4.14 Traffic and Transportation

4.14.1 Introduction

This section addresses the potential impacts of the proposed Project on traffic and transportation conditions in the Project site vicinity. Information is provided on regulatory requirements related to traffic and transportation, existing traffic conditions in the area, existing public transit service, and the potential change to these conditions that would result from implementation of the proposed Project. The impact analysis addresses potential construction impacts as well as the impacts of development of the proposed Project. Based on this analysis, a comprehensive program to mitigate the impacts of the proposed Project is identified and described.

This section incorporates information from the Transportation Study for the LAX Northside Plan Update dated October 2013, prepared by Gibson Transportation Consulting, Inc. This study is provided in Appendix E of this EIR.

4.14.2 Environmental Setting

4.14.2.1 Regulatory Framework

4.14.2.1.1 State

California Department of Transportation (Caltrans)

The California Department of Transportation (Caltrans) regulates and maintains state and interstate transportation facilities (state routes, highways, and freeways, etc.) in the State of California. Caltrans sets maximum load limits for trucks and safety requirements for oversized vehicles that operate on highways.

Construction activities associated with the proposed Project involving transportation of equipment and materials on State of California facilities would be subject to the State of California Code, Division 12, Part 5, Chapter 1, Article 4, Section 31060, titled "Construction on Rights of Way." Caltrans recommends that large-sized trucks transporting construction materials and equipment be limited to off-peak commute periods and any heavy construction equipment that requires the use of oversize transport vehicles on state roadways or facilities would require a Caltrans transportation permit. Specifically, the following state regulations apply to the use of State of California facilities for transportation of equipment and materials:

- California Vehicle Code (CVC), Division 15, Chapters 1 through 5 (Size, Weight, and Load) includes regulations pertaining to licensing, size, weight, and load of vehicles operated on highways.

- California Streets and Highways Code §§660-711, 670-695 requires permits from Caltrans for any roadway encroachment during truck transportation and delivery; includes regulations for the care and protection of State of California and county highways; provisions for the issuance of written permits; and requires permits for any load that exceeds Caltrans weight, length, or width standards for public roadways.

4.14.2.1.2 Local

Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP)

The Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP) is a long-term vision document that outlines transportation goals, objectives, and policies for the SCAG region, including the County of Los Angeles. The RTP presents the transportation vision for the six-county SCAG region through the year 2035. The focus of the RTP is to maintain and improve the existing transportation system that considers system preservation, system operation and management, improved coordination between land-use decisions and transportation investments, and strategic expansion of the existing transportation system to accommodate future growth in the region.

The current SCAG RTP, adopted in April 2012, includes an assessment of overall growth and economic trends in the region and provides strategic direction for transportation capital investments to support more efficient and "sustainable" modes of transportation for 2012 through 2035. Future planning activities promote use of bus and light rail transit, passenger high speed rail, and other Transportation Demand Management strategies.

Congestion Management Program

The Congestion Management Program (CMP) is a state-mandated program that was enacted by the California State Legislature with the passage of Proposition 111 in 1990. The CMP is intended to address the impact of local growth on the regional transportation system. The County of Los Angeles Metropolitan Transportation Authority (LACMTA or Metro) has implemented the CMP locally. The CMP system consists of a specific system of arterial streets in addition to all freeways. Metro is the responsible agency for implementing the CMP. The most recent CMP, adopted by the Metro Board in October 2010 reflects the results of 18 years of CMP highway and transit monitoring and 15 years of monitoring local growth. Implementation guidelines for local jurisdictions are also contained in the CMP.

In the vicinity of the proposed Project site, the County of Los Angeles CMP standard is level of service (LOS) D, or better for roads and highways. LOS is a measure of traffic operation conditions, assigned to an intersection or street segment, whereby a letter grades, A through F, correspond to progressively worsening operation conditions.

The CMP requires that a Traffic Impact Analysis (TIA) be completed for all CMP arterial monitoring intersections where a project would add 50 or more trips during either the weekday morning or afternoon peak hours. A detailed analysis is not required if a project adds fewer than 50 trips to an arterial monitoring intersection.

Additionally, the CMP requires that a TIA address all CMP mainline freeway monitoring locations where a project would add 150 or more trips (in either direction) during the weekday morning or afternoon peak hours. A detailed analysis is not required if a project adds fewer than 150 trips to a mainline freeway monitoring location (in either direction) during either the weekday morning or afternoon peak hour.

The CMP also requires that a transit system analysis be performed to determine whether or not a project adds demand exceeding the available capacity of the transit systems serving a project.

City of Los Angeles General Plan Transportation Element

There are a number of goals and policies set forth by the City of Los Angeles General Plan Transportation Element, adopted in September 1997, that relate to traffic and circulation. Goals relevant to the proposed Project include:

- Adequate accessibility to work opportunities and essential services, and acceptable levels of mobility for all those who live, work, travel, or move goods in Los Angeles.
- A street system maintained in a good to excellent condition adequate to facilitate the movement of those reliant on the system.
- An integrated system of pedestrian priority street segments, bikeways, and scenic highways which strengthens the City's image while also providing access to employment opportunities, essential services, and open space.

Los Angeles Municipal Code

With regard to construction traffic, Section 41.40 of the Los Angeles Municipal Code (LAMC) limits construction activities to the hours from 7:00 A.M. to 9:00 P.M. on weekdays and from 8:00 A.M. to 6:00 P.M. on Saturdays. No construction is permitted on Sundays or national holidays.

LAX Plan

The LAX Plan, an element of the City of Los Angeles General Plan, provides goals, objectives, polices, and programs that establish a framework for the development of facilities for movement and processing of passengers and cargo at LAX. It is intended to promote an arrangement of airport uses that encourage and contribute to the modernization of the Airport in an orderly and flexible manner within the context of the City of Los Angeles and the Los Angeles region.

LAX Specific Plan

The LAX Specific Plan provides regulatory controls and incentives for the systematic and incremental execution of the LAX Plan, an element of the City of Los Angeles General Plan. The LAX Specific Plan establishes zoning and development regulations applicable to development at LAX, focusing primarily on land use, transportation, parking, and signage regulations, with the land use regulations including not only comprehensive regulations but regulations specific to individual subareas of LAX (e.g., Airport Airside, Airport Landside, and LAX Northside). The LAX Specific Plan addresses setbacks, buffers, height limits, and landscaping within the Airport area, particularly within the LAX Northside.

The adoption of the LAX Specific Plan in 2005 established vehicle trip caps for the Project site of 3,922 total morning peak hour trips (or 3,152 inbound trips) and 4,421 total afternoon peak hour trips (or 3,040 outbound trips).

LAWA Design and Construction Handbook

The LAWA Design and Construction Handbook establishes broad design and construction guidelines for all infrastructure, terminal buildings, renovations, and other public facilities owned, operated, or maintained by LAWA, including LAX. Additionally, it serves as a roadmap and reference guide for design teams that have been contracted to provide design services at the Airport.

4.14.2.2 Existing Conditions

The Project site is located between the Marina Freeway (CA-90), the San Diego Freeway (I-405), and the Century Freeway (I-105). These freeways provide regional access to the Project site.

Primary local access to the Project site is provided by a network of streets including Pershing Drive, Lincoln Boulevard, La Tijera Avenue, Sepulveda Boulevard, Aviation Boulevard, La Cienega Boulevard, La Brea Avenue/Hawthorne Boulevard, Venice Boulevard, Washington Boulevard/Washington Place, Culver Boulevard, Jefferson Boulevard, Manchester Avenue, Westchester Parkway, Century Boulevard, Imperial Highway, El Segundo Boulevard, and Rosecrans Avenue.

The Project site is accessed primarily via Westchester Parkway. Completed in 1993, Westchester Parkway was constructed with the capacity to serve the original 4.5 million square feet of development allowed by the 1989 Design Plan and Development Guidelines for LAX Northside, during April 20, 1989. Westchester Parkway is currently striped with dedicated bicycle lanes adjacent to the Project site.

A traffic analysis study area ("Study Area") was defined in consultation with the City of Los Angeles Department of Transportation (LADOT) by reviewing the travel patterns and the potential impacts of traffic generated by the proposed Project. The Study Area was defined to ensure that all intersections potentially impacted by the proposed Project were analyzed. This Study Area includes approximately 40 square miles and is generally bound by Venice Boulevard, Washington Boulevard, Jefferson Boulevard, and Baldwin Hills to the north; La Cienega Boulevard, La Brea Avenue, and Hawthorne to the east; Rosecrans Avenue to the south; and the Pacific Ocean to the west. After initial definition, the boundary of the Study Area was extended to confirm that there were no significant impacts at or outside the boundary of the Study Area from the proposed Project.

4.14.2.2.1 Existing Transportation System

The existing transportation system in the Study Area consists of regional freeway facilities and a local street network made up of principal and secondary arterials, and collector and local streets. A variety of public transit services also operate within the Study Area. A description of these transportation facilities and public transit services is provided below.

Regional Transportation Facilities

Primary regional access to the Project site is provided by CA-90, which runs generally east-west to the north of the Project site; I-405, which runs generally north-south to the east of the Project site; and I-105, which runs generally east-west to the south of the Project site. I-405 connects with CA-90 northeast of the Project site and with I-105 southeast of the Project site. Additional freeways outside of the Study Area include the Santa Monica Freeway (I-10) to the north and the Harbor Freeway (I-110) to the east.

Local Streets

The street network in the Study Area generally consists of a north-south and east-west grid system. In parts of the Study Area this grid bends in a northwest-southeast-direction to follow the coastline, additionally, some streets through the nearby hills are aligned to follow the existing topography.

The major east-west arterial streets providing access to the Project site include Westchester Parkway, Century Boulevard, Imperial Highway, El Segundo Boulevard, Rosecrans Avenue, La Tijera Avenue, Venice Boulevard, Washington Boulevard/Washington Place, Culver Boulevard, Jefferson Boulevard, and Manchester Avenue. The major north-south arterial streets providing access to the Project site include Pershing Drive, Lincoln Boulevard, Sepulveda Boulevard, Aviation Boulevard, La Cienega Boulevard, and La Brea Avenue/Hawthorne Boulevard. The location of these streets in relation to the Project site is shown in **Figure 4.14-1** and a description of these streets is provided below:

Westchester Parkway. Westchester Parkway is a Class II Major Highway with two through lanes in each direction traveling east-west through the Project site. Westchester Parkway is divided by a raised median west of Sepulveda Westway. No stopping is permitted at any time. The posted speed limit ranges from 40 mph to 50 mph.

Century Boulevard. Century Boulevard is a Class II Major Highway with four through lanes in each direction traveling east-west southeast of the Project site. Century Boulevard is divided by a landscaped raised median west of La Cienega Boulevard and a two-way left-turn lane east of La Cienega Boulevard. No stopping is permitted. The posted speed limit is 35 mph.

Imperial Highway. Imperial Highway is a Class II Major Highway with two to three through lanes in each direction traveling east-west south of the Project site. Imperial Highway is divided by a landscaped raised median west of Sepulveda Boulevard; a raised median between Sepulveda Boulevard and Aviation Boulevard and east of the I-405 and I-105 interchange; and a two-way left-turn lane between Aviation Boulevard and La Cienega Boulevard. No stopping is permitted. The posted speed limit ranges from 35 mph to 50 mph.

El Segundo Boulevard. El Segundo Boulevard is a Secondary Arterial with two to three through lanes in each direction traveling east-west. El Segundo Boulevard is divided by a landscaped raised median between Sepulveda Boulevard and the I-405 ramps and a two-way left-turn lane east of the I-405 ramps. No stopping is permitted. The posted speed limit is 40 mph.

Rosecrans Avenue. Rosecrans Avenue is a Major Arterial with two to three through lanes traveling in each direction traveling east-west. Rosecrans Avenue is divided by a landscaped raised median between Vista del Mar and Market Place. Parking is permitted west of Sepulveda Boulevard. The posted speed limit is 40 mph.

La Tijera Boulevard. La Tijera Boulevard is a divided Class II Major Highway with two to three through lanes in each direction and travels in the northeast-southwest direction east of the Project site. La Tijera Boulevard is divided by a two-way left-turn lane median between Sepulveda Westway and Sepulveda Boulevard, between Sepulveda Eastway and Manchester Avenue, and east of the I-405 ramps. Parking is generally permitted. The posted speed limit ranges from 30 mph to 40 mph.

Venice Boulevard. Venice Boulevard is a Class II Major Highway with three through lanes in each direction traveling east-west north of the Project site. Venice Boulevard is divided by a landscaped raised median within the Study Area. Parking is generally permitted along Venice Boulevard. The posted speed limit is 40 mph.

Washington Boulevard. Washington Boulevard is a Class II Major Highway with two through lanes in each direction traveling east-west north of the Project site. Washington Boulevard is divided by two-way left-turn median west of Lincoln Boulevard and between Grand View Avenue and Sawtelle Boulevard. Parking is generally permitted along Washington Boulevard. The posted speed limit is 35 mph.

Washington Place. Washington Place is a Class II Major Highway with two through lanes in each direction traveling east-west north of the Project site. Washington Place is divided by a two-way left-turn lane median east of Grand View Avenue. Parking is generally permitted along Washington Place. The posted speed limit is 35 mph.

Culver Boulevard. Culver Boulevard is a Secondary Highway with one to two through lanes in each direction traveling east-west north of the Project site. Culver Boulevard is divided by a two-way left-turn median between the Lincoln Boulevard ramps to McConnell Avenue and a raised median between Sawtelle Boulevard and Sepulveda Boulevard. Parking is generally not permitted along Culver Boulevard. The posted speed limit ranges from 30 mph to 40 mph.

Jefferson Boulevard. Jefferson Boulevard is a Class II Major Highway with two through lanes in each direction traveling east-west north of the Project site. Jefferson Boulevard is divided by a landscaped raised median between Culver Boulevard and Centinela Avenue and east of Slauson Avenue and a two-way left-turn median between Centinela Avenue and Margaret Avenue. Parking is generally not permitted along Jefferson Boulevard. The speed limit ranges from 35 mph to 50 mph.

Manchester Avenue. Manchester Avenue is a Class II Major Highway with two through lanes in each direction east of Pershing Drive and a divided Collector Street between Pershing Drive and Vista del Mar with one through lane in each direction west of Pershing Drive. Manchester Avenue travels in the east-west direction north of the Project site and is divided by a landscaped raised median between Pershing Drive and Aviation Boulevard and between Ash Avenue and La Brea Avenue. Parking is generally permitted. The posted speed limit ranges from 35 mph to 40 mph.

Pershing Drive. Pershing Drive is a Class II Major Highway with two through lanes in each direction traveling north-south west of the Project site. Pershing Drive is divided by a two-way left-turn median north of Sunridge Street and a landscaped raised median south of Westchester Parkway. No stopping is permitted. The posted speed limit is 55 mph.

Lincoln Boulevard. Lincoln Boulevard is a Class I Major Highway with three through lanes in each direction traveling north-south through the Project site. Lincoln Boulevard is divided by a two-way left-turn median between Venice Boulevard and Maxella Avenue, a raised median between Maxella Avenue and Bali Way, and a landscaped raised median between Jefferson Boulevard and 94th Street. Parking is generally not permitted south of Fiji Way. The posted speed limit is 50 mph.

Sepulveda Boulevard. Sepulveda Boulevard is a Class I Major Highway with three through lanes in each direction traveling north-south east of the Project site. Sepulveda Boulevard is divided by a two-way left-turn lane between Washington Boulevard and Jefferson Boulevard and Centinela Avenue and 80th Street. Moreover, Sepulveda Boulevard is divided by a landscaped raised median between Jefferson Boulevard and Centinela Avenue and south of 80th Street. No stopping is permitted south of Lincoln Boulevard. The speed limit ranges from 35 mph to 45 mph.

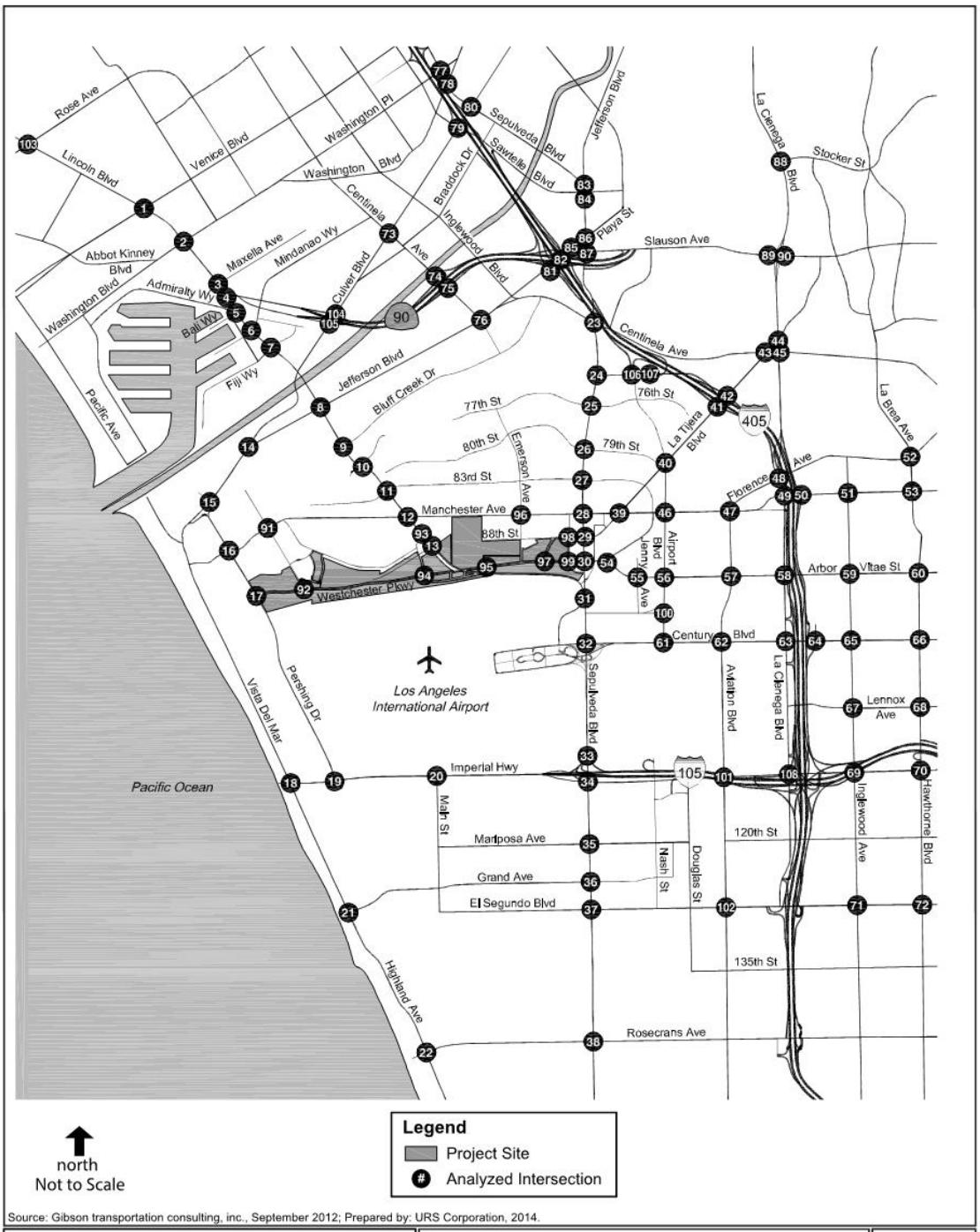
Aviation Boulevard. Aviation Boulevard is a Class II Major Highway with two through lanes in each direction traveling north-south east of the Project site. Aviation Boulevard is divided by a two-way left-turn lane south of 83rd Street. Parking is generally permitted along Aviation Boulevard. The posted speed limit on Aviation Boulevard is 40 mph.

La Cienega Boulevard. La Cienega Boulevard is a Class II Major Highway with two through lanes in each direction traveling north-south east of the Project site. La Cienega Boulevard is divided by a raised median north of 64th Street, between 64th Street and Centinela Avenue,

between Olive Street and Hillcrest Boulevard, and south of the I-405 southbound ramps; a two-way left-turn median between Short Street and Industrial Avenue and Hillcrest Boulevard and the I-405 southbound ramps; and a landscaped raised median between Industrial Avenue and Florence Avenue. No stopping is permitted. The posted speed limit ranges from 40 mph to 45 mph.

La Brea Avenue. La Brea Avenue is a Class II Major Highway with three through lanes in each direction traveling north-south east of the Project site. La Brea Avenue is divided by a raised median between Regent Street and Manchester Boulevard and Hillcrest Boulevard and Spruce Avenue, and a landscaped raised median south of Spruce Avenue. Parking is generally permitted along La Brea Avenue. The posted speed limit is 35 mph.

Hawthorne Boulevard. Hawthorne Boulevard is a Major Arterial with three through lanes in each direction traveling north-south east of the Project site. Hawthorne Boulevard is divided by a landscaped raised median within the Study Area. Parking is generally permitted along Hawthorne Boulevard. The posted speed limit is 35 mph.



Source: Gibson transportation consulting, inc., September 2012; Prepared by: URS Corporation, 2014.

Study Area	Draft Environmental Impact Report LAX Northside Plan Update	FIGURE 4.14-1

Public Transit

Both bus and rail transit service are available as part of the public transit system in the Project site vicinity. The Metro Green Line provides light-rail transit service in the Study Area. Bus transit providers serving the Study Area include Metro, LADOT Commuter Express, Santa Monica Big Blue Bus, Culver City Bus, and Torrance Transit. Metro provides five bus lines in the form of local, express, shuttle, and rapid bus service in the Study Area. Culver City Bus provides two local and rapid bus lines in the Study Area. Santa Monica Big Blue Bus provides two local and rapid bus lines in the Study Area. LADOT Commuter Express provides one express bus line in the Study Area. Torrance Transit and Beach Cities Transit each provide one local bus line in the Study Area. Additional information regarding these transit services is provided below:

Metro Rail. The Metro Green Line operates in the Study Area, south of the Project site. The Metro Green Line runs east-west between the City of Norwalk and Redondo Beach along the I-105, connecting with the Metro Blue Line at the Imperial/Wilmington Station and shuttle services to LAX at the Aviation/LAX Station. The Metro Blue Line operates between the City of Los Angeles' downtown and the City of Long Beach and connects with the Metro Red Line and Purple Line in the City of Los Angeles' downtown. The Metro Green Line has average headways of 10 minutes during weekday morning and afternoon peak periods.

Metro Local 42 and 42A. Routes 42 and 42A are local lines that travel north-south on La Tijera Boulevard in the Project site vicinity with average headways of 35 minutes during the weekday morning and afternoon peak hours. These lines travel from the City of Los Angeles' downtown to the City of Hawthorne's downtown and provide service to LAX, the South Bay and the City of Inglewood.

Metro Local 111 and 311. Routes 111 and 311 are local lines that travel east-west on Florence Avenue in the Project site vicinity with average headways of 20 minutes during the weekday morning and afternoon peak hours. These lines travel from the LAX City Bus Center to the Norwalk Green Line Station and provide service to the Florence Blue Line Station and Inglewood Transit Center.

Metro Local 115. Route 115 is a local line that travels east-west on Manchester Avenue in the Project site vicinity with average headways of 10 minutes during the weekday morning and afternoon peak hours. This line travels from the Community of Playa del Rey to the City of Norwalk and provides service to the neighborhood of Westchester, the City of Inglewood, and Loyola Marymount University.

Metro Local 117. Route 117 is a local line that travels east-west on Century Boulevard in the Project site vicinity with average headways of 20 minutes during the weekday morning and afternoon peak hours. This line travels from the LAX City Bus Center to Downey and provides service to the City of Inglewood, the City of South Gate and the 103rd Street Blue Line Station.

Metro Local 232. Route 232 is a local line that travels north-south on Sepulveda Boulevard in the Project site vicinity with average headways of 20 minutes during the weekday morning and afternoon peak hours. This line travels from the LAX City Bus Center to the City of Long Beach and provides service to the cities of Manhattan Beach, Redondo Beach, and Lomita.

LADOT Commuter Express 574. Line 574 is an express line that travels north-south on Sepulveda Boulevard and Aviation Boulevard in the Project site vicinity with average headways of 30 minutes during the weekday morning peak hours and 45 minutes during the weekday afternoon peak hours. This line travels from the neighborhood of Sylmar to El Segundo and provides service to the neighborhoods of Sylmar and Granada Hills, and LAX.

Big Blue Bus Line 3. Line 3 is a local line that travels east-west on Lincoln Boulevard in the Project site vicinity with average headways of 15 minutes during the weekday morning and afternoon peak hours. This line travels from the Aviation/LAX Green Line Station to UCLA and provides service to the Community of Marina del Rey and the City Santa Monica.

Big Blue Bus Rapid Line 3. Line 3 is a rapid line that travels north-south on Lincoln Boulevard and Airport Boulevard in the Project site vicinity with average headways of 15 minutes during the weekday morning and afternoon peak hours. This line travels from 4th Street/Wilshire Boulevard to Aviation/LAX Green Line Station and provides service to the LAX City Bus Center and Loyola Marymount University.

Culver City Bus Line 6. Line 6 is a local line that travels north-south on Sepulveda Boulevard in the Project site vicinity and has average headways of 20 minutes during the weekday morning and afternoon peak hours. This line travels from the University of California, Los Angeles to the Aviation/LAX Green Line Station and provides service to West Los Angeles, the LAX City Bus Center, and the Culver City Transit Center.

Culver City Bus Line 6 Rapid. Line 6 Rapid is a local line that travels north-south on Sepulveda Boulevard in the Project site vicinity and has average headways of 15 minutes during the weekday morning and afternoon peak hours. This line travels from University of California, Los Angeles to the Aviation/LAX Green Line Station and provides service to West Los Angeles, the LAX City Bus Center and the Culver City Transit Center.

Torrance Transit Line 8. Line 8 is a local line that travels east-west on Imperial Highway and El Segundo Boulevard in the Project site vicinity with average headways of 22 minutes during the weekday morning and afternoon peak hours. This line travels from Torrance to LAX and provides service to the cities of Redondo Beach, Hermosa Beach, and Manhattan Beach.

Beach Cities Transit Line 109. Line 109 is a local line that travels in the east-west direction on Imperial Highway and Grand Avenue and the north-south direction on Aviation Boulevard, Main Street, and Sepulveda Boulevard in the Project site vicinity with average headways of 30 minutes during the weekday morning and afternoon peak hours. This line travels from the LAX City Bus Center to the City of Hermosa Beach and provides service to the City of Manhattan Beach's downtown, City of El Segundo's downtown, and Metro Aviation and Douglas Green Line stations.

Existing transit ridership data was obtained from Metro, LADOT Commuter Express, Santa Monica Big Blue bus, and Torrance Transit for lines serving the Project site.[1] An analysis of existing frequency and ridership was conducted on the transit lines within walking distance of the Project site. The available ridership data was analyzed to determine the typical peak hour load on each route.

Table 4.14-1, Existing Transit Service, presents information on the average existing load for each line as well as the capacity of each run. Also shown is the average residual transit capacity for each run and total residual capacity during the peak periods.

[1] Culver City Bus and Beach Cities Transit did not have usable ridership data available.

Table 4.14-1

Existing Transit Service Patronage and Residual Capacity Lines Serving Project Periphery

Provider and Route	Number of Runs During Peak Hour[a]	Capacity[b]	Average Load[c]	Load Factor - Load/Capacity[d]	Residual Capacity per Run	Residual Capacity in Peak Hour[e]
Morning Peak Hour						
Metro Bus						
42	4	50	33	0.66	17	68
111/311	6	50	39	0.78	11	66
115	12	50	34	0.68	16	192
117	6	50	38	0.76	12	72
232	6	50	35	0.70	15	90
Metro Rail						
Green	14	152	60	0.39	93	1,302
LADOT Commuter Express						
574	6	49	24	0.49	25	150
Santa Monica Big Blue Bus						
3	9	60	38	0.63	22	198
R3	9	60	37	0.62	23	207
Torrance Transit						
8	7	60	50	0.83	10	70
Culver City Bus[e]						
C6	7	n/a	n/a	n/a	n/a	n/a
CR6	8	n/a	n/a	n/a	n/a	n/a
Beach Cities Transit[e]						
109	6	n/a	n/a	n/a	n/a	n/a
					Total Residual Capacity in Peak Hour	**2,415**
Afternoon Peak Hour						
Metro Bus						
42	4	50	31	0.62	19	76
111/311	7	50	39	0.78	11	77
115	12	50	39	0.78	11	132
117	6	50	41	0.82	9	54
232	7	50	34	0.68	16	112

Table 4.14-1

Existing Transit Service Patronage and Residual Capacity Lines Serving Project Periphery

Provider and Route	Number of Runs During Peak Hour[a]	Capacity[b]	Average Load[c]	Load Factor - Load/Capacity[d]	Residual Capacity per Run	Residual Capacity in Peak Hour[e]
Metro Rail						
Green	16	152	66	0.43	87	1,392
LADOT Commuter Express						
574	2	49	22	0.45	27	54
Santa Monica Big Blue Bus						
3	9	60	41	0.68	19	171
R3	8	60	29	0.48	31	248
Torrance Transit						
8	8	60	38	0.63	22	176
Culver City Bus[e]						
C6	6	n/a	n/a	n/a	n/a	n/a
CR6	8	n/a	n/a	n/a	n/a	n/a
Beach Cities Transit[e]						
574	6	n/a	n/a	n/a	n/a	n/a
					Total Residual Capacity in Peak Hour	**2,492**

Notes:
Metro = Los Angeles County Metropolitan Transportation Authority
LADOT = Los Angeles Department of Transportation
[a] = Number of runs in both directions combined during peak hour.
[b] = Capacity assumptions: Metro Regular Bus - 40 seated + 10 standing = 50. LADOT Commuter Express Bus - 49 seated. Metro Articulated Bus - 66 seated + 9 standing = 75. Santa Monica Big Blue Bus - 50 seated + 10 standing = 60. Torrance Transit - 45 seated + 15 standing = 60
[c] = Local Bus Route: Average load is the average peak load of 5 consecutive runs, 2 runs before and 2 after the maximum load observed. Commuter Bus Route: Average load is the average number of passengers on all runs during peak period.
[d] = Residual capacity in peak period = (residual capacity per run) x (number of peak period runs).
[e] = No applicable data was available for Culver City Bus or Beach Cities Transit bus lines.
Source: Gibson Transportation Consulting, October 2013.

As indicated in **Table 4.14-1** above, all lines for which data was available have available capacity during the morning and afternoon peak periods. In total, it is estimated that the transit lines serving the Project site have combined residual capacity of at least 2,415 transit patrons during the morning peak hour and 2,492 transit patrons during the afternoon peak hour.

4.14.2.2.2 Existing Traffic Conditions

Local Street System

Based on consultation with LADOT, 108 intersections within the Study Area were identified for analysis. Of these 108 intersections, 72 are located in the City of Los Angeles, 11 in the City of Inglewood, 10 in Culver City, five in the unincorporated County of Los Angeles, five in the City of El Segundo, four in the City of Hawthorne, and one in the City of Manhattan Beach. Fourteen of the study intersections are freeway ramp intersections where jurisdiction is shared with Caltrans (those at freeway ramps). **Figure 4.14-1,** Study Area illustrates the locations of these intersections and **Table 4.14-2,** Study Intersections and Jurisdictions, identifies the intersections analyzed in each jurisdiction.

Table 4.14-2

Study Intersections and Jurisdictions

No.	Intersection	Jurisdiction
1. [a]	Lincoln Boulevard & Venice Boulevard	City of Los Angeles
2. [a]	Lincoln Boulevard & Washington Boulevard	City of Los Angeles
3. [a]	Lincoln Boulevard & Maxella Avenue	City of Los Angeles
4. [a]	Lincoln Boulevard & SR-90 Ramps	City of Los Angeles
5. [a]	Lincoln Boulevard & Bali Way	City of Los Angeles
6. [a]	Lincoln Boulevard & Mindanao Way	City of Los Angeles
7. [a]	Lincoln Boulevard & Fiji Way	City of Los Angeles
8. [a]	Lincoln Boulevard & Jefferson Boulevard	City of Los Angeles
9. [a]	Lincoln Boulevard & Bluff Creek Drive	City of Los Angeles
10. [a]	Lincoln Boulevard & LMU Drive	City of Los Angeles
11. [a]	Lincoln Boulevard & 83rd Street	City of Los Angeles
12. [a]	Lincoln Boulevard & Manchester Avenue	City of Los Angeles
13. [a]	Lincoln Boulevard & La Tijera Boulevard	City of Los Angeles
14. [a]	Culver Boulevard & Jefferson Boulevard	City of Los Angeles
15. [a]	Nicholson Street & Culver Boulevard	City of Los Angeles
16. [a]	Pershing Drive & Manchester Avenue	City of Los Angeles
17. [a]	Pershing Drive & Westchester Parkway	City of Los Angeles
18. [a]	Vista del Mar & Imperial Highway	City of Los Angeles
19. [a]	Pershing Drive & Imperial Highway	City of Los Angeles
20. [a]	Main Street & Imperial Highway	City of Los Angeles

Table 4.14-2

Study Intersections and Jurisdictions

No.	Intersection	Jurisdiction
21. [a]	Vista del Mar & Grand Avenue	City of Los Angeles
22.	Highland Avenue/Vista del Mar & Rosecrans Avenue	City of Manhattan Beach
23.	Sepulveda Boulevard & Centinela Avenue	City of Culver City
24. [a]	Sepulveda Boulevard & Howard Hughes Parkway	City of Los Angeles
25. [a]	Sepulveda Boulevard & 76th Street	City of Los Angeles
26. [a]	Sepulveda Boulevard & 79th Street	City of Los Angeles
27. [a]	Sepulveda Boulevard & 83rd Street	City of Los Angeles
28. [a]	Sepulveda Boulevard & Manchester Avenue	City of Los Angeles
29. [a]	Sepulveda Boulevard & La Tijera Blvd	City of Los Angeles
30. [a]	Sepulveda Boulevard & Westchester Parkway	City of Los Angeles
31. [a]	Sepulveda Boulevard & Lincoln Boulevard	City of Los Angeles
32. [a]	Sepulveda Boulevard & Century Boulevard	City of Los Angeles
33. [a]	Sepulveda Boulevard & I-105 WB Ramps n/o Imperial Highway	City of Los Angeles
34. [a]	Sepulveda Boulevard & Imperial Highway	City of Los Angeles
35.	Sepulveda Boulevard & Mariposa Avenue	City of El Segundo
36.	Sepulveda Boulevard & Grand Avenue	City of El Segundo
37.	Sepulveda Boulevard & El Segundo Boulevard	City of El Segundo
38.	Sepulveda Boulevard & Rosecrans Avenue	City of El Segundo
39. [a]	La Tijera Boulevard & Manchester Avenue	City of Los Angeles
40. [a]	La Tijera Boulevard & Airport Boulevard	City of Los Angeles
41. [a]	SB I-405 Ramps & La Tijera Boulevard	City of Los Angeles
42. [a]	NB I-405 Ramps & La Tijera Boulevard	City of Los Angeles
43. [a]	La Tijera Boulevard & Centinela Boulevard	City of Los Angeles
44. [a]	La Cienega Boulevard & La Tijera Boulevard	City of Los Angeles
45. [a]	La Cienega Boulevard & Centinela Avenue	City of Los Angeles
46. [a]	Airport Boulevard & Manchester Avenue	City of Los Angeles
47.	Aviation Boulevard / Florence Avenue & Manchester Avenue	City of Inglewood
48.	La Cienega Boulevard & Florence Avenue	City of Inglewood
49.	La Cienega Boulevard & Manchester Boulevard	City of Inglewood
50.	Ash Avenue & Manchester Avenue	City of Inglewood
51.	Inglewood Avenue & Manchester Boulevard	City of Inglewood
52.	La Brea Avenue & Florence Avenue	City of Inglewood
53.	La Brea Avenue & Manchester Boulevard	City of Inglewood
54. [a]	Sepulveda Eastway & Westchester Parkway	City of Los Angeles

Table 4.14-2

Study Intersections and Jurisdictions

No.	Intersection	Jurisdiction
55. [a]	Jenny Avenue & Westchester Parkway	City of Los Angeles
56. [a]	Airport Boulevard & Arbor Vitae Street / Westchester Parkway	City of Los Angeles
57. [a]	Aviation Boulevard & Arbor Vitae Street	City of Los Angeles
58. [a]	La Cienega Boulevard & Arbor Vitae Street	City of Los Angeles
59.	Inglewood Avenue & Arbor Vitae Street	City of Inglewood
60.	La Brea Avenue & Arbor Vitae Street	City of Inglewood
61. [a]	Airport Boulevard & Century Boulevard	City of Los Angeles
62. [a]	Aviation Boulevard & Century Boulevard	City of Los Angeles
63. [a]	La Cienega Boulevard & Century Boulevard	City of Los Angeles
64.	NB I-405 Ramps & Century Boulevard	City of Inglewood
65.	Inglewood Avenue & Century Boulevard	City of Inglewood
66.	La Brea Avenue / Hawthorne Boulevard & Century Boulevard	City of Inglewood
67.	Inglewood Avenue & Lennox Boulevard	Los Angeles County
68.	Hawthorne Boulevard & Lennox Boulevard	Los Angeles County
69.	Inglewood Avenue & Imperial Highway	City of Hawthorne
70.	Hawthorne Boulevard & Imperial Highway	City of Hawthorne
71.	Inglewood Avenue & El Segundo Boulevard	City of Hawthorne
72.	Hawthorne Boulevard & El Segundo Boulevard	City of Hawthorne
73. [a]	Centinela Avenue & Culver Boulevard	City of Los Angeles
74. [a]	Centinela Avenue & Sanford Street / SR-90 WB On/Off Ramps	City of Los Angeles
75. [a]	Centinela Avenue & SR-90 EB On/Off Ramps	City of Los Angeles
76. [a]	Centinela Avenue & Jefferson Boulevard	City of Los Angeles
77. [a]	Sepulveda Boulevard & Washington Place	City of Culver City
78.	Sepulveda Boulevard & Washington Boulevard	City of Culver City
79.	Sawtelle Boulevard & Culver Boulevard	City of Culver City
80.	Sepulveda Boulevard & Culver Boulevard	City of Culver City
81. [a]	I-405 SB Ramps & Jefferson Boulevard	City of Los Angeles
82. [a]	I-405 NB Ramps & Jefferson Boulevard	City of Los Angeles
83.	Sepulveda Boulevard & Jefferson Boulevard	City of Culver City
84.	Sepulveda Boulevard & Sawtelle Boulevard	City of Culver City
85.	Slauson Avenue & Jefferson Boulevard	City of Culver City
86.	Sepulveda Boulevard & Jefferson Boulevard & Playa Street	City of Culver City
87.	Sepulveda Boulevard & Slauson Avenue	City of Culver City
88.	La Cienega Boulevard & Stocker Street	Los Angeles County

Table 4.14-2

Study Intersections and Jurisdictions

No.	Intersection	Jurisdiction
89.	La Cienega Boulevard SB Ramps & Slauson Avenue	Los Angeles County
90.	La Cienega Boulevard NB Ramps & Slauson Avenue	Los Angeles County
91. [a]	Falmouth Avenue & Manchester Avenue	City of Los Angeles
92. [a]	Falmouth Avenue & Westchester Parkway	City of Los Angeles
93. [a]	Lincoln Boulevard & Loyola Boulevard	City of Los Angeles
94. [a]	Loyola Boulevard & Westchester Parkway	City of Los Angeles
95. [a]	McConnell Avenue & Westchester Parkway	City of Los Angeles
96. [a]	Emerson Avenue & Manchester Avenue	City of Los Angeles
97. [a]	La Tijera Boulevard & Westchester Parkway	City of Los Angeles
98. [a]	Sepulveda Westway & La Tijera Boulevard	City of Los Angeles
99. [a]	Sepulveda Westway & Westchester Parkway	City of Los Angeles
100. [a]	Airport Boulevard & 96th Street	City of Los Angeles
101. [a]	Aviation Boulevard & Imperial Highway	City of Los Angeles
102.	Aviation Boulevard & El Segundo Boulevard	City of El Segundo
103. [a]	Lincoln Boulevard & Rose Avenue	City of Los Angeles
104. [a]	Culver Boulevard & SR-90 WB Ramps	City of Los Angeles
105. [a]	Culver Boulevard & SR-90 EB Ramps	City of Los Angeles
106. [a]	I-405 SB Ramps & Howard Hughes Parkway	City of Los Angeles
107. [a]	Center Drive & I-405 NB Ramps / Howard Hughes Parkway	City of Los Angeles
108. [a]	La Cienega Boulevard & Imperial Highway	City of Los Angeles

Note:
[a] = Intersection is operating under LADOT's Adaptive Traffic Control System (ATCS). A V/C credit of 0.10 is applied to these intersections under all existing and future analysis scenarios.
Source: Gibson Transportation Consulting, October 2013.

Existing operating conditions at the 108 study intersections during the weekday morning and afternoon peak hours are shown in **Table 4.14-3,** Existing Conditions (Year 2012) Intersection Peak Hour Levels of Service. Intersection turning movement counts for the morning (7:00 A.M. to 10:00 A.M.) and afternoon (3:00 P.M. to 6:00 P.M.) peak periods for typical weekdays were collected in July 2010 for intersections numbered 1 through 90, 100 through 103, and 108 in **Table 4.13-3**. LADOT guidelines allow for use of traffic counts up to a maximum of two years old at the time of the issuance of the Notice of Preparation (April 4, 2012). To reflect ambient growth in traffic from 2010 to 2012, in consultation with LADOT, the existing traffic counts have been increased by approximately 1.7 percent. Intersection turning movement counts for the morning and afternoon peak periods for typical weekdays were collected in February 2012 and May 2012 for intersections numbered 91 through 99 and 104 through 107, respectively, in **Table 4.13-3**. The existing lane configurations and traffic signal phasing at each intersection was verified during field surveys conducted in October 2011 and February 2012. The existing lane

configurations at each of these intersections are provided in Appendix I of the Transportation Study in Appendix E.

Table 4.13-3

Existing Conditions (Year 2012) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
1.	LA	Lincoln Boulevard & Venice Boulevard	A.M.	0.820	D
			P.M.	0.906	E
2.	LA	Lincoln Boulevard & Washington Boulevard	A.M.	0.750	C
			P.M.	0.944	E
3.	LA	Lincoln Boulevard & Maxella Avenue	A.M.	0.556	A
			P.M.	0.600	A
4.	LA	Lincoln Boulevard & SR-90 Ramps	A.M.	0.700	B
			P.M.	0.810	D
5.	LA	Lincoln Boulevard & Bali Way	A.M.	0.424	A
			P.M.	0.707	C
6.	LA	Lincoln Boulevard & Mindanao Way	A.M.	0.635	B
			P.M.	0.778	C
7.	LA	Lincoln Boulevard & Fiji Way	A.M.	0.524	A
			P.M.	0.751	C
8.	LA	Lincoln Boulevard & Jefferson Boulevard	A.M.	0.613	B
			P.M.	0.630	B
9.	LA	Lincoln Boulevard & Bluff Creek Drive	A.M.	0.362	A
			P.M.	0.342	A
10.	LA	Lincoln Boulevard & LMU Drive	A.M.	0.435	A
			P.M.	0.530	A
11.	LA	Lincoln Boulevard & 83rd Street	A.M.	0.544	A
			P.M.	0.586	A
12.	LA	Lincoln Boulevard & Manchester Avenue	A.M.	0.600	A
			P.M.	0.645	B
13.	LA	Lincoln Boulevard & La Tijera Boulevard	A.M.	0.343	A
			P.M.	0.368	A
14.	LA	Culver Boulevard & Jefferson Boulevard	A.M.	0.694	B
			P.M.	0.659	B

Table 4.13-3

Existing Conditions (Year 2012) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
15.	LA	Nicholson Street &	A.M.	0.548	A
		Culver Boulevard	P.M.	0.743	C
16.	LA	Pershing Drive &	A.M.	0.455	A
		Manchester Avenue	P.M.	0.381	A
17.	LA	Pershing Drive &	A.M.	0.213	A
		Westchester Parkway	P.M.	0.191	A
18.	LA	Vista del Mar &	A.M.	0.405	A
		Imperial Highway	P.M.	0.368	A
19.	LA	Pershing Drive &	A.M.	0.519	A
		Imperial Highway	P.M.	0.369	A
20.	LA	Main Street &	A.M.	0.689	B
		Imperial Highway	P.M.	0.527	A
21.	LA	Vista del Mar &	A.M.	0.500	A
		Grand Avenue	P.M.	0.331	A
22.	MB	Highland Avenue &	A.M.	0.780	C
		Rosecrans Avenue	P.M.	0.689	B
23.	CC	Sepulveda Boulevard &	A.M.	0.743	C
		Centinela Avenue	P.M.	0.771	C
24.	LA	Sepulveda Boulevard &	A.M.	0.391	A
		Howard Hughes Parkway	P.M.	0.543	A
25.	LA	Sepulveda Boulevard &	A.M.	0.666	B
		76th Street	P.M.	0.634	B
26.	LA	Sepulveda Boulevard &	A.M.	0.450	A
		79th Street	P.M.	0.511	A
27.	LA	Sepulveda Boulevard &	A.M.	0.396	A
		83rd Street	P.M.	0.461	A
28.	LA	Sepulveda Boulevard &	A.M.	0.750	C
		Manchester Avenue	P.M.	0.767	C
29.	LA	Sepulveda Boulevard &	A.M.	0.504	A
		La Tijera Boulevard	P.M.	0.635	B

Table 4.13-3

Existing Conditions (Year 2012) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
30.	LA	Sepulveda Boulevard & Westchester Parkway	A.M.	0.455	A
			P.M.	0.706	C
31.	LA	Sepulveda Boulevard & Lincoln Boulevard	A.M.	0.145	A
			P.M.	0.205	A
32.	LA	Sepulveda Boulevard & Century Boulevard	A.M.	0.547	A
			P.M.	0.623	B
33.	LA	Sepulveda Boulevard & I-105 Westbound Ramps N/O Imperial Highway	A.M.	0.840	D
			P.M.	0.874	D
34.	LA	Sepulveda Boulevard & Imperial Highway	A.M.	0.668	B
			P.M.	1.035	F
35.	ES	Sepulveda Boulevard & Mariposa Avenue	A.M.	0.733	C
			P.M.	0.763	C
36.	ES	Sepulveda Boulevard & Grand Avenue	A.M.	0.769	C
			P.M.	0.862	D
37.	ES	Sepulveda Boulevard & El Segundo Boulevard	A.M.	0.769	C
			P.M.	0.979	E
38.	ES	Sepulveda Boulevard & Rosecrans Avenue	A.M.	0.792	C
			P.M.	1.099	F
39.	LA	La Tijera Boulevard & Manchester Avenue	A.M.	0.455	A
			P.M.	0.515	A
40.	LA	La Tijera Boulevard & Airport Boulevard	A.M.	0.384	A
			P.M.	0.374	A
41.	LA	I-405 Southbound Ramps & La Tijera Boulevard	A.M.	0.439	A
			P.M.	0.560	A
42.	LA	I-405 Northbound Ramps & La Tijera Boulevard	A.M.	0.547	A
			P.M.	0.546	A
43.	LA	La Tijera Boulevard & Centinela Avenue	A.M.	0.539	A
			P.M.	0.701	C
44.	LA	La Cienega Boulevard & La Tijera Boulevard	A.M.	0.647	B
			P.M.	0.651	B

Table 4.13-3

Existing Conditions (Year 2012) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
45.	LA	La Cienega Boulevard & Centinela Avenue	A.M.	0.943	E
			P.M.	0.989	E
46.	LA	Airport Boulevard & Manchester Avenue	A.M.	0.578	A
			P.M.	0.806	D
47.	IW	Aviation Boulevard / Florence Avenue & Manchester Avenue	A.M.	0.601	B
			P.M.	0.685	B
48.	IW	La Cienega Boulevard & Florence Avenue	A.M.	0.688	B
			P.M.	0.977	E
49.	IW	La Cienega Boulevard & Manchester Avenue	A.M.	0.596	A
			P.M.	0.828	D
50.	IW	Ash Avenue / I-405 Northbound Ramps & Manchester Avenue	A.M.	0.624	B
			P.M.	0.711	C
51.	IW	Inglewood Avenue & Manchester Avenue	A.M.	0.471	A
			P.M.	0.597	A
52.	IW	La Brea Avenue & Florence Avenue	A.M.	0.659	B
			P.M.	0.855	D
53.	IW	La Brea Avenue & Manchester Avenue	A.M.	0.689	B
			P.M.	0.739	C
54.	LA	Sepulveda Eastway & Westchester Parkway	A.M.	0.231	A
			P.M.	0.439	A
55.	LA	Jenny Avenue & Westchester Parkway	A.M.	0.084	A
			P.M.	0.163	A
56.	LA	Airport Boulevard & Arbor Vitae Street / Westchester Parkway	A.M.	0.283	A
			P.M.	0.538	A
57.	LA	Aviation Boulevard & Arbor Vitae Street	A.M.	0.414	A
			P.M.	0.560	A
58.	LA	La Cienega Boulevard & Arbor Vitae Street	A.M.	0.396	A
			P.M.	0.545	A
59.	IW	Inglewood Avenue & Arbor Vitae Street	A.M.	0.372	A
			P.M.	0.676	B

Table 4.13-3

Existing Conditions (Year 2012) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
60.	IW	La Brea Avenue &	A.M.	0.343	A
		Arbor Vitae Street	P.M.	0.671	B
61.	LA	Airport Boulevard &	A.M.	0.547	A
		Century Boulevard	P.M.	0.552	A
62.	LA	Aviation Boulevard &	A.M.	0.767	C
		Century Boulevard	P.M.	0.917	E
63.	LA	La Cienega Boulevard &	A.M.	0.535	A
		Century Boulevard	P.M.	0.685	B
64.	IW	I-405 Northbound Ramps &	A.M.	0.603	B
		Century Boulevard	P.M.	0.586	A
65.	IW	Inglewood Avenue &	A.M.	0.508	A
		Century Boulevard	P.M.	0.761	C
66.	IW	La Brea Avenue/Hawthorne Boulevard &	A.M.	0.562	A
		Century Boulevard	P.M.	0.772	C
67.	LAC	Inglewood Avenue &	A.M.	0.429	A
		Lennox Boulevard	P.M.	0.719	C
68.	LAC	Hawthorne Boulevard &	A.M.	0.408	A
		Lennox Boulevard	P.M.	0.735	C
69.	HT	Inglewood Avenue &	A.M.	0.632	B
		Imperial Highway	P.M.	1.166	F
70.	HT	Hawthorne Boulevard &	A.M.	0.573	A
		Imperial Highway	P.M.	0.863	D
71.	HT	Inglewood Avenue &	A.M.	0.595	A
		El Segundo Boulevard	P.M.	0.973	E
72.	HT	Hawthorne Boulevard &	A.M.	0.619	B
		El Segundo Boulevard	P.M.	1.176	F
73.	LA	Centinela Avenue &	A.M.	0.677	B
		Culver Boulevard	P.M.	0.712	C
74.	LA	Centinela Avenue &	A.M.	0.370	A
		Sanford Street / SR-90 Westbound Ramps	P.M.	0.471	A

Table 4.13-3

Existing Conditions (Year 2012) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
75.	LA	Centinela Avenue &	A.M.	0.299	A
		SR-90 Eastbound Ramps	P.M.	0.421	A
76.	LA	Centinela Avenue &	A.M.	0.453	A
		Jefferson Boulevard	P.M.	0.608	B
77.	CC	Sepulveda Boulevard &	A.M.	0.624	B
		Washington Place	P.M.	0.639	B
78.	CC	Sepulveda Boulevard &	A.M.	0.670	B
		Washington Boulevard	P.M.	0.659	B
79.	CC	Sawtelle Boulevard &	A.M.	0.614	B
		Culver Boulevard	P.M.	0.772	C
80.	CC	Sepulveda Boulevard &	A.M.	0.682	B
		Culver Boulevard	P.M.	0.668	B
81.	LA	I-405 Southbound Ramps &	A.M.	0.271	A
		Jefferson Boulevard	P.M.	0.369	A
82.	LA	I-405 Northbound Ramps &	A.M.	0.395	A
		Jefferson Boulevard	P.M.	0.689	B
83.	CC	Sepulveda Boulevard &	A.M.	0.470	A
		Jefferson Boulevard	P.M.	0.494	A
84.	CC	Sepulveda Boulevard &	A.M.	0.477	A
		Sawtelle Boulevard	P.M.	0.633	B
85.	CC	Slauson Avenue &	A.M.	0.343	A
		Jefferson Boulevard	P.M.	0.457	A
86.	CC	Sepulveda Boulevard &	A.M.	0.695	B
		Jefferson Boulevard & Playa Street	P.M.	0.810	D
87.	CC	Sepulveda Boulevard &	A.M.	0.500	A
		Slauson Avenue &	P.M.	0.718	C
88.	LAC	La Cienega Boulevard &	A.M.	1.278	F
		Stocker Street	P.M.	1.178	F
89.	LAC	La Cienega Boulevard Southbound Ramp &	A.M.	0.687	B
		Slauson Avenue	P.M.	0.794	C

Table 4.13-3

Existing Conditions (Year 2012) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
90.	LAC	La Cienega Boulevard Northbound Ramp & Slauson Avenue	A.M.	0.710	C
			P.M.	0.689	B
91.	LA	Falmouth Avenue & Manchester Avenue	A.M.	0.125	A
			P.M.	0.107	A
92.	LA	Falmouth Avenue & Westchester Parkway	A.M.	0.277	A
			P.M.	0.161	A
93.	LA	Lincoln Boulevard & Loyola Boulevard	A.M.	0.348	A
			P.M.	0.440	A
94.	LA	Loyola Boulevard & Westchester Parkway	A.M.	0.195	A
			P.M.	0.108	A
95.	LA	McConnell Avenue & Westchester Parkway	A.M.	0.092	A
			P.M.	0.071	A
96.	LA	Emerson Avenue & Manchester Avenue	A.M.	0.447	A
			P.M.	0.380	A
97.	LA	La Tijera Boulevard & Westchester Parkway	A.M.	0.115	A
			P.M.	0.070	A
98.	LA	Sepulveda Westway & La Tijera Boulevard	A.M.	0.145	A
			P.M.	0.336	A
99.	LA	Sepulveda Westway & Westchester Parkway	A.M.	0.089	A
			P.M.	0.156	A
100.	LA	Airport Boulevard & 96th Street	A.M.	0.169	A
			P.M.	0.351	A
101.	LA	Aviation Boulevard & Imperial Highway	A.M.	0.643	B
			P.M.	0.605	B
102.	ES	Aviation Boulevard & El Segundo Boulevard	A.M.	0.959	E
			P.M.	0.880	D
103.	LA	Lincoln Boulevard & Rose Avenue	A.M.	0.875	D
			P.M.	0.812	D
104.	LA	Culver Boulevard & SR-90 WB Ramps	A.M.	0.739	C
			P.M.	0.793	C

Table 4.13-3

Existing Conditions (Year 2012) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
105.	LA	Culver Boulevard &	A.M.	0.407	A
		SR-90 EB Ramps	P.M.	0.459	A
106.	LA	I-405 SB Ramps &	A.M.	0.347	A
		Howard Hughes Parkway	P.M.	0.198	A
107.	LA	Center Drive &	A.M.	0.167	A
		I-405 NB Ramps/Howard Hughes Parkway	P.M.	0.207	A
108.	LA	La Cienega Boulevard &	A.M.	0.396	A
		Imperial Highway	P.M.	0.546	A

Notes:
LA = Los Angeles
CC = Culver City
MB = Manhattan Beach
ES = El Segundo
IW = Inglewood
HT = Hawthorne
LAC = Los Angeles County
Source: Gibson Transportation Consulting, October 2013.

Level of service (LOS) is a qualitative measure used to describe the condition of traffic flow on a given street. LOS categories range from nearly free-flow traffic at LOS A to stop-and-go conditions at LOS F. LOS D is typically recognized as an acceptable service level in urban areas, although many urbanized areas operate at LOS E or LOS F.

There are a variety of standard methodologies to analyze LOS for signalized intersections. In the City of Los Angeles, LADOT policy requires use of the Critical Movement Analysis (CMA) method of intersection capacity calculation to analyze the operation of signalized intersections. The City of Inglewood also uses the CMA methodology. The traffic study policies for the cities of Culver City, El Segundo, Hawthorne, Manhattan Beach, and the County of Los Angeles require the use of the Intersection Capacity Utilization (ICU) method of intersection capacity calculation to analyze the operation of signalized intersections.

Both the CMA and ICU methodologies determine the intersection Volume to Capacity (V/C) ratio and corresponding LOS for the turning movements and intersection characteristics at signalized intersections based on the definitions in **Table 4.14-4,** Level of Service Definitions for Signalized Intersections.

Table 4.14-4

Level of Service Definitions for Signalized Intersections

Level of Service	Volume-to-Capacity Ratio	Definition
A	0.000 - 0.600	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	0.601 - 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701 - 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801 - 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901 - 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Source: Transportation Research Board, Transportation Research Circular No. 212, Interim Materials on Highway Capacity, 1980.

The City of Los Angeles controls many of the signalized intersections in the City of Los Angeles with the Automated Traffic Surveillance and Control (ATSAC) computer control system, which provides real-time adjustment of signal timing plans to reflect changing traffic conditions and other benefits. LADOT estimates that implementation of this system improves intersection capacity by an average of seven percent. The Adaptive Traffic Control System (ATCS), a sub-feature of the ATSAC system, has also been implemented along major travel corridors in the City of Los Angeles. ATCS automatically adjusts and optimizes traffic signal timing in response to current traffic demands on the entire signal network, such that the number of stops and the amount of delay is minimized along with improved traffic signal coordination throughout the network. LADOT estimates that implementation of this system improves intersection capacity by an additional three percent over those operating under the ATSAC system alone.

At LADOT direction, all 72 signalized intersections located in the City of Los Angeles were assumed to operate under ATSAC and ATCS control under existing conditions. In accordance with standard LADOT procedures, a total capacity increase of 10 percent (0.100 V/C adjustment) was applied to each signalized intersection to reflect the benefits of ATSAC and ATCS control at these intersections. Similar to the City of Los Angeles, Culver City has an automated traffic control system. All 10 signalized intersections located within Culver City operate with this program and received a V/C credit of seven percent (0.070 V/C adjustment).

As identified in **Table 4.14-3** and summarized below in **Table 4.14-5**, Existing Conditions (Year 2012) Intersection Peak Hour Levels of Service Summary, 95 of the 108 analyzed intersections currently operate at LOS D or better during both the morning and afternoon peak hours.

Table 4.14-5

Existing Conditions (Year 2012) Intersection Peak Hour Levels of Service Summary

Level of Service	Number of Intersections	
	Morning Peak Hour	Afternoon Peak Hour
A	67	46
B	24	20
C	11	20
D	3	10
E	2	7
F	1	5
Total	**108**	**108**

Source: Gibson Transportation Consulting, Transportation Study for the LAX Northside Plan Update, October 2013.

Three intersections in the morning peak hour and twelve intersections in the afternoon peak hour operate at LOS E or LOS F, representing conditions at or above capacity.

The intersections currently operating at or above capacity in the morning peak hour are:

45. La Cienega Boulevard & Centinela Boulevard – City of Los Angeles;
88. La Cienega Boulevard & Stocker Street – City of Los Angeles; and
102. Aviation Boulevard and El Segundo Boulevard – City of El Segundo.

The intersections currently operating at or above capacity in the afternoon peak hour are:

1. Lincoln Boulevard & Venice Boulevard – City of Los Angeles;
2. Lincoln Boulevard & Washington Boulevard – City of Los Angeles;
34. Sepulveda Boulevard & Imperial Highway – City of Los Angeles;
37. Sepulveda Boulevard & El Segundo Boulevard – City of El Segundo;
38. Sepulveda Boulevard & Rosecrans Avenue – City of El Segundo;
45. La Cienega Boulevard & Centinela Boulevard – City of Los Angeles;
48. La Cienega Boulevard & Florence Avenue – City of Inglewood;
62. Aviation Boulevard & Century Boulevard – City of Los Angeles;
69. Inglewood Avenue & Imperial Highway – City of Hawthorne;
71. Inglewood Avenue & El Segundo Boulevard – City of Hawthorne;
72. Hawthorne Boulevard & El Segundo Boulevard – City of Hawthorne; and
88. La Cienega Boulevard & Stocker Street – City of Los Angeles

Regional Transportation System

Analysis of the operating conditions on 25 segments of the I-405, I-105, and SR-90 Freeways was completed in accordance with the Caltrans Traffic Impact Analysis (TIA) Guidelines and to comply with the requirements of the Los Angeles County CMP.

The existing operation conditions of these freeway segments are shown in **Table 4.14-6**, Existing Conditions (Year 2012) Freeway Peak Hour Levels of Service. Existing traffic volumes, V/C, and LOS are identified.

This Page Intentionally Left Blank

Table 4.14-6

Existing Conditions (Year 2012) Freeway Segment Peak Hour Level s of Service

No.	Freeway Segment	Direction	Number of Lanes	Capacity	A.M. Peak Hour			P.M. Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
1.	I-405	NB	4.5	9,000	8,524	0.95	E	7,070	0.79	D
	South of I-10	SB	5.5	11,000	7,295	0.66	C	8,256	0.75	C
2.	I-405	NB	5.5	11,000	8,540	0.78	D	6,915	0.63	C
	South of Venice Boulevard	SB	5.5	11,000	7,559	0.69	C	7,974	0.73	C
3.	I-405	NB	5.5	11,000	8,251	0.75	C	7,126	0.65	C
	South of Culver Boulevard	SB	5.5	11,000	7,570	0.69	C	7,823	0.71	C
4.	I-405	NB	5.5	11,000	7,080	0.64	C	7,181	0.65	C
	South of Braddock Drive	SB	5.5	11,000	8,484	0.77	D	8,048	0.73	C
5.	I-405	NB	4.5	9,000	7,186	0.80	D	6,305	0.70	C
	South of SR-90	SB	4.5	9,000	9,597	1.07	F(0)	9,430	1.05	F(0)
6.	I-405	NB	4.5	9,000	6,815	0.76	C	8,795	0.98	E
	South of Centinela Avenue	SB	5.5	11,000	8,920	0.81	D	8,332	0.76	C
7.	I-405	NB	4.5	9,000	7,383	0.82	D	6,748	0.75	C
	South of Howard Hughes Parkway	SB	4.5	9,000	6,210	0.69	C	6,975	0.78	D
8.	I-405	NB	4.5	9,000	6,934	0.77	C	7,415	0.82	D
	South of La Tijera Boulevard	SB	4.5	9,000	7,894	0.88	D	7,786	0.87	D
9.	I-405	NB	4.5	9,000	6,560	0.73	C	7,382	0.82	D
	South of La Cienega Boulevard	SB	4.5	9,000	8,394	0.93	E	7,942	0.88	D
10.	I-405	NB	4.5	9,000	6,903	0.77	C	7,308	0.81	D
	South of Manchester Avenue	SB	4.5	9,000	7,321	0.81	D	6,161	0.69	C

Table 4.14-6

Existing Conditions (Year 2012) Freeway Segment Peak Hour Level s of Service

No.	Freeway Segment	Direction	Number of Lanes	Capacity	A.M. Peak Hour			P.M. Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
11.	I-405	NB	4.5	9,000	7,255	0.81	D	8,611	0.96	E
	South of Century Boulevard	SB	4.5	9,000	6,111	0.68	C	5,278	0.59	C
12.	I-405	NB	4.5	9,000	5,585	0.62	C	5,209	0.58	C
	South of Imperial Highway	SB	5.5	11,000	6,772	0.62	C	6,173	0.56	C
13.	I-405	NB	4.5	9,000	6,290	0.70	C	6,594	0.73	C
	South of I-105	SB	4.5	9,000	6,131	0.68	C	5,735	0.64	C
14.	I-405	NB	4.5	9,000	6,172	0.69	C	6,372	0.71	C
	South of El Segundo Boulevard	SB	4.5	9,000	5,988	0.67	C	6,191	0.69	C
15.	I-405	NB	4.5	9,000	8,350	0.93	D	7,281	0.81	D
	South of Rosecrans Avenue	SB	4.5	9,000	6,113	0.68	C	7,312	0.81	D
16.	I-105	EB	3	6,000	2,755	0.46	B	3,711	0.62	C
	West of Hughes Way	WB	2	4,000	5,173	1.29	F(1)	4,026	1.01	F(0)
17.	I-105	EB	3	6,000	2,936	0.49	B	3,451	0.58	C
	West of Douglas Avenue	WB	3	6,000	5,014	0.84	D	3,479	0.58	C
18.	I-105	EB	3	6,000	1,034	0.17	A	1,186	0.20	A
	West of Imperial Highway	WB	3	6,000	6,016	1.00	F(0)	5,150	0.86	D
19.	I-105	EB	3	6,000	2,277	0.38	B	3,185	0.53	B
	West of I-405	WB	4	8,000	3,872	0.48	B	2,770	0.35	A
20.	I-105	EB	3.5	7,000	5,038	0.72	C	5,198	0.74	C
	West of Hawthorne Avenue	WB	3.5	7,000	4,755	0.68	C	3,761	0.54	B

Table 4.14-6

Existing Conditions (Year 2012) Freeway Segment Peak Hour Level s of Service

No.	Freeway Segment	Direction	Number of Lanes	Capacity	A.M. Peak Hour			P.M. Peak Hour		
					Volume	V/C	LOS	Volume	V/C	LOS
21.	I-105	EB	3.5	7,000	5,330	0.76	C	5,598	0.80	D
	West of Prairie Avenue	WB	3.5	7,000	6,368	0.91	D	4,820	0.69	C
22.	SR-90	EB	2	4,000	1,872	0.47	B	1,807	0.45	B
	West of Mindanao Way	WB	2	4,000	1,185	0.30	A	1,172	0.29	A
23.	SR-90	EB	2	4,000	1,850	0.46	B	1,816	0.45	B
	West of Culver Boulevard	WB	3	6,000	2,002	0.33	A	2,011	0.34	A
24.	SR-90	EB	3	6,000	1,671	0.28	A	2,063	0.34	A
	West of Centinela Avenue	WB	2	4,000	2,039	0.51	B	2,055	0.51	B
25.	SR-90	EB	3	6,000	3,340	0.56	C	2,965	0.49	B
	West of I-405	WB	4	8,000	2,670	0.33	A	3,280	0.41	B

Notes:

SB = Southbound

NB = Northbound

EB = Eastbound

WB = Westbound

Source: Gibson Transportation Consulting, Transportation Study for the LAX Northside Plan Update, October 2013.

This Page Intentionally Left Blank

4.14.3 Impact Analysis

4.14.3.1 Methodology

4.14.3.1.1 Construction

The L.A. CEQA Thresholds Guide identifies the following four categories of potential impacts from construction: (1) traffic impacts, (2) loss of access, (3) loss of bus stops or rerouting of bus lines and (4) on-street parking. Each of these potential temporary impacts is evaluated for the construction of the proposed Project, which is projected to occur in phases between 2015 and 2022.

An estimate of both haul trips and the identified haul routes, along with trips from construction workers were estimated to assess traffic impacts.

Temporary access impacts and were evaluated by reviewing the planned access characteristics of each Area and the location of street improvements that would be required for each Area.

4.14.3.1.2 Local Street System

Impacts are evaluated for Existing 2012 traffic conditions by comparing the Existing with Project Conditions to the Existing Conditions. Future 2022 traffic conditions are assessed based on future traffic forecasts developed using the LAX Model. The LAX Model is based on the City of Los Angeles Transportation Strategic Plan travel demand forecasting model (the "TSP Model"), which is in turn based on the SCAG regional travel demand model (the "SCAG Model"). The TSP Model provides additional detail in terms of the land use database and the street network in the City of Los Angeles area that are not found in the SCAG Model. The LAX Model adds further detail in the area surrounding the Airport to the TSP Model.

All of these models use a database of existing and forecast future regional development to generate and distribute trips based on locally researched trip generation rates and travel patterns. The LAX Model land use database captures all projected regional development between 2010 and 2025, including all projected land use growth and change in the Study Area. The LAX Model produced 2025 peak hour traffic volumes on street segments throughout the Study Area. These volumes were converted into intersection turning movement volumes using the Fratar process. These volumes were reduced to reflect 2022 conditions based on the relative difference between the 2025 LAX Model output and the 2012 existing conditions.

For the Future 2022 Conditions impact analysis, intersection impacts were evaluated by comparing the Future with Project Conditions to the Future without Project Conditions.

To assess traffic impacts with the addition of the proposed Project traffic in 2022, both the growth in traffic volumes from regional growth and other proposed, approved, or under construction projects within the Study Area was considered. The LAX Model captures all projected regional development in the Study Area between 2010 and 2025, including the related projects discussed below.

In addition, changes to the regional and local transportation network identified in regional improvement plans and local specific plans, as well as programmed improvements that will occur by 2022 are incorporated in the LAX Model. These improvements are described below.

Public Transit Improvements

The following transit projects are expected to be completed prior to full development of the proposed Project, consistent with the assumptions in the LAX Model.

Airport Metro Connector

Metro prepared an Alternative Analysis Study for a connection between existing and proposed light rail lines and LAX. Mode alternatives considered included Light Rail Transit (LRT), Automated People Mover (APM), and Bus Rapid Transit (BRT). Metro is currently refining the alternatives analysis and exploring ways to connect the Green Line and proposed Crenshaw/LAX line to LAX including the Intermodal Transportation Facility (ITF). Under approved LAWA plans, LAX would operate an APM between the ITF, Consolidated Rental Car Facility (ConRac) and the Central Terminal Area (CTA). The exact connection point between the LAWA APM and the Metro transit system is still under study. The Airport Metro Connector is expected to be completed by year 2020 with funding from Metro's 30/10 Initiative, the Federal Aviation Administration (FAA), and Federal Transit Administration (FTA).

Metro Crenshaw/LAX Transit Corridor

Metro has certified the Final EIR and initiated construction of the Crenshaw/LAX Transit Corridor project. The 8.5 mile long line will run along the Harbor Subdivision Railroad right-of-way and Crenshaw Boulevard, and will connect the Metro Green Line with the Expo Line at the Exposition/Crenshaw Station. This line will also serve as a connection between the City of Los Angeles' downtown, the Westside, and the South Bay. Stations will be located at Crenshaw Boulevard and Exposition Boulevard, Crenshaw Boulevard and Martin Luther King Jr. Boulevard, Crenshaw Boulevard and Slauson Avenue, Florence Avenue and West Boulevard, Florence Avenue and La Brea Avenue, and Aviation Boulevard and Century Boulevard. Two additional stations, at Crenshaw Boulevard and Vernon Avenue and Aviation Boulevard and Manchester Avenue, were evaluated in the Final EIR but were not part of the base project definition. Ridership for this line was estimated at 15,000 to 21,000 daily boardings. Utility relocation and construction has begun, and the line is expected to be open by the year 2019.[2]

South Bay Metro Green Line Extension Transit Corridor Project

Metro is currently developing plans for a 4.6 mile extension of the existing Green Line from the Redondo Beach Station to the future planned Torrance Regional Transit Center (RTC). The extended Green Line would serve the South Bay region, which includes the cities of Hawthorne, Manhattan Beach, Lawndale, Redondo Beach and Torrance. The alternatives being evaluated include a No Build Alternative, TSM Alternative, and a Light Rail Alternative. The 2009 Metro Long Range Transportation Plan called for completion of the Green Line extension by 2035; however, Metro's 30/10 Initiative was adopted to accelerate funding, which allows for completion by 2018.[3]

Metro is currently in the drafting phase of the EIR/EIS. During this process Metro will evaluate three alternatives: No Build, TSM, and Light Rail. The No Build Alternative would result in no new transportation infrastructure in the Project area. The TSM Alternative would create a bus system with improved roadways and signal synchronization between the Redondo Beach

[2] Los Angeles County Metropolitan Transportation Agency, Crenshaw/LAX Transit Corridor Overview, June 2013.

[3] Los Angeles County Metropolitan Transportation Agency, FAQs – March 2011 Update: South Bay Metro Green Line Extension Transit Corridor Project, March 2011.

Station and the Torrance RTC. The Light Rail Alternative would extend the existing Green Line light rail transit service along the Harbor Subdivision right-of-way with stops at Manhattan Beach Boulevard and Inglewood Avenue, the proposed Redondo Beach RTC at the South Bay Galleria, 190th Street and Hawthorne Boulevard, and the proposed Torrance RTC at Crenshaw Boulevard.

The South Bay Metro Green Line Extension Transit Corridor Project could be completed as early as 2018 with the accelerated revenue collection associated with Metro's 30/10 Initiative. The extension could add up to 5,000 new daily boardings to the 34,000 boardings of the existing Green Line service depending on the alternative selected.

Physical Improvements

The following regional and local infrastructure projects are expected to be implemented prior to full development of the proposed Project in 2022.

South Bay (I-405, I-110, SR-91) Ramp and Interchange Operational Improvements

The South Bay (I-405, I-110, SR-91) Ramp and Interchange Operational Improvements project is one of Measure R's Traffic Reduction projects. Improvements are planned to reduce freeway delay in the South Bay region. This project would add auxiliary lanes, widen some existing on-ramps and off-ramps, construct new on-ramps and off-ramps, modify freeway interchanges, add metering on freeway-to-freeway connections, and modify access and egress points to allow smoother and safer transitions between local arterials and freeways. This project is currently in the initial planning process. The completion of the ramp and interchange improvements are set to begin in year 2014.[4]

Local Improvements

In addition to the major transit and infrastructure improvements described above, various local intersection improvements proposed as mitigation measures for other LAWA projects in and around the Study Area were considered. These improvements and the project responsible for each are summarized in **Table 4.14-7**. For the purpose of maintaining a conservative analysis, these improvements were not assumed to occur under existing or future conditions.

[4] Los Angeles County Metropolitan Transportation Authority, 2009 Long Range Transportation Plan, 2009.

Table 4.14-7

Planned Future Improvements at Study Intersections

No.	Intersection	Improvement	Source of Improvement
12.	Lincoln Boulevard & Manchester Avenue	Second left turn lane added for eastbound and westbound approaches	LAX Specific Plan Amendment Study
25.	Sepulveda Boulevard & 76th/77th Street	Restripe eastbound approach from two left-turn lanes, one through lane, and one right-turn lane to two left-turn lanes, one shared left-turn/through lane, and one right-turn lane.	Thomas Bradley International Terminal FEIR mitigation
29.	Sepulveda Boulevard & La Tijera Boulevard	Restripe westbound approach from one left-turn lane, one through lane, and one shared though/right-turn lane to two left-turn lanes, one through lane, and one shared though/right-turn lane.	Thomas Bradley International Terminal FEIR mitigation
46.	Airport Boulevard & Manchester Avenue	Restripe the eastbound approach from one-left-turn lane, one through lane, and one shared through/right-turn lane to one-left-turn lane, two through lanes, and one shared through/right-turn lane.	Thomas Bradley International Terminal FEIR mitigation
57.	Aviation Boulevard & Arbor Vitae Street	Widen to provide a dedicated eastbound right-turn lane.	Thomas Bradley International Terminal FEIR mitigation

Source: Gibson Transportation Consulting, Transportation Study for the LAX Northside Plan Update, October 2013.

Related Projects

A comprehensive list of 104 related projects was compiled based on information provided by LADOT; the cities of Inglewood, El Segundo, Culver City, Manhattan Beach, and Hawthorne; the County of Los Angeles, and recent published reports for other projects. The list of Related Projects is provided in Table 9 in the Transportation Study for the LAX Northside Plan Updated in Appendix E of this EIR.

Trip Generation

The proposed Project is located within the Coastal Transportation Corridor Specific Plan (CTCSP) area and the LAX Specific Plan area. Pursuant to the LAX Specific Plan, trip generation rates contained in the Institute of Traffic Engineers (ITE) Trip Generation, 8th Edition to estimate daily morning and afternoon peak hour trip generation for all uses.

"Pass-by" and transit credits were applied to certain land uses based on LADOT traffic impact study policies and procedures. Some of the retail trips will be trips already traveling through the Study Area and will stop on the way to their final destinations. These "pass-by" trips do not add new traffic to the Study Area. Similarly, ITE trip generation rates are representative of suburban sites with little or no transit service, while the Study Area currently has regular transit service.

Therefore, it is expected that some office and Research and Development employees, as well as some higher education students, will arrive by transit.

Trip Distribution

The geographic distribution of trips generated by the proposed Project is dependent on the locations of residential and employment centers from which the patrons of the proposed Project would be drawn, characteristics of the street system serving the Project site, and the level of accessibility of the routes to and from the Project site. The general distribution pattern for this study was developed in conjunction with LADOT using the LAX Model described above. Trips from the LAX Northside Traffic Analysis Zones (TAZs) were assigned through the local and regional roadway network, and this pattern was used to develop the traffic distribution for analysis. Specific local distribution of traffic to and from the various Project Areas differed based on the locations of each Area and their relative proximities to the nearest arterials.

4.14.3.1.3 Neighborhood Streets

The neighborhood intrusion impact analysis was conducted for the Future with Project (2022) conditions to represent the most conservative conditions.

Based on LADOT policy, any arterial corridor projected to increase by 1,200 or more daily trips from the proposed Project traffic was assessed for neighborhood intrusion impacts by examining the intersection LOS along these corridors and the availability of parallel local streets to these corridors that could be used as an alternative route to avoid congestion on the arterial corridor.

4.14.3.1.4 Regional Transportation System

To comply with the requirements of the Los Angeles County CMP traffic impact analysis was completed for the three CMP monitoring locations on I-405 and two on I-105. Additional analysis was completed for 15 segments of the I-405, six segments of the I-105 and four segments on the SR-90 freeways, and freeway ramp intersections in accordance with the Caltrans TIS Guidelines.

4.14.3.1.5 Public Transit

Potential impacts on public transit are evaluated in accordance with the CMP TIA guidelines by estimating the number of transit trips the proposed Project will generate, the existing ridership levels on transit lines serving the Project site and the capacity of these lines to accommodate the additional transit trips generated by the proposed Project.

4.14.3.1.6 Access

The access impact analysis considers access to and from the Project site, which may result in safety, operational, or capacity impacts as identified in the Los Angeles CEQA Thresholds Guide. The proposed points of access for each Area were considered and the capacity of these driveways was analyzed to determine the LOS for each driveway in relation to the level of traffic each driveway is projected to serve.

4.14.3.1.7 Parking

Potential parking impacts were assessed by estimating the amount of parking required by LAMC for the proposed uses.

4.14.3.2 Significance Thresholds

4.14.3.2.1 Construction

The Los Angeles CEQA Thresholds Guide identifies thresholds for the following temporary impacts that may result from construction activities: temporary traffic impacts; temporary loss of access; temporary loss of bus stops or rerouting of bus lines; and temporary loss of on-street parking.

The Los Angeles CEQA Thresholds Guide states the determination of impacts is to be made on a project-by-project basis, considering factors such as:

- The length of time of temporary street closures or closures of two or more traffic lanes;
- The classification of the street (major arterial, state highway) affected;
- The existing traffic levels and level of service (LOS) on the affected street segments and intersections;
- Whether the affected street directly leads to a freeway on- or off-ramp or other state highway;
- Potential safety issues involved with street or lane closures;
- The presence of emergency services (fire, hospital, etc.) located nearby that regularly use the affected street;
- The length of time of any loss of vehicular or pedestrian access to a parcel fronting the construction area;
- The availability of alternative vehicular or pedestrian access within ¼ mile of the lost access;
- The type of land uses affected, and related safety, convenience, and/or economic issues;
- The length of time that an existing bus stop would be unavailable or that existing service would be interrupted;
- The availability of a nearby location (within ¼ mile) to which the bus stop or route can be temporarily relocated;
- The existence of other bus stops or routes with similar routes/destinations within a ¼ mile radius of the affected stops or routes;
- Whether the interruption would occur on a weekday, weekend or holiday, and whether the existing bus route typically provides service that/those day(s);
- The current utilization of existing on-street parking;
- The availability of alternative parking locations or public transit options (e.g. bus, train) within ¼ mile of the project site; and
- The length of time that existing parking spaces would be unavailable.

4.14.3.2.2 Local Street System

As described above, the Study Area includes intersections located in the cities of Los Angeles, Culver City, Inglewood, Hawthorne, El Segundo, and Manhattan Beach. In addition, some of the intersections studied are located in unincorporated areas under the jurisdiction of the County of Los Angeles. The significance of the impact of the proposed Project on intersection operations was determined in accordance with the significance thresholds used by each jurisdiction, as follows:

City of Los Angeles

LADOT has established a standard incremental significance threshold to determine if a project creates a significant traffic impact, which is consistent with the significance impact criteria identified in the Los Angeles CEQA Thresholds Guide.

A project impact on an intersection is significant if the resulting increase of the V/C ratio meets or exceeds 0.040 while operating at LOS C, 0.020 while operating at LOS D, or 0.010 while operating at LOS E or LOS F.

Culver City

Culver City has established a standard incremental significance threshold to determine if a project creates a significant traffic impact. A project impact on an intersection is deemed significant if the resulting increase of the V/C ratio meets or exceeds 0.050 while operating at LOS C, 0.040 while operating at LOS D, or 0.020 while operating at LOS E or LOS F. Additionally, at the request of Culver City staff, an analysis of Culver City intersections was conducted using the more rigorous significant impact criteria of the City of Los Angeles.

City of Inglewood

The City of Inglewood has established a standard incremental significance threshold to determine if a project creates a significant traffic impact. A project impact on an intersection is deemed significant if the resulting increase of the V/C ratio meets or exceeds 0.040 while operating at LOS C, 0.020 while operating at LOS D, or 0.010 while operating at LOS E or LOS F.

City of Hawthorne

The City of Hawthorne has established a standard incremental significance threshold to determine if a project creates a significant traffic impact. A project impact on an intersection is deemed significant if the resulting increase of the V/C ratio meets or exceeds 0.040 while operating at LOS C, 0.020 while operating at LOS D, or 0.010 while operating at LOS E or LOS F.

City of El Segundo

The City of El Segundo has established standard criteria to determine if a project creates a significant impact. A project impact on an intersection is deemed significant if it results in a change in peak hour operating conditions from LOS D or better to LOS E or LOS F, or if it causes or worsens LOS E or LOS F operations and results in an increase of the V/C ratio meeting or exceeding 0.020.

City of Manhattan Beach

The City of Manhattan Beach has established a standard incremental significance threshold to determine if a project creates a significant traffic impact. A project impact on an intersection is deemed significant if the resulting increase of the V/C ratio meets or exceeds 0.020 while operating at LOS D or 0.010 while operating at LOS E or LOS F.

County of Los Angeles

The County of Los Angeles has established a standard incremental significance threshold to determine if a project creates a significant traffic impact. A project impact on an intersection is deemed significant if the resulting increase of the V/C ratio meets or exceeds 0.040 while operating at LOS C, 0.020 while operating at LOS D, or 0.010 while operating at LOS E or LOS F.

4.14.3.2.3 Neighborhood Streets

LADOT policy and the Los Angeles CEQA Thresholds Guide outline a procedure for assessing the potential for impacts to neighborhood streets. Impacts from a project's traffic on neighborhood streets are significant if the following three conditions are met:

- There must be 1,200 or more daily trips added by a project to an arterial corridor;
- There must be congestion on the arterial corridor (determined by intersections operating at LOS E or F); and
- There must be parallel local residential streets providing a cut-through route.

4.14.3.2.4 Regional Transportation System

The regional transportation system serving the Project site includes facilities included in the County of Los Angeles CMP network and state facilities under the jurisdiction of Caltrans.

The CMP TIA procedures identify the impact of a project on an arterial intersection or freeway in the CMP network as significant if the project traffic would cause an incremental increase in the intersection V/C ratio of 0.020 or greater to a facility projected to operate at LOS F (V/C > 1.00).

The Caltrans Guide for the Preparation of Traffic Impact Studies (Caltrans, December 2002) identify when traffic impact analysis should be conducted for state facilities and discusses appropriate methodologies for this analysis. These guidelines identify the capacity of freeway ramp intersections that can be used to determine the significance of the impact of the addition of project traffic. The guidelines do not identify specific incremental criteria for use in determining the significance of impacts on intersections or freeway mainline segments.

As described above, the CMP TIA procedures identify specific significance criteria for the identification of potential traffic impacts on freeway mainline segments. The CMP criteria have been used recently by the City of Los Angeles in other traffic impact analyses conducted for major projects[5] and are used to identify impacts to state facilities in this analysis. Based on CMP criteria, a freeway segment is impacted if it operates at LOS F and the project-related incremental increase in V/C ratio meets or exceeds 0.020 (approximately 2 percent of the

[5] Other studies that have used CMP impact criteria for Caltrans facilities include Transportation Study for the NBC Universal Evolution Plan Environmental Impact Report (Gibson Transportation Consulting, Inc. and Raju Associates, Inc., March 2010) and Transportation Study for the Century City Center Project (Gibson Transportation Consulting, Inc., September 2012), among others.

capacity of the facility). A traffic impact is identified at an intersection if it operates at LOS F and the project-related incremental increase in delay meets or exceeds 2.0 seconds.

4.14.3.2.5 Public Transit

The Los Angeles CEQA Thresholds Guide states the determination of impacts on transit service is to be made on a project-by-project basis, considering the projected number of additional transit passengers and available transit capacity.

The CMP specifies a methodology to assess the potential impacts of a project on transit capacity used to determine the impacts of the proposed Project.

4.14.3.2.6 Access

The Los Angeles CEQA Thresholds Guide states a project would have a significant impact on access if the intersection(s) nearest the primary site access would operate at LOS E or F during the morning or afternoon peak hour or if the proposed Project would increase hazards due to any design features.

4.14.3.2.7 Parking

The Los Angeles CEQA Thresholds Guide states a project would normally have a significant impact on parking if the project provides less parking than needed as determined through an analysis of demand from the project.

4.14.3.3 LAX Master Plan Commitments and Project Design Features

4.14.3.3.1 LAX Master Plan EIR/EIS Commitments

As part of the LAX Master Plan, LAWA adopted several mitigation measures and commitments pertaining to aesthetics to avoid or reduce environmental impacts. Since the Project site is located within the LAX Master Plan boundaries, LAWA will also fulfill the commitments it has made in the LAX Master Plan for the proposed Project. The following commitments are applicable to the proposed Project and were considered in the analysis of potential construction impacts.

- **Surface Transportation (ST)-9: Construction Deliveries.** Construction deliveries requiring lane closures shall receive prior approval from the Construction Coordination Office. Notification of deliveries shall be made with sufficient time to allow for any modifications to approved traffic detour plans.
- **ST-20: Stockpile Locations.** Stockpile locations will be confined to the eastern area of the airport vicinity, to the extent practical and feasible. After the eastern facilities are under construction in Alternative D, stockpile locations will be selected that are as close to I-405 and I-105 as possible, and can be accessed by construction vehicles with minimal disruption to adjacent streets. Multiple stockpile locations may be provided, as required.
- **ST-12: Designated Truck Delivery Hours.** Truck deliveries shall be encouraged to use night-time hours and shall avoid the peak periods of 7:00 a.m. to 9:00 a.m. and 4:30 p.m. to 6:30 p.m.

- **ST-14: Construction Employee Shift Hours.** Shift hours that do not coincide with the heaviest commuter traffic periods (7:00 a.m. to 9:00 a.m., 4:30 p.m. to 6:30 p.m.) will be established. Work periods will be extended to include weekends and multiple work shifts, to the extent possible and necessary.
- **ST-16: Designated Haul Routes.** Every effort will be made to ensure that haul routes are located away from sensitive noise receptors.
- **ST-17: Maintenance of Haul Routes.** Haul routes on off-airport roadways will be maintained periodically and will comply with City of Los Angeles or other appropriate jurisdictional requirements for maintenance. Minor striping, lane configurations, and signal phasing modifications will be provided as needed.
- **ST-18: Construction Traffic Management Plan.** A complete construction traffic plan will be developed to designate detour and/or haul routes, variable message and other sign locations, communication methods with airport passengers, construction deliveries, construction employee shift hours, construction employee parking locations and other relevant factors.
- **ST-19: Closure Restrictions of Existing Roadways.** Other than short time periods during nighttime construction, existing roadways will remain open until they are no longer needed for regular traffic or construction traffic, unless a temporary detour route is available to serve the same function. This will recognize that there are three functions taking place concurrently: (1) airport traffic, (2) construction haul routes, and (3) construction of new facilities.
- **ST-21: Construction Employee Parking Locations.** During construction of the eastern airport facilities, employee parking locations will be selected that are as close to I-405 and I-105 as possible and can be accessed by employee vehicles with minimal disruption to adjacent streets. Shuttle buses will transport employees to construction sites. In addition, remote parking locations (of not less than 1 mile away from project construction activities) will be established for construction employees with shuttle service to the airport. An emergency return system will be established for employees that must leave unexpectedly.
- **ST-22: Designated Truck Routes.** For dirt and aggregate and all other materials and equipment, truck deliveries will be on designated routes only (freeways and non-residential streets). Every effort will be made for routes to avoid residential frontages. The designated routes on City of Los Angeles streets are subject to approval by LADOT's Bureau of Traffic Management and may include, but will not necessarily be limited to: Pershing Drive (Westchester Parkway to Imperial Highway); Florence Avenue (Aviation Boulevard to I-405); Manchester Boulevard (Aviation Boulevard to I-405); Aviation Boulevard (Manchester Avenue to Imperial Highway); Westchester Parkway/Arbor Vitae Street (Pershing Drive to I-405); Century Boulevard (Sepulveda Boulevard to I-405); Imperial Highway (Pershing Drive to I-405); La Cienega Boulevard (north of Imperial Highway); Airport Boulevard (Arbor Vitae Street to Century Boulevard); Sepulveda Boulevard (Westchester Parkway to Imperial Highway); I-405; and I-105.

4.14.3.3.2 Project Design Features

The proposed Project would permit the up to 2,320,000 square feet of new development, and areas for recreation, open space, and buffer space. Implementation of the proposed Project could also include a street vacation of Cum Laude Avenue and the development of supporting

infrastructure such as new parking lots, drainage systems, sewer systems, and other infrastructure needed to support proposed development.

At present, the Project site plan is still in the conceptual phase and details about specific buildings and access schemes have not yet been finalized. The following Project Design Features (PDFs) apply:

- **PDF Traffic (T)-1:** Area 1 would be accessed via driveways from Falmouth Avenue.
- **PDF T-2:** Area 2-West would be accessed via one or more driveways from Westchester Parkway.
- **PDF T-3:** Area 2-East would be accessed via driveways from Westchester Parkway and/or Loyola Boulevard.
- **PDF T-4:** Area 3 would be accessed via driveways from Westchester Parkway and/or Loyola Boulevard.
- **PDF T-5:** Area 4 would be accessed via driveways from Westchester Parkway at its intersection with Falmouth Avenue and/or from within the airfield (with airfield access taken from World Way West).
- **PDF T-6:** Areas 5 through 10 would be accessed via driveways from Westchester Parkway and/or from within the airfield (with airfield access taken from World Way West).
- **PDF T-7:** Area 11 would be accessed via driveways on Westchester Parkway and/or La Tijera Boulevard and/or Sepulveda Westway.
- **PDF T-8:** Area 12A-West would be accessed via one or more driveways on Westchester Parkway.
- **PDF T-9:** Area 12A-East would be accessed via driveways on Westchester Parkway and/or La Tijera Boulevard.
- **PDF T-10:** Area 12B would continue to be accessed via driveways on Manchester Avenue.
- **PDF T-11:** Area 13 would continue to be accessed via driveways on Lincoln Boulevard.
- **PDF T-12:** The proposed Project would not introduce new streets.
- **PDF T-13:** Grading schedules for the proposed Project Areas requiring export and those requiring import will coincide, when feasible, in order to minimize haul trips to off-site disposal areas.
- **PDF T-14:** The proposed Project allows transfers of floor area between uses within Districts. Transfers are restricted based on vehicle trip equivalencies. Additionally, in no event shall the maximum number of trips generated by the LAX Northside exceed 23,635 total daily vehicle trips.

4.14.3.4 Project Impacts

4.14.3.4.1 Construction

Four types of temporary construction impacts were evaluated according to the Los Angeles CEQA Thresholds Guide: traffic impacts, loss of access, loss of bus stops or rerouting of bus lines, and on-street parking. The proposed Project construction is anticipated to occur in phases between 2015 and 2022.

The proposed Project will be developed from 2015 through 2022. Based on the conceptual grading plan, earth materials will be exported from most of the proposed Project Areas, but some will require the import of earth materials. Grading schedules for the proposed Project Areas requiring export and those requiring import will coincide, when feasible, in order to minimize haul trips to off-site disposal areas. As discussed above, as part of the LAX Master Plan, LAWA committed to several specific measures related to truck routes for LAX construction traffic. For dirt and aggregate and all other materials and equipment, truck deliveries will be on designated routes only (freeways and non-residential streets). Any transportation of equipment and materials on state facilities would be subject to applicable provisions of the State of California Vehicle and Street and Highway Codes, which require the issuance of permits for all loads that exceeds Caltrans weight, length, or width standards for public roadways.

There are three primary routes for haul trucks to travel between the Project site and off-site locations that could accept exported earth materials from the site:

1. Pershing Drive to Imperial Highway to I-105;
2. Sepulveda Boulevard to I-105; and
3. La Tijera Boulevard to I-405.

Haul truck trips and worker trips were estimated throughout the proposed Project development period to assess potential impacts based on the preliminary project construction schedule. At peak activity, there would be a maximum of 238 daily haul truck trips and 527 construction workers. After converting the truck trips into passenger-car equivalent (PCE) trips and accounting for the average vehicle occupancy (AVO) of workers in vehicles, construction activity would result in a maximum of 145 morning peak hour trips and 271 afternoon peak hour trips. This is a conservative estimate because the maximum number of daily truck trips and the maximum daily worker level would not occur during the same phases of construction. Depending on what route is chosen for haul trucks, construction traffic could result in one temporary traffic impact at the intersection of Sepulveda Boulevard and Lincoln Boulevard.

The impact of construction traffic (including haul trucks) would be a lessening of the capacities of access streets and haul routes due to slower movements and larger turning radii of trucks. Construction on Area 12B and Area 13 could require temporary sidewalk closures and lane closures on Manchester Avenue and Lincoln Boulevard, affecting pedestrians and transit operations. Construction on Area 1 could cause temporary loss of on-street parking on Falmouth Avenue.

Construction impacts would be minimized through the development of detailed construction traffic management plans as necessary and satisfactory to the City of Los Angeles. These plans may include street closure information, detour plans, haul routes, and construction staging details in order to ensure safe vehicle travel in general, and emergency vehicle access. As noted above, the proposed Project would include the use of standard engineering practices to avoid design elements that would increase street hazards or inadequate emergency access. Moreover, the proposed Project would not result in land use incompatibilities that would lead to the creation of traffic hazards, or emergency access.

During construction, an adequate number of parking spaces for construction workers would be available at all times on the Project site. The impact on the overall transportation system from construction activities would be temporary in nature and would cause an intermittent reduction in street and intersection operating capacity near the Project site. Detailed construction traffic management plans, including street closure information, detour plans, and haul routes would be prepared as necessary and satisfactory to the City of Los Angeles. Within the context of these

plans, provisions would also be made to incorporate safety precautions for pedestrians and bicyclists, while also maintaining access to adjacent properties, to the extent feasible. Therefore, construction impacts would be less than significant.

4.14.3.4.2 Local Street System

Forecasts of traffic patterns from the proposed Project are based on employing the methodology described above for trip generation, trip distribution, and traffic assignment. As described in detail in Section 2.0, Project Description, the Project site consists of 13 Areas, designated as Area 1 through Area 13, arranged north and south along the length of Westchester Parkway between Sepulveda Boulevard and South Pershing Drive. The proposed Project consists of three primary planning regions: Area 1 through Area 3, located west of Lincoln Boulevard and north of Westchester Parkway, make up the LAX Northside Campus District; Area 11 through Area 13, located east of Lincoln Boulevard and north of Westchester Parkway make up the LAX Northside Center District; and Area 4 through Area 10, located south of Westchester Parkway, make up the LAX Northside Airport Support District. Area 12 in the LAX Northside Center District is further divided into sub-Areas 12A East, 12A West, and 12B for planning purposes.

A more detailed conceptual land use program was developed to support the analysis of potential traffic impacts based on real estate market research that considered the existing uses in the surrounding area and the region to determine the types and quantities of each use that could be economically viable for each Area of the Project site. This conceptual land use program is shown in **Table 4.14-8,** Conceptual Land Use Program and Trip Generation.

As shown in **Table 4.14-8**, the proposed Project would generate a total of 23,635 weekday daily trips, including approximately 2,009 morning peak hour trips (1,584 inbound, 425 outbound) and 2,543 afternoon peak hour trips (758 inbound, 1,785 outbound). Area 5 through Area 10 will not generate any new trips because no additional uses are proposed in these areas.

This Page Intentionally Left Blank

Table 4.14-8

Conceptual Land Use Program and Trip Generation

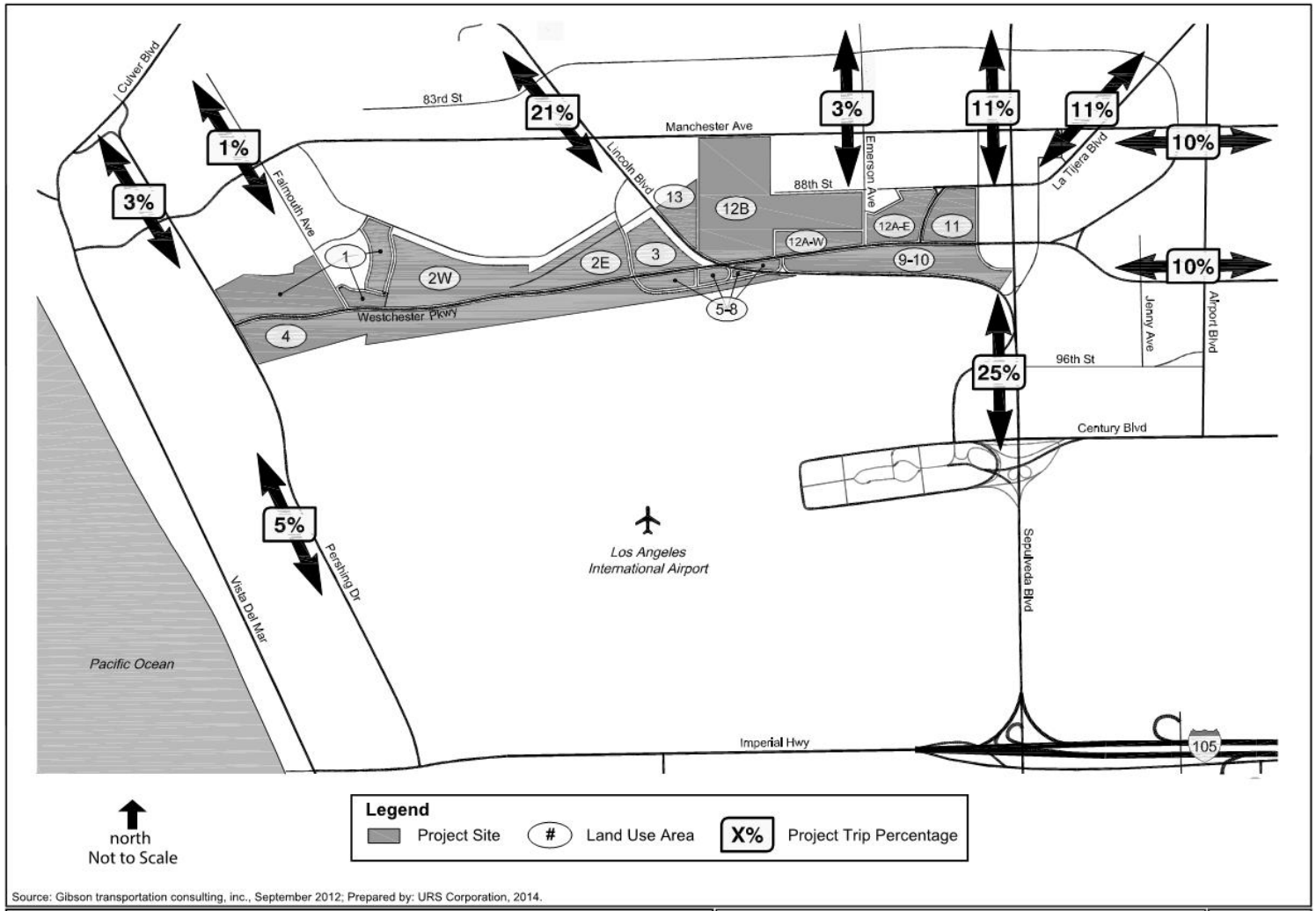
Land Use	Units	Daily Trips	Morning Peak Hour			Afternoon Peak Hour		
			In	Out	Total	In	Out	Total
Area 1								
Bureau of Sanitation	n/a	-	-	-	-	-	-	-
Playing Fields[a]	2 Fields	143	2	1	3	28	13	41
Dog Park[a]	1 Fields	71	1	0	1	14	7	21
Recreation Support Structures	10 ksf	-	-	-	-	-	-	-
Area 2 West								
Bureau of Sanitation	1.5 Acres	-	-	-	-	-	-	-
Playing Fields[a]	3 Fields	214	2	2	4	43	19	62
Area 2 East & Area 3								
Road	1.4 Acres	-	-	-	-	-	-	-
Buffer/Berm	11.2 Acres	-	-	-	-	-	-	-
Community/Civic Uses	40 ksf	915	40	25	65	21	37	58
Less 5% Transit Credit[b]		*(46)*	*(2)*	*(1)*	*(3)*	*(1)*	*(2)*	*(3)*
Office	412.5 ksf	3,972	513	70	583	92	449	541
Less 5% Transit Credit[b]		*(199)*	*(26)*	*(3)*	*(29)*	*(5)*	*(22)*	*(27)*
Research & Development	612.5 ksf	4,458	525	107	632	86	488	574
Less 5% Transit Credit[b]		*(223)*	*(26)*	*(6)*	*(32)*	*(5)*	*(24)*	*(29)*
Area 4								
LAX Facilities[c]	125 Employees	250	0	16	16	0	70	70
Area 5 – 10								
LAX	40 Acres	-	-	-	-	-	-	-

Table 4.14-8

Conceptual Land Use Program and Trip Generation

Land Use	Units	Daily Trips	Morning Peak Hour			Afternoon Peak Hour		
			In	Out	Total	In	Out	Total
Area 11								
Retail	270 ksf	11,594	165	105	270	493	514	1,007
Less 30% Pass-by Credit[b]		*(3,478)*	*(50)*	*(31)*	*(81)*	*(148)*	*(154)*	*(302)*
RPZ (Park)	3.0 Acres	-	-	-	-	-	-	-
Area 12A – East								
Office	200 ksf	2,275	288	39	327	52	251	303
Less 5% Transit Credit[b]		*(114)*	*(14)*	*(2)*	*(16)*	*(2)*	*(13)*	*(15)*
Area 12A – West								
Community/Civic Uses	130 ksf	2,974	129	82	211	70	119	189
Less 5% Transit Credit[b]		*(149)*	*(6)*	*(5)*	*(11)*	*(3)*	*(6)*	*(9)*
Area 12B								
Golf Course [d]	-	-	-	-	-	-	-	-
Area 13								
Community/Civic Uses	45 ksf	1,030	45	28	73	24	41	65
Less 5% Transit Credit[b]		*(52)*	*(2)*	*(2)*	*(4)*	*(1)*	*(2)*	*(3)*
TOTAL		**23,635**	**1,584**	**425**	**2,009**	**758**	**1,785**	**2,543**

Notes:
Trip Generation rates from *Trip Generation, 8th Edition* (Institute of Transportation Engineers, 2008) except as noted below.
[a] = Uses Soccer Complex (ITE 488) trip generation rate.
[b] = Pass-by and Transit trip credits per standard rates allowed by LADOT.
[c] = Trips for this category were calculated based on the future employee estimates (650 total/125 new) and the existing employee schedule.
[d] = Golf Course has been completed and will not change with the Project.
Source: Gibson Transportation Consulting



Source: Gibson transportation consulting, inc., September 2012; Prepared by: URS Corporation, 2014.

Project Trip Distribution	Draft Environmental Impact Report LAX Northside Plan Update	FIGURE 4.14-2

This Page Intentionally Left Blank

The proposed Project traffic is expected to travel to and from the Project site based on the following distribution pattern, illustrated in **Figure 4.14-2,** Project Trip Distribution.

- 39 percent to/from the north;
- 31 percent to/from the east; and
- 30 percent to/from the south.

Existing 2012 with Project Conditions

The impact of the proposed Project on existing traffic conditions was evaluated by adding the traffic that would be generated by the proposed Project to the intersection configurations that exist in 2012.

As shown in **Table 4.14-9**, Existing With Project Conditions (Year 2012) Significant Impact Analysis 94 of the 108 intersections evaluated would operate at LOS D or better during both the morning and afternoon peak hours under Existing with Project Conditions. The remaining 14 intersections would operate at LOS E or LOS F during at least one analyzed peak hour.

This Page Intentionally Left Blank

Table 4.14-9

Existing With Project Conditions (Year 2012) Significant Impact Analysis

No.	City	Intersection	Peak Hour	Existing		Existing with Project			
				V/C	LOS	V/C	LOS	Δ V/C	Impact
1.	LA	Lincoln Boulevard & Venice Boulevard	A.M. P.M.	0.820 0.906	D E	0.827 0.912	D E	0.007 0.006	NO NO
2.	LA	Lincoln Boulevard & Washington Boulevard	A.M. P.M.	0.750 0.944	C E	0.760 0.951	C E	0.010 0.007	NO NO
3.	LA	Lincoln Boulevard & Maxella Avenue	A.M. P.M.	0.556 0.600	A A	0.565 0.616	A B	0.009 0.016	NO NO
4.	LA	Lincoln Boulevard & SR-90 Ramps	A.M. P.M.	0.700 0.810	B D	0.704 0.827	C D	0.004 0.017	NO NO
5.	LA	Lincoln Boulevard & Bali Way	A.M. P.M.	0.424 0.707	A C	0.440 0.721	A C	0.016 0.014	NO NO
6.	LA	Lincoln Boulevard & Mindanao Way	A.M. P.M.	0.635 0.778	B C	0.646 0.802	B D	0.011 0.024	NO YES
7.	LA	Lincoln Boulevard & Fiji Way	A.M. P.M.	0.524 0.751	A C	0.553 0.775	A C	0.029 0.024	NO NO
8.	LA	Lincoln Boulevard & Jefferson Boulevard	A.M. P.M.	0.613 0.630	B B	0.667 0.705	B C	0.054 0.075	NO YES
9.	LA	Lincoln Boulevard & Bluff Creek Drive	A.M. P.M.	0.362 0.342	A A	0.419 0.388	A A	0.057 0.046	NO NO
10.	LA	Lincoln Boulevard & LMU Drive	A.M. P.M.	0.435 0.530	A A	0.451 0.568	A A	0.016 0.038	NO NO
11.	LA	Lincoln Boulevard &	A.M.	0.544	A	0.624	B	0.080	NO

Table 4.14-9

Existing With Project Conditions (Year 2012) Significant Impact Analysis

No.	City	Intersection	Peak Hour	Existing		Existing with Project			
				V/C	LOS	V/C	LOS	Δ V/C	Impact
		83rd Street	P.M.	0.586	A	0.664	B	0.078	NO
12.	LA	Lincoln Boulevard & Manchester Avenue	A.M. P.M.	0.600 0.645	A B	0.652 0.761	B C	0.052 0.116	NO YES
13.	LA	Lincoln Boulevard & La Tijera Boulevard	A.M. P.M.	0.343 0.368	A A	0.360 0.425	A A	0.017 0.057	NO NO
14.	LA	Culver Boulevard & Jefferson Boulevard	A.M. P.M.	0.694 0.659	B B	0.707 0.671	C B	0.013 0.012	NO NO
15.	LA	Nicholson Street & Culver Boulevard	A.M. P.M.	0.548 0.743	A C	0.578 0.756	A C	0.030 0.013	NO NO
16.	LA	Pershing Drive & Manchester Avenue	A.M. P.M.	0.455 0.381	A A	0.461 0.405	A A	0.006 0.024	NO NO
17.	LA	Pershing Drive & Westchester Parkway	A.M. P.M.	0.213 0.191	A A	0.246 0.245	A A	0.033 0.054	NO NO
18.	LA	Vista del Mar & Imperial Highway	A.M. P.M.	0.405 0.368	A A	0.409 0.386	A A	0.004 0.018	NO NO
19.	LA	Pershing Drive & Imperial Highway	A.M. P.M.	0.519 0.369	A A	0.565 0.390	A A	0.046 0.021	NO NO
20.	LA	Main Street & Imperial Highway	A.M. P.M.	0.689 0.527	B A	0.714 0.555	C A	0.025 0.028	NO NO
21.	LA	Vista del Mar & Grand Avenue	A.M. P.M.	0.500 0.331	A A	0.519 0.346	A A	0.019 0.015	NO NO

Table 4.14-9

Existing With Project Conditions (Year 2012) Significant Impact Analysis

No.	City	Intersection	Peak Hour	Existing		Existing with Project			
				V/C	LOS	V/C	LOS	Δ V/C	Impact
22.	MB	Highland Avenue & Rosecrans Avenue	A.M. P.M.	0.780 0.689	C B	0.797 0.708	C C	0.017 0.019	NO NO
23.	CC	Sepulveda Boulevard & Centinela Avenue	A.M. P.M.	0.743 0.771	C C	0.759 0.781	C C	0.016 0.010	NO NO
24.	LA	Sepulveda Boulevard & Howard Hughes Parkway	A.M. P.M.	0.391 0.543	A A	0.412 0.559	A A	0.021 0.016	NO NO
25.	LA	Sepulveda Boulevard & 76th Street	A.M. P.M.	0.666 0.634	B B	0.675 0.654	B B	0.009 0.020	NO NO
26.	LA	Sepulveda Boulevard & 79th Street	A.M. P.M.	0.450 0.511	A A	0.459 0.531	A A	0.009 0.020	NO NO
27.	LA	Sepulveda Boulevard & 83rd Street	A.M. P.M.	0.396 0.461	A A	0.406 0.485	A A	0.010 0.024	NO NO
28.	LA	Sepulveda Boulevard & Manchester Avenue	A.M. P.M.	0.750 0.767	C C	0.780 0.828	C D	0.030 0.061	NO YES
29.	LA	Sepulveda Boulevard & La Tijera Boulevard	A.M. P.M.	0.504 0.635	A B	0.534 0.757	A C	0.030 0.122	NO YES
30.	LA	Sepulveda Boulevard & Westchester Parkway	A.M. P.M.	0.455 0.706	A C	0.579 0.893	A D	0.124 0.187	NO YES
31.	LA	Sepulveda Boulevard & Lincoln Boulevard	A.M. P.M.	0.145 0.205	A A	0.170 0.240	A A	0.025 0.035	NO NO

Table 4.14-9

Existing With Project Conditions (Year 2012) Significant Impact Analysis

No.	City	Intersection	Peak Hour	Existing		Existing with Project			
				V/C	LOS	V/C	LOS	Δ V/C	Impact
32.	LA	Sepulveda Boulevard & Century Boulevard	A.M. P.M.	0.547 0.623	A B	0.604 0.650	B B	0.057 0.027	NO
33.	LA	Sepulveda Boulevard & I-105 Westbound Ramps N/O Imperial Highway	A.M. P.M.	0.840 0.874	D D	0.919 0.912	E E	0.079 0.038	YES
34.	LA	Sepulveda Boulevard & Imperial Highway	A.M. P.M.	0.668 1.035	B F	0.701 1.050	C F	0.033 0.015	NO YES
35.	ES	Sepulveda Boulevard & Mariposa Avenue	A.M. P.M.	0.733 0.763	C C	0.749 0.782	C C	0.016 0.019	NO NO
36.	ES	Sepulveda Boulevard & Grand Avenue	A.M. P.M.	0.769 0.862	C D	0.784 0.879	C D	0.015 0.017	NO NO
37.	ES	Sepulveda Boulevard & El Segundo Boulevard	A.M. P.M.	0.769 0.979	C E	0.787 0.991	C E	0.018 0.012	NO NO
38.	ES	Sepulveda Boulevard & Rosecrans Avenue	A.M. P.M.	0.792 1.099	C F	0.807 1.115	D F	0.015 0.016	NO NO
39.	LA	La Tijera Boulevard & Manchester Avenue	A.M. P.M.	0.455 0.515	A A	0.520 0.596	A A	0.065 0.081	NO NO
40.	LA	La Tijera Boulevard & Airport Boulevard	A.M. P.M.	0.384 0.374	A A	0.406 0.423	A A	0.022 0.049	NO NO
41.	LA	I-405 Southbound Ramps & La Tijera Boulevard	A.M. P.M.	0.439 0.560	A A	0.457 0.596	A A	0.018 0.036	NO NO

Table 4.14-9

Existing With Project Conditions (Year 2012) Significant Impact Analysis

No.	City	Intersection	Peak Hour	Existing		Existing with Project			
				V/C	LOS	V/C	LOS	Δ V/C	Impact
42.	LA	I-405 Northbound Ramps & La Tijera Boulevard	A.M. P.M.	0.547 0.546	A A	0.575 0.580	A A	0.028 0.034	NO NO
43.	LA	La Tijera Boulevard & Centinela Avenue	A.M. P.M.	0.539 0.701	A C	0.564 0.731	A C	0.025 0.030	NO NO
44.	LA	La Cienega Boulevard & La Tijera Boulevard	A.M. P.M.	0.647 0.651	B B	0.653 0.678	B B	0.006 0.027	NO NO
45.	LA	La Cienega Boulevard & Centinela Avenue	A.M. P.M.	0.943 0.989	E E	0.947 0.992	E E	0.004 0.003	NO NO
46.	LA	Airport Boulevard & Manchester Avenue	A.M. P.M.	0.578 0.806	A D	0.640 0.865	B D	0.062 0.059	NO YES
47.	IW	Aviation Boulevard / Florence Avenue & Manchester Avenue	A.M. P.M.	0.601 0.685	B B	0.661 0.726	B C	0.060 0.041	NO YES
48.	IW	La Cienega Boulevard & Florence Avenue	A.M. P.M.	0.688 0.977	B E	0.697 0.988	B E	0.009 0.011	NO YES
49.	IW	La Cienega Boulevard & Manchester Avenue	A.M. P.M.	0.596 0.828	A D	0.601 0.847	B D	0.005 0.019	NO NO
50.	IW	Ash Avenue / I-405 Northbound Ramps & Manchester Avenue	A.M. P.M.	0.624 0.711	B C	0.648 0.735	B C	0.024 0.024	NO NO
51.	IW	Inglewood Avenue & Manchester Avenue	A.M. P.M.	0.471 0.597	A A	0.498 0.622	A B	0.027 0.025	NO NO

Table 4.14-9

Existing With Project Conditions (Year 2012) Significant Impact Analysis

No.	City	Intersection	Peak Hour	Existing		Existing with Project			
				V/C	LOS	V/C	LOS	Δ V/C	Impact
52.	IW	La Brea Avenue & Florence Avenue	A.M. P.M.	0.659 0.855	B D	0.665 0.862	B D	0.006 0.007	NO NO
53.	IW	La Brea Avenue & Manchester Avenue	A.M. P.M.	0.689 0.739	B C	0.698 0.751	B C	0.009 0.012	NO NO
54.	LA	Sepulveda Eastway & Westchester Parkway	A.M. P.M.	0.231 0.439	A A	0.284 0.465	A A	0.053 0.026	NO NO
55.	LA	Jenny Avenue & Westchester Parkway	A.M. P.M.	0.084 0.163	A A	0.119 0.219	A A	0.035 0.056	NO NO
56.	LA	Airport Boulevard & Arbor Vitae Street / Westchester Parkway	A.M. P.M.	0.283 0.538	A A	0.346 0.574	A A	0.063 0.036	NO NO
57.	LA	Aviation Boulevard & Arbor Vitae Street	A.M. P.M.	0.414 0.560	A A	0.469 0.621	A B	0.055 0.061	NO NO
58.	LA	La Cienega Boulevard & Arbor Vitae Street	A.M. P.M.	0.396 0.545	A A	0.428 0.586	A A	0.032 0.041	NO NO
59.	IW	Inglewood Avenue & Arbor Vitae Street	A.M. P.M.	0.372 0.676	A B	0.404 0.707	A C	0.032 0.031	NO NO
60.	IW	La Brea Avenue & Arbor Vitae Street	A.M. P.M.	0.343 0.671	A B	0.346 0.691	A B	0.003 0.020	NO NO
61.	LA	Airport Boulevard & Century Boulevard	A.M. P.M.	0.547 0.552	A A	0.553 0.555	A A	0.006 0.003	NO NO
62.	LA	Aviation Boulevard & Century Boulevard	A.M.	0.767	C	0.781	C	0.014	NO

Table 4.14-9

Existing With Project Conditions (Year 2012) Significant Impact Analysis

No.	City	Intersection	Peak Hour	Existing		Existing with Project			
				V/C	LOS	V/C	LOS	Δ V/C	Impact
			P.M.	0.917	E	0.924	E	0.007	NO
63.	LA	La Cienega Boulevard & Century Boulevard	A.M. P.M.	0.535 0.685	A B	0.543 0.691	A B	0.008 0.006	NO NO
64.	IW	I-405 Northbound Ramps & Century Boulevard	A.M. P.M.	0.603 0.586	B A	0.617 0.590	B A	0.014 0.004	NO NO
65.	IW	Inglewood Avenue & Century Boulevard	A.M. P.M.	0.508 0.761	A C	0.515 0.775	A C	0.007 0.014	NO NO
66.	IW	La Brea Avenue/Hawthorne Boulevard & Century Boulevard	A.M. P.M.	0.562 0.772	A C	0.572 0.780	A C	0.010 0.008	NO NO
67.	LAC	Inglewood Avenue & Lennox Boulevard	A.M. P.M.	0.429 0.719	A C	0.436 0.725	A C	0.007 0.006	NO NO
68.	LAC	Hawthorne Boulevard & Lennox Boulevard	A.M. P.M.	0.408 0.735	A C	0.409 0.737	A C	0.001 0.002	NO NO
69.	HT	Inglewood Avenue & Imperial Highway	A.M. P.M.	0.632 1.166	B F	0.642 1.179	B F	0.010 0.013	NO NO
70.	HT	Hawthorne Boulevard & Imperial Highway	A.M. P.M.	0.573 0.863	A D	0.579 0.870	A D	0.006 0.007	NO NO
71.	HT	Inglewood Avenue & El Segundo Boulevard	A.M. P.M.	0.595 0.973	A E	0.598 0.980	A E	0.003 0.007	NO NO
72.	HT	Hawthorne Boulevard & El Segundo Boulevard	A.M. P.M.	0.619 1.176	B F	0.622 1.181	B F	0.003 0.005	NO NO

Table 4.14-9

Existing With Project Conditions (Year 2012) Significant Impact Analysis

No.	City	Intersection	Peak Hour	Existing		Existing with Project			
				V/C	LOS	V/C	LOS	Δ V/C	Impact
73.	LA	Centinela Avenue & Culver Boulevard	A.M. P.M.	0.677 0.712	B C	0.705 0.723	C C	0.028 0.011	NO NO
74.	LA	Centinela Avenue & Sanford Street / SR-90 Westbound Ramps	A.M. P.M.	0.370 0.471	A A	0.393 0.478	A A	0.023 0.007	NO NO
75.	LA	Centinela Avenue & SR-90 Eastbound Ramps	A.M. P.M.	0.299 0.421	A A	0.299 0.421	A A	0.000 0.000	NO NO
76.	LA	Centinela Avenue & Jefferson Boulevard	A.M. P.M.	0.453 0.608	A B	0.501 0.616	A B	0.048 0.008	NO NO
77.	CC	Sepulveda Boulevard & Washington Place	A.M. P.M.	0.624 0.639	B B	0.627 0.647	B B	0.003 0.008	NO NO
78.	CC	Sepulveda Boulevard & Washington Boulevard	A.M. P.M.	0.670 0.659	B B	0.673 0.665	B B	0.003 0.006	NO NO
79.	CC	Sawtelle Boulevard & Culver Boulevard	A.M. P.M.	0.614 0.772	B C	0.617 0.780	B C	0.003 0.008	NO NO
80.	CC	Sepulveda Boulevard & Culver Boulevard	A.M. P.M.	0.682 0.668	B B	0.690 0.678	B B	0.008 0.010	NO NO
81.	LA	I-405 Southbound Ramps & Jefferson Boulevard	A.M. P.M.	0.271 0.369	A A	0.271 0.369	A A	0.000 0.000	NO NO
82.	LA	I-405 Northbound Ramps & Jefferson Boulevard	A.M. P.M.	0.395 0.689	A B	0.402 0.692	A B	0.007 0.003	NO NO
83.	CC	Sepulveda Boulevard & Jefferson Boulevard	A.M.	0.470	A	0.474	A	0.004	NO

Table 4.14-9

Existing With Project Conditions (Year 2012) Significant Impact Analysis

No.	City	Intersection	Peak Hour	Existing		Existing with Project			
				V/C	LOS	V/C	LOS	Δ V/C	Impact
			P.M.	0.494	A	0.503	A	0.009	NO
84.	CC	Sepulveda Boulevard & Sawtelle Boulevard	A.M. P.M.	0.477 0.633	A B	0.479 0.640	A B	0.002 0.007	NO NO
85.	CC	Slauson Avenue & Jefferson Boulevard	A.M. P.M.	0.343 0.457	A A	0.348 0.464	A A	0.005 0.007	NO NO
86.	CC	Sepulveda Boulevard & Jefferson Boulevard & Playa Street	A.M. P.M.	0.695 0.810	B D	0.699 0.826	B D	0.004 0.016	NO NO
87.	CC	Sepulveda Boulevard & Slauson Avenue &	A.M. P.M.	0.500 0.718	A C	0.504 0.735	A C	0.004 0.017	NO NO
88.	LAC	La Cienega Boulevard & Stocker Street	A.M. P.M.	1.278 1.178	F F	1.285 1.185	F F	0.007 0.007	NO NO
89.	LAC	La Cienega Boulevard Southbound Ramp & Slauson Avenue	A.M. P.M.	0.687 0.794	B C	0.696 0.809	B D	0.009 0.015	NO NO
90.	LAC	La Cienega Boulevard Northbound Ramp & Slauson Avenue	A.M. P.M.	0.710 0.689	C B	0.725 0.716	C C	0.015 0.027	NO NO
91.	LA	Falmouth Avenue & Manchester Avenue	A.M. P.M.	0.125 0.107	A A	0.137 0.125	A A	0.012 0.018	NO NO
92.	LA	Falmouth Avenue & Westchester Parkway	A.M. P.M.	0.277 0.161	A A	0.284 0.213	A A	0.007 0.052	NO NO
93.	LA	Lincoln Boulevard & Loyola Boulevard	A.M. P.M.	0.348 0.440	A A	0.472 0.578	A A	0.124 0.138	NO NO

Table 4.14-9

Existing With Project Conditions (Year 2012) Significant Impact Analysis

No.	City	Intersection	Peak Hour	Existing		Existing with Project			
				V/C	LOS	V/C	LOS	Δ V/C	Impact
94.	LA	Loyola Boulevard & Westchester Parkway	A.M. P.M.	0.195 0.108	A A	0.390 0.205	A A	0.195 0.097	NO NO
95.	LA	McConnell Avenue & Westchester Parkway	A.M. P.M.	0.092 0.071	A A	0.266 0.240	A A	0.174 0.169	NO NO
96.	LA	Emerson Avenue & Manchester Avenue	A.M. P.M.	0.447 0.380	A A	0.493 0.416	A A	0.046 0.036	NO NO
97.	LA	La Tijera Boulevard & Westchester Parkway	A.M. P.M.	0.115 0.070	A A	0.249 0.207	A A	0.134 0.137	NO NO
98.	LA	Sepulveda Westway & La Tijera Boulevard	A.M. P.M.	0.145 0.336	A A	0.245 0.483	A A	0.100 0.147	NO NO
99.	LA	Sepulveda Westway & Westchester Parkway	A.M. P.M.	0.089 0.156	A A	0.169 0.257	A A	0.080 0.101	NO NO
100.	LA	Airport Boulevard & 96th Street	A.M. P.M.	0.169 0.351	A A	0.176 0.362	A A	0.007 0.011	NO NO
101.	LA	Aviation Boulevard & Imperial Highway	A.M. P.M.	0.643 0.605	B B	0.648 0.621	B B	0.005 0.016	NO NO
102.	ES	Aviation Boulevard & El Segundo Boulevard	A.M. P.M.	0.959 0.880	E D	0.962 0.884	E D	0.003 0.004	NO NO
103.	LA	Lincoln Boulevard & Rose Avenue	A.M. P.M.	0.875 0.812	D D	0.878 0.816	D D	0.003 0.004	NO NO
104.	LA	Culver Boulevard & SR-90 WB Ramps	A.M.	0.739	C	0.739	C	0.000	NO

Table 4.14-9

Existing With Project Conditions (Year 2012) Significant Impact Analysis

No.	City	Intersection	Peak Hour	Existing		Existing with Project			
				V/C	LOS	V/C	LOS	Δ V/C	Impact
			P.M.	0.793	C	0.795	C	0.002	NO
105.	LA	Culver Boulevard & SR-90 EB Ramps	A.M. P.M.	0.407 0.459	A A	0.412 0.462	A A	0.005 0.003	NO NO
106.	LA	I-405 SB Ramps & Howard Hughes Parkway	A.M. P.M.	0.347 0.198	A A	0.380 0.209	A A	0.033 0.011	NO NO
107.	LA	Center Drive & I-405 NB Ramps/Howard Hughes Parkway	A.M. P.M.	0.167 0.207	A A	0.173 0.235	A A	0.006 0.028	NO NO
108.	LA	La Cienega Boulevard & Imperial Highway	A.M. P.M.	0.396 0.546	A A	0.396 0.555	A A	0.000 0.009	NO NO

Notes:
LA = Los Angeles
CC = Culver City
MB = Manhattan Beach
ES = El Segundo
IW = Inglewood
HT = Hawthorne
LAC = Los Angeles County
Source: Gibson Transportation Consulting, October 2013.

The Existing 2012 with Project Conditions was compared to the Existing 2012 Conditions to determine the impact of the proposed Project at each study intersection based on the significance criteria defined by each jurisdiction in the Study Area. In each jurisdiction, a sliding scale has been developed in which the minimum allowable increase in the V/C ratio attributable to a project decreases as the LOS worsens.

As identified in **Table 4.14-9** and summarized in **Table 4.14-10, Existing With Project Conditions (Year 2012) Significant Impact Analysis Summary**, the proposed Project is projected to significantly impact one study intersection during the morning peak hour and 11 intersections during the afternoon peak hour when compared to existing conditions. During the morning peak hour, the impact would occur at an intersection operating at LOS E. During the afternoon peak hour, four impacts would occur at intersections operating at LOS C, four impacts would occur at intersections operating at LOS D, two impacts would occur at intersections operating at LOS E, and one impact would occur at intersections operating at LOS F. In total, 11 study intersections would be impacted under either the morning or afternoon peak hour. The remaining 97 study intersections would not be significantly impacted during either peak hour. The locations of the intersections that would be impacted are shown in **Figure 4.14-3,** Existing with Project Conditions (Year 2012) Significant Intersection Impacts.

Table 4.14-10

Existing With Project Conditions (Year 2012) Significant Intersection Impact Analysis Summary

Peak Period	Significant Impacts (Before Mitigation)
Morning Peak Hour	1
Afternoon Peak Hour	11
Total Intersections Impacted	11

Source: Gibson Transportation Consulting, Transportation Study for the LAX Northside Plan Update, October 2013.

The intersections projected to be impacted with the addition of traffic from the proposed Project to existing conditions are:

6. Lincoln Boulevard & Mindanao Way;
8. Lincoln Boulevard & Jefferson Boulevard;
12. Lincoln Boulevard & Manchester Avenue;
28. Sepulveda Boulevard & Manchester Avenue;
29. Sepulveda Boulevard & La Tijera Boulevard;
30. Sepulveda Boulevard & Westchester Parkway;
33. Sepulveda Boulevard & I-105 westbound ramps north of Imperial Highway;
34. Sepulveda Boulevard & Imperial Highway;
46. Airport Boulevard & Manchester Avenue;
47. Aviation Boulevard/Florence Avenue & Manchester Avenue; and
48. La Cienega Boulevard & Florence Avenue.

Source: Gibson transportation consulting, inc., September 2012; Prepared by: URS Corporation, 2014.

Existing With Project Conditions (Year 2012) Measured Against Existing Conditions (Year 2012) Locations of Significant Intersection Impacts	**Draft Environmental Impact Report LAX Northside Plan Update**	FIGURE 4.14-3

Future 2022 with Project Conditions

The Future 2022 with Project conditions were compared to the Future 2022 without Project conditions to determine the impact of the proposed Project at each study intersection based on the significance criteria defined by each jurisdiction in the Study Area.

The Future without Project conditions analysis projects the intersection operating conditions as a result of regional growth and related project traffic in the vicinity of the Project site based on the traffic volumes, streets, and intersection configurations projected to exist in 2022. The growth rate used was determined by averaging the overall growth within the SCAG model for the Study Area between the SCAG baseline year (2003) and the SCAG future year (2035). This overall growth was evaluated to ensure that the relevant trip generation information contained in the LAX Master Plan Final EIR/EIS was included in the SCAG model and then converted into an annual percentage and applied accordingly to the existing traffic counts (2010).[6]

As shown in **Table 4.14-11**, Future with Project Conditions (Year 2022) Intersection Peak Hours Levels of Service, 84 of the 108 signalized intersections are projected to operate at LOS D or better during the morning and afternoon peak hours in 2022 without the proposed Project traffic. The remaining 24 intersections would operate at LOS E or F during at least one of the analyzed peak hours.

As identified in **Table 4.14-11**, and summarized below in **Table 4.14-12**, Future with Project Conditions (Year 2022) Intersection Peak Hours Levels of Service Impact Summary Future With Project Conditions (Year 2022) Significant Impact Analysis, the proposed Project is projected to significantly impact seven study intersections during the morning peak hour and 16 study intersections during the afternoon peak hour when compared to the Future (2022) environment.

[6] Gibson Transportation Consulting, Inc., Memorandum: Preliminary Traffic Impact Assessment for LAX Northside, Los Angeles, California, February 22, 2011.

This Page Intentionally Left Blank

Table 4.14-11

Future With Project Conditions (Year 2022) Significant Intersection Impact Analysis

No.	City	Intersection	Peak Hour	Future without Project		Future with Project			
				V/C	LOS	V/C	LOS	Δ V/C	Impact
1.	LA	Lincoln Boulevard & Venice Boulevard	A.M.	0.852	D	0.859	D	0.007	NO
			P.M.	0.975	E	0.987	E	0.012	YES
2.	LA	Lincoln Boulevard & Washington Boulevard	A.M.	0.774	C	0.784	C	0.010	NO
			P.M.	0.990	E	0.997	E	0.007	NO
3.	LA	Lincoln Boulevard & Maxella Avenue	A.M.	0.573	A	0.583	A	0.010	NO
			P.M.	0.644	B	0.660	B	0.016	NO
4.	LA	Lincoln Boulevard & SR-90 Ramps	A.M.	0.726	C	0.731	C	0.005	NO
			P.M.	0.853	D	0.870	D	0.017	NO
5.	LA	Lincoln Boulevard & Bali Way	A.M.	0.492	A	0.509	A	0.017	NO
			P.M.	0.789	C	0.803	D	0.014	NO
6.	LA	Lincoln Boulevard & Mindanao Way	A.M.	0.688	B	0.699	B	0.011	NO
			P.M.	0.820	D	0.843	D	0.023	YES
7.	LA	Lincoln Boulevard & Fiji Way	A.M.	0.552	A	0.576	A	0.024	NO
			P.M.	0.786	C	0.809	D	0.023	YES
8.	LA	Lincoln Boulevard & Jefferson Boulevard	A.M.	0.634	B	0.687	B	0.053	NO
			P.M.	0.667	B	0.741	C	0.074	YES
9.	LA	Lincoln Boulevard & Bluff Creek Drive	A.M.	0.459	A	0.515	A	0.056	NO
			P.M.	0.417	A	0.463	A	0.046	NO
10.	LA	Lincoln Boulevard & LMU Drive	A.M.	0.475	A	0.493	A	0.018	NO
			P.M.	0.561	A	0.598	A	0.037	NO

Table 4.14-11

Future With Project Conditions (Year 2022) Significant Intersection Impact Analysis

No.	City	Intersection	Peak Hour	Future without Project		Future with Project			
				V/C	LOS	V/C	LOS	Δ V/C	Impact
11.	LA	Lincoln Boulevard & 83rd Street	A.M. P.M.	0.564 0.601	A B	0.656 0.680	A B	0.092 0.079	NO NO
12.	LA	Lincoln Boulevard & Manchester Avenue	A.M. P.M.	0.615 0.692	B B	0.725 0.812	C D	0.110 0.20	YES
13.	LA	Lincoln Boulevard & La Tijera Boulevard	A.M. P.M.	0.372 0.379	A A	0.389 0.437	A A	0.017 0.058	NO NO
14.	LA	Culver Boulevard & Jefferson Boulevard	A.M. P.M.	0.731 0.695	C B	0.744 0.707	C C	0.013 0.012	NO NO
15.	LA	Nicholson Street & Culver Boulevard	A.M. P.M.	0.591 0.777	A C	0.620 0.791	B C	0.029 0.014	NO NO
16.	LA	Pershing Drive & Manchester Avenue	A.M. P.M.	0.461 0.411	A A	0.467 0.437	A A	0.006 0.026	NO NO
17.	LA	Pershing Drive & Westchester Parkway	A.M. P.M.	0.223 0.216	A A	0.256 0.270	A A	0.033 0.054	NO NO
18.	LA	Vista del Mar & Imperial Highway	A.M. P.M.	0.412 0.392	A A	0.416 0.411	A A	0.004 0.019	NO NO
19.	LA	Pershing Drive & Imperial Highway	A.M. P.M.	0.547 0.459	A A	0.592 0.480	A A	0.045 0.021	NO NO
20.	LA	Main Street & Imperial Highway	A.M. P.M.	0.720 0.571	C A	0.745 0.600	C A	0.025 0.029	NO NO

Table 4.14-11

Future With Project Conditions (Year 2022) Significant Intersection Impact Analysis

No.	City	Intersection	Peak Hour	Future without Project		Future with Project			
				V/C	LOS	V/C	LOS	Δ V/C	Impact
21.	LA	Vista del Mar & Grand Avenue	A.M.	0.533	A	0.552	A	0.019	NO
			P.M.	0.361	A	0.375	A	0.014	NO
22.	MB	Highland Avenue & Rosecrans Avenue	A.M.	0.826	D	0.843	D	0.017	NO
			P.M.	0.713	C	0.732	C	0.019	NO
23.	CC	Sepulveda Boulevard & Centinela Avenue	A.M.	0.811	D	0.827	D	0.016	NO
			P.M.	0.815	D	0.826	D	0.011	NO
24.	LA	Sepulveda Boulevard & Howard Hughes Parkway	A.M.	0.412	A	0.433	A	0.021	NO
			P.M.	0.576	A	0.600	A	0.024	NO
25.	LA	Sepulveda Boulevard & 76th Street	A.M.	0.678	B	0.687	B	0.009	NO
			P.M.	0.661	B	0.681	B	0.020	NO
26.	LA	Sepulveda Boulevard & 79th Street	A.M.	0.481	A	0.491	A	0.010	NO
			P.M.	0.528	A	0.548	A	0.020	NO
27.	LA	Sepulveda Boulevard & 83rd Street	A.M.	0.431	A	0.441	A	0.010	NO
			P.M.	0.491	A	0.514	A	0.023	NO
28.	LA	Sepulveda Boulevard & Manchester Avenue	A.M.	0.768	C	0.798	C	0.030	NO
			P.M.	0.834	D	0.896	D	0.062	YES
29.	LA	Sepulveda Boulevard & La Tijera Boulevard	A.M.	0.522	A	0.573	A	0.051	NO
			P.M.	0.673	B	0.800	C	0.127	YES

Table 4.14-11

Future With Project Conditions (Year 2022) Significant Intersection Impact Analysis

No.	City	Intersection	Peak Hour	Future without Project		Future with Project			
				V/C	LOS	V/C	LOS	Δ V/C	Impact
30.	LA	Sepulveda Boulevard & Westchester Parkway	A.M.	0.506	A	0.665	B	0.159	NO
			P.M.	0.851	D	1.038	F	0.187	YES
31.	LA	Sepulveda Boulevard & Lincoln Boulevard	A.M.	0.157	A	0.183	A	0.026	NO
			P.M.	0.233	A	0.267	A	0.034	NO
32.	LA	Sepulveda Boulevard & Century Boulevard	A.M.	0.550	A	0.607	B	0.057	NO
			P.M.	0.638	B	0.665	B	0.027	NO
33.	LA	Sepulveda Boulevard & I-105 Westbound Ramps N/O Imperial Highway	A.M.	0.849	D	0.927	E	0.078	YES
			P.M.	0.881	D	0.919	E	0.038	
34.	LA	Sepulveda Boulevard & Imperial Highway	A.M.	0.773	C	0.812	D	0.039	YES
			P.M.	1.156	F	1.171	F	0.015	
35.	ES	Sepulveda Boulevard & Mariposa Avenue	A.M.	0.785	C	0.801	D	0.016	NO
			P.M.	0.805	D	0.824	D	0.019	NO
36.	ES	Sepulveda Boulevard & Grand Avenue	A.M.	0.790	C	0.806	D	0.016	NO
			P.M.	0.908	E	0.925	E	0.017	NO
37.	ES	Sepulveda Boulevard & El Segundo Boulevard	A.M.	0.792	C	0.811	D	0.019	NO
			P.M.	1.009	F	1.021	F	0.012	NO
38.	ES	Sepulveda Boulevard & Rosecrans Avenue	A.M.	0.819	D	0.835	D	0.016	NO
			P.M.	1.154	F	1.169	F	0.015	NO
39.	LA	La Tijera Boulevard & Manchester Avenue	A.M.	0.515	A	0.579	A	0.064	NO
			P.M.	0.553	A	0.635	B	0.082	NO

Table 4.14-11

Future With Project Conditions (Year 2022) Significant Intersection Impact Analysis

No.	City	Intersection	Peak Hour	Future without Project		Future with Project			
				V/C	LOS	V/C	LOS	Δ V/C	Impact
40.	LA	La Tijera Boulevard & Airport Boulevard	A.M.	0.436	A	0.509	A	0.073	NO
			P.M.	0.444	A	0.493	A	0.049	NO
41.	LA	I-405 Southbound Ramps & La Tijera Boulevard	A.M.	0.478	A	0.496	A	0.018	NO
			P.M.	0.605	B	0.642	B	0.037	NO
42.	LA	I-405 Northbound Ramps & La Tijera Boulevard	A.M.	0.620	B	0.648	B	0.028	NO
			P.M.	0.598	A	0.631	B	0.033	NO
43.	LA	La Tijera Boulevard & Centinela Avenue	A.M.	0.613	B	0.668	B	0.024	NO
			P.M.	0.760	C	0.765	C	0.029	NO
44.	LA	La Cienega Boulevard & La Tijera Boulevard	A.M.	0.662	B	0.668	B	0.006	NO
			P.M.	0.765	C	0.765	C	0.000	NO
45.	LA	La Cienega Boulevard & Centinela Avenue	A.M.	1.000	E	1.003	F	0.003	NO
			P.M.	1.068	F	1.072	F	0.004	NO
46.	LA	Airport Boulevard & Manchester Avenue	A.M.	0.653	B	0.715	C	0.062	YES
			P.M.	0.917	E	0.976	E	0.059	
47.	IW	Aviation Boulevard / Florence Avenue & Manchester Avenue	A.M.	0.684	B	0.736	C	0.052	YES
			P.M.	0.836	D	0.877	D	0.041	
48.	IW	La Cienega Boulevard & Florence Avenue	A.M.	0.828	D	0.839	D	0.011	NO
			P.M.	1.125	F	1.136	F	0.011	YES
49.	IW	La Cienega Boulevard & Manchester Avenue	A.M.	0.697	B	0.702	C	0.005	NO
			P.M.	0.911	E	0.932	E	0.021	YES

Table 4.14-11

Future With Project Conditions (Year 2022) Significant Intersection Impact Analysis

No.	City	Intersection	Peak Hour	Future without Project		Future with Project			
				V/C	LOS	V/C	LOS	Δ V/C	Impact
50.	IW	Ash Avenue / I-405 Northbound Ramps & Manchester Avenue	A.M.	0.677	B	0.701	C	0.024	NO
			P.M.	0.775	C	0.799	C	0.024	NO
51.	IW	Inglewood Avenue & Manchester Avenue	A.M.	0.546	A	0.573	A	0.027	NO
			P.M.	0.679	B	0.704	C	0.025	NO
52.	IW	La Brea Avenue & Florence Avenue	A.M.	0.741	C	0.748	C	0.007	NO
			P.M.	0.998	E	1.004	F	0.006	NO
53.	IW	La Brea Avenue & Manchester Avenue	A.M.	0.793	C	0.801	D	0.008	NO
			P.M.	0.870	D	0.883	D	0.013	NO
54.	LA	Sepulveda Eastway & Westchester Parkway	A.M.	0.305	A	0.357	A	0.052	NO
			P.M.	0.546	A	0.571	A	0.025	NO
55.	LA	Jenny Avenue & Westchester Parkway	A.M.	0.121	A	0.171	A	0.050	NO
			P.M.	0.311	A	0.367	A	0.056	NO
56.	LA	Airport Boulevard & Arbor Vitae Street / Westchester Parkway	A.M.	0.391	A	0.454	A	0.063	NO
			P.M.	0.597	A	0.640	B	0.043	NO
57.	LA	Aviation Boulevard & Arbor Vitae Street	A.M.	0.527	A	0.583	A	0.056	NO
			P.M.	0.669	B	0.731	C	0.062	YES
58.	LA	La Cienega Boulevard & Arbor Vitae Street	A.M.	0.505	A	0.537	A	0.032	NO
			P.M.	0.687	B	0.729	C	0.042	YES
59.	IW	Inglewood Avenue & Arbor Vitae Street	A.M.	0.426	A	0.458	A	0.032	NO
			P.M.	0.754	C	0.786	C	0.032	NO

Table 4.14-11

Future With Project Conditions (Year 2022) Significant Intersection Impact Analysis

No.	City	Intersection	Peak Hour	Future without Project		Future with Project			
				V/C	LOS	V/C	LOS	Δ V/C	Impact
60.	IW	La Brea Avenue & Arbor Vitae Street	A.M.	0.364	A	0.375	A	0.011	NO
			P.M.	0.727	C	0.747	C	0.020	NO
61.	LA	Airport Boulevard & Century Boulevard	A.M.	0.723	C	0.730	C	0.007	NO
			P.M.	0.767	C	0.770	C	0.003	NO
62.	LA	Aviation Boulevard & Century Boulevard	A.M.	0.939	E	0.953	E	0.014	YES
			P.M.	1.065	F	1.073	F	0.008	
63.	LA	La Cienega Boulevard & Century Boulevard	A.M.	0.664	B	0.672	B	0.008	NO
			P.M.	0.772	C	0.778	C	0.006	NO
64.	IW	I-405 Northbound Ramps & Century Boulevard	A.M.	0.677	B	0.691	B	0.014	NO
			P.M.	0.631	B	0.635	B	0.004	NO
65.	IW	Inglewood Avenue & Century Boulevard	A.M.	0.617	B	0.623	B	0.006	NO
			P.M.	0.834	D	0.849	D	0.015	NO
66.	IW	La Brea Avenue/Hawthorne Boulevard & Century Boulevard	A.M.	0.670	B	0.679	B	0.009	NO
			P.M.	0.934	E	0.943	E	0.009	NO
67.	LAC	Inglewood Avenue & Lennox Boulevard	A.M.	0.467	A	0.472	A	0.005	NO
			P.M.	0.804	D	0.810	D	0.006	NO
68.	LAC	Hawthorne Boulevard & Lennox Boulevard	A.M.	0.480	A	0.480	A	0.000	NO
			P.M.	0.794	C	0.797	C	0.003	NO
69.	HT	Inglewood Avenue & Imperial Highway	A.M.	0.729	C	0.739	C	0.010	NO
			P.M.	1.240	F	1.252	F	0.012	NO
70.	HT	Hawthorne Boulevard & Imperial Highway	A.M.	0.653	B	0.660	B	0.007	NO

Table 4.14-11

Future With Project Conditions (Year 2022) Significant Intersection Impact Analysis

No.	City	Intersection	Peak Hour	Future without Project		Future with Project			
				V/C	LOS	V/C	LOS	Δ V/C	Impact
			P.M.	0.954	E	0.962	E	0.008	NO
71.	HT	Inglewood Avenue & El Segundo Boulevard	A.M.	0.662	B	0.665	B	0.003	NO
			P.M.	1.043	F	1.050	F	0.007	NO
72.	HT	Hawthorne Boulevard & El Segundo Boulevard	A.M.	0.677	B	0.679	B	0.002	NO
			P.M.	1.233	F	1.238	F	0.005	NO
73.	LA	Centinela Avenue & Culver Boulevard	A.M.	0.719	C	0.747	C	0.028	NO
			P.M.	0.787	C	0.797	C	0.010	NO
74.	LA	Centinela Avenue & Sanford Street / SR-90 Westbound Ramps	A.M.	0.431	A	0.459	A	0.028	NO
			P.M.	0.494	A	0.499	A	0.005	NO
75.	LA	Centinela Avenue & SR-90 Eastbound Ramps	A.M.	0.352	A	0.391	A	0.039	NO
			P.M.	0.490	A	0.490	A	0.000	NO
76.	LA	Centinela Avenue & Jefferson Boulevard	A.M.	0.596	A	0.643	B	0.047	NO
			P.M.	0.697	B	0.704	C	0.007	NO
77.	CC	Sepulveda Boulevard & Washington Place	A.M.	0.678	B	0.682	B	0.004	NO
			P.M.	0.707	C	0.714	C	0.007	NO
78.	CC	Sepulveda Boulevard & Washington Boulevard	A.M.	0.692	B	0.695	B	0.003	NO
			P.M.	0.669	B	0.679	B	0.010	NO
79.	CC	Sawtelle Boulevard & Culver Boulevard	A.M.	0.648	B	0.651	B	0.003	NO
			P.M.	0.798	C	0.808	D	0.010	NO
80.	CC	Sepulveda Boulevard & Culver Boulevard	A.M.	0.714	C	0.722	C	0.008	NO
			P.M.	0.707	C	0.720	C	0.013	NO

Table 4.14-11

Future With Project Conditions (Year 2022) Significant Intersection Impact Analysis

No.	City	Intersection	Peak Hour	Future without Project		Future with Project			
				V/C	LOS	V/C	LOS	Δ V/C	Impact
81.	LA	I-405 Southbound Ramps & Jefferson Boulevard	A.M. P.M.	0.307 0.431	A A	0.308 0.431	A A	0.001 0.000	NO NO
82.	LA	I-405 Northbound Ramps & Jefferson Boulevard	A.M. P.M.	0.466 0.746	A C	0.473 0.749	A C	0.007 0.003	NO NO
83.	CC	Sepulveda Boulevard & Jefferson Boulevard	A.M. P.M.	0.527 0.553	A A	0.531 0.562	A A	0.004 0.009	NO NO
84.	CC	Sepulveda Boulevard & Sawtelle Boulevard	A.M. P.M.	0.525 0.697	A B	0.530 0.706	A C	0.005 0.009	NO NO
85.	CC	Slauson Avenue & Jefferson Boulevard	A.M. P.M.	0.402 0.510	A A	0.407 0.516	A A	0.005 0.006	NO NO
86.	CC	Sepulveda Boulevard & Jefferson Boulevard & Playa Street	A.M. P.M.	0.771 0.931	C E	0.775 0.947	C E	0.004 0.016	NO NO
87.	CC	Sepulveda Boulevard & Slauson Avenue &	A.M. P.M.	0.532 0.771	A C	0.536 0.788	A C	0.004 0.017	NO NO
88.	LAC	La Cienega Boulevard & Stocker Street	A.M. P.M.	1.320 1.239	F F	1.327 1.247	F F	0.007 0.008	NO NO
89.	LAC	La Cienega Boulevard Southbound Ramp & Slauson Avenue	A.M. P.M.	0.966 0.770	E C	0.976 0.779	E C	0.010 0.009	YES
90.	LAC	La Cienega Boulevard Northbound Ramp & Slauson Avenue	A.M. P.M.	0.739 0.798	C C	0.753 0.813	C D	0.014 0.015	NO NO
91.	LA	Falmouth Avenue & Manchester Avenue	A.M.	0.146	A	0.159	A	0.013	NO

Table 4.14-11

Future With Project Conditions (Year 2022) Significant Intersection Impact Analysis

No.	City	Intersection	Peak Hour	Future without Project		Future with Project			
				V/C	LOS	V/C	LOS	Δ V/C	Impact
			P.M.	0.128	A	0.145	A	0.017	NO
92.	LA	Falmouth Avenue & Westchester Parkway	A.M.	0.312	A	0.318	A	0.006	NO
			P.M.	0.187	A	0.237	A	0.050	NO
93.	LA	Lincoln Boulevard & Loyola Boulevard	A.M.	0.391	A	0.515	A	0.124	NO
			P.M.	0.491	A	0.629	B	0.138	NO
94.	LA	Loyola Boulevard & Westchester Parkway	A.M.	0.223	A	0.413	A	0.190	NO
			P.M.	0.127	A	0.217	A	0.090	NO
95.	LA	McConnell Avenue & Westchester Parkway	A.M.	0.102	A	0.284	A	0.182	NO
			P.M.	0.078	A	0.254	A	0.176	NO
96.	LA	Emerson Avenue & Manchester Avenue	A.M.	0.499	A	0.545	A	0.046	NO
			P.M.	0.425	A	0.462	A	0.037	NO
97.	LA	La Tijera Boulevard & Westchester Parkway	A.M.	0.134	A	0.269	A	0.135	NO
			P.M.	0.076	A	0.221	A	0.145	NO
98.	LA	Sepulveda Westway & La Tijera Boulevard	A.M.	0.169	A	0.269	A	0.100	NO
			P.M.	0.377	A	0.517	A	0.140	NO
99.	LA	Sepulveda Westway & Westchester Parkway	A.M.	0.097	A	0.186	A	0.089	NO
			P.M.	0.181	A	0.279	A	0.098	NO
100.	LA	Airport Boulevard & 96^{th} Street	A.M.	0.195	A	0.202	A	0.007	NO
			P.M.	0.394	A	0.405	A	0.011	NO
101.	LA	Aviation Boulevard & Imperial Highway	A.M.	0.713	C	0.720	C	0.007	NO
			P.M.	0.672	B	0.689	B	0.017	NO

Table 4.14-11

Future With Project Conditions (Year 2022) Significant Intersection Impact Analysis

No.	City	Intersection	Peak Hour	Future without Project		Future with Project			
				V/C	LOS	V/C	LOS	Δ V/C	Impact
102.	ES	Aviation Boulevard & El Segundo Boulevard	A.M.	1.041	F	1.044	F	0.003	NO
			P.M.	0.954	E	0.959	E	0.005	NO
103.	LA	Lincoln Boulevard & Rose Avenue	A.M.	0.969	E	0.971	E	0.002	NO
			P.M.	0.898	D	0.902	E	0.004	NO
104.	LA	Culver Boulevard & SR-90 WB Ramps	A.M.	0.819	D	0.819	D	0.000	NO
			P.M.	0.878	D	0.879	D	0.001	NO
105.	LA	Culver Boulevard & SR-90 EB Ramps	A.M.	0.456	A	0.460	A	0.004	NO
			P.M.	0.512	A	0.515	A	0.003	NO
106.	LA	I-405 SB Ramps & Howard Hughes Parkway	A.M.	0.388	A	0.423	A	0.035	NO
			P.M.	0.226	A	0.237	A	0.011	NO
107.	LA	Center Drive & I-405 NB Ramps/Howard Hughes Parkway	A.M.	0.192	A	0.198	A	0.006	NO
			P.M.	0.237	A	0.264	A	0.027	NO
108.	LA	La Cienega Boulevard & Imperial Highway	A.M.	0.444	A	0.444	A	0.000	NO
			P.M.	0.606	B	0.616	B	0.010	NO

Notes:
LA = Los Angeles
CC = Culver City
MB = Manhattan Beach
ES = El Segundo
IW = Inglewood
HT = Hawthorne
LAC = Los Angeles County
Source: Gibson Transportation Consulting

This Page Intentionally Left Blank

Table 4.14-12

Future With Project Conditions (Year 2022) Significant Intersection Impact Analysis Summary

Peak Period	Significant Impacts (Before Mitigation)
Morning Peak Hour	7
Afternoon Peak Hour	16
Total Intersections Impacted	**18**

Source: Gibson Transportation Consulting, Transportation Study for the LAX Northside Plan Update, October 2013.

During the morning peak hour, three impacts would occur at intersections operating at LOS C, one impact would occur at an intersection operating at LOS D, and three impacts would occur at intersections operating at LOS E.

During the afternoon peak hour, five impacts would occur at intersections operating at LOS C, four impacts would occur at intersections operating at LOS D, four impacts would occur at intersections operating at LOS E, and three impacts would occur at intersections operating at LOS F.

In total, 18 study intersections would be impacted under either the morning or afternoon peak hour. The remaining 90 study intersections would not be significantly impacted during either peak hour. The locations of the intersections that would be impacted are shown in **Figure 4.14-4,** Existing With Project Conditions (Year 2022) Significant Intersection Impacts.

The intersections projected to be impacted with the addition of traffic from the proposed Project are:

1. Lincoln Boulevard & Venice Boulevard;
6. Lincoln Boulevard & Mindanao Way;
7. Lincoln Boulevard & Fiji Way;
8. Lincoln Boulevard & Jefferson Boulevard;
12. Lincoln Boulevard & Manchester Avenue;
28. Sepulveda Boulevard & Manchester Avenue;
29. Sepulveda Boulevard & La Tijera Boulevard;
30. Sepulveda Boulevard & Westchester Parkway;
33. Sepulveda Boulevard & I-105 westbound ramps north of Imperial Highway;
34. Sepulveda Boulevard & Imperial Highway;
46. Airport Boulevard & Manchester Avenue;
47. Aviation Boulevard/Florence Avenue & Manchester Avenue;
48. La Cienega Boulevard & Florence Avenue;
49. La Cienega Boulevard & Manchester Avenue;

57. Aviation Boulevard & Arbor Vitae Street;
58. La Cienega Boulevard & Arbor Vitae Street;
62. Aviation Boulevard & Century Boulevard; and
89. La Cienega Boulevard Southbound ramp & Slauson Avenue.

Source: Gibson transportation consulting, inc., September 2012; Prepared by: URS Corporation, 2014.

Future With Project Conditions (Year 2022) Measured Against Future Without Project Conditions (Year 2022) Locations of Significant Intersection Impacts	**Draft Environmental Impact Report LAX Northside Plan Update**	FIGURE 4.14-4

4.14.3.4.3 Neighborhood Streets

The neighborhood intrusion impact analysis was conducted for the Future with Project (2022) conditions. LADOT policy and the Los Angeles CEQA Thresholds Guide outline a procedure for assessing the potential for traffic from a project to intrude into residential neighborhoods by traveling through a neighborhood to avoid congestion on arterial streets. Under this procedure, analysis is required if the following three criteria are met:

- There must be 1,200 or more daily trips added by a project to an arterial corridor.
- There must be congestion on the arterial corridor (determined by intersections operating at LOS E or F)
- There must be parallel local residential streets providing a cut-through route.

These criteria are used to identify neighborhoods that could potentially be impacted.

Arterial Corridors Meeting Project Trip Threshold

Based on LADOT policy, any arterial corridor projected to increase by 1,200 or more daily trips from project traffic would meet the condition for assessing neighborhood intrusion impacts. This would represent 5.10 percent of the total daily traffic projected to be generated by the proposed Project. The six arterial corridors in the study area that would have 1,200 or more trips added by the proposed Project would include:

- Lincoln Boulevard between Mindanao Way & Sepulveda Boulevard;
- Sepulveda Boulevard between Howard Hughes Parkway & El Segundo Boulevard;
- La Tijera Boulevard between Westchester Parkway & La Cienega Boulevard;
- Manchester Avenue between Falmouth Avenue and I-405;
- Westchester Parkway between Pershing Drive and Inglewood Avenue; and
- Pershing Drive between Westchester Parkway and Imperial Highway.

Intersections Operating at LOS E or F along Affected Corridors

Several intersections along these corridors are projected to operate at LOS E or LOS F under Future with Project conditions. These intersections include:

30. Sepulveda Boulevard & Westchester Parkway;
33. Sepulveda Boulevard & I-105 westbound ramps north of Imperial Highway;
34. Sepulveda Boulevard & Imperial Highway;
36. Sepulveda Boulevard & Grand Avenue;
37. Sepulveda Boulevard & El Segundo Boulevard;
46. Airport Boulevard & Manchester Avenue; and
49. La Cienega Boulevard & Manchester Avenue.

Based on the locations of these intersections and LADOT policy, the potential for neighborhood intrusion impacts would be present along Sepulveda Boulevard and Manchester Avenue. As no intersections operating at LOS E or LOS F are projected on the remaining four corridors, the potential for neighborhood intrusion impacts along these corridors is not significant.

Availability of Parallel Local Streets

Finally, LADOT policy requires the identification of viable cut-through routes on local residential streets in order for a neighborhood intrusion impact to be identified. In accordance with this policy, the Sepulveda Boulevard and Manchester Avenue corridors were examined to identify the availability of parallel local streets that could be used as a cut-through route to avoid arterial congestion. Neither Sepulveda Boulevard nor Manchester Avenue has parallel local streets that would serve this purpose. Therefore, based on LADOT's standard criteria, no potential neighborhood intrusion impacts are identified.

4.14.3.4.4 Regional Transportation System

An analysis of the regional transportation facilities in the vicinity of the proposed Project was conducted in accordance with the TIA procedures outlined in the 2010 CMP (Metro, 2010) for facilities included in the CMP network and based on guidelines established in Caltrans Guide for the Preparation of Traffic Impact Studies (Caltrans, December 2002) for state facilities.

CMP Network

The CMP requires that a TIA be performed for all arterial monitoring intersections where a project would add 50 or more trips during either the morning or afternoon weekday peak hour and all mainline freeway monitoring locations where a project would add 150 or more trips (in either direction) during the morning or afternoon weekday peak hours. In addition, a review of the potential impact on transit capacity is required. Potential impacts on intersections and freeway segments in the CMP network and potential impact on transit service are each addressed below.

The CMP identifies 10 arterial monitoring intersections, which are also study intersections, and the proposed Project is expected to add more than 50 peak hour trips to these intersections. According to CMP criteria, a CMP arterial monitoring intersection must operate at LOS F before a significant impact can be identified.

The following CMP monitoring locations are projected to operate at LOS F during one or both peak hours under the Existing with Project conditions:

38. Sepulveda Boulevard & Rosecrans Avenue (afternoon peak hour); and

88. La Cienega Boulevard & Stocker Street (morning and afternoon peak hours).

Under CMP criteria, a significant impact would occur if the proposed Project would increase the V/C ratio by 0.020 or more at a monitoring location operating at LOS F. As shown in **Table 4.14-10**, the addition of the proposed Project traffic does not increase the intersection V/C by 0.020 at these intersections during either peak hour. Therefore, the impact of the proposed Project is not significant under CMP criteria.

The proposed Project is projected to add 150 or more peak hour trips in either direction to the following freeway mainline monitoring locations:

- I-105 East of Sepulveda Boulevard; and
- I-405 North of Venice Boulevard.

Under Existing with Project Conditions, the freeway segment at the I-105 east of Sepulveda Boulevard is projected to operate at LOS B during both the morning and afternoon peak hours in the eastbound direction; LOS C during the morning peak hour; and LOS B during the

afternoon peak hour in the westbound direction. The freeway segment does not operate at LOS F in either direction during either peak hour under Existing with Project Conditions. Under Future with Project Conditions the freeway segment at the I-105 east of Sepulveda Boulevard is projected to operate at LOS B during the morning peak hour; LOS C during the afternoon peak hour in the eastbound direction; LOS D during the morning peak hour; and LOS C during the afternoon peak hour in the westbound direction. The freeway segment does not operate at LOS F in either direction during either peak hour under Future with Project Conditions.

Under Existing with Project Conditions, the freeway segment at the I-405 north of Venice Boulevard is projected to operate at LOS D during the morning peak hour; LOS C during the afternoon peak hour in the northbound directions; LOS C during both the morning and afternoon peak hours in the southbound direction. The freeway segment does not operate at LOS F in either direction during either peak hour under Existing with Project Conditions. Under Future with Project Conditions the freeway segment at I-405 north of Venice Boulevard is projected to operate at LOS E during the morning peak hour; LOS D during the afternoon peak hour in the northbound direction; LOS C during the morning peak hour; LOS D during the afternoon peak hour in the southbound direction. The freeway segment does not operate at LOS F in either direction during either peak hour under Future with Project conditions.

State Facilities

Of the 108 study intersections, a total of 34 are located on State of California highways or at freeway intersections and ramps. In addition, the Study Area contains freeways. The potential impact of the proposed Project on these state facilities was conducted in accordance with the methodologies in the Caltrans TIS Guidelines. Existing traffic volumes on freeway segments were obtained from Caltrans' Performance Measurement System (PeMS) database for 2012. Intersection volumes were the same as those used in the analysis of study intersections for local jurisdictions. Interchange ramp volumes were either computed from the intersection peak hour traffic counts or obtained from Caltrans. Traffic growth in the Study Area between 2012 and 2022, when full development of the proposed Project is expected, is based on the LAX Model, as described above.

The proposed Project traffic was added to the Existing (Year 2012), Future without Project (2022), and Future without Project (Year 2035) A.M. and P.M. peak hour traffic volumes on the following 25 freeway segments to consider the impact of the proposed Project in accordance with the Caltrans TIS Guidelines:

1. I-405 - South of I-10;
2. I-405 - South of Venice Boulevard;
3. I-405 - South of Culver Boulevard;
4. I-405 - South of Braddock Drive;
5. I-405 - South of SR-90;
6. I-405 - South of Centinela Avenue;
7. I-405 - South of Howard Hughes Parkway;
8. I-405 - South of La Tijera Boulevard;
9. I-405 - South of La Cienega Boulevard;
10. I-405 - South of Manchester Avenue;

11. I-405 - South of Century Boulevard;
12. I-405 - South of Imperial Highway;
13. I-405 - South of I-105;
14. I-405 - South of El Segundo Boulevard;
15. I-405 - South of Rosecrans Avenue;
16. I-105 - West of Hughes Way;
17. I-105 - West of Douglas Avenue;
18. I-105 - West of Imperial Highway;
19. I-105 - West of I-405;
20. I-105 - West of Hawthorne Avenue;
21. I-105 - West of Prairie Avenue;
22. SR-90 - West of Mindanao Way;
23. SR-90 - West of Culver Boulevard;
24. SR-90 - West of Centinela Avenue; and
25. SR-90 - West of I-405.

The proposed Project would not result in a significant impact on the existing or projected operating conditions on these freeway segments as the proposed Project traffic would not increase the freeway segment V/C ratio by 0.020 on any freeway segment currently operating at LOS F in 2012 or projected to operate at LOS F in 2022 or 2035.

All study intersections falling under Caltrans jurisdiction were analyzed for significant traffic impacts using the 2000 Highway Capacity Manual (Transportation Research Board, 2000) methodology specified by Caltrans and the CMP impact criteria. The following 34 intersections that fall under Caltrans jurisdiction were analyzed:

1. Lincoln Boulevard & Venice Boulevard;
2. Lincoln Boulevard & Washington Boulevard;
3. Lincoln Boulevard & Maxella Avenue;
4. Lincoln Boulevard & SR-90 ramps;
5. Lincoln Boulevard & Bali Way;
6. Lincoln Boulevard & Mindanao Way;
7. Lincoln Boulevard & Fiji Way;
8. Lincoln Boulevard & Jefferson Boulevard;
9. Lincoln Boulevard & Bluff Creek Drive;
10. Lincoln Boulevard & LMU Drive;
11. Lincoln Boulevard & 83rd Street;
12. Lincoln Boulevard & Manchester Avenue;
13. Lincoln Boulevard & La Tijera Boulevard;

31. Sepulveda Boulevard & Lincoln Boulevard;
32. Sepulveda Boulevard & Century Boulevard;
33. Sepulveda Boulevard & I-105 westbound ramps north of Imperial Highway;
34. Sepulveda Boulevard & Imperial Highway;
35. Sepulveda Boulevard & Mariposa Avenue;
36. Sepulveda Boulevard & Grand Avenue;
37. Sepulveda Boulevard & El Segundo Boulevard;
38. Sepulveda Boulevard & Rosecrans Avenue;
41. Southbound I-405 ramps & La Tijera Boulevard;
42. Northbound I-405 ramps & La Tijera Boulevard;
64. Northbound I-405 ramps & Century Boulevard;
74. Centinela Avenue & Sanford Street/SR-90 westbound on/off ramps;
75. Centinela Avenue & SR-90 eastbound on/off ramps;
81. I-405 Southbound ramps & Jefferson Boulevard;
82. I-405 Northbound ramps & Jefferson Boulevard;
93. Lincoln Boulevard & Loyola Boulevard;
103. Lincoln Boulevard & Rose Avenue;
104. Culver Boulevard & SR-90 westbound ramps;
105. Culver Boulevard & SR-90 eastbound ramps;
106. I-405 Southbound ramps & Howard Hughes Parkway; and
107. Center Drive & I-405 Northbound ramps/Howard Hughes Parkway.

The proposed Project would not result in a significant impact on the existing or projected operating conditions on these intersections as the addition of the proposed Project traffic would not increase the V/C ratio by 0.020 at any intersection currently operating at LOS F in 2012 or projected to operate at LOS F in 2022 or 2035.

Of these intersections, 14 are freeway ramp intersections under Caltrans jurisdiction. Based on Caltrans' policy, this analysis of potential impacts to these 14 intersections was also conducted for 2012 and 2022.

Based on on-ramp metering, Caltrans has established a default capacity of 900 vehicles per hour per lane (vphpl) for on-ramps. An on-ramp is considered to be "over-saturated" or failing if the existing or future peak hour traffic on the ramp exceeds 900 vphpl. This capacity was used to determine the significance of impacts on all on-ramps analyzed with the exception of the I-105 eastbound on-ramp from southbound Sepulveda Boulevard, which has a much higher capacity than a typical on-ramp. A typical freeway on-ramp funnels traffic onto the right side of an established freeway, either into an auxiliary lane from which that traffic merges left or directly into a merge situation. Such a ramp is often controlled by a signalized meter. This on-ramp is located at the western terminus of I-105, and no merge is required. It provides two full lanes of capacity, is not metered either by a signalized intersection or by ramp controls, and forms the two left lanes (of three, total) of I-105. Because of all of these factors, the default capacity of 900

vphpl used by Caltrans for typical freeway on-ramps is not directly applicable to this ramp. Instead, a capacity of 1,500 vphpl was applied at this on-ramp based on standards used in Caltrans District 12 for ramps with similar operational characteristics. The remaining on-ramps were analyzed using the standard Caltrans District 7 capacity of 900 vphpl.

The analysis completed for 2012 and 2022 determined each of the analyzed on-ramps operates below capacity under existing conditions and future conditions, before and after the addition of the proposed Project traffic.[7] Therefore, the impact of the proposed Project on on-ramps is not significant.

For off-ramps, Caltrans considers an impact to be significant if the peak hour traffic queue length (85th percentile as determined by *2000 Highway Capacity Manual* analysis methodology) on the ramp exceeds the available storage length. A Level 1 impact, which does not require mitigation, is identified if the queue length exceeds the storage length of any individual approach lane (e.g., left turn lane on the ramp). A Level 2 impact is identified if the projected queue would result in stopped vehicles backing up onto the freeway mainline.

The analysis completed for 2012 and 2022 determined that none of the queue lengths at the off-ramps will exceed the available storage space under any of the analyzed conditions.[8] Therefore, the proposed Project would not result in a significant impact to any off-ramp.

4.14.3.4.5 Public Transit

An analysis of the existing and future transit system was conducted based on the residual capacity and projected transit usage growth through 2022, when full development of the proposed Project is anticipated. As described above, the transit system in the Study Area is currently estimated to have a residual capacity of approximately 2,415 transit patrons during the morning peak hour and 2,492 transit patrons during the afternoon peak hour. The transit system is projected in 2022 to have residual capacity of 2,107 transit patrons during the morning peak hour and 2,175 transit patrons in the afternoon peak hour.

The proposed Project is estimated to add a total of 2,482 daily transit trips, including 211 morning peak hour trips and 267 afternoon peak hour trips, at full development. This estimate is less than the existing and projected future residual transit capacity, therefore, the proposed Project will not result in a significant impact on the regional transit system.

4.14.3.4.6 Access

The proposed Project identifies the following access locations for each Area:

- Area 1 would be accessed via driveways from Falmouth Avenue.
- Area 2 West would be accessed via one or more driveways from Westchester Parkway.
- Area 2 East would be accessed via driveways from Westchester Parkway and/or Loyola Boulevard.
- Area 3 would be accessed via driveways from Westchester Parkway and/or Loyola Boulevard.

[7] Gibson Transportation Consulting, Inc., Transportation Study for the LAX Northside Plan Update, October 2013, Appendix E, Tables E-13 and Table E-14.
[8] Gibson Transportation Consulting, Inc., Transportation Study for the LAX Northside Plan Update, October 2013, Appendix E, Table E-15.

- Area 4 would be accessed via driveways from Westchester Parkway at its intersection with Falmouth Avenue and/or from within the airfield (with airfield access taken from World Way West).
- Area 5 through Area 10 would be accessed via driveways from Westchester Parkway and/or from within the airfield (with airfield access taken from World Way West).
- Area 11 would be accessed via driveways on Westchester Parkway and/or La Tijera Boulevard and/or Sepulveda Westway.
- Area 12A West would be accessed via one or more driveways on Westchester Parkway.
- Area 12A East would be accessed via driveways on Westchester Parkway and/or La Tijera Boulevard.
- Area 12B would continue to be accessed via driveways on Manchester Avenue.
- Area 13 would continue to be accessed via driveways on Lincoln Boulevard.

In most cases, driveways would be side-street stop controlled. Two of the proposed driveways along Westchester Parkway, the primary entrances to Area 2 West and Area 2 East, would warrant installation of new signal controls.

An analysis of the projected operating conditions at these locations once the proposed Project is operational indicates that both would operate at LOS A during both the morning and afternoon peak hours. As each driveway will be sized to accommodate the appropriate level of traffic it is projected to serve, the proposed Project will have adequate access capacity.

According to the Los Angeles CEQA Thresholds Guide, a project would have a significant operational access impact if the study intersection(s) nearest the primary site access is/are projected to operate at LOS E or LOS F during the morning or afternoon peak hour, under existing plus proposed Project conditions or future plus proposed Project conditions. The Project site would have many access points and a number of nearby study intersections. The following study intersections were reviewed for LOS E or LOS F during the peak hours based on the Future with Project (2022) intersection operating conditions:

13. Lincoln Boulevard & La Tijera Boulevard (LOS A morning and afternoon);
17. Pershing Drive & Westchester Parkway (LOS A morning and afternoon);
92. Falmouth Avenue & Westchester Parkway (LOS A morning and afternoon);
94. Loyola Boulevard & Westchester Parkway (LOS A morning and afternoon);
95. McConnell Avenue & Westchester Parkway (LOS A morning and afternoon);
97. La Tijera Boulevard & Westchester Parkway (LOS A morning and afternoon);
98. Sepulveda Westway & La Tijera Boulevard (LOS A morning and afternoon); and
99. Sepulveda Boulevard & Westchester Parkway (LOS A morning and afternoon).

Because none of these nearby study intersections are expected to operate at LOS E or LOS F during either peak hour, no significant operational access impacts would occur.

The proposed Project's access driveways would be required to conform to City of Los Angeles standards and would be designed to provide adequate sight distance, crosswalks, and pedestrian movement controls as applicable that meet the City of Los Angeles' requirements to protect pedestrian safety. There are no sharp turns, steep grades, or other factors that could

complicate driveway design. Therefore, the proposed Project would not increase hazards due to a design feature and impacts would be less than significant.

Emergency Access

The proposed Project would use the existing network of regional and local streets in the vicinity of the Project site. All development associated with the proposed Project would include the use of standard engineering practices to avoid design elements that would increase street hazards or inadequate emergency access. Moreover, the proposed Project would not result in land use incompatibilities that would lead to the creation of traffic hazards or emergency access.

The proposed Project has a high level of accessibility for emergency vehicles, both from a regional and a site perspective. The City of Los Angeles Fire Department Fire Station Number 5 is located within the Project site on Emerson Avenue. Emergency vehicles, such as police cars and ambulances, would be able to access the all components of the proposed Project as necessary. As a result, proposed Project impacts on emergency vehicle access would be less than significant.

Pedestrian/Bicycle Facilities

There are currently dedicated bicycle lanes on Westchester Parkway and Pershing Drive adjacent to the Project site. Bicycle routes are proposed by the *2010 Bicycle Plan* on Loyola Boulevard and Emerson Avenue adjacent to the Project site. All proposed streets have access to pedestrian sidewalks and street lighting. Currently, pedestrian and bicycle volumes on these streets are low but expected to increase with development of the proposed Project.

All proposed Project access driveways would be required to conform to City of Los Angeles standards to protect pedestrian safety. There are no sharp turns, steep grades, or other factors that could complicate driveway design.

The project will also comply with the City's bicycle parking ordinance and have sufficient parking supply for bicycles. In addition, the paseo included in the project is also designed to facilitate pedestrian activity and improve safety for pedestrians, bicyclist and motorists.

As a result of the design considerations and considering existing and proposed bicycle facilities, according to the Los Angeles CEQA Thresholds Guide, no access impacts related to safety will result due to the design or placement of the proposed Project access points. Therefore, the proposed Project would not conflict with adopted policies, plans or programs supporting alternative transportation and would result in less than significant impacts to bicycle, pedestrian, emergency access, and vehicular safety impacts would be less than significant.

4.14.3.4.7 Parking

Parking requirements for the proposed Project were evaluated based on the conceptual land use program and LAMC parking standards. The LAMC does not contain parking requirements for some of the recreational components of the conceptual land use program. Based on the LAMC requirements and Parking Generation, 4th Edition[9], rates, the conceptual land use program would require up to 4,185 parking spaces. As individual development projects are proposed within the proposed Project the designs of these projects, including the amount of parking to be provided, will be reviewed by City of Los Angeles staff and subject to the applicable parking requirements at the time of development.

[9] Institute of Transportation Engineers, Parking Generation, 4th Edition, 2010.

The commercial land uses anticipated for the proposed Project would provide the level of parking required by the LAMC. The Project will also comply with the City's bicycle parking ordinance and have sufficient parking supply for bicycles. The anticipated recreational uses would experience their peak demand at different times than the neighboring office and Research and Development uses. Therefore, the recreational land uses could make use of the office and Research and Development parking spaces that would otherwise be unused during the evenings and weekends. Because the amount of parking for the commercial land uses will meet or exceed the LAMC requirements, and the recreational land uses will be using the ample parking of the office and Research and Development uses, the proposed Project will not have any significant parking impacts.

4.14.3.4.8 Transfer Program

The proposed Project would provide for future development to respond to future market conditions by allowing transfers and exchanges of development rights and land uses between Areas within the LAX Northside Center, Northside Campus, and Support Districts. As discussed in Section 2.0, Project Description, all future development will be governed by the amended LAX Specific Plan and would be required to conform to the proposed LAX Northside Design Guidelines and Standards.

The Land Use Equivalency Program would allow for floor area reallocations between land uses and Areas within Districts, utilizing conversion factors that are based on the trip generation characteristics for the permitted uses. Specifically, transfers of floor area or land uses are allowed within the LAX Northside Campus District (between Area 1 and Area 3), within the LAX Northside Center District (between Area 11 and Area 13), and within the Airport Support District (between Area 4 through Area 10). Transfers between the LAX Northside Districts would not be allowed. In no event would the total amount of development be permitted to exceed 2,320,000 square feet or the maximum numbers of trips generated exceed the 23,635 total daily vehicle trip maximum allowed by the LAX Specific Plan.

As this program would not allow transfers between the LAX Northside, Campus, and Center Districts, and would control all transfers based on trip generation, the total number of trips generated and the distribution of traffic would not differ substantially from the traffic impact analysis presented above. Therefore, no additional significant traffic impacts would result for the proposed transfer program.

4.14.4 Mitigation Measures

The following mitigation program is designed to alleviate the transportation impacts at study intersections associated with construction of the proposed Project and to improve traffic operations in the Project vicinity.

4.14.4.1 Transportation Mitigation Program

The mitigation measures described below were tested against the significant traffic impacts found in both the Existing with Project (2012) and the Future with Project (2022) analyses presented above. As discussed above, the Existing with Project Conditions, before mitigation, are expected to generate significant traffic impacts at 11 intersections during either the morning or afternoon peak hours. The Future with Project analysis shows that before mitigation, the proposed Project would have significant traffic impacts at 18 intersections during either the morning or afternoon peak hours.

The mitigation program consisting of the following four components:

- Implementation of a transportation demand management (TDM) program for the Project site to promote peak period trip reduction;
- Transportation Systems Management (TSM) improvements consisting primarily of right-turn detector systems at key intersections within the Study Area. TSM improvements may also include installation of detection lops, signal controller upgrades, and closed circuit television (CCTV) cameras;
- Transit system improvements, including the provision of new buses to increase public transit service along a key corridor within the Study Area and the dedication of space for a potential future transit station on the Project site; and
- Specific intersection improvements.

Each of these components is defined below.

Transportation Demand Management

The TDM program would implement a number of programs for employers and employees including education and awareness programs promoting TDM programs, Project Design Features to promote bicycling and walking, ridesharing services and transportation assurance programs, and incentives for using alternative modes of travel. In total, it is expected that the TDM program would reduce trip generation for the office and Research and Development uses by ten percent.

A key component of the TDM program is to make employers and employees at the Project site aware of the various programs offered. To this end, a Transportation Management Coordination Program (TMCP) would reach out both to employers and employees directly to promote the benefits of TDM. The TMCP would also be responsible for maintaining a website which would offer ridematching services, transit information, and serve as a passive source of information for those interested in TDM. A Transportation Information Center (TIC) would also be maintained on the Project site. A TIC is a centrally-located commuter information center where the Project employers and employees can obtain information regarding commute programs and real-time information for planning travel without using an automobile.

The various measures implemented as part of the TDM program will reduce peak hour trip generation. As an achievable but conservative estimate, an overall TDM trip reduction credit of five percent was assumed on office and Research and Development land uses included in the proposed Project. **Table 4.14-13**, Project Trip Generation with TDM Program summarizes the estimated trip reduction during the peak hours. As it shows, the TDM program is expected to result in a reduction of 509 daily trips, including 74 during the morning peak hour and 67 during the afternoon peak hour. The proposed Project, when fully built and occupied and with implementation of the TDM program, would generate a total of 23,126 daily trips, including 1,935 during the morning peak hour (1,521 inbound, 415 outbound) and 2,476 during the afternoon peak hour (747 inbound, 1,729 outbound). This trip reduction was applied to the Study Area using the same distribution pattern as the Project Areas from which those trips are reduced.

Compared with total Project trip generation before the implementation of the TDM program, the TDM program represents a reduction of 2.2 percent of daily trips, 3.8 percent of morning peak hour trips, and 2.7 percent of afternoon peak hour trips. These represent reasonable and conservative estimates of potential peak hour trip generation reduction. TDM programs in office buildings have been shown to be highly effective in Century City, where peak hour and daily

automobile trip generation rates are far lower than those reported in Trip Generation, 8th Edition. In Warner Center and the Cities of Santa Monica and Pasadena, transportation management organizations (TMOs) created as public-private partnerships have also resulted in significant reductions in peak hour trips.

This Page Intentionally Left Blank

Table 4.14-13

Project Trip Generation with TDM Program

Land Use	Daily Trips	Morning Peak Hour			Afternoon Peak Hour		
		In	Out	Total	In	Out	Total
Area 1	214	3	1	4	42	20	62
Area 2 West	214	2	2	4	43	19	62
Area 2 East & Area 3							
Road	-	-	-	-	-	-	-
Buffer/Berm	-	-	-	-	-	-	-
Community/Civic Uses	915	40	25	65	21	37	58
Less 5% Transit Credit[a]	*(46)*	*(2)*	*(1)*	*(3)*	*(1)*	*(2)*	*(3)*
Office	3,972	513	70	583	92	449	541
Less 5% Transit Credit[a]	*(199)*	*(26)*	*(3)*	*(29)*	*(5)*	*(22)*	*(27)*
Less 5% TDM Credit	***(189)***	***(24)***	***(3)***	***(28)***	***(4)***	***(21)***	***(26)***
Research & Development	4,458	525	107	632	86	488	574
Less 5% Transit Credit[a]	*(223)*	*(26)*	*(6)*	*(32)*	*(5)*	*(24)*	*(29)*
Less 5% TDM Credit	***(212)***	***(25)***	***(5)***	***(30)***	***(4)***	***(23)***	***(27)***
Area 4	250	0	16	16	0	70	70
Area 5 – 10	0	0	0	0	0	0	0
Area 11	8,116	115	74	189	345	360	705

Table 4.14-13

Project Trip Generation with TDM Program

Land Use	Daily Trips	Morning Peak Hour			Afternoon Peak Hour		
		In	Out	Total	In	Out	Total
Area 12A – East							
Office	2,275	288	39	327	52	251	303
Less 5% Transit Credit[a]	*(114)*	*(14)*	*(2)*	*(16)*	*(2)*	*(13)*	*(15)*
Less 5% TDM Credit	***(108)***	***(14)***	***(2)***	***(16)***	***(3)***	***(12)***	***(14)***
Area 12A - West	2,825	123	77	200	67	113	180
Area 12B	0	0	0	0	0	0	0
Area 13	978	43	26	69	23	39	62
TOTAL	**23,126**	**1,521**	**415**	**1,935**	**747**	**1,729**	**2,476**
Total TDM Credit	***-509***	***-63***	***-10***	***-74***	***-11***	***-56***	***-67***

Notes:

Trip Generation rates from *Trip Generation, 8th Edition* (Institute of Transportation Engineers, 2008) except as noted below.

[a] = Transit Credits Per LADOT Standard Rates.

Source: Gibson Transportation Consulting

Transportation Systems Management Improvements

As part of the mitigation program, the Project would implement TSM improvements recommended by LADOT and the City of Inglewood within the Study Area. These TSM improvements include the installation of vehicle detection systems, signal controller upgrades, traffic monitoring cameras, and signal timing coordination systems. LADOT and the City of Inglewood have each determined that the TSM improvements described below would result in a 1% increase in intersection capacity along the affected corridors.

City of Los Angeles TSM Improvements

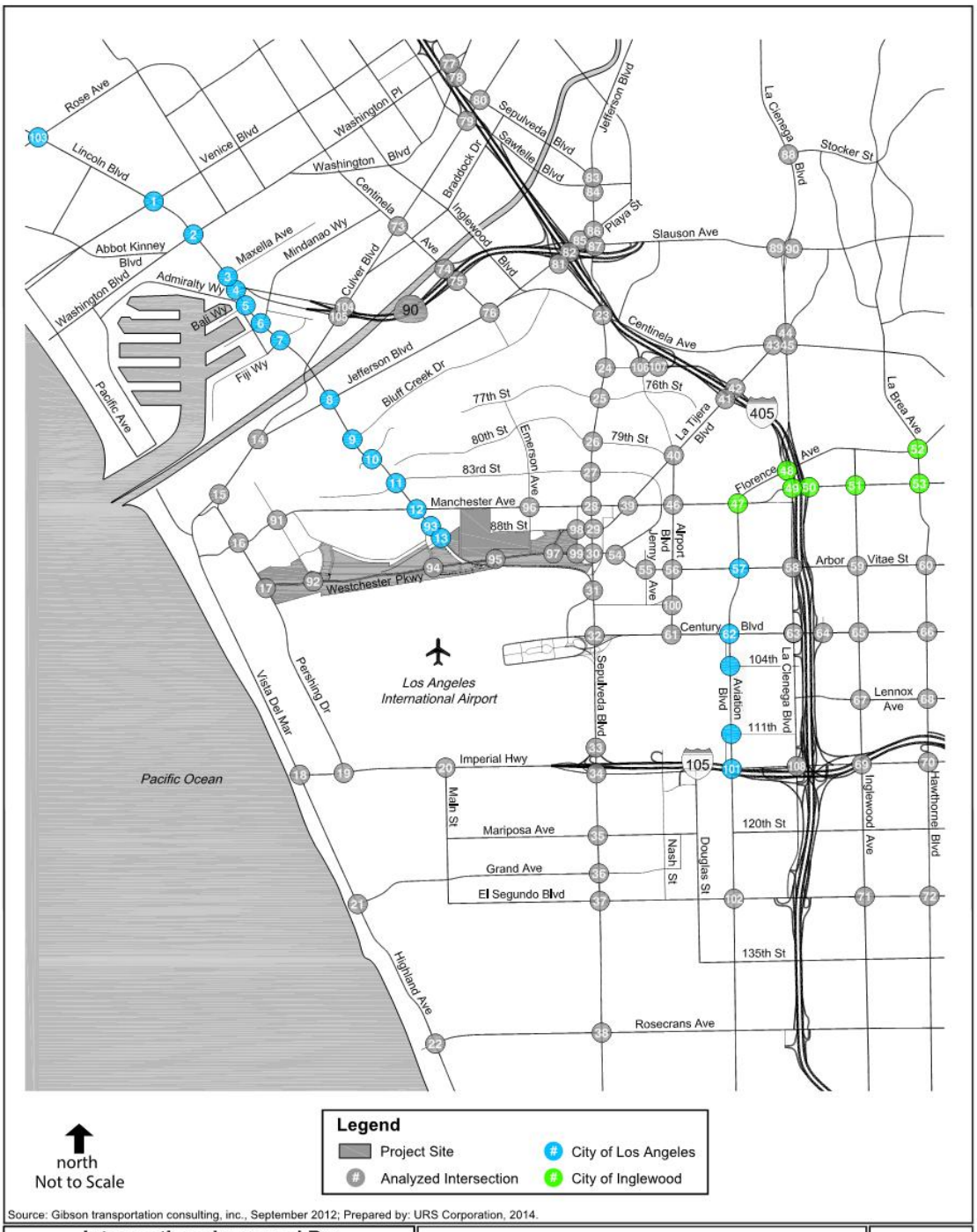
The Project will pay for right-turn detection systems at a number of key intersections within the Study Area. These systems, working in conjunction with existing loop detection systems in through lanes and left-turn pockets, will allow LADOT to collect real-time traffic volume data for all intersection turning movements. These improvements would be installed, as feasible, at the following intersections:

1. Lincoln Boulevard & Venice Boulevard;
2. Lincoln Boulevard & Washington Boulevard;
6. Lincoln Boulevard & Mindanao Way;
7. Lincoln Boulevard & Fiji Way;
8. Lincoln Boulevard & Jefferson Boulevard;
12. Lincoln Boulevard & Manchester Avenue;
28. Sepulveda Boulevard & Manchester Avenue;
29. Sepulveda Boulevard & La Tijera Boulevard;
30. Sepulveda Boulevard & Westchester Parkway;
46. Airport Boulevard & Manchester Avenue;
57. Aviation Boulevard & Arbor Vitae Street;
62. Aviation Boulevard & Century Boulevard; and
101. Aviation Boulevard & Imperial Highway.

In addition or as an alternative to the right-turn detection systems at the intersections identified above, LADOT may choose to use the funds to upgrade signal controllers or install CCTV cameras or advance vehicle detection loops for signal control purposes along the identified corridors.

The Project shall install or pay LADOT a fixed fee based on cost estimates provided by LADOT to provide for design and installation of these TSM improvements. These TSM improvements would be implemented by the City of Los Angeles' Bureau of Engineering. A 1% increase in intersection capacity (reflected as a 0.01 improvement in intersection V/C ratio) was allowed to reduce Project impacts along the improved corridors. This credit was allowed at 15 study intersections on Lincoln Boulevard between Rose Avenue and La Tijera Boulevard, at three study intersections on Sepulveda Boulevard between Manchester Avenue and Westchester Parkway, at the intersection of Airport Boulevard & Manchester Avenue, and at three study intersections on Aviation Boulevard between Arbor Vitae Street and Imperial Highway. It is worth noting that only 12 of the 22 improved intersections are expected to be impacted by

Project traffic, and some of those intersections would be mitigated below the level of significance by other measures regardless of the implementation of TSM improvements. The improved locations are illustrated in **Figure 4.14-5,** Intersections Improved by Transportation System Management Upgrades.



Source: Gibson transportation consulting, inc., September 2012; Prepared by: URS Corporation, 2014.

Intersections Improved By Transportation Systems Management Upgrades	Draft Environmental Impact Report LAX Northside Plan Update	FIGURE 4.14-5

City of Inglewood TSM Improvements

The City of Inglewood is currently working to implement Phase IV of its TSM program. The TSM program will connect traffic signals along major corridors throughout the City of Inglewood to a central traffic management center, which will allow for real time updating of signal timings to address traffic congestion in real-time. The program will also install new signal controllers, loops, and CCTV cameras to improve monitoring and operation of the signals.

The proposed Project would contribute a fixed amount toward the implementation of the City of Inglewood's TSM program along Manchester Boulevard and Florence Avenue based on discussions with Inglewood staff. As with the City of Los Angeles TSM improvements, a one percent increase in intersection capacity (reflected as a 0.01 improvement in V/C ratio) was accounted for at seven study intersections within the City of Inglewood along these two corridors. It is worth noting that only three of the seven study intersections in the City of Inglewood are expected to be impacted by the proposed Project traffic. Locations in the City of Inglewood included in the TSM improvement component of the mitigation program are also illustrated in **Figure 4.14-5**.

Transit System Improvements

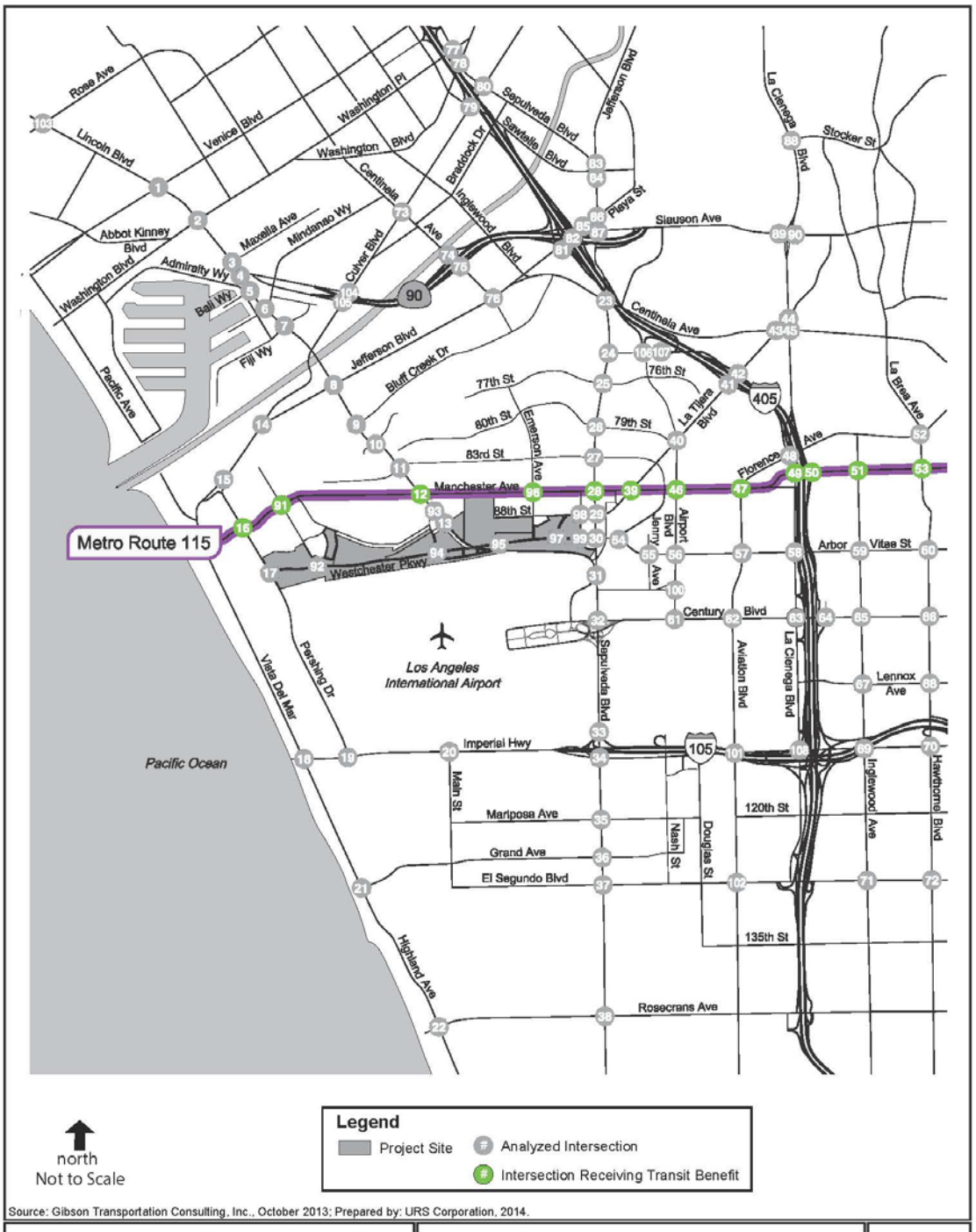
The proposed Project would help to improve the transit system in the Study Area and beyond by providing additional buses along a key existing bus route and by dedicating space on the Project site for a potential future transit station.

Buses

In order to bolster transit capacity and LOS in the Study Area, the proposed Project proposes to mitigate impacts along Manchester Boulevard by providing two additional transit buses for Metro Route 115. Each bus provides a seated capacity of 40 people and a standing capacity of 50 people and will supplement the existing bus service along Manchester Boulevard during peak hours. **Figure 4.14-6,** Intersections along Enhanced Bus Routes shows the intersections along these routes where traffic volumes would be reduced as a result of the enhanced bus service available.

Dedicated Space for Future Transit Station

LAWA would work with Metro and LADOT during project design to identify a suitable location on the Project site which will be dedicated for potential future development of a transit station.



Source: Gibson Transportation Consulting, Inc., October 2013; Prepared by: URS Corporation, 2014.

Intersections Along Enhanced Bus Routes	Draft Environmental Impact Report LAX Northside Plan Update	FIGURE 4.14-6

Specific Intersection Improvements

Intersection improvements designed to mitigate the significant impacts of the proposed Project consist of physical improvements and signal phasing enhancements. The specific mitigation measures developed for the significantly impacted intersections are provided below. Specific physical intersection improvements such as adding turn lanes were identified at seven study intersections:

- **Intersection #12 – Lincoln Boulevard & Manchester Avenue (City of Los Angeles).** Add a second left-turn lane for the eastbound and westbound approaches. This could be accomplished by restriping the eastbound and westbound approaches to provide a second left-turn lane in each direction. After the mitigation, the eastbound and westbound approaches would provide two left-turn lanes, two through lanes, and one right-turn lane. This improvement could be completed within the existing right-of-way. This improvement was originally proposed in the LAX Specific Plan Amendment Study (SPAS), and credit for its implementation would be shared with the proposed Project.
- **Intersection #28 – Sepulveda Boulevard & Manchester Avenue (City of Los Angeles).** Add a westbound right-turn lane and a westbound left-turn lane. The right-turn lane could be implemented by removing parking on the north side of Manchester Avenue to accommodate the lane in the existing right-of-way. The left-turn lane could be striped in alongside the existing left-turn lane without affecting any other lanes. After the mitigation, the westbound approach would provide two left-turn lanes, two through lanes, and one right-turn lane.
- **Intersection #29 – Sepulveda Boulevard & La Tijera Boulevard (City of Los Angeles).** Add a second westbound left-turn lane. This could be accomplished by removing parking on the north side of La Tijera Boulevard between Sepulveda Boulevard and Sepulveda Eastway. The existing through lane and shared through/right-turn lane could then be shifted to the north to accommodate the second westbound left-turn lane. After the mitigation, the westbound approach would provide two left-turn lanes, one through lane, and one shared through/right-turn lane. This mitigation could be completed within the existing right-of-way. This improvement was originally proposed for the Thomas Bradley International Terminal project, and credit for its implementation would be shared with the proposed Project.
- **Intersection #34 – Sepulveda Boulevard & Imperial Highway (City of Los Angeles).** Add a second westbound right-turn lane. This would involve restriping the westbound approach to convert an existing through lane to a right-turn lane. After the mitigation, the westbound approach would provide two left-turn lanes, two through lanes, and two right-turn lanes. This improvement could be completed in the existing right-of-way.
- **Intersection #46 – Airport Boulevard & Manchester Avenue (City of Los Angeles).** Add a second eastbound and westbound left-turn lane, and a southbound right-turn lane. Adding the eastbound and westbound left-turn lanes would involve restriping the eastbound and westbound approaches to provide a second left-turn lane in each direction. In order to maintain at least 26 feet of receiving width for the new double left-turn lanes, the northbound and southbound lanes would need to be shifted and reconfigured as well. Adding the southbound right-turn lane would involve widening the southbound approach and shifting the sidewalk to the west. After the mitigation, the eastbound and westbound approaches would provide two left-turn lanes, one through lane, and one shared through/right-turn lane. The southbound approach would provide one left-turn lane, two through lanes, and one right-turn lane. The eastbound and westbound left-turn lanes could be added within the existing right-

of-way. The southbound right-turn lane would require widening the roadway by approximately eight feet to accommodate the additional lane.

- **Intersection #57 – Aviation Boulevard & Arbor Vitae Street (City of Los Angeles).** Add an eastbound right-turn lane. This could be accomplished by reducing the width of the sidewalk to accommodate the additional lane. The eastbound approach would then provide one left-turn lane, two through lanes, and one right-turn lane. This improvement was originally proposed for the Thomas Bradley International Terminal project, and credit for its implementation would be shared with the proposed Project.
- **Intersection #58 – La Cienega Boulevard & Arbor Vitae Street (City of Los Angeles).** Add an eastbound right-turn lane. This could be accomplished by reducing the width of the sidewalk or by the provision of additional right-of-way from the adjacent LAWA-owned property to accommodate the additional lane. The eastbound approach would then provide one left-turn lane, two through lanes, and one right-turn lane.

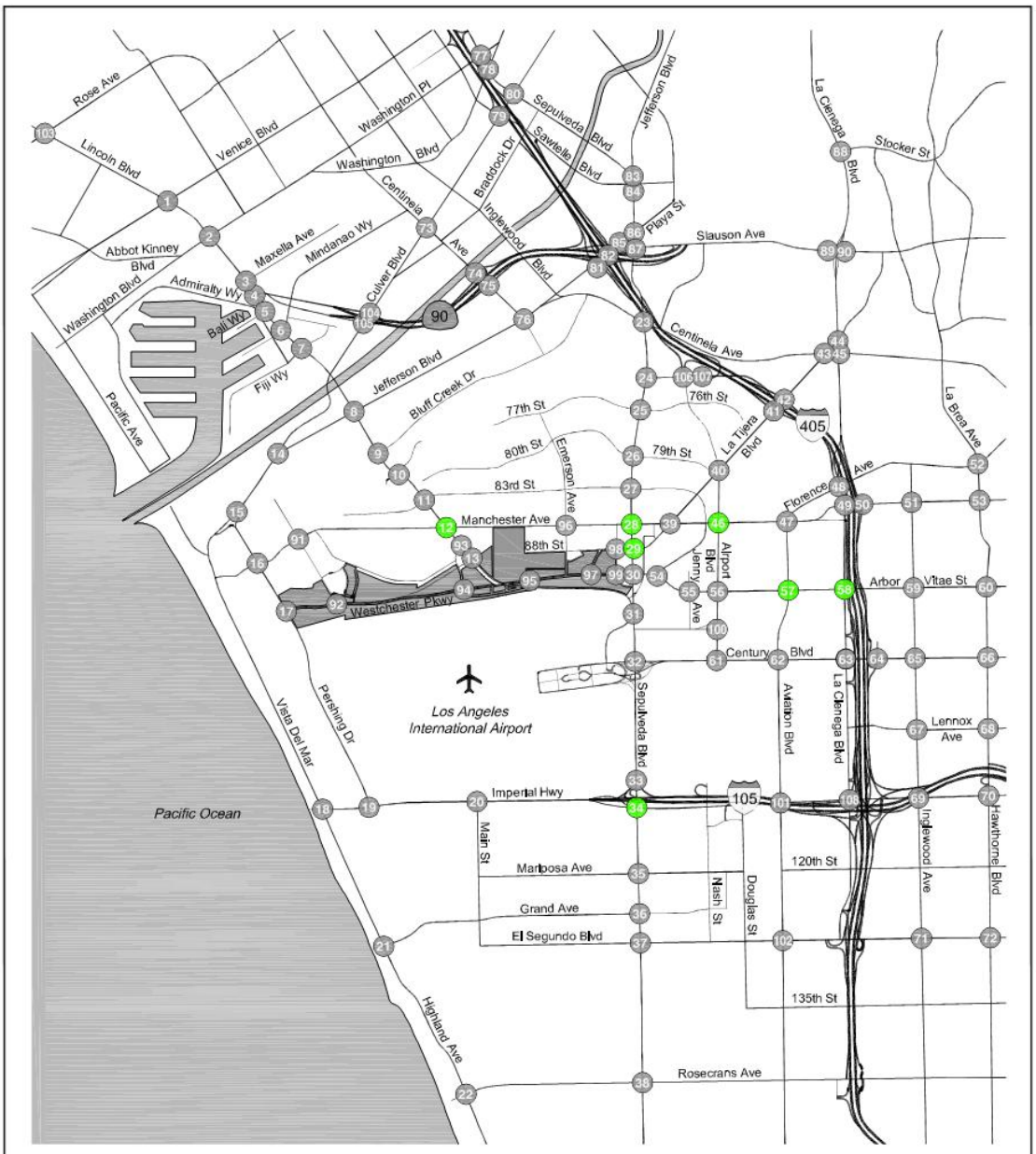
The physical improvements proposed above are feasible and would serve to improve operating conditions at the seven identified intersections shown in **Figure 4.14-7**, Intersections Improved by Physical Mitigation Measures. Should LADOT and/or LAWA determine that some or all of the improvements described above not be implemented due to the inability to acquire right-of-way, community opposition, or any other reason, the impacts at those locations would remain significant and unavoidable. Additionally, the intersection improvements proposed at three (#12, #29 #57) of these locations were previously proposed as mitigation measures for other LAWA projects and the cost of these improvements will be shared by the LAX Northside Plan Update Project and these other LAWA projects. The available V/C credit resulting from each improvement will also be shared by these projects.

Implementation of these proposed physical improvements would result in the following secondary impacts:

- **Intersection #28 – Sepulveda Boulevard & Manchester Avenue.** The improvement would result in the loss of three short-term parking spaces and one regular parking space on the north side of Manchester Avenue east of Sepulveda Boulevard.
- **Intersection #29 – Sepulveda Boulevard & La Tijera Boulevard.** The improvement would result in the loss of three parking spaces on the north side of La Tijera Boulevard east of Sepulveda Boulevard. Also, the proposed westbound shared through/right-turn lane would align with the curb lane on the west side of the intersection, potentially affecting operation of the existing bus stop on the north side of La Tijera Boulevard west of Sepulveda Boulevard.
- **Intersection #34 – Sepulveda Boulevard & Imperial Highway.** The improvement currently has a bicycle lane striped between the existing westbound through lanes and right-turn lane. This bicycle lane would need to be shifted to the south to accommodate the additional westbound right-turn lane.
- **Intersection #46 – Airport Boulevard & Manchester Avenue.** The improvement would require the acquisition of right-of-way and widening of the west side of Airport Boulevard north of Manchester Avenue. This would increase the pedestrian crossing distance across the north leg of the intersection by eight feet. Additionally, the northbound and southbound lanes would need to be restriped to allow for adequate double left-turn receiving width, which would subsequently result in lane offsets of between two feet and three feet for northbound traffic across the intersection. This shift would also result in the loss of approximately 150 feet of curb parking (approximately six spaces) on the east side of Airport Boulevard north of Manchester Avenue.

- **Intersection #57 – Aviation Boulevard & Arbor Vitae Street.** The improvement would require the acquisition of right-of-way and widening of the south side of Arbor Vitae Street. This would increase the pedestrian crossing distance across the west leg of the intersection by eight feet.
- **Intersection #58 – La Cienega Boulevard & Arbor Vitae Stree**t. The improvement would require the acquisition of right-of-way and widening of the south side of Arbor Vitae Street. This would increase the pedestrian crossing distance across the west leg of the intersection by eight feet.

These secondary impacts on parking and pedestrian and bicycle facilities would not be substantial and are not significant for this reason.



Source: Gibson transportation consulting, inc., September 2012; Prepared by: URS Corporation, 2014.

Intersections Improved by Physical Mitigation Measures	Draft Environmental Impact Report LAX Northside Plan Update	FIGURE 4.14-7

Mitigation Phasing

The proposed Project would be developed in phases over a period of several years. As various components of the proposed Project will be developed at different times, the trips generated and the corresponding impacts would not all occur immediately. Therefore, a mitigation phasing program was developed to link the various features of the mitigation program to specific development milestones, based on the number of afternoon peak hour vehicle trips anticipated to be generated by the proposed Project at various levels of development.

The mitigation measures would be implemented in three phases tied to the total amount of development. Phase 1, which would be implemented upon completion of 25 percent of development or generation of 636 afternoon peak hour trips, would include implementation of the TDM program and physical improvements at Intersections #12, #28, #29, and #46. Phase 2, which would be implemented upon completion of 55 percent of development or generation of 1,400 afternoon peak hour trips, would include implementation of the TSM program and implementation of the physical improvements proposed at Intersections #34 and #57. Phase 3, which would be implemented upon completion of 75 percent of development or generation of 1,907 afternoon peak hour trips, would include provision of the two buses on Metro Route 115 and implementation of the physical improvement proposed at Intersection #58.

LADOT is responsible for overseeing the implementation of the proposed Project mitigation measures and has the flexibility to substitute equivalent mitigation measures in response to the needs of the transportation network in and around the Study Area.

4.14.5 Level Of Significance after Mitigation

Existing with Project Traffic Conditions

The traffic volumes, intersection conditions, and significant traffic impacts from the proposed Project on the existing environment (2012) after implementation of the mitigation program are presented in **Table 4.14-14,** Existing with Project Mitigation Measures (Year 2012).

Table 4.14-14

Existing with Project With Mitigation (Year 2012) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
1.	LA	Lincoln Boulevard &	A.M.	0.816	D
		Venice Boulevard	P.M.	0.902	E
2.	LA	Lincoln Boulevard &	A.M.	0.750	C
		Washington Boulevard	P.M.	0.941	E
3.	LA	Lincoln Boulevard &	A.M.	0.555	A
		Maxella Avenue	P.M.	0.606	B
4.	LA	Lincoln Boulevard &	A.M.	0.694	B
		SR-90 Ramps	P.M.	0.816	D
5.	LA	Lincoln Boulevard &	A.M.	0.430	A
		Bali Way	P.M.	0.711	C

Table 4.14-14

Existing with Project With Mitigation (Year 2012) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
6.	LA	Lincoln Boulevard &	A.M.	0.635	B
		Mindanao Way	P.M.	0.791	C
7.	LA	Lincoln Boulevard &	A.M.	0.543	A
		Fiji Way	P.M.	0.764	C
8.	LA	Lincoln Boulevard &	A.M.	0.654	B
		Jefferson Boulevard	P.M.	0.692	B
9.	LA	Lincoln Boulevard &	A.M.	0.406	A
		Bluff Creek Drive	P.M.	0.375	A
10.	LA	Lincoln Boulevard &	A.M.	0.441	A
		LMU Drive	P.M.	0.558	A
11.	LA	Lincoln Boulevard &	A.M.	0.610	B
		83rd Street	P.M.	0.652	B
12.	LA	Lincoln Boulevard &	A.M.	0.543	A
		Manchester Avenue	P.M.	0.689	B
13.	LA	Lincoln Boulevard &	A.M.	0.350	A
		La Tijera Boulevard	P.M.	0.414	A
14.	LA	Culver Boulevard &	A.M.	0.707	C
		Jefferson Boulevard	P.M.	0.671	B
15.	LA	Nicholson Street &	A.M.	0.576	A
		Culver Boulevard	P.M.	0.756	C
16.	LA	Pershing Drive &	A.M.	0.461	A
		Manchester Avenue	P.M.	0.405	A
17.	LA	Pershing Drive &	A.M.	0.245	A
		Westchester Parkway	P.M.	0.245	A
18.	LA	Vista del Mar &	A.M.	0.409	A
		Imperial Highway	P.M.	0.385	A
19.	LA	Pershing Drive &	A.M.	0.563	A
		Imperial Highway	P.M.	0.390	A
20.	LA	Main Street &	A.M.	0.713	C
		Imperial Highway	P.M.	0.554	A
21.	LA	Vista del Mar &	A.M.	0.519	A
		Grand Avenue	P.M.	0.345	A
22.	MB	Highland Avenue &	A.M.	0.796	C
		Rosecrans Avenue	P.M.	0.708	C

Table 4.14-14

Existing with Project With Mitigation (Year 2012) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
23.	CC	Sepulveda Boulevard & Centinela Avenue	A.M.	0.758	C
			P.M.	0.781	C
24.	LA	Sepulveda Boulevard & Howard Hughes Parkway	A.M.	0.412	A
			P.M.	0.559	A
25.	LA	Sepulveda Boulevard & 76th Street	A.M.	0.675	B
			P.M.	0.654	B
26.	LA	Sepulveda Boulevard & 79th Street	A.M.	0.459	A
			P.M.	0.531	A
27.	LA	Sepulveda Boulevard & 83rd Street	A.M.	0.405	A
			P.M.	0.485	A
28.	LA	Sepulveda Boulevard & Manchester Avenue	A.M.	0.640	B
			P.M.	0.757	C
29.	LA	Sepulveda Boulevard & La Tijera Boulevard	A.M.	0.510	A
			P.M.	0.666	B
30.	LA	Sepulveda Boulevard & Westchester Parkway	A.M.	0.563	A
			P.M.	0.879	D
31.	LA	Sepulveda Boulevard & Lincoln Boulevard	A.M.	0.169	A
			P.M.	0.239	A
32.	LA	Sepulveda Boulevard & Century Boulevard	A.M.	0.602	B
			P.M.	0.649	B
33.	LA	Sepulveda Boulevard & I-105 Westbound Ramps N/O Imperial Highway	A.M.	0.916	E
			P.M.	0.911	E
34.	LA	Sepulveda Boulevard & Imperial Highway	A.M.	0.616	B
			P.M.	0.962	E
35.	ES	Sepulveda Boulevard & Mariposa Avenue	A.M.	0.749	C
			P.M.	0.782	C
36.	ES	Sepulveda Boulevard & Grand Avenue	A.M.	0.784	C
			P.M.	0.879	D
37.	ES	Sepulveda Boulevard & El Segundo Boulevard	A.M.	0.787	C
			P.M.	0.991	E
38.	ES	Sepulveda Boulevard & Rosecrans Avenue	A.M.	0.806	D
			P.M.	1.114	F
39.	LA	La Tijera Boulevard & Manchester Avenue	A.M.	0.506	A
			P.M.	0.582	A

Table 4.14-14

Existing with Project With Mitigation (Year 2012) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
40.	LA	La Tijera Boulevard & Airport Boulevard	A.M.	0.406	A
			P.M.	0.421	A
41.	LA	I-405 Southbound Ramps & La Tijera Boulevard	A.M.	0.456	A
			P.M.	0.595	A
42.	LA	I-405 Northbound Ramps & La Tijera Boulevard	A.M.	0.574	A
			P.M.	0.579	A
43.	LA	La Tijera Boulevard & Centinela Avenue	A.M.	0.563	A
			P.M.	0.730	C
44.	LA	La Cienega Boulevard & La Tijera Boulevard	A.M.	0.653	B
			P.M.	0.677	B
45.	LA	La Cienega Boulevard & Centinela Avenue	A.M.	0.946	E
			P.M.	0.992	E
46.	LA	Airport Boulevard & Manchester Avenue	A.M.	0.598	A
			P.M.	0.799	C
47.	IW	Aviation Boulevard / Florence Avenue & Manchester Avenue	A.M.	0.635	B
			P.M.	0.703	C
48.	IW	La Cienega Boulevard & Florence Avenue	A.M.	0.687	B
			P.M.	0.978	E
49.	IW	La Cienega Boulevard & Manchester Avenue	A.M.	0.583	A
			P.M.	0.829	D
50.	IW	Ash Avenue / I-405 Northbound Ramps & Manchester Avenue	A.M.	0.630	B
			P.M.	0.713	C
51.	IW	Inglewood Avenue & Manchester Avenue	A.M.	0.475	A
			P.M.	0.600	A
52.	IW	La Brea Avenue & Florence Avenue	A.M.	0.655	B
			P.M.	0.852	D
53.	IW	La Brea Avenue & Manchester Avenue	A.M.	0.687	B
			P.M.	0.741	C
54.	LA	Sepulveda Eastway & Westchester Parkway	A.M.	0.282	A
			P.M.	0.465	A
55.	LA	Jenny Avenue & Westchester Parkway	A.M.	0.116	A
			P.M.	0.217	A
56.	LA	Airport Boulevard & Arbor Vitae Street / Westchester Parkway	A.M.	0.344	A
			P.M.	0.573	A

Table 4.14-14

Existing with Project With Mitigation (Year 2012) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
57.	LA	Aviation Boulevard & Arbor Vitae Street	A.M.	0.457	A
			P.M.	0.536	A
58.	LA	La Cienega Boulevard & Arbor Vitae Street	A.M.	0.427	A
			P.M.	0.508	A
59.	IW	Inglewood Avenue & Arbor Vitae Street	A.M.	0.402	A
			P.M.	0.706	C
60.	IW	La Brea Avenue & Arbor Vitae Street	A.M.	0.346	A
			P.M.	0.690	B
61.	LA	Airport Boulevard & Century Boulevard	A.M.	0.552	A
			P.M.	0.555	A
62.	LA	Aviation Boulevard & Century Boulevard	A.M.	0.770	C
			P.M.	0.913	E
63.	LA	La Cienega Boulevard & Century Boulevard	A.M.	0.543	A
			P.M.	0.691	B
64.	IW	I-405 Northbound Ramps & Century Boulevard	A.M.	0.616	B
			P.M.	0.590	A
65.	IW	Inglewood Avenue & Century Boulevard	A.M.	0.515	A
			P.M.	0.775	C
66.	IW	La Brea Avenue/Hawthorne Boulevard & Century Boulevard	A.M.	0.572	A
			P.M.	0.780	C
67.	LAC	Inglewood Avenue & Lennox Boulevard	A.M.	0.436	A
			P.M.	0.725	C
68.	LAC	Hawthorne Boulevard & Lennox Boulevard	A.M.	0.409	A
			P.M.	0.737	C
69.	HT	Inglewood Avenue & Imperial Highway	A.M.	0.642	B
			P.M.	1.179	F
70.	HT	Hawthorne Boulevard & Imperial Highway	A.M.	0.579	A
			P.M.	0.870	D
71.	HT	Inglewood Avenue & El Segundo Boulevard	A.M.	0.598	A
			P.M.	0.979	E
72.	HT	Hawthorne Boulevard & El Segundo Boulevard	A.M.	0.622	B
			P.M.	1.181	F
73.	LA	Centinela Avenue & Culver Boulevard	A.M.	0.704	C
			P.M.	0.723	C

Table 4.14-14

Existing with Project With Mitigation (Year 2012) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
74.	LA	Centinela Avenue &	A.M.	0.391	A
		Sanford Street / SR-90 Westbound Ramps	P.M.	0.478	A
75.	LA	Centinela Avenue &	A.M.	0.299	A
		SR-90 Eastbound Ramps	P.M.	0.421	A
76.	LA	Centinela Avenue &	A.M.	0.499	A
		Jefferson Boulevard	P.M.	0.616	B
77.	CC	Sepulveda Boulevard &	A.M.	0.627	B
		Washington Place	P.M.	0.646	B
78.	CC	Sepulveda Boulevard &	A.M.	0.673	B
		Washington Boulevard	P.M.	0.665	B
79.	CC	Sawtelle Boulevard &	A.M.	0.617	B
		Culver Boulevard	P.M.	0.780	C
80.	CC	Sepulveda Boulevard &	A.M.	0.690	B
		Culver Boulevard	P.M.	0.678	B
81.	LA	I-405 Southbound Ramps &	A.M.	0.271	A
		Jefferson Boulevard	P.M.	0.369	A
82.	LA	I-405 Northbound Ramps &	A.M.	0.401	A
		Jefferson Boulevard	P.M.	0.692	B
83.	CC	Sepulveda Boulevard &	A.M.	0.474	A
		Jefferson Boulevard	P.M.	0.503	A
84.	CC	Sepulveda Boulevard &	A.M.	0.479	A
		Sawtelle Boulevard	P.M.	0.640	B
85.	CC	Slauson Avenue &	A.M.	0.348	A
		Jefferson Boulevard	P.M.	0.464	A
86.	CC	Sepulveda Boulevard &	A.M.	0.699	B
		Jefferson Boulevard & Playa Street	P.M.	0.826	D
87.	CC	Sepulveda Boulevard &	A.M.	0.504	A
		Slauson Avenue &	P.M.	0.734	C
88.	LAC	La Cienega Boulevard &	A.M.	1.284	F
		Stocker Street	P.M.	1.184	F
89.	LAC	La Cienega Boulevard Southbound Ramp &	A.M.	0.696	B
		Slauson Avenue	P.M.	0.809	D
90.	LAC	La Cienega Boulevard Northbound Ramp &	A.M.	0.724	C
		Slauson Avenue	P.M.	0.715	C

Table 4.14-14

Existing with Project With Mitigation (Year 2012) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
91.	LA	Falmouth Avenue &	A.M.	0.126	A
		Manchester Avenue	P.M.	0.114	A
92.	LA	Falmouth Avenue &	A.M.	0.284	A
		Westchester Parkway	P.M.	0.213	A
93.	LA	Lincoln Boulevard &	A.M.	0.457	A
		Loyola Boulevard	P.M.	0.563	A
94.	LA	Loyola Boulevard &	A.M.	0.378	A
		Westchester Parkway	P.M.	0.199	A
95.	LA	McConnell Avenue &	A.M.	0.257	A
		Westchester Parkway	P.M.	0.234	A
96.	LA	Emerson Avenue &	A.M.	0.481	A
		Manchester Avenue	P.M.	0.404	A
97.	LA	La Tijera Boulevard &	A.M.	0.245	A
		Westchester Parkway	P.M.	0.202	A
98.	LA	Sepulveda Westway &	A.M.	0.242	A
		La Tijera Boulevard	P.M.	0.478	A
99.	LA	Sepulveda Westway &	A.M.	0.166	A
		Westchester Parkway	P.M.	0.254	A
100.	LA	Airport Boulevard &	A.M.	0.176	A
		96^{th} Street	P.M.	0.360	A
101.	LA	Aviation Boulevard &	A.M.	0.638	B
		Imperial Highway	P.M.	0.611	B
102.	ES	Aviation Boulevard &	A.M.	0.962	E
		El Segundo Boulevard	P.M.	0.884	D
103.	LA	Lincoln Boulevard &	A.M.	0.867	D
		Rose Avenue	P.M.	0.805	D
104.	LA	Culver Boulevard &	A.M.	0.739	C
		SR-90 WB Ramps	P.M.	0.795	C
105.	LA	Culver Boulevard &	A.M.	0.412	A
		SR-90 EB Ramps	P.M.	0.462	A
106.	LA	I-405 SB Ramps &	A.M.	0.379	A
		Howard Hughes Parkway	P.M.	0.209	A
107.	LA	Center Drive &	A.M.	0.173	A
		I-405 NB Ramps/Howard Hughes Parkway	P.M.	0.234	A

Table 4.14-14

Existing with Project With Mitigation (Year 2012) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
108.	LA	La Cienega Boulevard & Imperial Highway	A.M.	0.396	A
			P.M.	0.555	A

Notes:
LA = Los Angeles
CC = Culver City
MB = Manhattan Beach
ES = El Segundo
IW = Inglewood
HT = Hawthorne
LAC = Los Angeles County
Source: Gibson Transportation Consulting, October 2013.

As shown in **Table 4.14-14**, with mitigation 94 of the 108 study intersections are projected to operate at LOS D or better during both the morning and afternoon peak hours. Four of the study intersections in the morning peak hour and 13 of the study intersection in the afternoon peak hour are projected to operate at LOS E or LOS F.

The analysis shows that for the Existing with Project with Mitigation conditions, the proposed mitigation program would mitigate eight of the 12 peak hour impacted intersections. Residual significant impacts after the implementation of the mitigation program would remain at three study intersections, including:

29. Sepulveda Boulevard & La Tijera Boulevard (afternoon peak hour)
30. Sepulveda Boulevard & Westchester Parkway (afternoon peak hour)
33. Sepulveda Boulevard & I-105 westbound ramps north of Imperial Highway (morning and afternoon peak hour)

The improvement proposed at the intersection of Sepulveda Boulevard & La Tijera Boulevard will add sufficient additional capacity at this intersection to mitigate the Project impact. However, the credit available for that improvement would be shared between the Tom Bradley International Terminal (TBIT) Project and the LAX Northside Project. It is conservatively assumed that a significant impact remains at this intersection.

Future with Project Traffic Conditions

The traffic volumes, intersection conditions, and significant traffic impacts from the proposed Project in 2022 after implementation of the mitigation program are presented in **Table 4.14-15**, Future with Project with Mitigation conditions (Year 2022).

Table 4.14-15

Future With Project With Mitigation (Year 2022) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
1.	Los Angeles	Lincoln Boulevard & Venice Boulevard	A.M.	0.847	D
			P.M.	0.977	E
2.	Los Angeles	Lincoln Boulevard & Washington Boulevard	A.M.	0.774	C
			P.M.	0.987	E
3.	Los Angeles	Lincoln Boulevard & Maxella Avenue	A.M.	0.572	A
			P.M.	0.650	B
4.	Los Angeles	Lincoln Boulevard & SR-90 Ramps	A.M.	0.721	C
			P.M.	0.859	D
5.	Los Angeles	Lincoln Boulevard & Bali Way	A.M.	0.499	A
			P.M.	0.793	C
6.	Los Angeles	Lincoln Boulevard & Mindanao Way	A.M.	0.688	B
			P.M.	0.833	D
7.	Los Angeles	Lincoln Boulevard & Fiji Way	A.M.	0.566	A
			P.M.	0.799	C
8.	Los Angeles	Lincoln Boulevard & Jefferson Boulevard	A.M.	0.674	B
			P.M.	0.729	C
9.	Los Angeles	Lincoln Boulevard & Bluff Creek Drive	A.M.	0.503	A
			P.M.	0.451	A
10.	Los Angeles	Lincoln Boulevard & LMU Drive	A.M.	0.482	A
			P.M.	0.587	A
11.	Los Angeles	Lincoln Boulevard & 83rd Street	A.M.	0.642	B
			P.M.	0.667	B
12.	Los Angeles	Lincoln Boulevard & Manchester Avenue	A.M.	0.606	B
			P.M.	0.723	C
13.	Los Angeles	Lincoln Boulevard & La Tijera Boulevard	A.M.	0.389	A
			P.M.	0.435	A
14.	Los Angeles	Culver Boulevard & Jefferson Boulevard	A.M.	0.744	C
			P.M.	0.707	C
15.	Los Angeles	Nicholson Street & Culver Boulevard	A.M.	0.619	B
			P.M.	0.791	C

Table 4.14-15

Future With Project With Mitigation (Year 2022) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
16.	Los Angeles	Pershing Drive & Manchester Avenue	A.M.	0.467	A
			P.M.	0.435	A
17.	Los Angeles	Pershing Drive & Westchester Parkway	A.M.	0.255	A
			P.M.	0.268	A
18.	Los Angeles	Vista del Mar & Imperial Highway	A.M.	0.416	A
			P.M.	0.410	A
19.	Los Angeles	Pershing Drive & Imperial Highway	A.M.	0.591	A
			P.M.	0.480	A
20.	Los Angeles	Main Street & Imperial Highway	A.M.	0.744	C
			P.M.	0.598	A
21.	Los Angeles	Vista del Mar & Grand Avenue	A.M.	0.551	A
			P.M.	0.375	A
22.	Manhattan Beach	Highland Avenue & Rosecrans Avenue	A.M.	0.842	D
			P.M.	0.732	C
23.	Culver City	Sepulveda Boulevard & Centinela Avenue	A.M.	0.826	D
			P.M.	0.826	D
24.	Los Angeles	Sepulveda Boulevard & Howard Hughes Parkway	A.M.	0.432	A
			P.M.	0.600	A
25.	Los Angeles	Sepulveda Boulevard & 76th Street	A.M.	0.687	B
			P.M.	0.680	B
26.	Los Angeles	Sepulveda Boulevard & 79th Street	A.M.	0.491	A
			P.M.	0.548	A
27.	Los Angeles	Sepulveda Boulevard & 83rd Street	A.M.	0.441	A
			P.M.	0.514	A
28.	Los Angeles	Sepulveda Boulevard & Manchester Avenue	A.M.	0.658	B
			P.M.	0.803	D
29.	Los Angeles	Sepulveda Boulevard & La Tijera Boulevard	A.M.	0.559	A
			P.M.	0.705	C
30.	Los Angeles	Sepulveda Boulevard & Westchester Parkway	A.M.	0.649	B
			P.M.	1.025	F

Table 4.14-15

Future With Project With Mitigation (Year 2022) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
31.	Los Angeles	Sepulveda Boulevard & Lincoln Boulevard	A.M.	0.181	A
			P.M.	0.267	A
32.	Los Angeles	Sepulveda Boulevard & Century Boulevard	A.M.	0.605	B
			P.M.	0.665	B
33.	Los Angeles	Sepulveda Boulevard & I-105 Westbound Ramps N/O Imperial Highway	A.M.	0.923	E
			P.M.	0.919	E
34.	Los Angeles	Sepulveda Boulevard & Imperial Highway	A.M.	0.675	B
			P.M.	1.043	F
35.	El Segundo	Sepulveda Boulevard & Mariposa Avenue	A.M.	0.801	D
			P.M.	0.824	D
36.	El Segundo	Sepulveda Boulevard & Grand Avenue	A.M.	0.806	D
			P.M.	0.925	E
37.	El Segundo	Sepulveda Boulevard & El Segundo Boulevard	A.M.	0.810	D
			P.M.	1.021	F
38.	El Segundo	Sepulveda Boulevard & Rosecrans Avenue	A.M.	0.835	D
			P.M.	1.168	F
39.	Los Angeles	La Tijera Boulevard & Manchester Avenue	A.M.	0.565	A
			P.M.	0.621	B
40.	Los Angeles	La Tijera Boulevard & Airport Boulevard	A.M.	0.507	A
			P.M.	0.491	A
41.	Los Angeles	I-405 Southbound Ramps & La Tijera Boulevard	A.M.	0.495	A
			P.M.	0.640	B
42.	Los Angeles	I-405 Northbound Ramps & La Tijera Boulevard	A.M.	0.647	B
			P.M.	0.631	B
43.	Los Angeles	La Tijera Boulevard & Centinela Avenue	A.M.	0.637	B
			P.M.	0.789	C
44.	Los Angeles	La Cienega Boulevard & La Tijera Boulevard	A.M.	0.668	B
			P.M.	0.765	C
45.	Los Angeles	La Cienega Boulevard & Centinela Avenue	A.M.	1.003	F
			P.M.	1.072	F

Table 4.14-15

Future With Project With Mitigation (Year 2022) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
46.	Los Angeles	Airport Boulevard & Manchester Avenue	A.M.	0.666	B
			P.M.	0.906	E
47.	Inglewood	Aviation Boulevard / Florence Avenue & Manchester Avenue	A.M.	0.711	C
			P.M.	0.854	D
48.	Inglewood	La Cienega Boulevard & Florence Avenue	A.M.	0.828	D
			P.M.	1.125	F
49.	Inglewood	La Cienega Boulevard & Manchester Avenue	A.M.	0.684	B
			P.M.	0.913	E
50.	Inglewood	Ash Avenue / I-405 Northbound Ramps & Manchester Avenue	A.M.	0.683	B
			P.M.	0.777	C
51.	Inglewood	Inglewood Avenue & Manchester Avenue	A.M.	0.551	A
			P.M.	0.682	B
52.	Inglewood	La Brea Avenue & Florence Avenue	A.M.	0.738	C
			P.M.	0.994	E
53.	Inglewood	La Brea Avenue & Manchester Avenue	A.M.	0.791	C
			P.M.	0.873	D
54.	Los Angeles	Sepulveda Eastway & Westchester Parkway	A.M.	0.355	A
			P.M.	0.571	A
55.	Los Angeles	Jenny Avenue & Westchester Parkway	A.M.	0.169	A
			P.M.	0.366	A
56.	Los Angeles	Airport Boulevard & Arbor Vitae Street / Westchester Parkway	A.M.	0.451	A
			P.M.	0.639	B
57.	Los Angeles	Aviation Boulevard & Arbor Vitae Street	A.M.	0.570	A
			P.M.	0.644	B
58.	Los Angeles	La Cienega Boulevard & Arbor Vitae Street	A.M.	0.536	A
			P.M.	0.622	B
59.	Inglewood	Inglewood Avenue & Arbor Vitae Street	A.M.	0.457	A
			P.M.	0.784	C
60.	Inglewood	La Brea Avenue & Arbor Vitae Street	A.M.	0.373	A
			P.M.	0.746	C

Table 4.14-15

Future With Project With Mitigation (Year 2022) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
61.	Los Angeles	Airport Boulevard & Century Boulevard	A.M.	0.730	C
			P.M.	0.770	C
62.	Los Angeles	Aviation Boulevard & Century Boulevard	A.M.	0.942	E
			P.M.	1.062	F
63.	Los Angeles	La Cienega Boulevard & Century Boulevard	A.M.	0.672	B
			P.M.	0.778	C
64.	Inglewood	I-405 Northbound Ramps & Century Boulevard	A.M.	0.690	B
			P.M.	0.635	B
65.	Inglewood	Inglewood Avenue & Century Boulevard	A.M.	0.623	B
			P.M.	0.849	D
66.	Inglewood	La Brea Avenue/Hawthorne Boulevard & Century Boulevard	A.M.	0.679	B
			P.M.	0.941	E
67.	County of Los Angeles	Inglewood Avenue & Lennox Boulevard	A.M.	0.472	A
			P.M.	0.810	D
68.	County of Los Angeles	Hawthorne Boulevard & Lennox Boulevard	A.M.	0.480	A
			P.M.	0.797	C
69.	Hawthorne	Inglewood Avenue & Imperial Highway	A.M.	0.739	C
			P.M.	1.252	F
70.	Hawthorne	Hawthorne Boulevard & Imperial Highway	A.M.	0.660	B
			P.M.	0.961	E
71.	Hawthorne	Inglewood Avenue & El Segundo Boulevard	A.M.	0.665	B
			P.M.	1.049	F
72.	Hawthorne	Hawthorne Boulevard & El Segundo Boulevard	A.M.	0.679	B
			P.M.	1.238	F
73.	Los Angeles	Centinela Avenue & Culver Boulevard	A.M.	0.745	C
			P.M.	0.797	C
74.	Los Angeles	Centinela Avenue & Sanford Street / SR-90 Westbound Ramps	A.M.	0.457	A
			P.M.	0.499	A
75.	Los Angeles	Centinela Avenue & SR-90 Eastbound Ramps	A.M.	0.389	A
			P.M.	0.490	A

Table 4.14-15

Future With Project With Mitigation (Year 2022) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
76.	Los Angeles	Centinela Avenue &	A.M.	0.642	B
		Jefferson Boulevard	P.M.	0.704	C
77.	Culver City	Sepulveda Boulevard &	A.M.	0.682	B
		Washington Place	P.M.	0.714	C
78.	Culver City	Sepulveda Boulevard &	A.M.	0.695	B
		Washington Boulevard	P.M.	0.678	B
79.	Culver City	Sawtelle Boulevard &	A.M.	0.651	B
		Culver Boulevard	P.M.	0.808	D
80.	Culver City	Sepulveda Boulevard &	A.M.	0.722	C
		Culver Boulevard	P.M.	0.720	C
81.	Los Angeles	I-405 Southbound Ramps &	A.M.	0.308	A
		Jefferson Boulevard	P.M.	0.431	A
82.	Los Angeles	I-405 Northbound Ramps &	A.M.	0.472	A
		Jefferson Boulevard	P.M.	0.749	C
83.	Culver City	Sepulveda Boulevard &	A.M.	0.531	A
		Jefferson Boulevard	P.M.	0.562	A
84.	Culver City	Sepulveda Boulevard &	A.M.	0.530	A
		Sawtelle Boulevard	P.M.	0.705	C
85.	Culver City	Slauson Avenue &	A.M.	0.407	A
		Jefferson Boulevard	P.M.	0.516	A
86.	Culver City	Sepulveda Boulevard &	A.M.	0.775	C
		Jefferson Boulevard & Playa Street	P.M.	0.946	E
87.	Culver City	Sepulveda Boulevard &	A.M.	0.535	A
		Slauson Avenue &	P.M.	0.787	C
88.	County of Los Angeles	La Cienega Boulevard &	A.M.	1.326	F
		Stocker Street	P.M.	1.246	F
89.	County of Los Angeles	La Cienega Boulevard Southbound Ramp &	A.M.	0.975	E
		Slauson Avenue	P.M.	0.779	C
90.	County of Los Angeles	La Cienega Boulevard Northbound Ramp &	A.M.	0.753	C
		Slauson Avenue	P.M.	0.812	D

Table 4.14-15

Future With Project With Mitigation (Year 2022) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
91.	Los Angeles	Falmouth Avenue & Manchester Avenue	A.M.	0.147	A
			P.M.	0.134	A
92.	Los Angeles	Falmouth Avenue & Westchester Parkway	A.M.	0.318	A
			P.M.	0.237	A
93.	Los Angeles	Lincoln Boulevard & Loyola Boulevard	A.M.	0.499	A
			P.M.	0.614	B
94.	Los Angeles	Loyola Boulevard & Westchester Parkway	A.M.	0.401	A
			P.M.	0.211	A
95.	Los Angeles	McConnell Avenue & Westchester Parkway	A.M.	0.275	A
			P.M.	0.247	A
96.	Los Angeles	Emerson Avenue & Manchester Avenue	A.M.	0.533	A
			P.M.	0.450	A
97.	Los Angeles	La Tijera Boulevard & Westchester Parkway	A.M.	0.264	A
			P.M.	0.216	A
98.	Los Angeles	Sepulveda Westway & La Tijera Boulevard	A.M.	0.265	A
			P.M.	0.512	A
99.	Los Angeles	Sepulveda Westway & Westchester Parkway	A.M.	0.183	A
			P.M.	0.276	A
100.	Los Angeles	Airport Boulevard & 96th Street	A.M.	0.202	A
			P.M.	0.403	A
101.	Los Angeles	Aviation Boulevard & Imperial Highway	A.M.	0.710	C
			P.M.	0.678	B
102.	El Segundo	Aviation Boulevard & El Segundo Boulevard	A.M.	1.044	F
			P.M.	0.959	E
103.	Los Angeles	Lincoln Boulevard & Rose Avenue	A.M.	0.961	E
			P.M.	0.891	D
104.	Los Angeles	Culver Boulevard & SR-90 WB Ramps	A.M.	0.819	D
			P.M.	0.879	D
105.	Los Angeles	Culver Boulevard & SR-90 EB Ramps	A.M.	0.460	A
			P.M.	0.515	A

Table 4.14-15

Future With Project With Mitigation (Year 2022) Intersection Peak Hour Level of Service

No.	City	Intersection	Peak Hour	V/C	LOS
106.	Los Angeles	I-405 SB Ramps &	A.M.	0.421	A
		Howard Hughes Parkway	P.M.	0.237	A
107.	Los Angeles	Center Drive &	A.M.	0.198	A
		I-405 NB Ramps/Howard Hughes Parkway	P.M.	0.264	A
108.	Los Angeles	La Cienega Boulevard &	A.M.	0.444	A
		Imperial Highway	P.M.	0.615	B

Source: Gibson Transportation Consulting, October 2013.

As shown in **Table 4.14-15**, 84 of the 108 study intersections are projected to operate at LOS D or better during both the morning and afternoon peak hours. Seven of the study intersections in the morning peak hour and 24 of the study intersection in the afternoon peak hour are projected to operate at LOS E or LOS F.

The proposed mitigation program would mitigate 14 of the 18 impacted intersections to below a level of significance.

Residual significant impacts after the implementation of the mitigation program would remain at four study intersections, including:

8. Lincoln Boulevard & Jefferson Boulevard;
29. Sepulveda Boulevard & La Tijera Boulevard;
30. Sepulveda Boulevard & Westchester Parkway;
33. Sepulveda Boulevard & I-105 westbound ramps north of Imperial Highway.

As discussed above, implementation of some of the physical improvements can have secondary impacts such as loss of curb parking, relocation of bus stops, or impacts to pedestrian and bicycle facilities.

The proposed Project would significantly impact between 11 and 18 intersections before mitigation, depending on analysis year, when compared to Existing or Future without Project Conditions. The proposed mitigation program would reduce all impacts below the threshold of significance with three exceptions under 2012 conditions and four exceptions under 2022 conditions. Additionally, the intersection of Sepulveda Boulevard and La Tijera Boulevard would remain impacted under the 2012 analysis should credit for the physical improvement proposed at that location be shared with the Thomas Bradley International Terminal. No other feasible mitigation measures are available to reduce the impacts at these four intersections as discussed below:

- **Intersection #8 – Lincoln Boulevard & Jefferson Boulevard (Year 2022).** The significant impact at this location remains during the afternoon peak hour in 2022. This intersection is partially mitigated by the TDM program and the additional bus service on Big Blue Bus Line 3 or Rapid 3, which travels on Lincoln Boulevard. As this intersection is bordered on the

west by protected wetlands, there is no further space for expansion to the roadway. It should be noted that this intersection will still operate at LOS C under Future with Project conditions, which is generally considered very good for urban areas.

- **Intersection #29 – Sepulveda Boulevard & La Tijera Boulevard (Years 2012 & 2022).** The proposed physical improvement at this location is sufficient to mitigate the impact of the proposed Project alone below the level of significance during the afternoon peak hour in 2012. However, should the improvement be shared between the Thomas Bradley International Terminal and the proposed Project, the V/C credit it provides would not be sufficient to mitigate the impacts of both developments and thus a significant impact at this location would remain during the afternoon peak hour in 2012. The physical improvement is insufficient to mitigate the proposed Project impact during the afternoon peak hour in 2022. There is no further space for expansion of the roadway.
- **Intersection #30 – Sepulveda Boulevard & Westchester Parkway (Years 2012 & 2022).** The significant impact at this location remains during the afternoon peak hour in 2012 and 2022. This intersection is partially mitigated by the TDM program. As there are existing structures built up to the property lines on all four corners, there is no further right of way for expansion of the roadway.
- **Intersection #33 – Sepulveda Boulevard & I-105 westbound ramps north of Imperial Highway (Years 2012 & 2022).** The significant impact at this location remains during the morning and afternoon peak hours in 2012 and 2022. This intersection is partially mitigated by the TDM program. The freeway off-ramp from I-105 westbound to Sepulveda Boulevard northbound was widened from two lanes to three lanes in year 2010. There is no further space for expansion of the roadway due to the proximity to I-105, LAX, and the Sepulveda Boulevard tunnel.