72) (both a.m. and p.m. peak hours)
- Intersection 22 – Whittier Boulevard (SR-72)/Penn Street (both a.m. and p.m. peak hours)
- Intersection 25 – Pickering-Santa Fe Springs Road/Whittier Boulevard (SR-72) (both a.m. and p.m. peak hours)
- Intersection 34 – Colima Road/Whittier Boulevard (SR-72) (both a.m. and p.m. peak hours)



Forecast Year 2020 With Project Conditions State Highway Segments

- I-605 Northbound south of Washington Boulevard
- I-605 Northbound between Washington Boulevard and Whittier Boulevard
- I-605 Northbound between Whittier Boulevard and Beverly Boulevard
- I-605 Northbound north of Beverly Boulevard

Forecast Year 2020 With Project Conditions CMP Study Intersections

- Intersection 16 – Norwalk Boulevard/Whittier Boulevard (SR-72) (both a.m. and p.m. peak hours)
- Intersection 27 – Painter Avenue/Whittier Boulevard (SR-72) (p.m. peak hour only)
- Intersection 34 – Colima Road/Whittier Boulevard (SR-72) (a.m. peak hour only)

If the City approves the proposed Project, the City would be required to cite their findings in accordance with CEQA Guidelines § 15091 and prepare a Statement of Overriding Considerations in accordance with CEQA Guidelines § 15093.

5.14.7 SOURCES CITED

City of Santa Fe Springs, *Circulation Element*, January 11, 1994.

City of Whittier, *City of Whittier General Plan*, Comprehensively Adopted 1993.

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County of Los Angeles, *Traffic Impact Analysis Report Guidelines*, January 1, 1997.

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Institute of Transportation Engineers, *Trip Generation Manual*, 9th Edition, 2012.

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