5.16 TRANSPORTATION AND TRAFFIC

This section describes environmental effects on transportation and circulation that would be caused by implementation of the proposed project. Information used to prepare this section is based upon the *Traffic Impact Study for the Circulation Element Update in the City of Yorba Linda* (May 2016) prepared by Kimley-Horn and Associates, Inc.; refer to Appendix B, Traffic Impact Study.

5.16.1 Regulatory Setting

State of California

Global Warming Solutions Act (Assembly Bill 32) is described in Section 5.5 of this Program EIR.

Complete Streets Act (Assembly Bill 1358)

The California Complete Streets Act of 2008 requires circulation elements to address the transportation system from a multi-modal perspective. Assembly Bill (AB) 1358 states that streets, roads, and highways must "meet the needs of all users…in a manner suitable to the rural, suburban, or urban context of the general plan." Essentially, AB 1358 requires a circulation element to plan for all modes of transportation where appropriate including walking, biking, car travel, and transit. The Complete Streets Act also requires circulation elements to consider the multiple users of the transportation system, including children, adults, seniors, and the disabled.

With the passage of the Global Warming Solutions Act of 2006, the State of California committed itself to reducing greenhouse gas (GHG) emissions to 1990 levels by 2020. The California Air Resource Board (CARB) is responsible for the implementation of AB 32. , which is coordinating the response to comply with AB 32, is currently on schedule to meet this deadline. In 2007, ARB adopted a list of early action programs that could be put in place by January 1, 2010. In 2008, ARB defined its 1990 baseline level of emissions, and by 2011 it completed rules for reducing GHG emissions. Rules on emissions, as well as market-based mechanisms like the proposed cap and trade program, came into effect January 1, 2012. The cap and trade program controls pollution by a governing agency selling permits on the amount of pollutants a firm can emit. A firm's pollutants cannot exceed the limit. Firms requiring the need to increase their emissions must purchase permits from other firms requiring fewer permits.

Senate Bill 375

California State Senate Bill 375 (SB 375) became law effective January 1, 2009 as implementing legislation of Assembly Bill 32 (AB 32), which requires the State to reduce Greenhouse Gas (GHG) emissions across all industry sectors to 1990 levels by 2020. Both laws are administered and enforced through the California Air Resources Board (CARB); refer also to the Air Quality and Climate Change Element.

SB 375 provides guidance on how curbing emissions from cars and light trucks can help the State comply with AB 32. The law requires each of the State's 18 Metropolitan Planning Organizations (in this case, SCAG) to develop a Sustainable Communities Strategy (SCS), which would include specific strategies for improving land use and transportation efficiency. The most prominent strategy includes the identification and development of higher density, mixed-use projects around public transportation system stations. SB 375 also provides CEQA streamlining incentives for preferred development types. Residential or mixed-use projects qualify if they conform to the Sustainable Communities Strategy (SCS). Transit-oriented

developments also qualify if they (1) are at least 50 percent residential, (2) meet density requirements, and (3) are within one-half mile of a transit stop. The degree of CEQA streamlining is based on the degree of compliance with these development preferences. Other supported strategies relate to the integration of Intelligent Transportation Systems (ITS) to improve circulation on freeways and arterials. Every SCS to be developed under SB 375 is required to be integrated into each MPO's Regional Transportation Plan (RTP) to encourage local jurisdictions to comply. Transportation improvement projects not listed in the RTP become ineligible to receive funding from some State and federal programs.

Regional and Local

Southern California Association of Governments (SCAG) Regional Transportation Plan

Under federal law, Metropolitan Planning Organizations (MPOs) and Regional Transportation Planning Agencies (RTPAs) are required to prepare a 20-year Regional Transportation Plan (RTP), which is updated every four years. In this regional, SCAG is both the MPO and the RTPA. Only projects and programs included in the RTP are eligible for federal and State funding.

The focus areas of the RTP are: Active Transportation; Aviation; Environmental Mitigation; Goods Movement; Growth Forecasts; Highways and Arterials; Land Use; Passenger Rail; Transit; Transportation Demand Management (TDM); Transportation Finance; and Transportation Safety and Security.

SCAG's plan takes into account operations and maintenance costs, to ensure reliability, longevity and cost effectiveness. In addition, the RTP will be supported by a combination of transportation and land use strategies that will help the region achieve State greenhouse gas emission reduction goals and federal Clean Air Act requirements, preserve open space areas, improve public health and roadway safety, support our vital goods movement industry and utilize resources more efficiently.

The Sustainable Communities Strategy (SCS) is a new element of the RTP that demonstrates the integration of land use, transportation strategies, and transportation investments within the RTP. This new requirement was put in place by the passage of SB 375, with the goal of ensuring that the SCAG region can meet its regional greenhouse gas reduction targets set by the California Air Resources Board (ARB). On April 7, 2016, SCAG's Regional Council adopted the 2016-2040 Regional Transportation Plan/ Sustainable Communities Strategy (2016 RTP/SCS).

Orange County Master Plan of Arterial Highways

The Orange County Master Plan of Arterial Highways (MPAH) is an adopted, countywide planning tool that defines the Orange County freeway, toll road, and arterial circulation system that is forecasted to be required to serve the mobility needs of Orange County at buildout. Both the location and the carrying capacity (number of lanes) of each arterial are designated on the Orange County MPAH. The Orange County Transportation Authority (OCTA) administers the Orange County MPAH.

Local jurisdiction compliance in implementing the Orange County MPAH is a necessary requirement for local and federal transportation funding. Local jurisdictions in Orange County are required (1) to have General Plan Circulation Elements that are consistent with the Orange County MPAH and (2) to certify such compliance every two years. This compliance is a prerequisite to maintain eligibility for receipt of Measure M sales tax revenues and to participate in competitive transportation funding programs at the federal and countywide levels. Key components of compliance include ensuring that the lane capacities of a city's arterial roadways are maintained and that an Orange County MPAH roadway has not been

unilaterally removed or downgraded on a local jurisdiction's General Plan Circulation Element. Requests to amend the Orange County MPAH can be initiated by a local jurisdiction, subject to the MPAH Amendment Process. Only a local jurisdiction can initiate an MPAH amendment.

Orange County Congestion Management Program

The Orange County Congestion Management Program (CMP) was established in 1991 to reduce traffic congestion and to provide a mechanism for coordinating land use and development decisions. Compliance with the CMP requirements ensures a city's ability to compete for State gas tax funds for local transportation projects. Within the City, the CMP Highway System includes two arterials: Rose Drive and Imperial Highway. There are no specific CMP requirements for roadway segment monitoring.

Transportation Demand Management (TDM) strategies are geared toward increasing vehicle occupancy, promoting the use of alternative modes, reducing the number of automobile trips, decreasing overall trip lengths, and improving air quality. The adoption of a TDM ordinance was required of every local jurisdiction for Orange County's 1991 CMP. The adoption of these ordinances is no longer a statutory requirement, however OCTA continues to encourage local jurisdictions to promote and support TDM strategies in their community. Such strategies may include, but are not limited to, the following:

- Encouraging employers to establish and help subsidize telecommuting, provide monetary incentives for ridesharing, and implement alternative work hour programs;
- Implementing bus loading facilities at worksites;
- Implementing pedestrian facilities such as sidewalks, paved pathways, and pedestrian grade separations over arterial streets to connect worksites to shopping, eating, recreation, parking, or transit facilities; and
- Participating in the development of remote parking facilities and the high-occupancy vehicles (i.e., shuttles, etc.) to serve them.

Measure M and Renewed Measure M

In 1990, Orange County voters approved Measure M, a 20-year program for transportation improvements funded by a half-cent sales tax. Measure M allocates all sales tax revenues to specific Orange County transportation improvement projects in three major areas: freeways, streets, and transit. In 2006, Orange County voters approved the renewal of Measure M from 2011 to 2041.

Revenue generated by Measure M is returned to local jurisdictions for use on local and regional transportation improvements and maintenance projects. Each jurisdiction is required to comply with the Countywide Traffic Improvement and Growth Management Program in order to receive the revenue. A local jurisdiction must satisfy certain requirements including:

- Comply with the conditions and requirements of the Orange County Congestion Management Program;
- Establish a policy which requires new development to pay its fair share of transportation-related improvements associated with their new development;
- Adopt a General Plan Circulation Element consistent with the Master Plan of Arterial Highways;
- Adopt and update a Capital Improvement Program;

- Participate in Traffic Forums;
- Adopt and maintain a Local Signal Synchronization Plan;
- Adopt and provide an annual Expenditure Report to the OCTA;
- Provide the OCTA with a Project Final Report within six months following completion of a project funded with Net Revenues;
- Agree to expend all Local Fair Share revenues received through Measure M within three years of receipt;
- Satisfy Maintenance of Effort requirements;
- Agree that Net Revenues shall not be sued to supplant developer funding; and
- Consider, as part of eligible jurisdiction's General Plan, land use and planning strategies that accommodate transit and non-motorized transportation.

City of Yorba Linda General Plan

The Circulation Element provides a framework for a functional circulation system for the City that promotes the safe, efficient, and reliable movement of people and goods throughout the community.

5.16.2 Environmental Setting

The Planning Area, inclusive the City of Yorba Linda and its Sphere of Influence, is located in northern Orange County. The Planning Area shares borders with the cities of Placentia and Anaheim, and the County of Orange. Many of the arterial roadways through the Planning Area extend beyond jurisdictional boundaries into neighboring cities.

Regional Access

Regional access is provided by State Route (SR) SR-91, an east-west freeway south of the City. SR-91 provides east-west regional access through Orange, Los Angeles, and Riverside counties. Imperial Highway (SR-90) is configured as a freeway from the southern City boundary to Yorba Linda Boulevard where it becomes a modified major arterial north of Yorba Linda Boulevard. SR-57 is located approximately two miles west of Yorba Linda in the City of Fullerton, and provides north-south regional circulation through Orange and Los Angeles Counties.

North-south arterials that extend through and beyond the boundaries of the City include Rose Drive (becomes Tustin Avenue at the boundary with the City of Anaheim), Richfield Road, Lakeview Avenue, Imperial Highway, Fairmont Boulevard, and Yorba Linda Boulevard. Rose Drive, Tustin Avenue, Lakeview Avenue, Imperial Highway, and Yorba Linda Boulevard have full or partial interchanges with SR-91.

East-west arterials that extend through and beyond the City's boundaries include Imperial Highway, Bastanchury Road, and Yorba Linda Boulevard. Imperial Highway and Yorba Linda Boulevard have full interchanges with SR-57.

Local Access

The City is served by a combination of curvilinear streets and straight north-south and east-west arterials. Smaller collector and neighborhood streets connect neighborhoods and commercial land uses to the arterial street system.

City of Yorba Linda Functional Roadway Classification System

The City of Yorba Linda's circulation network provides access to adjacent land uses and facilitates the movement of persons and goods to and from, within, and through the City. The design and operation of each street is determined by the importance placed on each of these functions. Streets that have a mobility and/or regional access function will typically have more lanes, higher speed limits, and fewer driveways. Where direct access to properties is required, streets generally have fewer lanes, lower speeds, on-street parking, and more frequent driveways to serve abutting properties.

To define the intended uses of roadways, many jurisdictions, including Yorba Linda, use a functional roadway classification system. The system provides a framework for the design and operation of the roadway system and helps identify preferred characteristics of each street. The existing General Plan and the proposed General Plan Update uses a functional classification system consistent with classification systems used throughout Orange County. It includes the following street classifications: Major; Primary; Secondary; Local, and Smart Street.

Major Arterial

A Major Arterial is a six-lane divided roadway, with 84 to 106 feet of curb-to-curb width within 100 to 120 feet of right-of-way. The optimal right-of-way width for a six-lane Major arterial would be 120 feet, but where necessary, the six-lane cross section could be accommodated within less right-of-way (Modified Major). A minimum right-of-way of 100 feet is considered appropriate where it is not feasible to obtain the desirable right-of-way width of 120 feet. Major arterials are designated with emphasis for automobile, goods movement, and/or transit, and are designed to accommodate approximately 45,000 vehicles per day (vpd) at level of service (LOS) C. The LOS E capacity of a six-lane Major arterial would be 56,300 vpd. Major arterials, especially those that parallel a freeway, may carry a component of regional through traffic not handled by the freeway system.

A Major arterial would typically consist of three through lanes in each direction, with one or two left-turn lanes and a dedicated right-turn lane at intersections. Major arterials in the City are:

- Imperial Highway: Rose Drive to Lakeview Avenue
- Yorba Linda Boulevard: Rose Drive to Fairmont Boulevard
- Rose Drive: City limits
- Fairmont Boulevard: Village Center Drive South to Esperanza Road

Primary Arterial

A Primary Arterial is a four-lane divided roadway, with 64 to 84 feet of curb-to-curb width within 80 to 100 feet of right-of-way. The right-of-way width for a four-lane Primary arterial would be 100 feet, but where necessary, the Primary arterial cross section could be accommodated within less right-of-way (Modified Primary). A minimum right-of-way of 80 feet is considered appropriate where it is not feasible

to obtain the desirable right-of-way width of 100 feet. Primary arterials are designated with emphasis for automobile, goods movement, transit and bicycle, and is designed to accommodate approximately 30,000 vpd at LOS C. The LOS E capacity of a four-lane Primary arterial would be 37,500 vpd. Primary arterials may function similarly to Major arterials, with the primary difference being vehicle capacity. Typically Major arterials are expected to carry more vehicles than Primary arterials.

A Primary arterial would typically consist of two through lanes in each direction, with a left-turn lane, and may include a dedicated right-turn lane at intersections. The following Primary arterials are in the City:

- Imperial Highway: Lakeview Avenue to Orangethorpe Avenue
- Yorba Linda Boulevard: Fairmont Boulevard to Esperanza Road
- Lakeview Avenue: Yorba Linda Boulevard to south of Buena Vista Avenue
- Fairmont Boulevard: Village Center Drive North to Village Center Drive South

Secondary Arterial

A Secondary Arterial is a four-lane undivided roadway, with 64 feet of curb-to-curb width within 80 feet of right-of-way. Secondary arterials are designated with emphasis for automobiles and bicycles, and is designed to accommodate approximately 20,000 vehicle trips per day at LOS C. A Secondary arterial often provides a collector function, distributing traffic between local streets and Major and Primary arterials. Although some Secondary arterials may also serve as through routes, most provide more direct access to surrounding land uses.

A Secondary Arterial would typically consist of two travel lanes in each direction, with a left-turn lane at intersections. Secondary arterials in the City of Yorba Linda consist of:

- Buena Vista Avenue: from Rose Drive to Lakeview Avenue
- Valley View Avenue: from Lakeview Avenue to Yorba Linda Boulevard
- Richfield Road: from Yorba Linda Boulevard to City limit
- Lakeview Avenue: from Bastanchury Road to Yorba Linda Boulevard
- Kellogg Drive: from Yorba Linda Boulevard to City limit
- Village Center Drive: from Fairmont Boulevard N to Fairmont Boulevard S
- Yorba Ranch Road: from Yorba Linda Boulevard to Esperanza Road

Local Street

A Local Street is a two-lane undivided roadway, with 40 feet of curb-to-curb width within 60 feet of right-of-way. Local streets are designated with emphasis for automobiles and bicycles, and is designed to accommodate approximately 10,000 vpd at LOS C. Local streets carry traffic from the neighborhoods to the higher classification street system.

Smart Streets

Smart Streets are arterials with enhanced traffic-carrying capacity. These increases in capacity are achieved by a variety of measures, including, but not limited to:

- Preferential and acceptably maintained traffic signal timing and synchronization;
- Prohibition of on-street parking;
- Intersection grade separations of critical through and/or turn movements;
- Addition of at-grade through or turn lanes at intersections;
- Access limitation to right turns only, or no access (street and/or driveways);
- Access consolidation;
- Frontage roads;
- Pedestrian grade separations; and
- Other elements that may be documented to be useful.

The intent of these measures is to minimize conflicts with cross traffic. These measures improve traffic-carrying capacity and facilitate improved traffic flow along an arterial. This designation is intended to represent a roadway of a Primary, Major, or a Principal arterial classification. In Yorba Linda, Imperial Highway is a Smart Street.

Transit Service

The OCTA operates local public transit routes that extend into and through the City. The 2016 Bus Service Plan revised bus service in order to address the decline in bus ridership and revenue. The revised plan eliminated two bus routes in Yorba Linda, Line 20 and Line 26, starting in October 2016. Following this change, t three bus routes would serve areas proximate to the City limit: Routes 30, 38, and 71. **Figure 5.16-1, OCTA Bus Routes**, depicts bus routes in the City.

Route 30 operates between cities of Cerritos and Anaheim, traveling along Fairmont Boulevard and Esperanza Road in the City of Yorba Linda. Service is provided every day with an approximate headway of 45 minutes during the weekdays and 60 minutes during the weekends and holidays.

Route 38 operates between the cities of Lakewood and Yorba Linda, traveling along Savi Ranch Parkway and Yorba Linda Boulevard in the City of Yorba Linda. Service is provided every day with varying headways during the weekdays and approximately 45 minute headways during the weekends and holidays.

Route 71 operates between the cities of Newport Beach (Balboa area) and Yorba Linda, traveling along Rose Drive, ending at Yorba Linda Boulevard. Service is provided every day with an approximate headway of 45 minutes on Monday through Saturday, and 60 minutes on Sundays and holidays.

The Inland Empire-OC Metrolink line runs east to west just south of Yorba Linda. The nearest Metrolink station stop to the City is located in Anaheim Canyon.

Bicycle and Pedestrian Facilities

Bicycle lanes and bicycle routes are provided on a number of roadways within the City. The bike system is intended to provide bicyclists with connections between neighborhoods, parks, schools, and other neighborhood and recreational facilities. As depicted on **Figure 5.16-2, Existing Bicycle Facilities**, most city bikeways are Class II – on-street bike lanes marked in the curb or parking lane on selected City streets.

Sidewalks are generally provided along the arterial roadways and on the vast majority of residential streets throughout the City. The City's circulation system has been designed to ensure that adequate facilities are provided for pedestrian circulation, especially in the vicinity of schools, parks, major retail facilities, and other locations with high levels of pedestrian activity.

Truck Routes

The designation of truck routes within a city's limits is intended to direct truck traffic to those streets where they would cause the least amount of neighborhood intrusion and where noise and other impacts would not be considered nuisances. Yorba Linda has designated two roadways as truck routes to provide for the regulated movement of trucks through the City: Imperial Highway and SR-91.

As depicted on **Figure 5.16-3, Truck Routes**, for destinations west of Village Center Drive (designed as the City Midpoint), trucks are directed to use Imperial Highway to the greatest extent possible to get to and from their destination. For destinations to the east of the Village Center Drive midpoint, trucks are to use Yorba Linda Boulevard/Weir Canyon Road from the SR-91.

Existing Volumes and Levels of Service

Level of Service Definition for Roadways

Congestion is a result of a street network that carries traffic volumes in excess of the network's designed capacity. A roadway's capacity is a function primarily of the number of lanes provided to carry traffic volumes, and whether or not the roadway is divided with a median or center turn lane. Generally, the more lanes provided, the more capacity the roadway has to accommodate traffic demand. **Table 5.16-1: Daily Traffic-Carrying Capacities by Roadway Type***,* provides a summary of the theoretical daily traffic-carrying capacities for each of the roadway types.

Table 5.16-1
Daily Traffic-Carrying Capacities by Roadway Type

Roadway Type	Estimated Daily Capacity[a]
Major Arterial	56,300 vpd
Primary Arterial	37,500 vpd
Secondary Arterial	25,000 vpd

a. Estimated daily capacity for LOS E, expressed as vehicles per day (vpd)

The daily capacity of a roadway is also affected by a number of variables, including the type and number of intersection controls, signal timing, the presence and frequency of driveways, on-street parking, the percent of the daily traffic in the peak hour, the directionality of traffic in the peak hour, and other factors. The daily capacities shown above provide a general guideline as to the adequacy or deficiency of the roadway system.

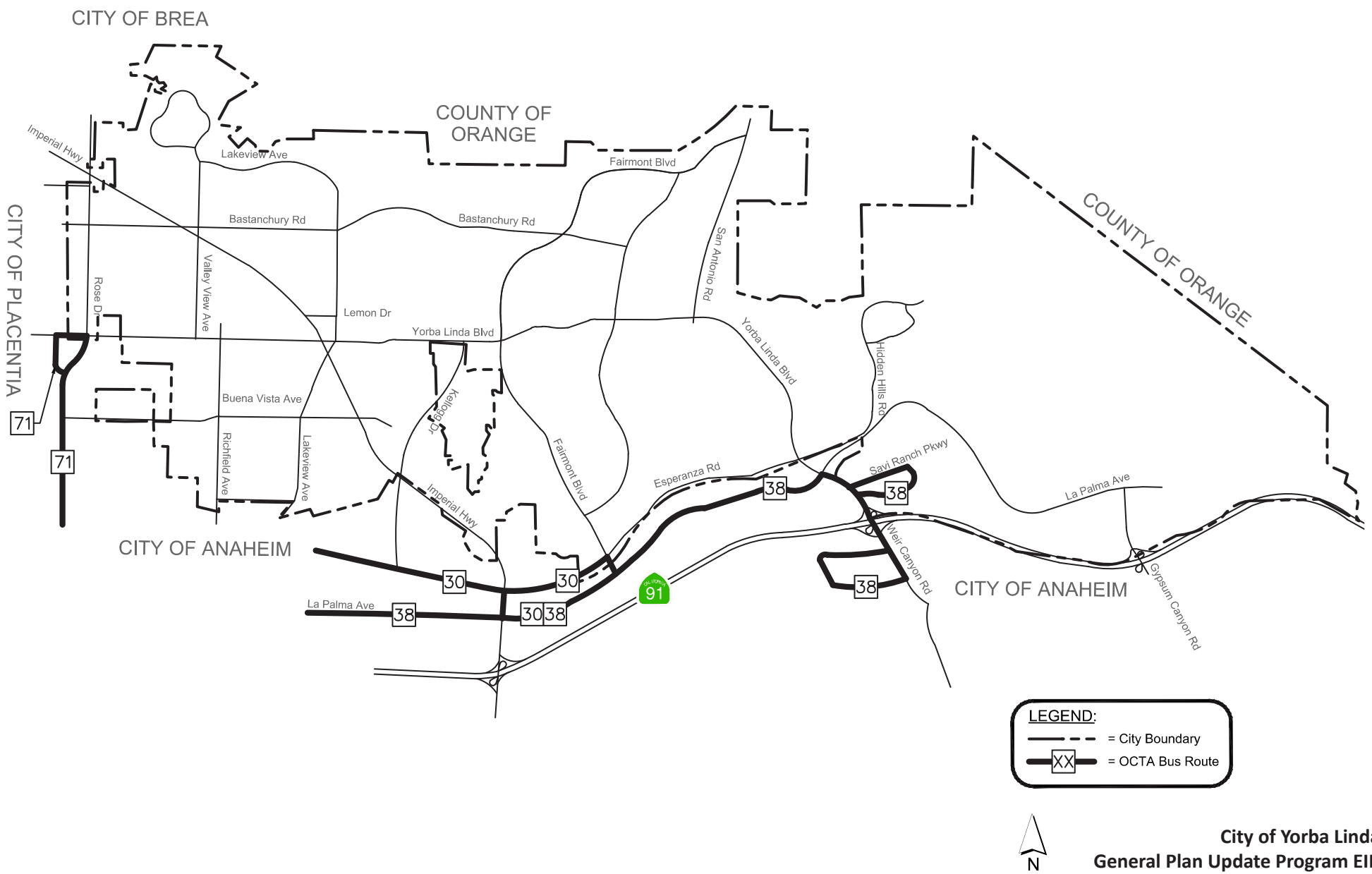

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Figure 5.16-1
OCTA Bus Routes

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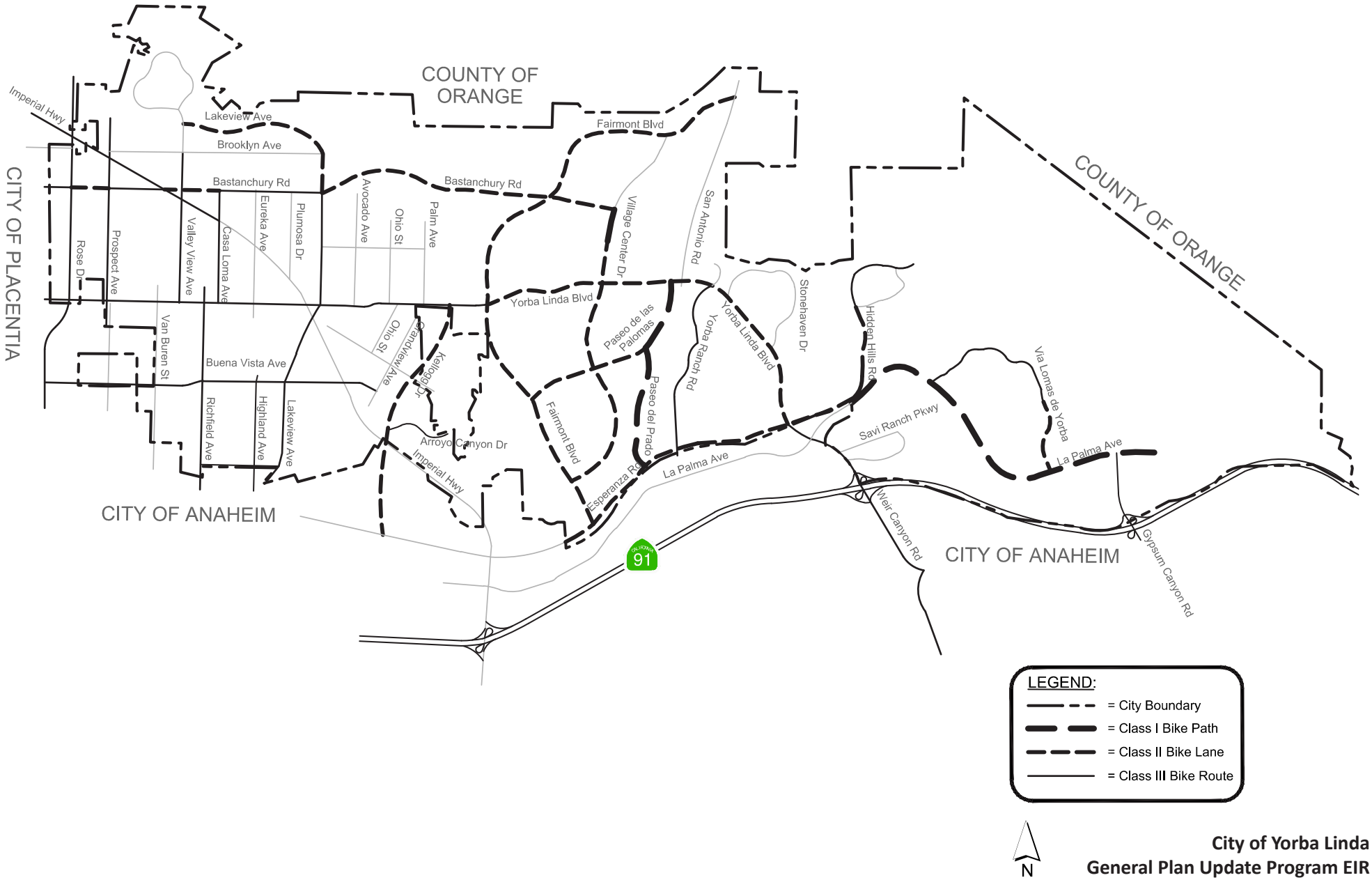

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Figure 5.16-2
Existing Bicycle Facilities

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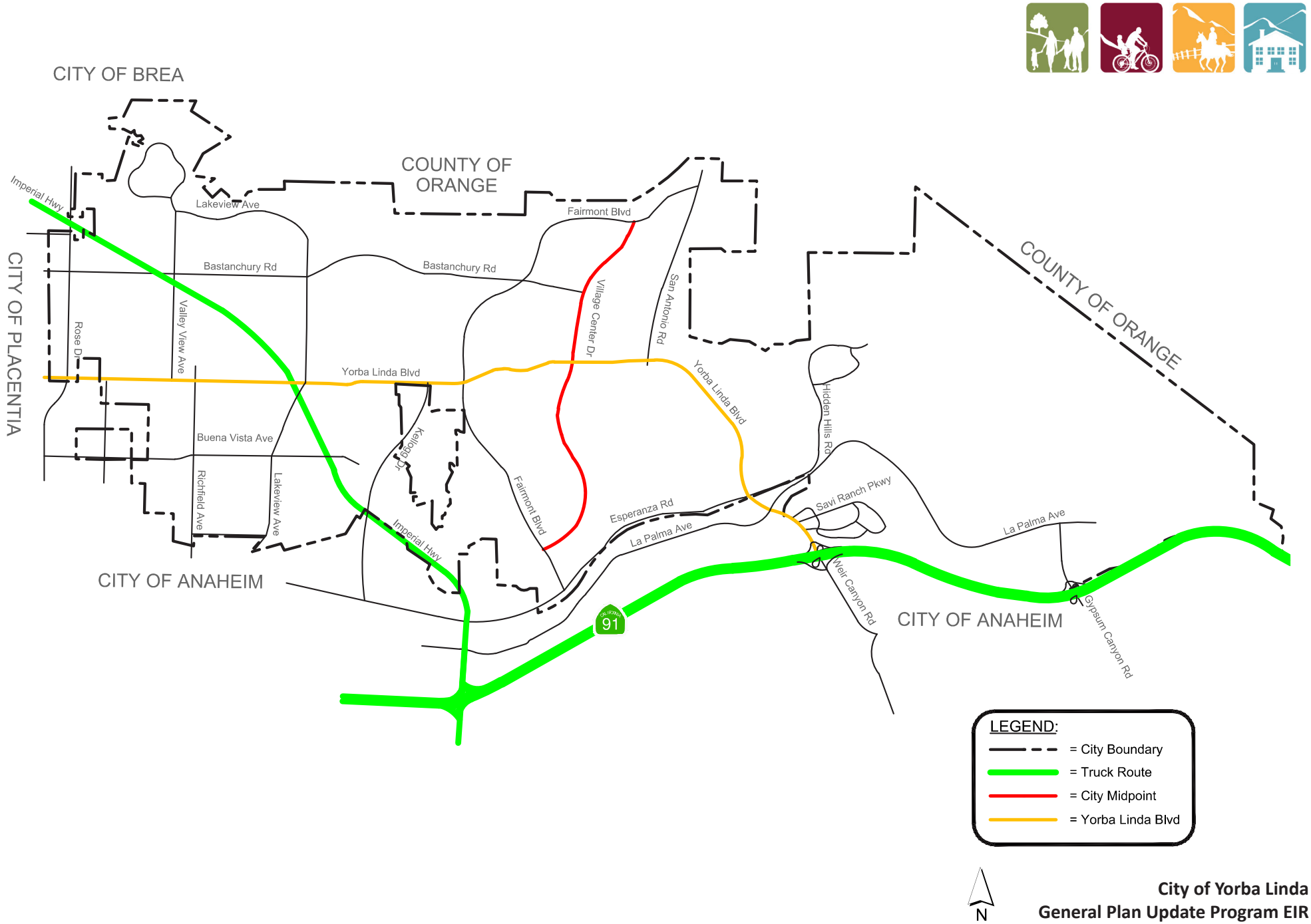

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Figure 5.16-3
Truck Routes

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Design capacity of a street or highway is the maximum volume of traffic a roadway is designed to carry at a selected level of service. The concept of Level of Service (LOS) is used to qualitatively describe prevailing conditions and their effect on traffic. Broadly interpreted, the LOS concept denotes any one of a number of differing combinations of operating conditions that may take place as a roadway is accommodating various traffic volumes. Service levels range from A through F with each level defined by a range of volume-to-capacity (V/C) ratios. **Table 5.16-2: Level of Service**, describes the characteristics of each level of service. As shown on the table, traffic conditions are best when the daily traffic volumes on a roadway are less than 60 or 70 percent of the theoretical capacity of the roadway, while congestion and delays can be expected when the daily traffic volumes approach or exceed 100 percent of the roadway capacity. The threshold Level of Service for the City of Yorba Linda for daily intersection operations is LOS D, and the roadway operation is LOS C for planning purposes.

Table 5.16-2: Level-of-Service (LOS)

Level of Service	Description	Range of V/C Ratios
LOS A	Primarily free-flow conditions at average travel speeds. Vehicles are seldom impeded in their ability to maneuver in the traffic stream. Delays at intersections are minimal.	0.00 – 0.60
LOS B	Unimpeded operations at average travel speeds. The ability to maneuver in the traffic stream is slightly restricted; delays are not bothersome.	0.61 – 0.70
LOS C	Stable operations; however, ability to change lanes and maneuver may be more restricted than LOS B and longer queues are experienced at intersections.	0.71 – 0.80
LOS D	Congestion occurs and a small change in volumes increases delays substantially.	0.81 – 0.90
LOS E	Severe congestion occurs with extensive delays accompanied by low travel speeds.	0.91 – 1.00
LOS F	Extremely low speeds and intersection congestion occurs with high delays and extensive queuing.	>1.00

Traffic Study Area

The traffic study area depicted on **Figure 5.16-4, Study Intersections and Roadway Segments.** The traffic study area includes 30 intersections and generally consist of intersections of two arterial roadways (Secondary or higher) within the City, as well as selected intersections that are currently carrying high peak hour volumes or have other operating characteristics based on input from City staff.

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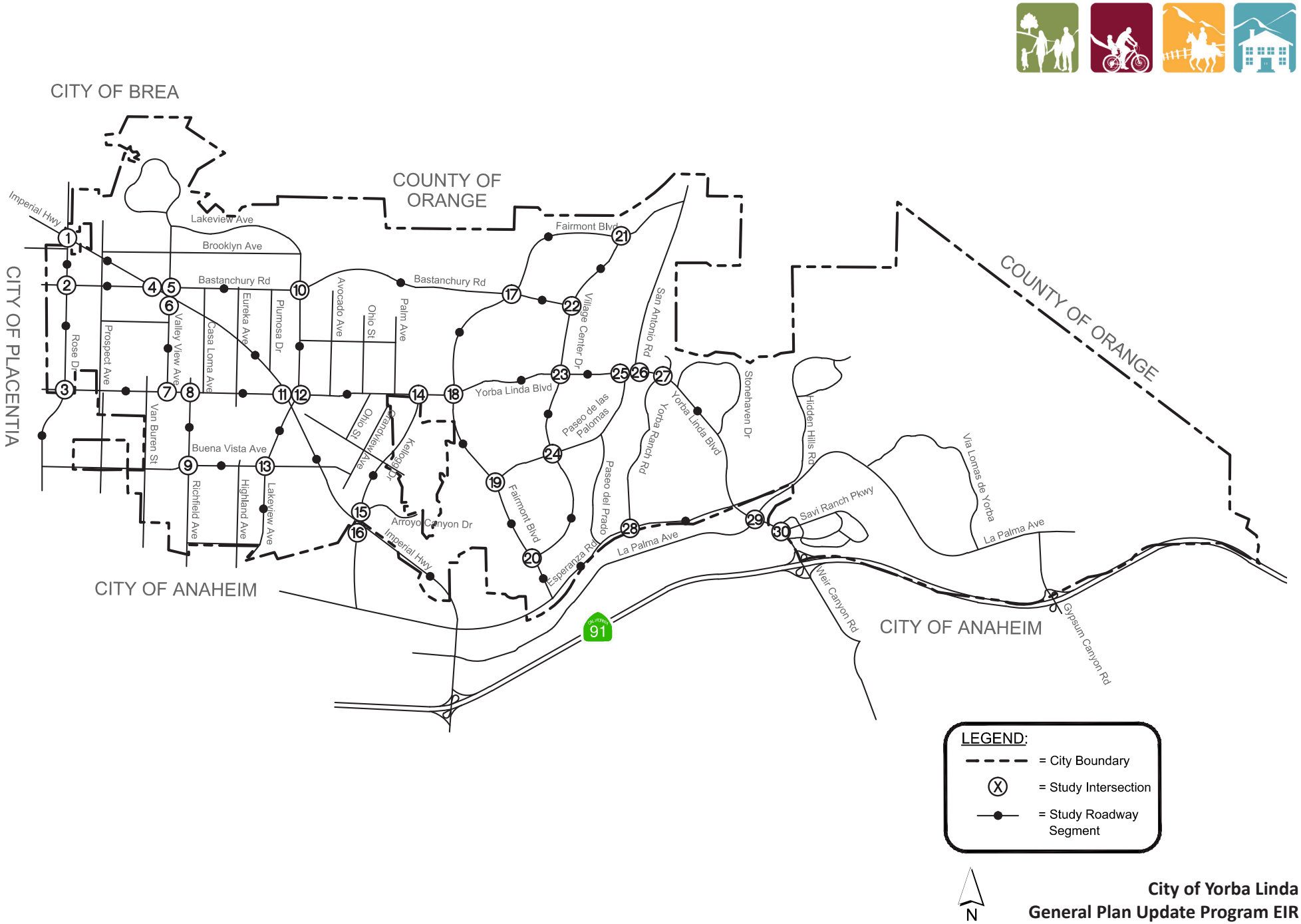

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Figure 5.16-4
Study Intersections and Roadway Segments

Intersection and Roadway Levels of Service

Existing peak hour intersection volumes were compared to intersection capacity to identify the existing levels of service in the traffic study area. **Table 5.16-3, Existing Conditions: Intersection Operations**, shows the existing level of service for the traffic study intersections in the Planning Area. Based on Table 5.16-3, all study intersections are operating at acceptable levels of service (LOS D or better) under existing conditions, with the exception of Yorba Linda Boulevard at Savi Ranch Parkway.

Table 5.16-3
Existing Conditions: Intersection Operations

Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
Rose Dr at Imperial Highway	S	0.713	C	0.821	D
Rose Dr at Bastanchury Rd	S	0.557	A	0.567	A
Rose Dr at Yorba Linda Blvd	S	0.632	B	0.713	C
Imperial Highway at Bastanchury Rd	S	0.723	C	0.663	B
Valley View Ave at Bastanchury Rd	S	0.542	A	0.506	A
Valley View Ave at Imperial Highway	S	0.619	B	0.629	B
Valley View Ave at Yorba Linda Blvd	S	0.488	A	0.622	B
Richfield Rd at Yorba Linda Blvd	S	0.459	A	0.427	A
Richfield Rd at Buena Vista Ave	S	0.475	A	0.465	A
Lakeview Ave at Bastanchury Rd	S	0.348	A	0.467	A
Imperial Highway at Yorba Linda Blvd	S	0.866	D	0.860	D
Lakeview Ave at Yorba Linda Blvd	S	0.413	A	0.526	A
Lakeview Ave at Buena Vista Ave	U	0.411	A	0.436	A
Kellogg Dr at Yorba Linda Blvd	S	0.322	A	0.416	A
Kellogg Dr at Imperial Highway (North)	S	0.484	A	0.390	A
Kellogg Dr at Imperial Highway (South)	U	0.456	A	0.339	A
Fairmont Blvd at Bastanchury Rd	S	0.651	B	0.510	A
Fairmont Blvd at Yorba Linda Blvd	S	0.618	B	0.518	A
Fairmont Blvd at Paseo de las Palomas	S	0.288	A	0.273	A
Fairmont Blvd (South) at Village Center Dr	S	0.338	A	0.404	A
Village Center Dr at Fairmont Blvd (North)	U	0.062	A	0.060	A
Village Center Dr at Bastanchury Rd	S	0.516	A	0.499	A
Village Center Dr at Yorba Linda Blvd	S	0.493	A	0.603	B
Village Center Dr at Paseo de las Palomas	U	0.152	A	0.150	A
Paseo de las Palomas at Yorba Linda Blvd	S	0.403	A	0.519	A
San Antonio Rd at Yorba Linda Blvd	S	0.510	A	0.466	A
Yorba Ranch Rd at Yorba Linda Blvd	S	0.455	A	0.525	A
Yorba Ranch Rd as Esperanza Rd	U	0.175	A	0.169	A
Yorba Linda Blvd at La Palma Ave	S	0.765	C	0.807	D
Yorba Linda Blvd at Savi Ranch Parkway	S	0.707	C	**0.924**	**E**

S = Signalized; U= Unsignalized; ICU = Intersection Capacity Utilization; LOS = Level of Service
Bold and shaded reflects a deficient level of service.
Source: Kimley-Horn 2016.

Existing roadway volumes were compared to roadway capacity to assess existing levels of service. For each roadway segment, the daily capacity was determined in accordance with the current facility type and existing number of lanes, and a v/c ratio was computed. The resulting volumes and associated v/c ratios and LOS are summarized in **Table 5.16-4, Existing Conditions: Roadway Segments.**

Table 5.16-4
Existing Conditions: Roadway Segments

Roadway	Segment	Current Roadway Configuration	Number of Lanes	LOS E Capacity	Daily Traffic Volume	V/C	LOS
Imperial Highway	Rose Dr to Valley View Ave	Major	6D	56,300	46,164	0.820	**D**
	Valley View Ave to Yorba Linda Blvd	Major	6D	56,300	37,561	0.667	B
	Yorba Linda Blvd to Kellogg Dr	Primary	4D	37,500	36,406	0.971	**E**
	Kellogg Dr to Orangethorpe Ave	Primary	4D	37,500	41,316	1.102	**F**
Bastanchury Rd	Rose Dr to Imperial Hwy	Primary	4D	37,500	14,271	0.381	A
	Valley View Ave to Yorba Linda Blvd	Local	2U	12,500	14,167	1.133	**F**
	Lakeview Ave to Fairmont Blvd	Primary	4D	37,500	15,393	0.410	A
	Fairmont Blvd to Village Center Dr	Local	2U	12,500	9,478	0.758	C
Yorba Linda Blvd	Rose Dr to Valley View Ave	Primary	6D	37,500	22,077	0.589	A
	Valley View Ave to Imperial Hwy	Major	6D	56,300	20,125	0.357	A
	Lakeview Ave to Fairmont Blvd	Major	6D	56,300	25,360	0.450	A
	Fairmont Blvd to Village Center Dr	Primary	4D	37,500	18,649	0.497	A
	Village Center Dr to Paseo de las Palomas	Primary	4D	37,500	22,121	0.590	A
	Paseo de las Palomas to New River Rd	Primary	4D	37,500	23,610	0.630	B
Buena Vista Ave	Rose Dr to Richfield Rd	Secondary	4U	25,000	7,784	0.311	A
	Richfield Rd to Lakeview Ave	Secondary	4U	25,000	6,030	0.241	A
Esperanza Rd	Fairmont Blvd to Paseo del Prado	Primary	4D	37,500	10,200	0.272	A
	Paseo del Prado to New River Rd	Primary	4D	37,500	7,903	0.211	A
Rose Dr	Imperial Hwy to Bastanchury Rd	Primary	4D	37,500	14,570	0.389	A

Table 5.16-4 Existing Conditions: Roadway Segments							
Roadway	**Segment**	**Current Roadway Configuration**	**Number of Lanes**	**LOS E Capacity**	**Daily Traffic Volume**	**V/C**	**LOS**
	Bastanchury Rd to Yorba Linda Blvd	Primary	4D	37,500	16,924	0.451	A
	Yorba Linda Blvd to Buena Vista Ave	Primary	4D	37,500	19,237	0.513	A
Valley View Avenue	Bastanchury Rd to Yorba Linda Blvd	Local	2U	12,500	8,182	0.655	B
Richfield Road	Yorba Linda Blvd to Buena Vista Ave	Secondary	4U	25,000	9,238	0.370	A
Lakeview Ave	Bastanchury Rd to Yorba Linda Blvd	Local	2U	12,500	9,947	0.796	C
	Yorba Linda Blvd to Buena Vista Ave	Local	2U	12,500	13,189	1.055	**F**
	South of Buena Vista Ave	Primary	4D	37,500	11,443	0.305	A
Kellogg Dr	Yorba Linda Blvd to Imperial Hwy	Local	2U	12,500	10,091	0.807	**D**
Fairmont Blvd	Village Center Dr N to Bastanchury Rd	Primary	4D	37,500	8,111	0.216	A
	Bastanchury Rd to Yorba Linda Blvd	Primary	4D	37,500	9,093	0.242	A
	Yorba Linda Blvd to Paseo de las Palomas	Primary	4D	37,500	10,053	0.268	A
	Paseo de las Palomas to Village Center Dr S	Primary	4D	37,500	8,537	0.228	A
	Village Center Dr S to Fairmont Connector	Major	4D	56,300	15,611	0.277	A
Village Center Drive	Fairmont Blvd to Yorba Linda Blvd	Secondary	4U	25,000	12,465	0.499	A
	Yorba Linda Blvd to Paseo de las Palomas	Secondary	4U	25,000	5,329	0.213	A
	Paseo de las Palomas to Fairmont Blvd	Secondary	4U	25,000	7,661	0.306	A
Yorba Ranch Road	Yorba Linda Blvd to Esperanza Rd	Secondary	4U	25,000	1,729	0.069	A

S = Signalized; U= Unsignalized; ICU = Intersection Capacity Utilization; LOS = Level of Service
Bold and shaded reflects a deficient level of service.
Source: Kimley-Horn 2016.

Analysis of existing traffic conditions in Yorba Linda indicate that all roadway segments currently operate an acceptable level of service (LOS C or better) except for the following roadway segments:

- Imperial Highway (Rose Drive to Valley View Avenue)
- Imperial Highway (Lakeview Avenue to Kellogg Drive)

- Imperial Highway (Kellogg Drive to Orangethorpe Avenue)
- Bastanchury Road (Imperial Highway to Lakeview Avenue)
- Lakeview Avenue (Yorba Linda Boulevard to Buena Vista Avenue)
- Kellogg Drive (Yorba Linda Boulevard to Imperial Highway)

5.16.3 Significance Threshold Criteria

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

TRA-1 Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

TRA-2 Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

TRA-3 Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

TRA-4 Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

TRA-5 Result in inadequate emergency access.

TRA-6 Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

5.16.4 Impacts and Mitigation

Analysis of the forecasted traffic conditions at General Plan buildout was conducted to determine whether the City's circulation system can accommodate the future traffic demands of the Planning Area's land use plan. Buildout year is assumed to be 2035.

The methodology for developing future traffic forecasts volumes on the roadway segments and at the study intersections in the traffic study area is a multi-step process, based on the following resources and assumptions:

- Regional Baseline and Buildout traffic forecasts were obtained from the Orange County Transportation Analysis Model (OCTAM).
- Baseline OCTAM forecasts reflect current land use and socio-economic data, and roadway network conditions for the City.

- Buildout conditions for the study roadway segments and intersections reflect forecasted conditions assuming buildout of the City's current General Plan land use and roadway system, per the existing Circulation Element.
- The growth increment between the Baseline and Buildout forecasts was estimated and applied to each roadway segment and intersection approach for study locations.
- The traffic growth per intersection was applied to existing traffic volumes to generate Buildout 2035 projected volumes.

Impact 5.16-1: Implementation of the General Plan Update could conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for intersections [Threshold TRA-1].

Impact Analysis

Focus Area Trip Generation

While the City of is primarily developed, some parcels are still vacant or underdeveloped and have the potential for enhanced or further development. These areas have been designated as Focus Areas (see Figure 3-4, Focus Areas Map, in Section 3.0). The Cielo/Esperanza Focus Area is located within the City's Sphere of Influence.

The proposed Land Use Element of the General Plan Update quantifies the current potential development in these areas. The current remaining potential development in these focus areas represents the growth increment that was accounted for in the analysis for Buildout Conditions in the following section.

For the analysis of Buildout 2035 with Project traffic conditions, the Focus Areas were evaluated in terms of the potential future land uses, including the land use type (residential, retail, office, industrial, etc.) and the quantity of those land uses (dwelling units, thousand square feet, etc.). The number of trips that would be generated by the potential development of the focus areas is summarized in **Table 5-16-5, Summary of Project Trip Generation for Focus Areas.** As identified in the table, the greatest amount of potential traffic growth associated with the focus areas would occur in the eastern area of the Planning Area, particularly in the Cielo/Esperanza and the East Gate (which includes Savi Ranch) Focus Areas.

Table 5.16-5 Summary of Project Trip Generation for Focus Areas									
				AM Peak Hour			PM Peak Hour		
Focus Area	Land Use	Quantity	Daily	In	Out	Total	In	Out	Total
Cielo/ Esperanza	Single-Family Detached Housing	626 DU	5,960	118	352	470	394	232	626
Civic Core	No Increase	0	0	0	0	0	0	0	0
Community Core	Single-Family Detached Housing	7 DU	67	1	4	5	4	3	7
	Multi-Family Housing	47 DU	313	5	19	24	19	10	29
	Shopping Center	126 KSF	5,365	75	46	121	224	242	466
East Gate	Multi-Family Housing	441 DU	2,933	45	180	225	178	96	274
	General Office Building	1,374 KSF	15,155	1,886	257	2,143	348	1,700	2,048
	Shopping Center	434 KSF	18,527	258	158	416	773	837	1,610
	General Light Industrial	-1,196 KSF	-8,335	-969	-132	-1,101	-139	-1,021	-1,160
Fairlynn	No Increase	0	0	0	0	0	0	0	0
West Gate	Single-Family Detached Housing	7 DU	67	1	4	5	4	3	7
	Shopping Center	72 KSF	3,085	43	26	69	129	139	268
Yorba Linda Country Club	No Increase	0	0	0	0	0	0	0	0
		Total Project Trips	**43,137**	**1,463**	**914**	**2,377**	**1,934**	**2,241**	**4,175**

DU = dwelling unit; KSF = thousand square feet
Source: Kimley-Horn 2016.

Buildout Traffic Conditions

The additional trips that would be generated by potential development within the focus areas were estimated and distributed to the surrounding road network. An intersection levels of service analysis was conducted for the morning and evening peak hours to evaluate the Buildout 2035 with Project (General Plan Update) operating conditions of the study conditions. The resulting ICU values and the corresponding peak hours levels of service are summarized in **Table 5.16-6, Buildout Year 2035 With Project: Intersection Operations.**

Table 5.16-6
Buildout Year 2035 With Project: Intersection Operations

Intersection	AM Peak Hour				PM Peak Hour				
	Without Project		With Project		Without Project		With Project		
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	Impact?
Rose Dr at Imperial Highway	0.736	C	0.738	C	1.001	**F**	1.001	**F**	**Yes**
Rose Dr at Bastanchury Rd	0.669	B	0.677	B	0.663	B	0.674	B	No
Rose Dr at Yorba Linda Blvd	0.778	C	0.783	C	0.773	C	0.792	C	No
Imperial Highway at Bastanchury Rd	0.880	D	0.887	D	0.775	C	0.799	C	No
Valley View Ave at Bastanchury Rd	0.635	B	0.635	B	0.606	B	0.606	B	No
Valley View Ave at Imperial Highway	0.650	B	0.656	B	0.697	B	0.722	C	No
Valley View Ave at Yorba Linda Blvd	0.578	A	0.580	A	0.759	C	0.759	C	No
Richfield Rd at Yorba Linda Blvd	0.478	A	0.478	A	0.435	A	0.422	A	No
Richfield Rd at Buena Vista Ave	0.532	A	0.532	A	0.482	A	0.482	A	No
Lakeview Ave at Bastanchury Rd	0.416	A	0.416	A	0.529	A	0.529	A	No
Imperial Highway at Yorba Linda Blvd	0.990	**E**	0.991	**E**	0.974	**E**	1.000	**E**	**Yes**
Lakeview Ave at Yorba Linda Blvd	0.526	A	0.531	A	0.580	A	0.590	A	No
Lakeview Ave at Buena Vista Ave	0.590	A	0.592	A	0.646	B	0.661	B	No
Kellogg Dr at Yorba Linda Blvd	0.341	A	0.390	A	0.385	A	0.471	A	No
Kellogg Dr at Imperial Highway (North)	0.494	A	0.500	A	0.398	A	0.401	A	No
Kellogg Dr at Imperial Highway (South)	0.528	A	0.530	A	0.343	A	0.349	A	No
Fairmont Blvd at Bastanchury Rd	0.736	C	0.736	C	0.567	A	0.567	A	No
Fairmont Blvd at Yorba Linda Blvd	0.579	A	0.615	B	0.553	A	0.677	B	No
Fairmont Blvd at Paseo de las Palomas	0.324	A	0.327	A	0.340	A	0.350	A	No
Fairmont Blvd (South) at Village Center Dr	0.448	A	0.448	A	0.523	A	0.523	A	No
Village Center Dr at Fairmont Blvd (North)	0.056	A	0.056	A	0.059	A	0.059	A	No
Village Center Dr at Bastanchury Rd	0.523	A	0.523	A	0.501	A	0.501	A	No
Village Center Dr at Yorba Linda Blvd	0.499	A	0.499	A	0.552	A	0.694	B	No
Village Center Dr at Paseo de las Palomas	0.218	A	0.218	A	0.195	A	0.195	A	No

Table 5.16-6 Buildout Year 2035 With Project: Intersection Operations									
	AM Peak Hour				PM Peak Hour				
	Without Project		With Project		Without Project		With Project		
Intersection	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	Impact?
Paseo de las Palomas at Yorba Linda Blvd	0.334	A	0.438	A	0.470	A	0.612	B	No
San Antonio Rd at Yorba Linda Blvd	0.473	A	0.551	A	0.476	A	0.635	B	No
Yorba Linda Ranch Rd at Yorba Linda Blvd	0.483	A	0.639	B	0.469	A	0.759	C	No
Yorba Ranch Rd at Esperanza Rd	0.131	A	0.184	A	0.201	A	0.314	A	No
Yorba Linda Blvd at La Palma Ave	0.583	A	0.787	C	0.715	C	0.931	**E**	**Yes**
Yorba Linda Blvd at Savi Ranch Parkway	0.562	A	1.177	**F**	1.059	**F**	1.884	**F**	**Yes**

ICU = Intersection Capacity Utilization; LOS = Level of Service
Bold and shaded values indicate deficient levels of service
Source: Kimley-Horn 2016.

The traffic study area intersections are forecasted to operate at an acceptable level of service (LOS D or better) with the exception of the following intersections:

- Rose Drive at Imperial Highway: LOS F in the PM
- Imperial Highway at Yorba Linda Boulevard: LOS E in the AM and PM
- Yorba Linda Boulevard at La Palma Avenue: LOS E in the PM
- Yorba Linda Boulevard at Savi Ranch Parkway: LOS F in the AM and PM

Buildout 2035 roadway volumes were compared to roadway capacity to assess Buildout 2035 levels of service. The resulting volumes and associated v/c ratios and LOS are summarized in **Table 5.16-7, Buildout Year 2035 With Project: Roadway Segment.** The following roadway segments would operate at a deficient level of service at General Plan buildout in 2035:

- Imperial Highway (Rose Drive to Valley View Avenue)
- Imperial Highway (Yorba Linda Boulevard to Kellogg Drive)
- Imperial Highway (Kellogg Drive to Orangethorpe Avenue)
- Yorba Linda Boulevard (Village Center Drive to Paseo de las Palomas)
- Yorba Linda Boulevard (Paseo de las Palomas to New River Road)

These roadways are either Primary or Major Arterials in the Buildout scenarios, serving a substantial amount of cross-city and/or through traffic.

Table 5.16-7
Buildout Year 2035 With Project: Roadway Segments

Roadway	Segment	Without Project				With Project				
		Capacity	Traffic Volume	V/C	LOS	Project Traffic	Traffic Volume	V/C	LOS	Impact?
Imperial Highway	Rose Dr to Valley View Ave	56,300	50,964	0.905	**E**	2,552	53,516	0.951	**E**	**Yes**
	Valley View Ave to Yorba Linda Blvd	56,300	39,701	0.705	C	2,552	42,253	0.750	C	No
	Yorba Linda Blvd to Kellogg Dr	37,500	40,246	1.073	**F**	446	40,692	1.085	**F**	**Yes**
	Kellogg Dr to Orangethorpe Ave	37,500	46,836	1.249	**F**	446	47,282	1.261	**F**	**Yes**
Bastanchury Road	Rose Dr to Imperial Hwy	37,500	15,768	0.420	A	288	16,056	0.428	A	No
	Imperial Hwy to Lakeview Ave	25,000	15,653	0.626	B	0	15,653	0.626	B	No
	Lakeview Ave to Fairmont Blvd	37,500	17,008	0.454	A	0	17,008	0.454	A	No
	Fairmont Blvd to Village Center Dr	25,000	10,472	0.419	A	0	10,472	0.419	A	No
Yorba Linda Boulevard	Rose Dr to Valley View Ave	56,300	22,117	0.393	A	862	22,979	0.408	A	No
	Valley View Ave to Imperial Hwy	56,300	18,385	0.327	A	862	19,247	0.342	A	No
	Lakeview Ave to Fairmont Blvd	56,300	20,520	0.364	A	8,022	28,542	0.507	A	No
	Fairmont Blvd to Village Center Dr	37,500	16,149	0.431	A	13,900	30,049	0.801	C	No
	Village Center Dr to Paseo de las Palomas	37,500	20,621	0.550	A	13,900	34,521	0.921	**E**	**Yes**
	Paseo de las Palomas to New River Rd	37,500	22,570	0.602	A	21,546	44,116	1.176	**F**	**Yes**
Buena Vista Avenue	Rose Dr to Lakeview Ave	25,000	7,904	0.316	A	0	7,904	0.316	A	No

Table 5.16-7 Buildout Year 2035 With Project: Roadway Segments										
		Without Project				With Project				
Roadway	Segment	Capacity	Traffic Volume	V/C	LOS	Project Traffic	Traffic Volume	V/C	LOS	Impact?
Esperanza Road	Fairmont Blvd to Paseo del Prado	37,500	11,270	0.301	A	9,288	20,558	0.548	A	No
	Paseo del Prado to New River Rd	37,500	8,732	0.233	A	8,990	17,722	0.473	A	No
Rose Drive	Imperial Hwy to Bastanchury Rd	56,300	19,690	0.350	A	1,104	20,794	0.369	A	No
	Bastanchury Rd to Yorba Linda Blvd	56,300	19,704	0.350	A	632	20,336	0.361	A	No
	Yorba Linda Blvd to Buena Vista Ave	56,300	24,097	0.428	A	604	24,701	0.439	A	No
Valley View Avenue	Bastanchury Rd to Yorba Linda Blvd	25,000	11,702	0.468	A	0	11,702	0.468	A	No
Richfield Road	Yorba Linda Blvd to Buena Vista Ave	25,000	11,538	0.462	A	0	11,538	0.462	A	No
Lakeview Avenue	Bastanchury Rd to Yorba Linda Blvd	25,000	14,287	0.571	A	576	14,863	0.595	A	No
	Yorba Linda Blvd to Buena Vista Ave	37,500	15,009	0.400	A	576	15,585	0.416	A	No
	South of Buena Vista Ave	37,500	11,143	0.297	A	576	11,719	0.313	A	No
Kellogg Drive	Yorba Linda Blvd to Imperial Hwy	25,000	10,111	0.404	A	1,030	11,141	0.446	A	No
Fairmont Blvd	Village Center Dr N to Bastanchury Rd	37,500	9,911	0.264	A	0	9,911	0.264	A	No
	Bastanchury Rd to Yorba Linda Blvd	37,500	10,613	0.283	A	0	10,613	0.283	A	No
	Yorba Linda Blvd to Paseo de las Palomas	37,500	13,493	0.360	A	7,772	21,265	0.567	A	No

Table 5.16-7
Buildout Year 2035 With Project: Roadway Segments

Roadway	Segment	Without Project				With Project				
		Capacity	Traffic Volume	V/C	LOS	Project Traffic	Traffic Volume	V/C	LOS	Impact?
	Paseo de las Palomas to Village Center Dr S	37,500	14,197	0.379	A	730	14,927	0.398	A	No
	Village Center Dr S to Fairmont Connector	56,300	26,231	0.466	A	0	26,231	0.466	A	No
Village Center Drive	Fairmont Blvd to Yorba Linda Blvd	25,000	12,865	0.515	A	0	12,865	0.515	A	No
	Yorba Linda Blvd to Paseo de las Palomas	25,000	6,009	0.240	A	0	6,009	0.240	A	No
	Paseo de las Palomas to Fairmont Blvd	25,000	10,661	0.426	A	0	10,661	0.426	A	No
Yorba Ranch Road	Yorba Linda Blvd to Esperanza Rd	25,000	1,429	0.057	A	298	1,727	0.069	A	No

V/C = Volume-to-Capacity ratio; LOS = Level of Service
Bold and shaded values indicate a deficient level of service.
Source: Kimley-Horn 2016.

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As summarized in Table 5.16-6 and 5.16-7, without improvements/mitigation, implementation of the General Plan Update would cause some intersections and roadway segments to operate at deficient levels of service, resulting in significant traffic impacts. Improvements are identified that would achieve improved levels of service under buildout conditions at the deficient traffic study area intersections. **Table 5.16-8, Buildout Year 2035 with Project: Intersection Operations with Proposed Improvements** summarizes intersection operations before and after implementation of these improvements. These improvements are:

- Rose Drive at Imperial Highway: Add third northbound land on Rose Drive. Although the intersection would continue to operate at a deficient level of service during the PM peak hour, this improvement would improve the evening peak hour level of service from LOS F to LOS E.
- Imperial Highway at Yorba Linda Boulevard: Add a dedicated eastbound right-turn lane with overlap. With is improvement, the intersection would operate at LOS D during both peak hours.
- Yorba Linda Boulevard at La Palma Avenue: Add dedicated southbound right-turn lane on Yorba Linda Boulevard. Although the intersection would continue to operate a deficient level of service during the evening peak hour, this improvement would provide an improvement in overall intersection capacity.
- Yorba Linda Boulevard at Savi Ranch Parkway: Currently built to ultimate configuration.

Table 5.16-8
Buildout Year 2035 With Project: Intersection Operations with Proposed Improvements

Intersection	AM Peak Hour				PM Peak Hour			
	Without Improvements		With Improvements		Without Improvements		With Improvements	
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
Rose Dr at Imperial Highway	0.738	C	0.738	C	1.001	**F**	0.936	**E**
Imperial Highway at Yorba Linda Blvd	0.991	**E**	0.829	D	1.000	**E**	0.822	D
Yorba Linda Blvd at La Palma Ave	0.787	C	0.783	C	0.931	**E**	0.931	**E**
Yorba Linda Blvd at Savi Ranch Parkway	1.177	**F**	1.177	**F**	1.884	**F**	1.884	**F**

ICU = Intersection Capacity Utilization; LOS = Level of Service
Bold and shaded values indicate deficient levels of service.
Source: Kimley-Horn 2016.

Since the acceptable threshold for roadway segments is LOS C, five of the study roadway segments are considered impacted. **Table 5.16-9, Buildout Year 2035 with Project: Roadway Segments Operations with Proposed Improvements** summarizes the roadway segments operations before and after implementation of these improvements. These improvements are:

- The roadway segments of Imperial Highway from Yorba Linda Boulevard to Kellogg Drive and Yorba Linda Boulevard from Fairmont Boulevard to New River Road would be widened to six lanes in order to achieve acceptable daily levels of service. The roadway segment of Imperial Highway

from Kellogg Drive and Orangethorpe Avenue would also need to be widened to six lanes to achieve LOS D.

  - Traffic volumes would increase gradually over time, such that widening would not be an immediate action the City would need to implement. Rather, the City should monitor traffic growth, and be prepared to act when the levels of congestion are reached such that widening becomes essential.
  - To the extent that future development to the need for widening, a fair-share contribution to the cost of the widening can be made a condition of approval for that development.

- The segment of Imperial Highway from Rose Drive to Yorba Linda Boulevard is already built to six lanes. The increase in traffic on this segment reflects traffic demands due to new development, as well as increases in regional traffic destined for the freeway.
  - Further widening on this roadway segment could have significant land use implications.
  - Instead, traffic control system improvements such as coordinated signals should be implemented to enhance traffic flow and reduce traffic delays at signalized intersections.
  - With these measures, traffic operating conditions on this segment can be maintained to acceptable levels.

Table 5.16-9
Buildout Year 2035 with Project: Roadway Segments Operations with Proposed Improvements

Roadway	Segment	Without Improvement		With Improvement	
		V/C	LOS	V/C	LOS
Imperial Highway	Rose Dr to Valley View Ave	0.951	**E**	0.951	**E**
	Yorba Linda Blvd to Kellogg Dr	1.085	**F**	0.723	C
	Kellogg Dr to Orangethorpe Ave	1.261	**F**	0.840	**D**
Yorba Linda Boulevard	Village Center Dr to Paseo de las Palomas	0.921	**E**	0.613	B
	Paseo de las Palomas to New River Rd	1.176	**F**	0.784	C

V/C = Volume-to-Capacity ratio; LOS = Level of Service
Bold and shaded values indicate a deficient level of service
Source: Kimley-Horn 2016.

As summarized in Tables 5.16-6 and 5.16-7, without mitigation, implementation of the General Plan Update would cause some intersections and roadway segments to operate at deficient levels of service, resulting in significant traffic impacts. As summarized in Tables 5.16-8 and 5.16-9, implementation of General Plan Update policies and mitigation measures would reduce some impacts to significantly impacted intersections and roadway segments. However, impacts to the three identified intersections and two identified roadway segments would remain significant and unavoidable. Applicable measures are provided at the end of this EIR section.

Proposed General Plan Update Goals and Policies

The proposed Yorba Linda General Plan Update would include the following applicable goals and policies related to traffic.

Circulation Element

Policy CR-1.1	Develop and maintain a road system that is based upon, and is in balance with, the Land Use Element of the General Plan.
Policy CR-1.2	Utilize a roadway classification system that is based on functional hierarchy and conforms to the Orange County Transportation Authority's roadway classification system to the greatest extent possible.
Policy CR-1.3	Develop street design standards that conform with Caltrans and Orange County Transportation Authority Highway Design Manuals to the greatest extent feasible.
Policy CR-1.4	Maintain a Level of Service (LOS) "D" or better along all City arterials and at intersections during peak hours.
Policy CR-1.5	Minimize intrusion of commuter traffic on local streets through residential neighborhoods.
Policy CR-1.6	Provide, where feasible, increased east-west traffic capacity through the City.
Policy CR-1.7	Review new development or redevelopment projects adjacent to established residential neighborhoods for potential traffic intrusion impacts.
Policy CR-1.8	Work jointly with adjacent jurisdictions to achieve capacity improvements for intersections outside of the City, that have significant impacts on the community.
Policy CR-1.9	Inventory existing bridge conditions and prioritize necessary improvements to maintain adequate capacity and safety.
Policy CR-2.1	Coordinate and maintain partnerships with surrounding cities and regional agencies for an efficient and effective circulation system.
Policy CR-2.2	Maintain an Arterial Highway System in the City that is in conformance with the Orange County Master Plan of Arterial Highways, to the greatest extent possible.
Policy CR-2.3	Continue to support the addition of capacity enhancement improvements such as high occupancy vehicle lanes, general purpose lanes and auxiliary lanes to the Riverside Freeway (SR 91).
Policy CR-2.4	Continue to participate in regional transportation planning efforts to coordinate priorities with neighboring jurisdictions.
Policy CR-3.1	Coordinate with a broad range of regional and state agencies to promote and support Transportation Demand Management (TDM) strategies and programs.
Policy CR-3.2	Provide for safe and efficient traffic operations, by maintaining City standards for the installation and operations of traffic control devices.
Policy CR-3.3	Continue to adhere to OCTA's Congestion Management Program.
Policy CR-3.5	Effectively operate and maintain transportation facilities and infrastructure to improve system capacity and meet traffic demand.

Policy CR-3.6	Promote the reduction of single occupant vehicle trips, through transportation demand management programs, such as ridesharing, telecommuting, and parking management.
Policy CR-3.7	Ensure the circulation system promotes a wide variety of travel modes to serve the greatest cross section of residents, employees and businesses.
Policy CR-5.1	Continue to work with the Orange County Transportation Authority (OCTA) to promote the development of additional regional public transportation services and support facilities that will serve those who live and work in Yorba Linda.
Policy CR-5.2	Encourage public and private shuttle services to provide greater transit choices.
Policy CR-7.1	Maintain the City's official truck routes to minimize the impacts of truck traffic on residential neighborhoods and other sensitive land uses.
Policy CR-7.2	Seek to minimize noise and other impacts of truck traffic, deliveries, and staging in residential and mixed-use neighborhoods.
Policy CR-7.3	Provide sufficient truck loading areas to minimize interference of truck traffic with efficient traffic circulation.
Policy CR-7.4	Maintain the current truck weight limitation ordinance as part of the municipal code and implement provisions for enforcement, including development of traffic indices and pavement structural strength evaluation.
Policy CR-9.1	Monitor parking supply and utilization to identify deficiencies or conflicts with the movement of traffic as they develop.
Policy CR-9.2	Promote the development and maintenance of adequate parking facilities commensurate with parking demand.
Policy CR-9.3	Promote the maintenance of existing off-street parking facilities.
Policy CR-9.4	Ensure parking facilities for new development to reduce or eliminate reliance on off-street facilities for parking needs.
Policy CR 10.1	Establish model street network cross sections and design guidance that promote multimodal travel in Yorba Linda.
Policy CR 10.3	Promote incorporation of Complete Streets concepts when designing new roadways or making improvements to existing roadways in conjunction with new development.
Policy CR 10.5	When developing model Complete Street cross sections, promote the participation of various user groups.
Policy CR 10.6	Consider reducing the number of lanes where existing infrastructure or site conditions limits the ability to construct Complete Streets.
Policy CR 10.7	Coordinate with the County of Orange for potential complete street improvements within the City's Sphere of Influence

Policy CR 10.8 Ensure any future improvements to the transportation system are integrated with the city's existing and future bikeway and trail systems.

Policy CR 10.9 Promote and prioritize complete streets where improvements to existing roadways will demonstrably improve integration with the City's bike and trail system.

Policy CR 10.11 Prioritize opportunities for complete streets integration into the General Plan Focus Areas.

Policy CR 11.1 Investigate additional sources of funding and support the development of a stable, dedicated funding source to provide continuing maintenance, operation, and management of the City's transportation network.

Policy CR 11.2 Work with Caltrans and adjacent jurisdictions to identify funding for improvements that address cumulative effects of planned development on the freeway system.

Growth Management Element

Policy GM-2.1 Maintain a Level of Service "D" or better along all City arterials and at intersections during peak hours.

Policy GM-2.2 Ensure that new development pays its fair share of street improvement costs associated with local and regional traffic mitigation.

Policy GM-2.3 Integrate land use and transportation planning to provide adequate transportation system service standards.

Policy GM-2.4 Adopt and maintain a seven-year CIP in conformance with the provisions of Measure M for the purpose of maintaining the LOS standards established in this Element.

Policy GM-2.5 Maintain consistency with the County of Orange Congestion Management Plan and Master Plan of Arterial Highways pursuant to the requirement of state law to continue to receive State gasoline sales tax revenues

Mitigation Measures

MM TRA-1 Rose Drive at Imperial Highway: Add third northbound through lane on Rose Drive.

MM TRA-2 Imperial Highway at Yorba Linda Boulevard: Add a dedicated eastbound right-turn lane with overlap.

MM TRA-3 Yorba Linda Boulevard at La Palma Avenue: Add a dedicated southbound right-turn lane on Yorba Linda Boulevard.

MM TRA-4 The roadway segments of Imperial Highway from Yorba Linda Boulevard to Kellogg Drive and Yorba Linda Boulevard from Fairmont Boulevard to New River Road would be widened to six lanes in order to achieve acceptable daily LOS.

MM TRA-5 The City shall monitor traffic growth, and act when levels of congestion are reached such that widening becomes essential to maintain acceptable daily LOS.

MM TRA-6 A fair-share contribution to the cost of widening shall be made a condition of approval for future developments which contributes to the need for widening.

MM TRA-7 The City shall implement traffic control system improvements to help expedite access to and from the freeway on Imperial Highway from Rose Drive to Yorba Linda Boulevard.

Level of Significance After Mitigation

Implementation of the General Plan Update would result in significant unavoidable impacts under Buildout 2035 conditions.

Impact 5.16-2: Implementation of the General Plan Update would not exceed standards established by the Orange County Congestion Management Plan [Threshold TRA-2].

Impact Analysis

Cities are obligated to maintain minimum level of service standards (LOS E or better) at CMP intersections, in order to remain eligible for funding for transportation improvements. Within the defined CMP highway network, no intersection may be allowed to deteriorate to a condition worse than LOS E, or the baseline LOS if it is worse than LOS E, without mitigation being prescribed in an acceptable deficiency plan.

As discussed above, within the City of Yorba Linda, the CMP Highway System includes two arterials: Rose Drive and Imperial Highway. There are no CMP monitoring intersections in the City. As seen in Table 5.16-6, only two intersections would operate below a LOS E with implementation of the General Plan (Yorba Linda Boulevard at Savi Ranch Parkway and Rose Drive at Imperial Highway). These intersections are not CMP intersections, therefore, impacts to CMP facilities would be less than significant.

Proposed General Plan Update Goals and Policies

The proposed Yorba Linda General Plan Update would include the following applicable goals and policies related to traffic.

Circulation Element

Policy CR-3.3 Continue to adhere to OCTA's Congestion Management Program.

Growth Management Element

Policy GM-2.5 Maintain consistency with the County of Orange Congestion Management Plan and Master Plan of Arterial Highways pursuant to the requirement of state law to continue to receive State gasoline sales tax revenues

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact

Impact 5.16-3: Implementation of the General Plan would not result in a change in air traffic patterns resulting in substantial safety risks [Threshold TRA-3].

Impact Analysis

There are no airports located within the Planning Area. The Corona Municipal Airport is located approximately 6 miles east of Yorba Linda, the Fullerton Municipal Airport is located 9 miles west of Yorba Linda, and John Wayne Airport is located approximately 14 miles south of the City. Due to the distance of the nearest airports to the Planning Area, implementation of the General Plan Update would not result in a change in air traffic patterns. Therefore, no significant impacts would occur in this regard.

Proposed General Plan Update Goals and Policies

There are no applicable General Plan Update goals or policies.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

Impact 5.16-4: Implementation of the General Plan would not result in increased hazards due to a design feature of incompatible uses [Threshold TRA-4].

Impact Analysis

Implementation of the General Plan Update is not anticipated to result in inadequate features or incompatible uses. Through the City's design review process, future development would be evaluated to determine the appropriate land use permit for authorizing their use and the conditions for their establishment and operation. At a minimum, compliance with relevant Municipal Code standards would be required. Therefore, implementation of the General Plan Update would not substantially increase hazards due to design features or incompatible uses. A less than significant impact would occur in this regard.

Future development projects would be evaluated on a case-by-case basis to ensure that adequate access and circulation to and within the development would be provided. Access to a development site would be required to comply with all City design standards and would be reviewed by the City and by the Orange County Fire Authority to ensure that insufficient design features and/or incompatible uses do not occur. The City and the Orange County Fire Authority would review future development in order to ensure that structures are designed to meet adopted standards and that adequate emergency access is provided. Therefore, implementation of the General Plan would not result in significant impacts involving insufficient design features or incompatible uses.

Proposed General Plan Update Goals and Policies

The proposed Yorba Linda General Plan Update would include the following applicable goals and policies related to hazards.

Circulation Element

Policy CR-8.1 Implement the HAZMAT route that is in conformance with HAZMAT and Emergency guidelines and complements the designated truck route policy of the City of Yorba Linda.

Policy CR-8.2 Require that the transportation of hazardous materials generated within the City be accomplished through the most direct route to the designated HAZMAT routes, the nearest designated HAZMAT Freeway, and the nearest appropriate HAZMAT disposal facility, as discussed in the Safety Element of the General Plan.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant

Impact 5.16-5: Implementation of the General Plan Update would not result in inadequate emergency access [Threshold TRA-5].

Impact Analysis

Inadequate emergency access can delay or prevent responders from arriving at an emergency location, thereby exacerbating an emergency situation leading to an increased potential loss of life and property. The General Plan Update does not include policies that would change standards related to emergency access. Implementation of the General Plan Update is not anticipated to result in inadequate emergency access. Future development projects would be required to comply with the City's Zoning Code. New development would be required to comply with all applicable fire code and ordinance review requirements for construction and access to the site. Individual projects would be reviewed by the Orange County Fire Authority to determine the specific fire requirements applicable to the specific development and to ensure compliance with these requirements. This would ensure that new developments would provide adequate emergency access to and from the site. Further, the City and the Orange County Fire Authority would review any modifications to existing roadways to ensure that adequate emergency access or emergency response would be maintained. Emergency response and evacuation procedures would be coordinated through the City in coordination with the police and fire departments, resulting in less than significant impacts.

Proposed General Plan Update Goals and Policies

The proposed Yorba Linda General Plan Update would include the following applicable goals and policies.

Circulation Element

Policy CR-8.1 Implement the HAZMAT route that is in conformance with HAZMAT and Emergency guidelines and complements the designated truck route policy of the City of Yorba Linda.

Policy CR-8.2 Require that the transportation of hazardous materials generated within the City be accomplished through the most direct route to the designated HAZMAT routes, the nearest designated HAZMAT Freeway, and the nearest appropriate HAZMAT disposal facility, as discussed in the Safety Element of the General Plan.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant

Impact 5.16-6: Implementation of the General Plan would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or decrease their performance or safety [Threshold TRA-6].

Impact Analysis

OCTA operates local public transit routes that extend into and through the City of Yorba Linda. Starting in October 2016, three bus routes would serve areas proximate to the City limit, Routes 30, 38, and 71. Implementation of the General Plan Update would not conflict with adopted policies, plans, or programs regarding public transit. Policies in the Circulation Element include promoting a safe, integrated, and efficient public transportation system. Therefore, impacts would be less than significant.

The City of Yorba Linda does not have a formal bicycle or pedestrian master plan. However, the City of Yorba Linda Parks and Recreation Master Plan includes walking trails and paths. Implementation of the General Plan Update would not conflict with the Parks and Recreation Master Plan. Specifically, Policy CR-6.3 of the General Plan Update requires that City to "support the recommendations and action strategies of the Parks and Recreation Master Plan for multi-purpose trails, equestrian facilities, and bikeways." Therefore, impacts would be less than significant.

Proposed General Plan Update Goals and Policies

The proposed Yorba Linda General Plan Update would include the following applicable goals and policies.

Policy CR-3.4 Promote employers to provide transit subsidies, bicycle facilities, alternative work schedules, ridesharing, telecommuting and work-at-home programs, employee education, and preferential parking for carpools/vanpools.

Policy CR-3.6 Promote the reduction of single occupant vehicle trips, through transportation demand management programs, such as ridesharing, telecommuting, and parking management.

Policy CR-3.7 Ensure the circulation system promotes a wide variety of travel modes to serve the greatest cross section of residents, employees and businesses.

Policy CR-5.3 Coordinate with the Orange County Transportation Authority (OCTA) to investigate potential locations for future "Park and Ride" facilities.

Policy CR-6.1	Promote the development and maintenance, where feasible, of safe and convenient non-motorized transportation and multi-purpose trails throughout the City.
Policy CR-6.2	Provide for safe pedestrian, bicycle, and equestrian access throughout the City.
Policy CR-6.3	Support the recommendations and action strategies of the Parks and Recreation Master Plan for multi-purpose trails, equestrian facilities, and bikeways.
Policy CR-6.4	Promote existing and new traffic generators to incorporate facilities, such as bicycle racks and storage, into the development.
Policy CR 10.1	Establish model street network cross sections and design guidance that promote multimodal travel in Yorba Linda.
Policy CR 10.2	Ensure future Complete Streets improvements are evaluated to ensure resident, bicyclist, equestrian, and pedestrian safety as a top priority.
Policy CR 10.3	Promote incorporation of Complete Streets concepts when designing new roadways or making improvements to existing roadways in conjunction with new development.
Policy CR 10.4	Promote and prioritize Complete Streets where improvements will demonstrably improve safety of sidewalk and bicycle access to schools.
Policy CR 10.5	When developing model Complete Street cross sections, promote the participation of various user groups.
Policy CR 10.6	Consider reducing the number of lanes where existing infrastructure or site conditions limits the ability to construct Complete Streets.
Policy CR 10.9	Promote and prioritize complete streets where improvements to existing roadways will demonstrably improve integration with the City's bike and trail system.
Policy CR 10.10	Incorporate design features and other techniques to improve neighborhood multimodal capabilities for pedestrians.
Policy CR 10.11	Prioritize opportunities for complete streets integration into the General Plan Focus Areas.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant

5.16.5 Cumulative Impacts

Cumulative traffic impacts are analyzed in terms of impacts within the City of Yorba Linda and impacts to the traffic system in neighboring communities. In order to evaluate future forecasts volumes on the roadway segments and at the study intersections in Yorba Linda for the Buildout Year 2035, regional baseline and Buildout traffic forecasts were obtained from the OCTAM. The traffic growth per intersection was applied to existing traffic volumes to general Buildout 2035 projected volumes. The Land Use Element of the proposed General Plan Update quantifies the current potential development in the General Plan's Focus Areas. The current remaining potential development in these focus areas represents the growth increment that was accounted for in the analysis of Buildout conditions.

Development associated with Buildout of the General Plan Update would involve an increase in residential and non-residential development above existing conditions. Table 5.16-7 and Table 5.16-8 identify four intersections and five roadway segments, respectively, that would operate at a deficient level of service with buildout of the General Plan Update. Implementation of Mitigation Measures TRA-1 through TRA-8 would reduce traffic impacts. However, buildout of the General Plan would cumulatively contribute to cumulatively considerable transportation and traffic impacts associated with the intersections and roadway sections identified in Impact 5.16-1.

5.16.6 Significant Unavoidable Impacts

The General Plan Update would result in significant and unavoidable impacts associated with deficient operation of the following intersections and roadway segments:

- Rose Drive at Imperial Highway: LOS F in the PM
- Yorba Linda Boulevard at La Palma Avenue: LOS E in the PM
- Yorba Linda Boulevard at Savi Ranch Parkway: LOS F in the AM and PM
- Imperial Highway (Rose Drive to Valley View Avenue)
- Imperial Highway (Kellogg Drive to Orangethorpe Avenue)

All other impacts related to transportation and traffic associated with implementation of the General Plan Update would be less than significant with compliance with the policies in the General Plan Update.