

5.3 TRANSPORTATION/TRAFFIC

This section describes existing traffic conditions and evaluates potential impacts to transportation and traffic due to implementation of the UID SPA Plan. This EIR tiers from the Previous Environmental Review Documents, as described in Chapter 2.0, *Introduction*. Both documents identified significant but mitigable impacts to roadway and freeway segments in the City of Chula Vista with the payment of fees (SEIR 09-01) for the Main Campus Property and with the requirement for a future detailed traffic analysis for the Lake Property (SEIR 01-01). Unmitigable impacts were identified in SEIR 09-01 for impacts on City of San Diego roadway segments.

The traffic analysis contained in this section is primarily based on the Project's Traffic Impact Analysis (TIA) prepared by Linscott, Law & Greenspan, Engineers (LLG; 2017), which is included as Appendix B to this EIR. This report updates the information contained in the 2001 and 2013 SEIRs and includes updated mitigation measures based on current traffic conditions in the Project vicinity that are equivalent to or better than measures included in prior environmental review. The traffic analysis includes both Project-generated traffic and traffic that would be generated by cumulative growth through buildout of the UID SPA Plan. Therefore, the Project's direct and cumulative traffic impacts are addressed in this section in greater detail and briefly summarized in Chapter 6.0, *Cumulative Impacts*.

5.3.1 Existing Conditions

A. Regulatory Framework

1. State

a. Statewide Transportation Improvement Program

The Statewide Transportation Improvement Program (STIP), run by the California Transportation Commission, is a multi-year, statewide, intermodal program of transportation projects that is consistent with the statewide transportation plan and planning processes, metropolitan plans, and Title 23 of the CFR. The latest version of the STIP was adopted on March 18, 2014, with the 2016 version currently under review. The STIP is prepared in cooperation with the California Department of Transportation (Caltrans), the metropolitan planning organizations, and the regional transportation planning agencies. In the County of San Diego, the regional transportation planning agency is the San Diego Association of Governments (SANDAG). The STIP contains all capital and non-capital transportation projects or identified phases of transportation projects for funding under the Federal Transit Act and Title 23 of the CFR, including federally funded projects.

b. Interregional Transportation Improvement Program

The 2016 Interregional Transportation Improvement Program (ITIP) was approved by Caltrans in December 2015. California Government Code Section 14526 specifies that the purpose of the ITIP is to fund projects that improve interregional movement for people and goods across California on the State Highway System and develop Intercity Passenger Rail corridors of strategic importance. The ITIP is one of many state funding programs that collectively invest in transportation infrastructure, maintenance and operations and is prepared by Caltrans for submittal to the

California Transportation Commission to assist with recommendations for projects in the STIP described above.

c. Congestion Management Program

The Congestion Management Program was enacted by the state legislature in 1989 to improve traffic congestion in urbanized areas. The program became effective with the passage of state Proposition 111 in June 1990, which increased the state gas tax. The increase in funds generated by the tax is advanced to cities and counties for regulating road improvements, provided that a Congestion Management Program is in place. If a city does not comply with the Congestion Management Program, it could lose funding under Proposition III. Under the program, regional agencies within each county are designated to prepare and administer the Congestion Management Program.

The San Diego County Congestion Management Program is a part of SANDAG's Regional Transportation Plan. The purpose of the management program is to monitor the performance of the region's transportation system, develop programs to address near-term and long-term congestion, and better integrate transportation and land use planning. The San Diego region has elected to be exempt from California's Congestion Management Program. As a result, existing monitoring, threshold levels, guidelines and mitigation strategies are incorporated into other SANDAG plans and/or programs.

2. Regional

SANDAG serves as the forum for decision-making on regional issues such as growth, transportation, land use, economy, environment, and criminal justice. SANDAG builds consensus, makes strategic plans, obtains, and allocates resources, and provides information on a broad range of topics pertinent to the region's quality of life. SANDAG is governed by a Board of Directors composed of mayors, council members, and supervisors from each of the San Diego region's 19 local governments.

As the metropolitan planning organization and regional transportation planning agency for the San Diego region, SANDAG has produced the following documents that identify transportation plans and policies in the San Diego area.

a. San Diego Forward – The Regional Plan

San Diego Forward: The Regional Plan (The Regional Plan) was adopted by SANDAG on October 9, 2015. The Regional Plan combines and updates two regional planning documents, the 2004 Regional Comprehensive Plan and the 2011 RTP/SCS, into a unified document to guide regional growth between 2015 and 2050. The Regional Plan unites land use and transportation planning by incorporating local planning efforts with regional transportation planning and also identifies investments in public transportation, bike paths, and pedestrian improvements in the region. The Regional Plan includes a number of elements, one of which is the SCS. Required by state law (SB 375), the primary purpose of the SCS is to show how development patterns and our transportation system will work together to reduce GHG emissions for cars and light trucks, providing a more sustainable future for our region.

The SCS includes five building blocks:

- A land use pattern that accommodates the region’s future employment and housing needs, and protects sensitive habitats and resource areas.
- A transportation network of public transit, managed lanes and highways, local streets, bikeways, and walkways built and maintained with reasonably expected funding.
- Management of the demands on the regional transportation system (Transportation Demand Management [TDM]) in ways that reduce or eliminate traffic congestion during peak periods of demand.
- Management of the transportation system (Transportation System Management [TSM]) through measures that maximize the overall efficiency of the transportation network.
- Innovative pricing policies and other measures designed to reduce the number of miles people travel in their vehicles, as well as traffic congestion during peak periods of demand.

b. 2014 Regional Transportation Improvement Program

The Regional Transportation Improvement Program (RTIP) is a multi-year program of proposed major highway, arterial, transit, and bikeway projects. The 2014 RTIP is a prioritized program designed to implement the region’s overall strategy for providing mobility and improving the efficiency and safety of efforts to attain federal and state air quality standards for the region. The 2014 RTIP also incrementally implements the 2011 Regional Transportation Plan. The 2014 RTIP covers fiscal years 2014/2015 to 2018/2019. The 2014 RTIP was adopted on September 26, 2014.

3. Local

a. City of San Diego Facility Benefit Assessment

City Ordinance No. O-15318 was adopted by the San Diego City Council on August 25, 1980 to establish the procedure for implementing a Facilities Benefit Assessment (FBA). Additionally, the FBA is established, increased, imposed, and collected in accordance with the California Government Code section 66000 et seq. The FBA provides funding for public facilities projects that serve a designated area, also known as the area of benefit.

b. City of Chula Vista General Plan

The Chula Vista General Plan, known as Vision 2020, was adopted by the City on December 13, 2005 (Chula Vista 2005a). The Chula Vista General Plan contains objectives and policies in the Land Use and Transportation Element that support transit (Objective LUT 17), encourage alternative transportation measures (Objectives LUT 18 and LUT 23), encourage regional transportation coordination (Objective LUT 19), develop transit-friendly roads (Objective LUT 20), support parking management policies (Objectives LUT 30 through LUT 33), and ensure pedestrian-oriented environments (Objective LUT 63). The 2013 GPA included changes to the adopted Circulation Plan, including road reclassifications, renaming of Rock Mountain Road,

elimination of the southerly extension of La Media Road, and establishing an acceptable level of service for town centers.

c. Chula Vista Municipal Code

The City's Municipal Code establishes a Transportation Development Impact Fee (TDIF) in Chapter 3.54 to pay for transportation improvements and facilities within the Eastern Territories of the City and requires payment prior to the issuance of building permits for development. Section 3.54.030 lists the transportation facilities to be financed by the fees collected and includes a total of 72 roadways within the City.

In addition, Chapter 12.24, *Dedications*, of the City's Municipal Code imposes reasonable requirements upon developers of traffic-generating developments within the City to mitigate potential dangers associated with the (1) lack of sidewalks; (2) moving, high, and stagnant waters during the rainy season; (3) streets of inadequate widths; (4) poor drainage due to the lack of curbs, storm drain facilities and improved alleys; and (5) inadequate street lighting, to the extent reasonably possible.

d. Otay Ranch General Development Plan

The Otay Ranch General Development Plan (GDP), originally adopted on October 28, 1993 and most recently amended on May 26, 2015, includes goals, objectives, and policies to guide development of a circulation system in Otay Ranch. The GDP envisions a safe, efficient, multi-modal transportation network that reduces reliance on the automobile. The GDP encourages development that integrates residential and commercial uses with a mobility system that accommodates alternative modes of transportation and is organized to create a pedestrian friendly community. The GDP includes policies related to transit, street systems within town centers, and parking.

e. City of Chula Vista Traffic Study Guidelines

There are various methodologies used to analyze signalized intersections, unsignalized intersections, and street segments. The measure of effectiveness for intersection and segment operations in the City of Chula Vista is Level of Service (LOS) which denotes the operating conditions which occur at a given intersection or on a given roadway segment under various traffic volume loads. It is a qualitative measure used to describe a quantitative analysis taking into account factors such as roadway geometries, signal phasing, speed, travel delay, freedom to maneuver, and safety. LOS provides an index to the operational qualities of a roadway segment or an intersection. LOS designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst. Level of service designation is reported differently for signalized and unsignalized intersections, as well as for roadway segments.

Intersections

In the 2000 Highway Capacity Manual (HCM), Level of Service for signalized intersections is defined in terms of delay. The level of service analysis results in seconds of delay expressed in terms of letters A through F. Delay is a measure of driver discomfort, frustration, fuel consumption, and lost travel time.

In accordance with City requirements, the 2000 HCM methodology for signalized and unsignalized intersections is used to determine the operating level of service of intersections. The methodology in the manual describes the operation of an intersection using a range of LOS A (free-flow conditions) to LOS F (severely congested conditions), based on corresponding average stopped delay per vehicle, as shown in Table 5.3-1, *Intersection LOS and Delay Ranges*.

Table 5.3-1 INTERSECTION LOS AND DELAY RANGES

LOS	Delay (seconds/vehicle)	
	Signalized Intersections	Unsignalized Intersections
A	≤ 10.0	≤ 10.0
B	10.1 to 20.0	10.1 to 15.0
C	20.1 to 35.0	15.1 to 25.0
D	35.1 to 55.0	25.1 to 35.0
E	55.1 to 80.0	35.1 to 50.0
F	≥ 80.1	≥ 50.1

Source: 2000 Highway Capacity Manual

Roadway Segments

Roadway segment analyses are based upon roadway classifications and capacity thresholds as defined in the Chula Vista Transportation Element. Roadway segment level of service criteria are shown in Table 5.3-2, *City of Chula Vista Roadway Capacity Standards – Average Daily Vehicle Trips*.

Table 5.3-2 CITY OF CHULA VISTA ROADWAY CAPACITY STANDARDS – AVERAGE DAILY VEHICLE TRIPS

Road Roadway Classification	Level of Service				
	A (V/C = 0.6)	B (V/C = 0.7)	C (V/C = 0.8)	D (V/C = 0.9)	E (V/C = 1.0)
Expressway	52,000	61,300	70,000	78,800	87,500
Prime Arterial	37,500	43,800	50,000	56,300	62,500
Major Street (6 lanes)	30,000	35,000	40,000	45,000	50,000
Major Street (4 lanes)	22,500	26,300	30,000	33,800	37,500
Class I Collector	16,500	19,300	22,000	24,800	27,500
Class II Collector	9,000	10,500	12,000	13,500	15,000
Class III Collector	5,600	6,600	7,500	8,400	9,400

Source: Chula Vista General Plan (2005)

V/C = volume/capacity ratio

B. Existing Traffic and Circulation Conditions

Intersections and roadway segments throughout the Project vicinity were evaluated as part of the TIA for the Project. A Select Zone Analysis (SZA) was conducted to distribute the project traffic based upon which the extent of the study area was determined (LLG 2017). Intersections and roadways where the Project would contribute 800 or more daily trips or 50 or more peak hour trips

in either direction were included as study intersections for analysis. Freeway segments where the Project would add 2,400 or more daily trips or 150 or more peak hour trips in either direction were also included in the Project study area. The following discussion provides a description of the existing conditions for these roadway segments and intersections, and where applicable, future improvements planned for these roadways or intersections.

1. Roadway Segments

A description of existing and future roadways for the UID is provided below, divided under each jurisdiction (City of Chula Vista, City of San Diego, County of San Diego, and Caltrans). Future roadway conditions are provided in this section to provide context for the analysis of Project impacts under future conditions. Roadway segments can be seen in Figure 5.3-1, *Traffic Study Area*.

a. City of Chula Vista

Bonita Road: Bonita Road is currently a two-lane roadway with a center two-way left turn lane. The posted speed limit along this facility is 40 miles per hour (mph). Curb, gutter, and sidewalks are provided intermittently. Bonita Road is classified as a four-lane Major Road in the City of Chula Vista General Plan Circulation Element.

Proctor Valley Road: Proctor Valley Road is currently a two-lane unclassified roadway between San Miguel Road and San Miguel Ranch Road in the County. Between Mt. Miguel Road and Hunte Parkway, Proctor Valley Road is built as a six-lane Prime Arterial in Chula Vista. The posted speed limit along this facility is 35 mph. Curb, gutter, and sidewalks are provided intermittently and includes Class II bike lanes. Proctor Valley Road is classified as a six-lane Prime Arterial in the City of Chula Vista General Plan Circulation Element.

San Miguel Ranch Road: San Miguel Ranch Road is currently a four-lane roadway with a center two-way left turn lane. The posted speed limit along this facility is 35 mph. Curb, gutter, and sidewalks are provided intermittently. San Miguel Ranch Road is classified as a Class I Collector in the City of Chula Vista General Plan Circulation Element and includes Class II bike lanes.

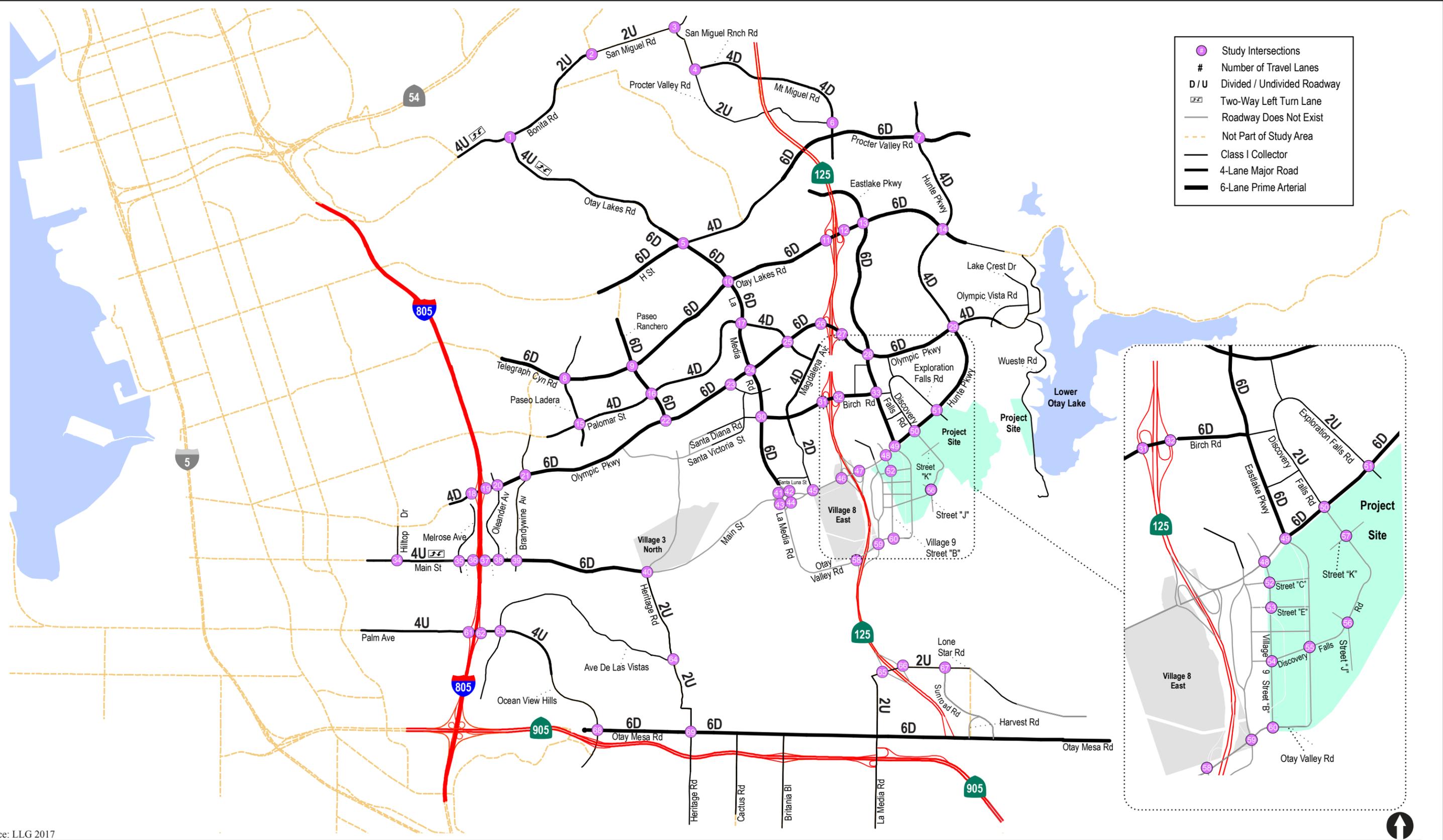
East H Street: East H Street is a six-lane roadway with a raised median, Class II bike lanes and a 50-mph posted speed limit west of Otay Lakes Road, and a four-lane roadway with a raised median, Class II bike lanes and a 35-mph posted speed limit east of Otay Lakes Road. East H Street is classified as a six-lane Prime Arterial west of Otay Lakes Road.

East L Street/Telegraph Canyon Road: L Street is a four-lane roadway west of I-805. L Street becomes Telegraph Canyon Road at I-805, where it is a seven-lane roadway between I-805 and Oleander Avenue, and a six-lane roadway with a raised median and Class II bike lanes between Oleander Avenue and Otay Lakes Road. The posted speed limit is 50 mph. This facility is classified in the City of Chula Vista General Plan Circulation Element as a six-lane Prime Arterial between Oleander Avenue and Otay Lakes Road.

Otay Lakes Road: The east/west portion of Otay Lakes Road runs from Telegraph Canyon Road/La Media Road to SR-94 in the unincorporated County. Within the study area, this facility is a six-lane roadway with a raised median and is mostly classified as a six-lane Prime Arterial in the

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Source: LLG 2017



Traffic Study Area

UNIVERSITY INNOVATION PROJECT EIR

Figure 5.3-1

City of Chula Vista General Plan Circulation Element with a posted speed of 50 mph and Class II bike lanes. The segment of Otay Lakes Road between Bonita Road and East H Street is a four-lane Major Road and the segment between SR-125 and Eastlake Parkway includes a seventh lane which is a trap lane, left-turn only headed westbound.

East Palomar Street: East Palomar Street is currently a four-lane roadway with a raised median and on-street parking on both sides with Class I bike path and Class II bike lane facilities. The posted speed limit along this facility is 35 mph. East Palomar Street east of I-805 is classified as a four-lane Major Road in the City of Chula Vista General Plan Circulation Element. The future South Bay BRT is proposed to travel along the median of East Palomar Street and access I-805 via Direct Access Ramps.

Orange Avenue/Olympic Parkway: Orange Avenue between Melrose Avenue and I-805 is a four-lane roadway with a raised median. Orange Avenue becomes Olympic Parkway at I-805 and widens to a six-lane roadway with a raised median until Hunte Parkway, with the exception of the segment between SR-125 and Eastlake Parkway that carries eight lanes. Between Hunte Parkway and Wueste Drive, Olympic Parkway narrows to a four-lane roadway with a raised median. Orange Avenue is classified as a four-lane Major Road in the Chula Vista General Plan Circulation Element. Olympic Parkway is classified as an eight-lane Prime Roadway between SR-125 and Eastlake Parkway and a six-lane Prime Arterial between I-805 and SR-125 and between Eastlake Parkway and Hunte Parkway.

Birch Road: Birch Road is a six-lane roadway with a raised median, Class II bike lanes, and a posted speed of 45 mph between La Media Road and Eastlake Parkway. This facility is classified as a six-lane Major Road between La Media Road and SR-125, and a six-lane Major Roadway between SR-125 and Eastlake Parkway in the City of Chula Vista General Plan Circulation Element.

Main Street: The existing section of Main Street is a four-lane roadway with a continuous left-turn lane and a 40-mph posted speed limit between 4th Avenue and I-805. East of I-805, Main Street becomes a six-lane roadway with a raised median and Class II bikes. The posted speed limits along this section of the roadway vary between 45 mph and 50 mph. Main Street currently terminates at Heritage Road. This facility is classified as primarily a six-lane Prime Arterial. In the long-term, it is planned to extend Main Street east from its current eastern terminus and connect to Hunte Parkway at Eastlake Parkway. A full diamond interchange will also be constructed at SR-125.

Otay Valley Road: This road is not currently constructed but is classified as a four-lane Major Road in the City of Chula Vista General Plan Circulation Element. As part of this Project, Otay Valley Road between Village 9 Street “B” and Eastlake Parkway is proposed for downgrading from a four-lane Major Road to non-Circulation Element road.

Medical Center Drive/Brandywine Avenue: Medical Center Drive runs north/south between Telegraph Canyon Road and East Palomar Street as a four-lane roadway with a raised median, Class II bike lanes, and no on-street parking on either side. This roadway has a posted speed of 35 mph. Medical Center Drive becomes Brandywine Avenue at East Palomar Street, and continues to Main Street in the south. Brandywine Avenue is a four-lane roadway with a striped median (Class II bike lanes and no on-street parking), and then becomes a two-lane roadway with a striped

median, Class II bike lanes and on-street parallel parking south of Olympic Parkway. The posted speed on Brandywine Avenue is 35 mph south of Olympic Parkway and 40 mph north of Olympic Parkway. This facility is classified as a Class I Collector in the City of Chula Vista General Plan Circulation Element.

Paseo Ranchero/Heritage Road: Paseo Ranchero runs from East H Street to Telegraph Canyon Road, where it becomes Heritage Road and continues to its current southern terminus south of Olympic Parkway. Paseo Ranchero is a four-lane roadway with a continuous left-turn lane/stripped median and Class II bike lanes, and Heritage Road is a six-lane roadway with a raised median and Class II bike lanes. The posted speed limit along this facility is 40 mph. South of Main Street (to Chula Vista city limit), Heritage Road is a two-lane roadway with a continuous left-turn lane, Class II bike lanes, and a posted speed limit of 45 mph. Paseo Ranchero is classified as a Class I Collector, while Heritage Road is classified as a six-lane Prime Arterial in the City of Chula Vista General Plan Circulation Element. As part of the UID Project, Heritage Road is proposed to be realigned within Village 3 North.

Otay Lakes Road/La Media Road: The north/south portion of Otay Lakes Road runs from Bonita Road to Telegraph Canyon Road where it becomes La Media Road. Within the study area, Otay Lakes Road between East H Street and Telegraph Canyon Road is a six-lane roadway with striped/raised median and discontinuous Class II bike lanes. The posted speed limit is 40 mph. Otay Lakes Road is classified as a six-lane Prime Arterial within the study area. La Media Road is a six-lane roadway with a raised median and Class II bike lanes between Telegraph Canyon Road and its current southern terminus at Santa Luna Street. The posted speed limit is 45 mph. La Media Road is classified as a six-lane Prime Arterial in the City of Chula Vista General Plan Circulation Element, with the exception of the couplets (two-lane each direction) at Main Street.

Magdalena Avenue: Magdalena Avenue is generally a four-lane roadway with a raised median between Santa Venetia Street and Main Street, with the exception of the segment between Wolf Canyon Loop and Santa Luna Street, which is a two-lane roadway with a raised median. The posted speed limit is 25 mph. This facility is not classified as a Circulation Element road in the City of Chula Vista General Plan.

Village 9 Street “B”: Village 9 Street “B” is a future street running north/south within Village 9, between the planned Main Street and the planned Otay Valley Road. This street will generally have one lane in each direction with the BRT running along the center. No left-turn lanes will be provided at intervening intersections.

Eastlake Parkway: Eastlake Parkway is a four-lane roadway with a raised median and Class II bike lanes between Otay Lakes Road and Clubhouse Drive, and a six-lane roadway with a raised median and Class II bike lanes between Clubhouse Drive and its current southern terminus at Hunte Parkway/Main Street. The posted speed limit is 40 mph. This roadway is classified as a four-lane Major Road between Otay Lakes Road and Clubhouse Drive, a six-lane Prime Arterial between Clubhouse Drive and Olympic Parkway, a six-lane Major Road between Olympic Parkway Main Street, and a four-lane Major Road between Main Street/Hunte Parkway and Otay Valley Road. As part of this Project, the southernmost section of the Eastlake Parkway, south of Main Street/Hunte Parkway, is proposed to be downgraded from a four-lane Major Road to a

Class II Collector between the 1st University/RTP driveway and Discovery Falls Drive, and a non-Circulation Element road within Village 10 boundaries.

Discovery Falls Drive: Discovery Falls Drive is currently a two-lane roadway with on-street parallel parking on both sides. It terminates just south of Hunte Parkway at High Tech K-12 School. Discovery Falls Drive is not classified as a Circulation Element road in the City of Chula Vista General Plan; however, the roadway segment from Hunte Parkway to Street “K” is equivalent to a four-lane Major Road. A separate focused study (mentioned in the previous page) was conducted and determined that the appropriate roadway classification is a Class III Collector to accommodate the forecasted future traffic volumes on Discovery Falls Drive.

Hunte Parkway: Hunte Parkway is currently a four-lane roadway with a raised median and Class II bike lanes between Otay Lakes Road and Olympic Parkway. The posted speed limit along this section of the facility is 45 mph. Hunte Parkway turns into a six-lane roadway with a raised median and Class II bike lanes between Olympic Parkway and Main Street/Eastlake Parkway. The posted speed limit along this section of the facility is 50 mph. Hunte Parkway is classified in the City of Chula Vista General Plan Circulation Element as a four-lane Major Road between Otay Lakes Road and Olympic Parkway, and a six-lane Prime Arterial between Olympic Parkway and Main Street/ Eastlake Parkway.

b. City of San Diego

San Miguel Road: San Miguel Road is currently a two-lane unclassified roadway with street parking permitted on both sides. The posted speed limit along this facility is 25 mph. Curb, gutter and sidewalks are provided intermittently.

Lone Star Road: Lone Star Road is currently an unpaved road and is classified as a four-lane Major Arterial in the City of San Diego’s currently adopted Community Plan Circulation Element.

Palm Avenue: Currently three lanes are provided in the eastbound direction and four lanes merging to three lanes in the westbound direction on Palm Avenue between I-805 and Dennery Road. This facility is classified as a seven-lane Prime Arterial in the Otay Mesa Community Plan Circulation Element.

Ocean View Hills Parkway: Ocean View Hills Parkway is currently built as a four-lane Major Road with a raised, landscaped median between Dennery Road and Del Sol Boulevard (Breakers Way), with a posted speed limit of 40 mph. Between Del Sol Boulevard and Otay Mesa Road, Ocean View Hills Parkway is currently a six-lane Major Road with a raised, landscaped median and a posted speed limit of 40 mph. This facility is classified as a seven-lane Prime Arterial in the Otay Mesa Community Plan Circulation Element.

Otay Mesa Road: Otay Mesa Road is improved to six-lane Prime Arterial standards from west of Caliente Avenue to approximately 1,000 feet east of La Media Road. From just east of La Media Road to the international border, Otay Mesa Road (SR-905) is a four-lane Major Arterial.

c. City of San Diego/County of San Diego

Heritage Road: Heritage Road, from the Chula Vista City limit to Otay Mesa Road, is currently a two-lane roadway with a partial continuous left-turn lane. Heritage Road, south of Avenida De Las Vistas, is planned for widening in the City of San Diego Facilities Benefit Assessment. Therefore, this facility is classified as a six-lane Prime Arterial in the City of San Diego's currently adopted Community Plan Circulation Element.

La Media Road: La Media Road is currently a two-lane roadway at 30 mph north of Otay Mesa Road, and a five-lane roadway with striped median south of Otay Mesa Road. This facility is classified as a six-lane Prime Arterial in the City of San Diego's currently adopted Community Plan Circulation Element.

d. Caltrans

Three Caltrans freeway and state highway facilities traverse the study area, as follows:

I-805: I-805 ranges from 8 to 10 lanes between Home Avenue and SR-905 within the study area. Construction of two new HOV lanes on I-805, between Home Avenue and East Palomar Street is completed.

SR-125: SR-125 is a four-lane state highway between East H Street and SR-905. It will operate as a toll road through the year 2035. However, SANDAG has recently purchased this facility and could potentially convert this facility to a freeway sooner than 2035.

SR-905: SR-905 within the Project study area is a six-lane state highway, connecting I-805 and SR-125.

2. Existing Roadway Segment Operations

Existing roadway segment level of service is calculated based on established capacity thresholds defined by roadway classification and Average Daily Trip (ADT) volumes. The existing traffic volumes analyzed in this section are from the University Villages TIA, Otay Ranch Villages 3 North, 8 East, and 10 studies (University Villages TIA; Chen Ryan 2014), and LLG supplemented those counts with some new counts, as necessary (LLG 2017). Table 5.3-3, *Existing Roadway Segment Operations*, presents the results of the existing conditions roadway segment level of service analysis for the UID. As shown in this table, all roadway segments currently operate at acceptable levels of service (i.e., LOS D or better). The functional classification for each roadway segment identifies either the City's segment-type per the City's General Plan or an equivalent classification in the event the General Plan does not classify a specific roadway segment.

Table 5.3-3 EXISTING ROADWAY SEGMENT OPERATIONS

Roadway/Segment	Jurisdiction	Functional Classification	LOS C Capacity	Volume	LOS
Bonita Road					
Otay Lakes Rd to San Miguel Rd	Chula Vista	4-lane Major	30,000	23,700	B
San Miguel Ranch Road					
Bonita Road to Proctor Valley Rd	Chula Vista	Class I Collector	22,000	7,600	A
East H St					
SR-125 to Mt Miguel Rd	Chula Vista	6-lane Prime	50,000	17,800	A
Mt Miguel Rd to Hunte Pkwy	Chula Vista	6-lane Prime	50,000	18,000	A
Telegraph Canyon Road					
Paseo Ladera to Paseo Ranchero	Chula Vista	6-lane Prime	50,000	45,100	C
Paseo Ranchero to Otay Lakes Rd	Chula Vista	6-lane Prime	50,000	36,100	A
Otay Lakes Road					
Bonita Rd to East H St	Chula Vista	4-lane Major	30,000	31,100	D
East H St to Telegraph Canyon Rd	Chula Vista	6-lane Prime	50,000	26,300	C
La Media Road to SR-125	Chula Vista	6-lane Prime	50,000	41,600	B
SR-125 to Eastlake Pkwy	Chula Vista	7-lane Prime	58,330	44,500	C
Eastlake Pkwy to Hunte Pkwy	Chula Vista	6-lane Prime	50,000	21,700	A
East of Hunte Pkwy	Chula Vista	6-lane Prime	50,000	7,400	A
E. Palomar Street					
Paseo Ladera to Heritage Road	Chula Vista	4-lane Major	30,000	13,400	A
Heritage Road to La Media Rd	Chula Vista	4-lane Major	30,000	20,100	A
La Media Rd to Olympic Pkwy	Chula Vista	4-lane Major	30,000	12,400	A
Olympic Parkway					
I-805 NB Ramps to Oleander Ave	Chula Vista	6-lane Prime	50,000	48,500	C
Oleander Ave to Brandywine Ave	Chula Vista	6-lane Prime	50,000	52,300	D
Brandywine Ave to Heritage Rd	Chula Vista	6-lane Prime	50,000	52,700	D
Heritage Rd to Santa Venetia St	Chula Vista	6-lane Prime	50,000	48,200	C
Santa Venetia St to La Media Rd	Chula Vista	6-lane Prime	50,000	45,800	C
La Media Rd to E. Palomar St	Chula Vista	6-lane Prime	50,000	31,000	A
E. Palomar St to SR-125	Chula Vista	6-lane Prime	50,000	35,600	A
SR-125 to Eastlake Pkwy	Chula Vista	8-lane Prime	66,670	35,608	A
Eastlake Pkwy to Hunte Pkwy	Chula Vista	6-lane Prime	50,000	14,700	A
Birch Road					
La Media Rd to SR-125	Chula Vista	6-lane Major	40,000	10,700	A
SR-125 to Eastlake Pkwy	Chula Vista	6-lane Major	40,000	10,700	A
Main St					
Hilltop Dr to Melrose Ave	Chula Vista	6-lane Prime	50,000	24,400	A
Melrose Ave to I-805	Chula Vista	6-lane Prime	50,000	26,900	A
I-805 to Oleander Ave	Chula Vista	6-lane Prime	50,000	31,300	A
Oleander Ave to Brandywine Ave	Chula Vista	6-lane Prime	50,000	23,100	A
Brandywine Ave to Heritage Rd	Chula Vista	6-lane Prime	50,000	10,900	A
Heritage Rd to Otay Valley Rd	Chula Vista	6-lane Prime	50,000	DNE	DNE
Otay Valley Rd to Magdalena Ave	Chula Vista	6-lane Prime	50,000	DNE	DNE
Magdalena Ave to SR-125	Chula Vista	6-lane Prime	50,000	DNE	DNE
SR-125 to Village 9 St "B"	Chula Vista	6-lane Prime	50,000	DNE	DNE
Village 9 St "B" to Eastlake Pkwy	Chula Vista	6-lane Prime	50,000	DNE	DNE

Table 5.3-3 (cont.) EXISTING ROADWAY SEGMENT OPERATIONS

Roadway/Segment	Jurisdiction	Functional Classification	LOS C Capacity	Volume	LOS
Otay Valley Road					
La Media Road to SR-125	Chula Vista	4-lane Major	30,000	DNE	DNE
SR-125 to Village 9 St "B"	Chula Vista	4-lane Major	30,000	DNE	DNE
Hunte Parkway					
Otay Lakes Rd to Olympic Pkwy	Chula Vista	4-lane Major	30,000	7,000	A
Olympic Pkwy to Exploration Falls Dr	Chula Vista	6-lane Prime	50,000	3,200	A
Exploration Falls Rd to Discovery Falls Dr	Chula Vista	6-lane Prime	50,000	3,200	A
Discovery Falls Rd to Eastlake Pkwy	Chula Vista	6-lane Prime	50,000	3,700	A
Heritage Road					
Telegraph Canyon Rd to E. Palomar St	Chula Vista	6-lane Prime	50,000	19,000	A
E. Palomar St to Olympic Pkwy	Chula Vista	6-lane Prime	50,000	12,900	A
Olympic Pkwy to Main St	Chula Vista	6-lane Prime	50,000	DNE	DNE
Main St to Otay Mesa Rd	Chula Vista	6-lane Prime	50,000	8,800	A
La Media Road					
Telegraph Canyon Rd to E. Palomar St	Chula Vista	6-lane Prime	50,000	22,600	A
E. Palomar St to Olympic Pkwy	Chula Vista	6-lane Prime	50,000	14,700	A
Olympic Pkwy to Birch Rd	Chula Vista	6-lane Prime	50,000	DNE	DNE
Eastlake Parkway					
Otay Lakes Rd to Olympic Pkwy	Chula Vista	4-lane Major	30,000	12,100	A
Olympic Pkwy to Birch Rd	Chula Vista	6-lane Major	40,000	11,800	A
Birch Rd to Hunte Pkwy	Chula Vista	6-lane Major	40,000	1,900	A
South of Hunte Pkwy	Chula Vista	Class II Collector	12,000	DNE	DNE
North of Discovery Falls Rd	Chula Vista	Class II Collector	12,000	DNE	DNE
Discovery Falls Rd to Otay Valley Rd	Chula Vista	Class II Collector	12,000	DNE	DNE
Village 9 St "B"					
Hunte Pkwy to Village 9 St "C"	Chula Vista	Class III Collector ^a	7,500	DNE	DNE
Village 9 St "C" to Village 9 St "E"	Chula Vista	Class III Collector ^a	7,500	DNE	DNE
Village 9 St "E" to Discovery Falls Rd	Chula Vista	Class III Collector ^a	7,500	DNE	DNE
Discovery Falls Rd to Otay Valley Rd	Chula Vista	Class III Collector ^a	7,500	DNE	DNE
Discovery Falls Road					
Hunte Pkwy to St "K"	Chula Vista	4-lane Major	30,000	5,600	A
St "K" to Eastlake Pkwy	Chula Vista	Class III Collector ^a	7,500	DNE	DNE
Eastlake Pkwy to Village 9 St "B"	Chula Vista	Class III Collector ^a	7,500	DNE	DNE
Palm Avenue					
I-805 to Dennery Rd	City of San Diego	7-lane Prime	52,500	45,200	C
Ocean View Hills Parkway					
Dennery Rd to Del Sol Blvd	City of San Diego	4-lane Major	30,000	14,900	A
Del Sol Blvd to Otay Mesa Rd	City of San Diego	4-lane Major	40,000	8,800	A
Otay Mesa Road					
Ocean View Hills Pkwy to Heritage Rd	City of San Diego	6-lane Prime	50,000	12,700	A
Lone Star Road					
SR-125 to Harvest Rd	City of San Diego	4-lane Major	30,000	DNE	DNE

Sources: LLG 2017 and Chen Ryan 2014

a. Capacity of Class III Collector is assumed for this street since only one lane is provided in each direction with the Bus Rapid Transit in the center, and no turn lanes at intervening intersections.

DNE = Does not exist; i.e., roadway segment was not built under Existing Conditions.

3. Intersections

As part of the traffic analysis for the UID SPA Plan, 69 intersections were evaluated and are shown in Figure 5.3-1 and Table 5.3-4, *Existing Intersection Operations*. The table summarizes the existing AM and PM peak hour level of service of the study intersections based on the peak hour intersection volumes and intersection geometry. The existing traffic volumes analyzed in this section were obtained from the University Villages TIA (Chen Ryan 2014). As shown in this table, all intersections are currently operating at an acceptable level of service (LOS D or better) during the AM and PM peak hours except for:

- Olympic Pkwy/I-805 SB Ramps (PM – LOS E)
- Olympic Pkwy/I-805 NB Ramps (AM – LOS F)
- Olympic Pkwy/Brandywine Avenue (AM – LOS E)
- Palm Ave/I-805 NB Ramps (AM – LOS E, PM – LOS E)

Table 5.3-4 EXISTING INTERSECTION OPERATIONS

Intersection	Jurisdiction	Traffic Control	Peak Hour	Delay	LOS
Bonita Rd/Otay Lakes Rd	Chula Vista	Signal	AM	25.2	C
			PM	19.7	B
Bonita Rd/San Miguel Rd	County of San Diego	Signal	AM	18.0	B
			PM	17.4	B
Proctor Valley Rd/San Miguel Rd	County of San Diego	MSSC	AM	11.8	B
			PM	13.0	B
Proctor Valley Rd/ San Miguel Ranch Rd	Chula Vista	AWSC	AM	9.3	A
			PM	13.7	B
East H St/Otay Lakes Road/ La Media Rd	Chula Vista	Signal	AM	31.3	C
			PM	35.3	D
Proctor Valley Rd/Mt Miguel Rd	Chula Vista	Signal	AM	28.1	C
			PM	8.0	A
Proctor Valley Rd/Hunte Pkwy	Chula Vista	Signal	AM	18.5	B
			PM	15.1	B
Telegraph Canyon Rd/Paseo Ladera	Chula Vista	Signal	AM	35.5	D
			PM	24.4	C
Telegraph Canyon Rd/Paseo Ranchero	Chula Vista	Signal	AM	32.9	C
			PM	23.4	C
Telegraph Canyon Rd/Otay Lakes Rd/ La Media Rd	Chula Vista	Signal	AM	34.7	C
			PM	33.3	C
Otay Lakes Rd/SR-125 SB Ramps	Chula Vista	Signal	AM	5.1	A
			PM	8.9	A
Otay Lakes Rd/SR-125 NB Ramps	Chula Vista	Signal	AM	2.0	A
			PM	3.2	A
Otay Lakes Rd/Eastlake Pkwy	Chula Vista	Signal	AM	25.7	C
			PM	35.8	D
Otay Lakes Rd/Hunte Pkwy	Chula Vista	Signal	AM	21.5	C
			PM	18.4	B

Table 5.3-4 (cont.) EXISTING INTERSECTION OPERATIONS

Intersection	Jurisdiction	Traffic Control	Peak Hour	Delay	LOS
E. Palomar St/Paseo Ladera	Chula Vista	Signal	AM	19.0	B
			PM	18.2	B
E. Palomar St/Heritage Rd	Chula Vista	Signal	AM	49.9	D
			PM	27.6	C
E. Palomar St/La Media Rd	Chula Vista	Signal	AM	48.9	D
			PM	26.9	C
Olympic Pkwy/I-805 SB Ramps	Chula Vista	Signal	AM	45.4	D
			PM	75.9	E
Olympic Pkwy/I-805 NB Ramps	Chula Vista	Signal	AM	85.3	F
			PM	33.4	C
Olympic Pkwy/Oleander Ave	Chula Vista	Signal	AM	33.2	C
			PM	19.8	B
Olympic Pkwy/Brandywine Ave	Chula Vista	Signal	AM	56.3	E
			PM	52.9	D
Olympic Pkwy/Heritage Rd	Chula Vista	Signal	AM	17.5	B
			PM	11.0	B
Olympic Pkwy/Santa Venetia St	Chula Vista	Signal	AM	13.0	B
			PM	7.2	A
Olympic Pkwy/La Media Rd	Chula Vista	Signal	AM	39.7	D
			PM	28.4	C
Olympic Pkwy/E. Palomar St	Chula Vista	Signal	AM	30.3	C
			PM	26.7	C
Olympic Pkwy/SR-125 SB Ramps	Chula Vista	Signal	AM	9.5	A
			PM	9.7	A
Olympic Pkwy/SR-125 NB Ramps	Chula Vista	Signal	AM	9.3	A
			PM	8.8	A
Olympic Pkwy/Eastlake Pkwy	Chula Vista	Signal	AM	25.7	C
			PM	27.8	C
Olympic Pkwy/Hunte Pkwy	Chula Vista	Signal	AM	29.6	C
			PM	23.8	C
Birch Rd/La Media Rd	Chula Vista	Signal	AM	41.0	D
			PM	31.1	C
Birch Rd/SR-125 SB Ramps	Chula Vista	Signal	AM	12.5	B
			PM	12.3	B
Birch Rd/SR-125 NB Ramps	Chula Vista	Signal	AM	1.9	A
			PM	3.6	A
Birch Rd/Eastlake Pkwy	Chula Vista	Signal	AM	23.5	C
			PM	25.6	C
Main St/Hilltop Drive	Chula Vista	Signal	AM	4.0	A
			PM	4.1	A
Main St/Melrose Ave	Chula Vista	Signal	AM	13.2	B
			PM	13.2	B
Main St/I-805 SB Ramps	Chula Vista	Signal	AM	32.5	C
			PM	52.4	D

Table 5.3-4 (cont.) EXISTING INTERSECTION OPERATIONS

Intersection	Jurisdiction	Traffic Control	Peak Hour	Delay	LOS
Main St/I-805 NB Ramps	Chula Vista	Signal	AM	17.9	B
			PM	25.3	C
Main St/Oleander Ave	Chula Vista	Signal	AM	5.9	A
			PM	6.1	A
Main St/Brandywine Ave	Chula Vista	Signal	AM	27.1	C
			PM	36.9	D
Main St/Heritage Rd	Chula Vista	Signal	AM	14.5	B
			PM	15.2	B
Main St (WB)/La Media Rd (SB)	Chula Vista	AWSC	AM	DNE	N/A
			PM	DNE	N/A
Main St (WB)/La Media Rd (NB)	Chula Vista	AWSC	AM	DNE	N/A
			PM	DNE	N/A
Main St (EB)/La Media Rd (SB)	Chula Vista	AWSC	AM	DNE	N/A
			PM	DNE	N/A
Main St (EB)/La Media Rd (NB)	Chula Vista	AWSC	AM	DNE	N/A
			PM	DNE	N/A
Main St/Magdalena Ave	Chula Vista	MSSC	AM	9.1	A
			PM	8.7	A
Main St/SR-125 SB Ramps	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Main St/SR-125 NB Ramps	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Main St/Village 9 St "B"	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Hunte Pkwy (Main St)/Eastlake Pkwy	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Hunte Pkwy/Discovery Falls Dr	Chula Vista	Signal	AM	15.8	B
			PM	11.4	B
Hunte Pkwy/Exploration Falls Dr	Chula Vista	Signal	AM	15.6	B
			PM	13.1	B
Village 9 St "B"/Village 9 St "C"	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Village 9 St "B"/Village 9 St "E"	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Discovery Falls Rd/Village 9 St "T"	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Discovery Falls Rd/Eastlake Pkwy	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Discovery Falls Rd/St "J"	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Discovery Falls Rd/St "K"	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A

Table 5.3-4 (cont.) EXISTING INTERSECTION OPERATIONS

Intersection	Jurisdiction	Traffic Control	Peak Hour	Delay	LOS
Otay Valley Rd/SR-125 SB Ramps	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Otay Valley Rd/SR-125 NB Ramps	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Otay Valley Rd/Village 9 St "B"	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Palm Ave/I-805 SB Ramps	City of San Diego/ Caltrans	Signal	AM	27.7	C
			PM	42.5	D
Palm Ave/I-805 NB Ramps	City of San Diego/ Caltrans	Signal	AM	56.6	E
			PM	72.8	E
Palm Ave/Dennery Road	City of San Diego	Signal	AM	42.0	D
			PM	47.1	D
Avenida De Las Vistas/Heritage Road	City of San Diego	Signal	AM	15.2	C
			PM	10.5	B
Lone Star Rd/SR-125 SB Ramps	Caltrans	Signal	AM	DNE	DNE
			PM	DNE	DNE
Lone Star Rd/SR-125 NB Ramps	Caltrans	Signal	AM	DNE	DNE
			PM	DNE	DNE
Lone Star Rd/Harvest Rd	City of San Diego	Signal	AM	DNE	DNE
			PM	DNE	DNE
Ocean View Hills Pkwy/Otay Mesa Rd	City of San Diego	Signal	AM	33.4	C
			PM	29.5	C
Heritage Rd/Otay Mesa Rd	City of San Diego	Signal	AM	22.3	C
			PM	25.9	C

Source: LLG 2017 and Chen Ryan 2014

General Notes:

MSSC = Minor Street STOP Controlled. Minor street delay and level of service reported.

AWSC = All Way STOP Controlled. Overall delay and level of service reported.

DNE = Does not exist; i.e., intersection was not built under Existing Conditions.

Under existing conditions, public transportation is provided by San Diego Metropolitan Transit System (MTS) Routes 703, 707, and 709 serve the nearby area. However, these routes do not currently provide service to the UID. The nearest public transportation stop to the UID is located approximately one mile north of the Project area at the intersection of Olympic Parkway and Eastlake Parkway. The proposed South Bay Bus Rapid Transit (BRT) line (referred to as "South Bay Rapid") would traverse through the UID and include a bus stop on Orion Avenue near Campus Boulevard, creating a regional transit connection from the Otay Mesa border crossing to downtown San Diego. The BRT line is expected to be in service in 2018 (SANDAG 2016).

5.3.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, impacts regarding traffic and circulation would be significant if the Project would:

- **Threshold 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.
- **Threshold 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.
- **Threshold 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.
- **Threshold 4:** Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- **Threshold 5:** Result in inadequate emergency access.
- **Threshold 6:** Conflict with adopted policies, plans or programs regarding the circulation network, public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

A. **City of Chula Vista Significance Criteria for Traffic Impacts**

Traffic impacts are defined as either Project-specific impacts or cumulative impacts. Project-specific impacts are those impacts for which the addition of Project trips results in an identifiable degradation in LOS on freeway segments, roadway segments, or intersections, triggering the need for specific Project-related improvement strategies. Cumulative impacts are those in which the Project trips contribute to a degradation in LOS combined with other planned projects and growth in the region.

The term “horizon year” describes a future period of time in the traffic analysis, which corresponds to SANDAG’s traffic model years, and represent conditions in 2020, 2025, and 2030.

Criteria for determining whether the Project results in either direct (Project-specific) or cumulative impacts on freeway segments, roadway segments, or intersections as described below.

1. ***Short-Term (Study Horizon Year 0 To 4)***

For purposes of the short-term analysis, roadway sections are defined as either links or segments. A link is typically that section of roadway between two adjacent Circulation Element intersections and a segment is defined as that combination of contiguous links used in the Growth Management

Plan Traffic Monitoring Program. Analysis of roadway links under short-term conditions may require a more detailed analysis using the Growth Management Oversight Committee (GMOC) methodology if the typical planning analysis using volume-to-capacity ratios on an individual link indicates a potential impact to that link. The GMOC analysis uses the HCM methodology of average travel speed based on actual measurements on the segments as listed in the Growth Management Plan Traffic Monitoring Program. As the Project is unlikely to be built within the next four years, the GMOC analysis was not necessary.

a. Intersections

1. The Project would result in a direct (Project-specific) impact if both the following criteria are met:
 - a. Level of service is LOS E or LOS F
 - b. Project trips comprise five percent or more of entering volume
2. A cumulative impact would occur only if (a) is met.

b. Street Links/Segments

If the planning analysis using the volume-to-capacity ratio indicates LOS C or better, there is no impact. If the planning analysis indicates LOS D, E, or F, the GMOC method should be utilized. The following criteria would then be utilized.

1. The Project would result in a direct (Project-specific) impact if all the following criteria are met:
 - a. Level of service is LOS D for more than two hours or LOS E/F for 1 hour
 - b. Project trips comprise five percent or more of segment volume
 - c. Project adds greater than 800 ADT to the segment
2. A cumulative impact would occur only if (a) is met.

c. Freeways

1. The Project would result in a direct (Project-specific) impact if all the following criteria are met:
 - a. Freeway segment LOS is LOS E or LOS F
 - b. Project comprises five percent or more of the total forecasted ADT on that freeway segment
2. A cumulative impact would occur only if (a) is met.

2. *Long-Term (Study Horizon Year 5 and Later)*

a. **Intersections**

1. The Project would result in a direct (Project-specific) impact if all the following criteria are met:
 - a. Level of service is LOS E or LOS F
 - b. Project trips comprise five percent or more of entering volume
2. A cumulative impact would occur only if (a) is met.

b. **Street Links/Segments**

The planning analysis uses the volume-to-capacity ratio methodology only. The GMOC analysis methodology is not applicable beyond a four-year horizon.

1. The Project would result in a direct (Project-specific) impact if all the following criteria are met:
 - a. Level of service is LOS D, LOS E, or LOS F
 - b. Project trips comprise five percent or more of total segment volume
 - c. Project adds greater than 800 ADT to the segment
2. A cumulative impact would occur only if (a) is met. However, if the intersections along a LOS D or LOS E segment all operate at LOS D or better, the segment impact is considered as not significant since intersection analysis is more indicative of actual roadway system operations than street segment analysis because street segment analysis does not provide as much context compared to intersections. If segment Level of Service is LOS F, impact is significant regardless of intersection LOS.
3. Notwithstanding the foregoing, if the impact identified occurs at study horizon year 10 or later, and is offsite and not adjacent to the Project, the impact is considered cumulative. Study year 10 may be that typical SANDAG model year which is between 8 and 13 years in the future. Study horizon year 10 would correspond to the SANDAG model for year 2010 and would be 8 years in the future. If the model year is less than 7 years in the future, study horizon year 10 would be 13 years in the future.
4. In the event a Project-specific impact is identified at study horizon year 5 or earlier and the impact is off-site and not adjacent to this Project, but the property immediately adjacent to the identified Project-specific impact is also proposed to be developed in approximately the same time frame, an additional analysis may be required to determine whether or not the identified Project-specific impact would still occur if the development of the adjacent property does not take place. If the additional analysis concludes that the identified impact is no longer Project-specific, then the impact shall be considered cumulative.

c. Freeway Analysis

1. The Project would result in a direct (Project-specific) impact if all the following criteria are met:
 - a. Freeway segment LOS is LOS E or LOS F
 - b. Project comprises five percent or more of the total forecasted ADT on that freeway segment
2. A cumulative impact would occur only if (a) is met.

B. City of San Diego Significance Criteria for Traffic Impacts

According to the City of San Diego's Significance Determination Thresholds dated January 2011, a project is considered to have a significant impact if Project traffic would decrease the operations of surrounding roadways by a defined threshold. The City defined thresholds are shown in Table 5.3–5, *City of San Diego Traffic Impact Significance Thresholds*.

The impact is designated either a “direct” or “cumulative” impact. According to the City's Significance Determination Thresholds:

1. Direct traffic impacts are those projected to occur at the time a proposed development becomes operational, including other developments not presently operational but which are anticipated to be operational at that time (near term).
2. Cumulative traffic impacts are those projected to occur at some point after a proposed development becomes operational, such as during subsequent phases of a project and when additional proposed developments in the area become operational (short-term cumulative) or when affected community plan area reaches full planned buildout (long-term cumulative).

It is possible that a project's near term (direct) impacts may be reduced in the long term, as future projects develop and provide additional roadway improvements (for instance, through implementation of traffic phasing plans). In such a case, the Project may have direct impacts but not contribute considerably to a cumulative impact.

For intersections and roadway segments affected by a project, LOS D or better is considered acceptable under both direct and cumulative conditions.

A significant impact is determined if:

1. Any intersection, roadway segment, or freeway segment affected by a project would operate at LOS E or F under either direct or cumulative conditions, or, if a project would degrade the LOS on a facility from acceptable to unacceptable level, the impact would be significant if the project exceeds the thresholds shown in Table 5.3–5.
2. At any ramp meter location with delays above 15 minutes, the impact would be significant if the project exceeds the thresholds shown in Table 5.3–5.

3. If a project would add a substantial amount of traffic to a congested freeway segment, interchange, or ramp, the impact may be significant.
4. Addition of a substantial amount of traffic to a congested freeway segment, interchange, or ramp as shown in Table 5.3-5.

Table 5.3-5 CITY OF SAN DIEGO TRAFFIC IMPACT SIGNIFICANCE THRESHOLDS

Level of Service with Project ^b	Allowable Increase Due to Project Impacts ^a					
	Freeways		Roadway Segments		Intersections	Ramp Metering ^c
	V/C	Speed (mph)	V/C	Speed (mph)	Delay (sec.)	Delay (min.)
E	0.010	1.0	0.02	1.0	2.0	2.0
F	0.005	0.5	0.01	0.5	1.0	1.0

Footnotes:

- a. If a proposed project's traffic causes the values shown in the table to be exceeded, the impacts are determined to be significant. The Project applicant shall then identify feasible improvements (within the Traffic Impact Study) that will restore/and maintain the traffic facility at an acceptable LOS. If the LOS with the proposed Project becomes unacceptable (see note b), or if the Project adds a significant amount of peak-hour trips to cause any traffic queues to exceed on- or off-ramp storage capacities, the Project applicant shall be responsible for mitigating the Project's direct significant and/or cumulatively considerable traffic impacts.
- b. All LOS measurements are based upon Highway Capacity Manual procedures for peak-hour conditions. However, V/C ratios for roadway segments are estimated on an ADT/24-hour traffic volume basis (using Table 2 of the City's Traffic Impact Study Manual). The acceptable LOS for freeways, roadways, and intersections is generally "D" ("C" for undeveloped locations). For metered freeway ramps, LOS does not apply. However, ramp meter delays above 15 minutes are considered excessive.
- c. The allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS E is 2 minutes. The allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS F is 1 minute.

Delay = Average control delay per vehicle measured in seconds for intersections or minutes for ramp meters

LOS = Level of Service; V/C = Volume to Capacity ratio; Speed = Arterial speed measured in miles per hour

C. County of San Diego Significance Criteria for Traffic Impacts

The following criterion was utilized to evaluate potential significant impacts, based on the County's Guidelines for Determining Significance (County of San Diego 2011a). It is important to note that the County significance criteria typically apply to "land development" projects wherein significant impacts are measured based on the Project's traffic contribution at an intersection or on a road segment.

1. Road Segments

Pursuant to the County's General Plan Mobility Element (Mobility Element) Policy M2.1, new development must provide improvements or other measures to mitigate traffic impacts to avoid:

1. Reduction in LOS below "C" for on-site Mobility Element roads.
2. Reduction in LOS below "D" for off-site and on-site abutting Mobility Element roads; and "significantly impacting congestion" on roads that operate at LOS "E" or "F".
3. If impacts cannot be mitigated, the Project cannot be approved unless a statement of overriding findings is made pursuant to the State CEQA Guidelines. However, the County's General Plan Mobility Element does not include specific guidelines for

determining the amount of additional traffic that would “significantly impact congestion” on such roads.

The County has created the following guidelines to evaluate likely traffic impacts of a proposed project for road segments and intersections serving that project site, for purposes of determining whether the development would “significantly impact congestion” on the referenced LOS E and F roads. The guidelines are summarized in Table 5.3–6, *Measures of Significant Project Impacts to Mobility Element Road Segments (Allowable Increases on Congested Road Segment)*. The thresholds in Table 5.3–6 are based upon average operating conditions on County roadways. It should be noted that these thresholds only establish general guidelines, and that the specific project location must be taken into account in conducting an analysis of traffic impact from new development.

a. On-site County Mobility Element Roads

The Mobility Element states that “new development shall provide needed roadway expansion and improvements on-site to meet demand created by the development, and to maintain a LOS C on Mobility Element Roads during peak traffic hours.” Pursuant to this policy, a significant traffic impact would result if the additional or redistributed ADT generated by the proposed land development project will cause on-site Circulation Element Roads to operate below LOS C during peak traffic hours.

Table 5.3-6 MEASURES OF SIGNIFICANT PROJECT IMPACTS TO MOBILITY ELEMENT ROAD SEGMENTS (ALLOWABLE INCREASES ON CONGESTED ROAD SEGMENTS)

Level of Service	Two-lane Road	Four-lane Road	Six-lane Road
LOS E	200 ADT	400 ADT	600 ADT
LOS F	100 ADT	200 ADT	300 ADT

General Notes:

1. By adding proposed Project trips to all other trips from a list of projects, this same table must be used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes additional trips must mitigate a share of the cumulative impacts.
2. The County may also determine impacts have occurred on roads even when a project’s traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.

b. Off-site County Mobility Element Roads

The Mobility Element also addresses offsite Mobility Element roads. It states that “new development shall provide off-site improvements designed to contribute to the overall achievement of a Level of Service D on Mobility Element Roads.” Implementation Measure 1.1.3 addressed projects that would significantly impact congestion on roads operating at LOS E or F. It states, “new development that would significantly impact congestion on roads operating at LOS E or F, either currently or as a result of the Project, will be denied unless improvements are scheduled to attain a LOS to D or better or appropriate mitigation is provided.” The following significance guidelines define a method for evaluating whether or not increased traffic volumes generated or redistributed from a proposed Project will “significantly impact congestion” on County roads, operating at LOS E or F, either currently or as a result of the Project.

Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic volume or level of service impact on a road segment:

1. The additional or redistributed ADT generated by the Project will significantly increase congestion on a Mobility Element Road or State Highway currently operating at LOS E or LOS F, or will cause a Mobility Element Road or State Highway to operate at a LOS E or LOS F as a result of the Project as identified in Table 5.3-4; or
2. The additional or redistributed ADT generated by the Project will cause a residential street to exceed its design capacity.

2. *Intersections*

This section provides guidance for evaluating adverse effects a project may have on signalized and unsignalized intersections. Table 5.3-7, *Measures of Significant Project Impacts to County Intersections (Allowable Increases on Congested Road Segments)*, was obtained from County guidelines and summarizes the allowable increases in delay or traffic volumes at signalized and unsignalized intersections. Exceeding the thresholds in Table 5.3-7 would result in a significant impact.

Table 5.3-7 MEASURES OF SIGNIFICANT PROJECT IMPACTS TO COUNTY INTERSECTIONS (ALLOWABLE INCREASES ON CONGESTED ROAD SEGMENTS)

Level of service	Signalized	Unsignalized
LOS E	Delay of 2 seconds or less	20 or less peak hour trips on a critical movement
LOS F	Either a Delay of 1 second, or 5 peak hour trips or less on a critical movement	5 or less peak hour trips on a critical movement

General Notes:

1. A critical movement is an intersection movement (right-turn, left-turn, and through-movement) that experiences excessive queues, which typically operate at LOS F.
2. By adding proposed Project trips to all other trips from a list of projects, these same tables are used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project is responsible for mitigating its share of the cumulative impact.
3. The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.
4. For determining significance at signalized intersections with LOS F conditions, the analysis must evaluate both the delay *and* the number of trips on a critical movement, exceedance of either criteria result in a significant impact.

3. *Signalized Intersections*

Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic volume or level of service traffic impact on a County signalized intersection:

1. The additional or redistributed ADT generated by the proposed Project will significantly increase congestion on a signalized intersection currently operating at LOS E or LOS F, or will cause a signalized intersection to operate at a LOS E or LOS F as identified in Table 5.3-7.
2. Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance or other factors, the Project would significantly impact the operations of the intersection.

4. *Unsignalized Intersections*

The operating parameters and conditions for unsignalized intersections differ dramatically from those of signalized intersections. Very small volume increases on one leg or turn and/or through movement of an unsignalized intersection can substantially affect the calculated delay for the entire intersection. Significance criteria for unsignalized intersections are based upon a minimum number of trips added to a critical movement at an unsignalized intersection.

Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic impact on an unsignalized intersection as listed in Table 5.3-7 and described as text below:

1. The additional or redistributed ADT generated by the Project will add 21 or more peak hour trips to a critical movement of an unsignalized intersection, and cause an unsignalized intersection to operate below LOS D, or
2. The additional or redistributed ADT generated by the Project will add 21 or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS E, or
3. The additional or redistributed ADT generated by the Project will add 6 or more peak hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate at LOS F, or
4. The additional or redistributed ADT generated by the Project will add 6 or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS F, or
5. Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance or other factors, the Project would significantly impact the operations of the intersection.

5.3.3 Impact Analysis

- A. **Threshold 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.

Potential traffic impacts that would result from construction and operation of the Project are discussed below. The construction traffic analysis incorporates the operation analysis; therefore, the operation analysis is discussed first, followed by potential construction impacts.

1. Operation

The TIA for operation of the UID (included as Appendix B to this EIR) evaluated traffic impacts that would occur upon implementation of the Project under the following scenarios: Year 2020, Year 2025, and Year 2030. In addition, an Existing Plus Project scenario was evaluated, which analyzes the traffic associated with full buildout of the Project as if it were to occur on the existing transportation network. The Existing Plus Project scenario is regarded by traffic engineers as a hypothetical scenario when used in connection with a long-range development project such as the UID, which is not anticipated to reach full buildout until after 2030, by which time the transportation network will have changed based on other development and implementation of planned improvements. The following discussion summarizes the results of this analysis for the UID. The operational analysis includes traffic that would potentially be generated by all proposed uses in the SPA Plan, including the development of a 20,000 Full Time Equivalent (FTE) student University along with a research park, retail, and student and market rate housing in the Main Campus property and a Chancellor's residence and Conference Center (University Conference Center) as planned in the Lake Property.

a. Traffic Impact Scenarios

Each of the following scenarios includes certain roadway system assumptions that are discussed in each impact section, as well as on-site access and frontage improvements required by Municipal Code Chapter 12.24.

Traffic Model Methodology and Trip Generation and Distribution

Future year traffic volumes were forecast using the SANDAG Series 11 forecast model as the model has been calibrated and land uses coded specifically for the eastern territories of the City. Traffic model runs accounted for the construction of future roads in order to understand how future traffic patterns may change when new capacity is added to the roadway network.

The SANDAG trip generation rates were utilized to determine daily and peak hour trips to be generated by the Project. Trip reduction factors were applied to the forecasted trip generation for the Project to reflect internally captured trips (trips that do not leave the village), non-motorized trips (pedestrian and bike trips), and transit trips. In addition, a five percent reduction was applied for transit uses for Year 2030 when the BRT line is expected to be operational.

As previously stated, an SZA was conducted to distribute the Project traffic based upon which the extent of the study area was determined. Intersections and roadways where the Project would contribute 800 or more daily trips or 50 or more peak hour trips in either direction were included as study intersections for analysis. Freeway segments where the Project would add 2,400 or more

daily trips or 150 or more peak hour trips in either direction were also included in the Project study area.

Table 5.3-8, *Project-Generated Average Daily Trips at Project Buildout (Year 2030)*, identifies the forecasted Project-generated daily and peak hour trips for buildout of the Project, including internal capture and transit reductions. As shown in this table, at buildout, the Project is forecast to generate a total of approximately 54,360 daily trips with internal capture, including 5,586 AM peak hour trips and 5,541 PM peak hour trips. With transit reductions, the Project is forecast to generate approximately 51,642 trips per day, including 5,307 AM and 5,264 PM peak hour trips. The distribution of these trips is shown on Figure 5.3-2, *Year 2030 Project Traffic Assignment*. The phased daily trips generated by Project development assumed for each scenario year is shown in Table 5.3-9, *Phased Project Trip Generation*.

Also included in Table 5.3-9 is the Equivalent Dwelling Units (EDU) for each scenario. This converts project land uses (university, research, commercial, and housing) into terms of single-family dwelling units with a daily trip rate of 10 trips per unit. The Project ADT divided by 10 daily trips equals the number of EDU. For example, for Year 2020, 13,595 ADT divided by 10 would equal 1,360 EDUs (rounded).

Table 5.3-8 PROJECT-GENERATED AVERAGE DAILY TRIPS AT PROJECT BUILDOUT (YEAR 2030)

Land Use	Size	ADT	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
University	260 acres	26,000	2,080	520	2,600	702	1,638	2,340
Research ^a	1,800,000 SF	12,960	1,867	207	2,074	182	1,633	1,815
Commercial ^b	200,000 SF	6,400	115	77	192	288	288	576
Market Rate Housing ^c	2,000 DU	9,000	144	576	720	567	243	810
Subtotal		54,360	4,206	1,380	5,586	1,739	3,802	5,541
Transit Reduction (5 percent)		-2,718	-210	-69	-279	-87	-190	-277
TOTAL		51,642	3,996	1,311	5,307	1,652	3,612	5,264

Source: LLG 2017

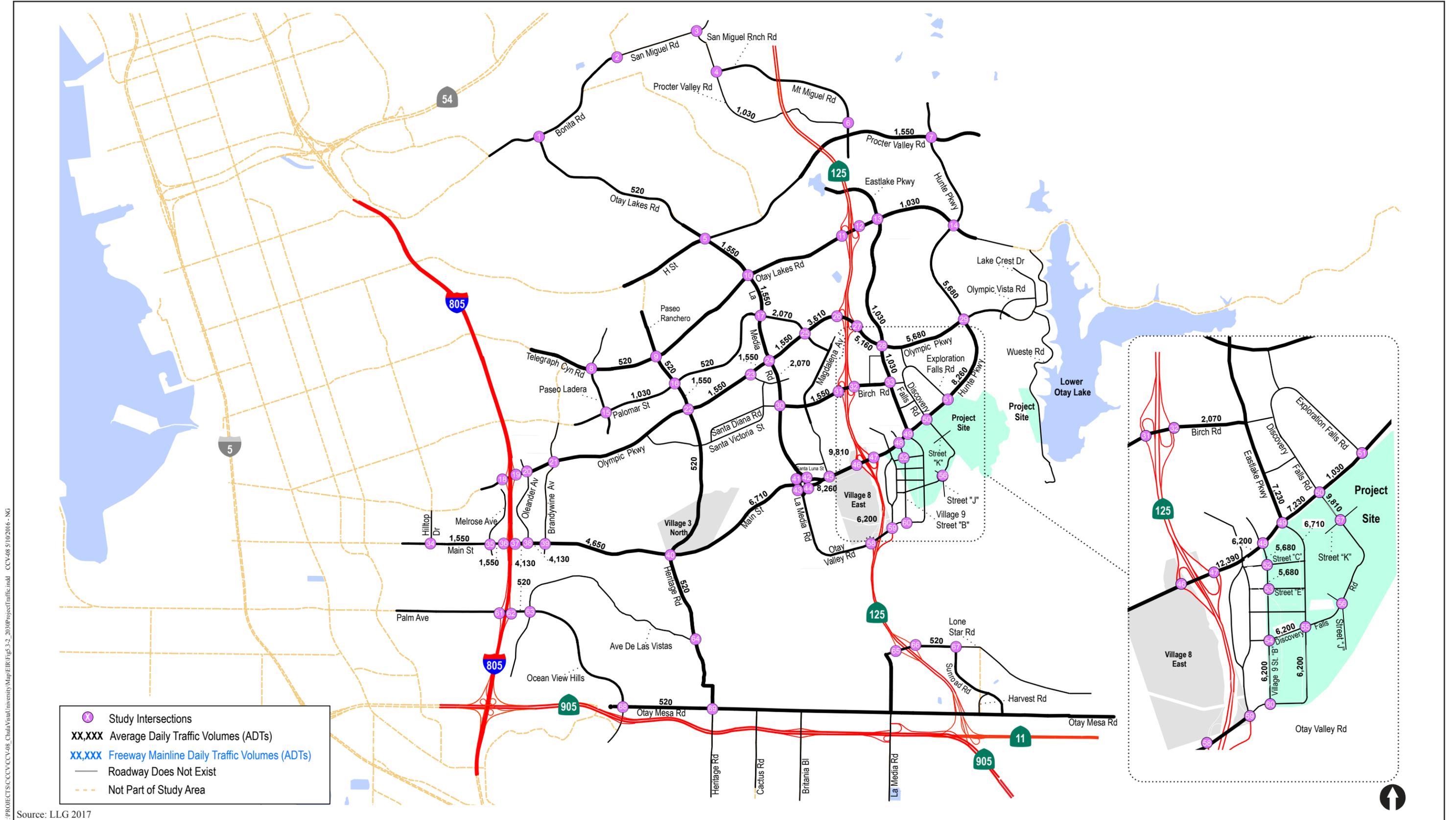
Trip generation rates based on (Not so) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002, by SANDAG.

^a Internal Capture: Traffic to the University that is also destined to the research (students working as interns).

^b Internal Capture: Traffic to the University and research that also patronizes the retail.

^c Internal Capture: The on-campus housing will serve graduate students and staff; therefore, a 25 percent internal capture is assumed.

DU = dwelling unit; SF = square feet.



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Source: LLG 2017

Year 2030 Project Traffic Assignment

UNIVERSITY INNOVATION PROJECT EIR

Table 5.3-9 PHASED PROJECT TRIP GENERATION

Scenario	ADT	EDU	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Year 2020	13,595	1,360	921	325	1,246	464	886	1,350
Year 2025	35,650	3,565	2,344	864	3,208	1,252	2,316	3,568
Year 2030 ^a	51,652	5,164	3,996	1,311	5,307	1,652	3,612	5,264

Source: LLG 2017

a Year 2030 (Buildout) Project trip generation values also apply to the Existing Plus Project scenario.

Existing Plus Project

CEQA mandates the assessment of existing conditions with Project buildout conditions. The Existing Plus Project scenario assumes the existing street network with existing traffic count data as the baseline in order to analyze impacts from the Project at buildout. Under buildout conditions, the Project is forecast to generate 51,652 trips per day. Because of the lack of existing transit service and the isolated nature of the Project in this study scenario, neither internal capture nor transit reductions were applied to the Existing Plus Project analysis. As shown in Table 5.3-10, *Existing Plus Project Intersection Operations*, the following intersections would operate at a deficient LOS under the Existing Plus Project scenario:

- Palomar Street/La Media Road (AM – LOS E)
- East Olympic Parkway/I-805 SB Ramps (PM – LOS F)
- Olympic Parkway/I-805 NB Ramps (AM – LOS F, PM – LOS F)
- Olympic Parkway/Oleander Avenue (AM – LOS F, PM – LOS F)
- Olympic Parkway/Brandywine Avenue (AM – LOS F, PM – LOS F)
- Olympic Parkway/Heritage Road (AM – LOS F, PM – LOS F)
- Olympic Parkway/Santa Venetia Street (AM – LOS F, PM – LOS F)
- Olympic Parkway/La Media Road (AM – LOS F, PM – LOS F)
- Birch Road/La Media Road (AM – LOS F, PM – LOS F)
- Birch Road/Eastlake Parkway (AM – LOS F, PM – LOS F)
- Main Street/I-805 SB Ramps (PM – LOS F)
- Main Street/I-805 NB Ramps (AM – LOS E)
- Hunte Parkway/Discovery Falls Drive (AM – LOS F, PM – LOS E)
- Palm Avenue/I-805 SB Ramps (PM – LOS E)
- Palm Avenue/I-805 NB Ramps (AM – LOS E, PM – LOS E)

Table 5.3-11, *Existing Plus Project Roadway Segment Operations*, presents the results of the Existing Plus Project conditions roadway segment LOS. As shown in this table, the following roadway segments would operate at deficient LOS:

- Otay Lakes Road from Bonita Road to East H Street (LOS D)
- Olympic Parkway from I-805 NB Ramps to Oleander Avenue (LOS F)
- Olympic Parkway from Oleander Avenue to Brandywine Avenue (LOS F)
- Olympic Parkway from Brandywine Avenue to Heritage Road (LOS F)
- Olympic Parkway from Heritage Road to Santa Venetia Street (LOS F)

- Olympic Parkway from Santa Venetia Street to La Media Road (LOS F)
- Eastlake Parkway, south of Hunte Parkway (LOS F)

Table 5.3-10 EXISTING PLUS PROJECT INTERSECTION OPERATIONS

Intersection	Jurisdiction	Traffic Control	Peak Hour	Delay	LOS
Bonita Rd/ Otay Lakes Rd	Chula Vista	Signal	AM	25.8	C
			PM	20.0	B
Bonita Rd/ San Miguel Rd	County of San Diego	Signal	AM	22.5	C
			PM	21.8	C
Proctor Valley Rd/ San Miguel Rd	County of San Diego	MSSC	AM	13.0	B
			PM	8.4	A
Proctor Valley Rd/ San Miguel Ranch Rd	Chula Vista	AWSC	AM	10.5	B
			PM	16.5	C
East H St/Otay Lakes Road/La Media Rd	Chula Vista	Signal	AM	34.4	C
			PM	37.7	D
Proctor Valley Rd/ Mt Miguel Rd	Chula Vista	Signal	AM	36.4	D
			PM	9.1	A
Proctor Valley Rd/ Hunte Pkwy	Chula Vista	Signal	AM	23.0	C
			PM	18.5	B
Telegraph Canyon Rd/ Paseo Ladera	Chula Vista	Signal	AM	35.8	D
			PM	24.5	C
Telegraph Canyon Rd/ Paseo Ranchero	Chula Vista	Signal	AM	33.2	C
			PM	24.3	C
Telegraph Canyon Rd/Otay Lakes Rd/ La Media Rd	Chula Vista	Signal	AM	35.5	D
			PM	34.9	C
Otay Lakes Rd/ SR-125 SB Ramps	Chula Vista	Signal	AM	6.8	A
			PM	9.6	A
Otay Lakes Rd/ SR-125 NB Ramps	Chula Vista	Signal	AM	2.0	A
			PM	3.2	A
Otay Lakes Rd/ Eastlake Pkwy	Chula Vista	Signal	AM	26.1	C
			PM	37.2	D
Otay Lakes Rd/ Hunte Pkwy	Chula Vista	Signal	AM	25.7	C
			PM	22.2	C
E. Palomar Rd/ Paseo Ladera	Chula Vista	Signal	AM	19.0	B
			PM	18.3	B
E. Palomar Rd/ Heritage Rd	Chula Vista	Signal	AM	50.3	D
			PM	28.1	C
E. Palomar Rd/ La Media Rd	Chula Vista	Signal	AM	61.1	E
			PM	33.3	C
Olympic Pkwy/ I-805 SB Ramps	Chula Vista	Signal	AM	17.9	B
			PM	>100.0	F
Olympic Pkwy/ I-805 NB Ramps	Chula Vista	Signal	AM	>100.0	F
			PM	>100.0	F
Olympic Pkwy/ Oleander Ave	Chula Vista	Signal	AM	>100.0	F
			PM	>100.0	F

Table 5.3-10 (cont.) EXISTING PLUS PROJECT INTERSECTION OPERATIONS

Intersection	Jurisdiction	Traffic Control	Peak Hour	Delay	LOS
Olympic Pkwy/ Brandywine Ave	Chula Vista	Signal	AM	>100.0	F
			PM	>100.0	F
Olympic Pkwy/ Heritage Rd	Chula Vista	Signal	AM	>100.0	F
			PM	>100.0	F
Olympic Pkwy/ Santa Venetia St	Chula Vista	Signal	AM	>100.0	F
			PM	>100.0	F
Olympic Pkwy/ La Media Rd	Chula Vista	Signal	AM	>100.0	F
			PM	>100.0	F
Olympic Pkwy/ E. Palomar St	Chula Vista	Signal	AM	34.1	C
			PM	28.7	C
Olympic Pkwy/ SR-125 SB Ramps	Chula Vista	Signal	AM	10.0	A
			PM	10.7	B
Olympic Pkwy/ SR-125 NB Ramps	Chula Vista	Signal	AM	10.0	A
			PM	9.7	A
Olympic Pkwy/ Eastlake Pkwy	Chula Vista	Signal	AM	28.0	C
			PM	32.0	C
Olympic Pkwy/ Hunte Pkwy	Chula Vista	Signal	AM	25.5	C
			PM	34.6	C
Birch Rd/ La Media Rd	Chula Vista	Signal	AM	>100.0	F
			PM	>100.0	F
Birch Rd/ SR-125 SB Ramps	Chula Vista	Signal	AM	48.2	D
			PM	39.7	D
Birch Rd/ SR-125 NB Ramps	Chula Vista	Signal	AM	3.6	A
			PM	3.3	A
Birch Rd/ Eastlake Pkwy	Chula Vista	Signal	AM	>100.0	F
			PM	>100.0	F
Main St/ Hilltop Drive	Chula Vista	Signal	AM	3.7	A
			PM	4.3	A
Main St/ Melrose Ave	Chula Vista	Signal	AM	14.2	B
			PM	13.8	B
Main St/I-805 SB Ramps	Chula Vista	Signal	AM	49.0	D
			PM	>100.0	F
Main St/I-805 NB Ramps	Chula Vista	Signal	AM	63.6	E
			PM	40.2	D
Main St/Oleander Ave	Chula Vista	Signal	AM	8.4	A
			PM	8.2	A
Main St/ Brandywine Ave	Chula Vista	Signal	AM	33.8	C
			PM	46.8	D
Main St/Heritage Rd	Chula Vista	Signal	AM	11.5	B
			PM	15.2	B
Main St (WB)/ La Media Rd (SB)	Chula Vista	AWSC	AM	DNE	N/A
			PM	DNE	N/A
Main St (WB)/ La Media Rd (NB)	Chula Vista	AWSC	AM	DNE	N/A
			PM	DNE	N/A
Main St (EB)/ La Media Rd (SB)	Chula Vista	AWSC	AM	DNE	N/A
			PM	DNE	N/A

Table 5.3-10 (cont.) EXISTING PLUS PROJECT INTERSECTION OPERATIONS

Intersection	Jurisdiction	Traffic Control	Peak Hour	Delay	LOS
Main St (EB)/ La Media Rd (NB)	Chula Vista	AWSC	AM	DNE	N/A
			PM	DNE	N/A
Main St/ Magdalena Ave	Chula Vista	MSSC	AM	8.8	A
			PM	8.7	A
Main St/SR-125 SB Ramps	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Main St/SR-125 NB Ramps	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Main St/Village 9 St "B"	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Hunte Pkwy (Main St)/ Eastlake Pkwy	Chula Vista	Signal	AM	19.3	B
			PM	29.8	C
Hunte Pkwy/ Discovery Falls Dr	Chula Vista	Signal	AM	>100.0	F
			PM	55.7	E
Hunte Pkwy/ Exploration Falls Dr	Chula Vista	Signal	AM	13.5	B
			PM	8.2	A
Village 9 St "B"/ Village 9 St "C"	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Village 9 St "B"/ Village 9 St "E"	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Discovery Falls Rd/ Village 9 St "I"	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Discovery Falls Rd/ Eastlake Pkwy	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Discovery Falls Rd/ St "J"	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Discovery Falls Rd/ St "K"	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Otay Valley Rd/ SR-125 SB Ramps	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Otay Valley Rd/ SR-125 NB Ramps	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Otay Valley Rd/ Village 9 St "B"	Chula Vista	Signal	AM	DNE	N/A
			PM	DNE	N/A
Palm Ave/I-805 SB Ramps	City of San Diego/ Caltrans	Signal	AM	30.2	C
			PM	58.1	E
Palm Ave/I-805 NB Ramps	City of San Diego/ Caltrans	Signal	AM	68.5	E
			PM	77.3	E
Palm Ave/ Dennery Road	City of San Diego	Signal	AM	44.5	D
			PM	48.3	D
Avenida De Las Vistas/ Heritage Road	City of San Diego	Signal	AM	15.2	C
			PM	10.5	B
Lone Star Rd/ SR-125 SB Ramps	Caltrans	Signal	AM	DNE	N/A
			PM	DNE	N/A
Lone Star Rd/ SR-125 NB Ramps	Caltrans	Signal	AM	DNE	N/A
			PM	DNE	N/A

Table 5.3-10 (cont.) EXISTING PLUS PROJECT INTERSECTION OPERATIONS

Intersection	Jurisdiction	Traffic Control	Peak Hour	Delay	LOS
Lone Star Rd/ Harvest Rd	City of San Diego	Signal	AM	DNE	N/A
			PM	DNE	N/A
Ocean View Hills Pkwy/ Otay Mesa Rd	City of San Diego	Signal	AM	32.9	C
			PM	29.6	C
Heritage Rd/ Otay Mesa Rd	City of San Diego	Signal	AM	22.2	C
			PM	25.8	C

Source: LIG 2017

MSSC = Minor Street STOP Controlled. Minor street delay and level of service reported.

AWSC = All Way STOP Controlled. Overall delay and level of service reported.

DNE = Does not exist. i.e., intersection was not built/operational under Existing Conditions.

Table 5.3-11 EXISTING PLUS PROJECT ROADWAY SEGMENT OPERATIONS

Roadway/Segment	Jurisdiction	Functional Classification	LOS C Capacity ^a	Volume	LOS
Bonita Road					
Otay Lakes Rd to San Miguel Rd	Chula Vista	4-lane Major	30,000	23,700	B
San Miguel Ranch Road					
Bonita Road to Proctor Valley Rd	Chula Vista	Class I Collector	22,000	8,630	A
East H St					
SR-125 to Mt Miguel Rd	Chula Vista	6-lane Prime	50,000	18,320	A
Mt Miguel Rd to Hunte Pkwy	Chula Vista	6-lane Prime	50,000	20,070	A
Telegraph Canyon Road					
Paseo Ladera to Paseo Ranchero	Chula Vista	6-lane Prime	50,000	45,620	C
Paseo Ranchero to Otay Lakes Rd	Chula Vista	6-lane Prime	50,000	36,100	A
Otay Lakes Road					
Bonita Rd to East H St	Chula Vista	4-lane Major	30,000	31,620	D
East H St to Telegraph Canyon Rd	Chula Vista	6-lane Prime	30,000	27,850	C
La Media Road to SR-125	Chula Vista	6-lane Prime	50,000	41,600	B
SR-125 to Eastlake Pkwy	Chula Vista	7-lane Prime	58,330	44,500	C
Eastlake Pkwy to Hunte Pkwy	Chula Vista	6-lane Prime	50,000	23,250	A
East of Hunte Pkwy	Chula Vista	6-lane Prime	50,000	7,400	A
E. Palomar Street					
Paseo Ladera to Heritage Road	Chula Vista	4-lane Major	30,000	14,430	A
Heritage Road to La Media Rd	Chula Vista	4-lane Major	30,000	20,620	A
La Media Rd to Olympic Pkwy	Chula Vista	4-lane Major	30,000	14,470	A

Table 5.3-11 (cont.) EXISTING PLUS PROJECT ROADWAY SEGMENT OPERATIONS

Roadway/Segment	Jurisdiction	Functional Classification	LOS C Capacity ^a	Volume	LOS
Olympic Parkway					
I-805 NB Ramps to Oleander Ave	Chula Vista	6-lane Prime	50,000	72,260	F
Oleander Ave to Brandywine Ave	Chula Vista	6-lane Prime	50,000	76,060	F
Brandywine Ave to Heritage Rd	Chula Vista	6-lane Prime	50,000	76,460	F
Heritage Rd to Santa Venetia St	Chula Vista	6-lane Prime	50,000	73,500	F
Santa Venetia St to La Media Rd	Chula Vista	6-lane Prime	50,000	71,100	F
La Media Rd to E. Palomar St	Chula Vista	6-lane Prime	50,000	35,130	A
E. Palomar St to SR-125	Chula Vista	6-lane Prime	50,000	41,800	B
SR-125 to Eastlake Pkwy	Chula Vista	8-lane Prime	66,670	43,868	A
Eastlake Pkwy to Hunte Pkwy	Chula Vista	6-lane Prime	50,000	20,380	A
Birch Road					
La Media Rd to SR-125	Chula Vista	6-lane Major	40,000	37,040	C
SR-125 to Eastlake Pkwy	Chula Vista	6-lane Major	40,000	39,620	C
Main St					
Hilltop Dr to Melrose Ave	Chula Vista	6-lane Prime	50,000	27,500	A
Melrose Ave to I-805	Chula Vista	6-lane Prime	50,000	14,430	A
I-805 to Oleander Ave	Chula Vista	6-lane Prime	50,000	33,370	A
Oleander Ave to Brandywine Ave	Chula Vista	6-lane Prime	50,000	24,130	A
Brandywine Ave to Heritage Rd	Chula Vista	6-lane Prime	50,000	10,900	A
Heritage Rd to Otay Valley Rd	Chula Vista	6-lane Prime	50,000	DNE	DNE
Otay Valley Rd to Magdalena Ave	Chula Vista	6-lane Prime	50,000	DNE	DNE
Magdalena Ave to SR-125	Chula Vista	6-lane Prime	50,000	DNE	DNE
SR-125 to Village 9 St "B"	Chula Vista	6-lane Prime	50,000	DNE	DNE
Village 9 St "B" to Eastlake Pkwy	Chula Vista	6-lane Prime	50,000	DNE	DNE
Otay Valley Road					
La Media Road to SR-125	Chula Vista	4-lane Major	30,000	DNE	DNE
SR-125 to Village 9 St "B"	Chula Vista	4-lane Major	30,000	DNE	DNE
Hunte Parkway					
Otay Lakes Rd to Olympic Pkwy	Chula Vista	4-lane Major	30,000	11,650	A
Olympic Pkwy to Exploration Falls Dr	Chula Vista	6-lane Prime	50,000	13,530	A

Table 5.3-11 (cont.) EXISTING PLUS PROJECT ROADWAY SEGMENT OPERATIONS

Roadway/Segment	Jurisdiction	Functional Classification	LOS C Capacity ^a	Volume	LOS
Hunte Parkway (cont.)					
Exploration Falls Rd to Discovery Falls Dr	Chula Vista	6-lane Prime	50,000	8,880	A
Discovery Falls Rd to Eastlake Pkwy	Chula Vista	6-lane Prime	50,000	10,930	A
Heritage Road					
Telegraph Canyon Rd to E. Palomar St	Chula Vista	6-lane Prime	50,000	19,520	A
E. Palomar St to Olympic Pkwy	Chula Vista	6-lane Prime	50,000	14,450	A
Olympic Pkwy to Main St	Chula Vista	6-lane Prime	50,000	DNE	DNE
Main St to Otay Mesa Rd	Chula Vista	6-lane Prime	50,000	8,800	A
La Media Road					
Telegraph Canyon Rd to E. Palomar St	Chula Vista	6-lane Prime	50,000	24,150	A
E. Palomar St to Olympic Pkwy	Chula Vista	6-lane Prime	50,000	14,700	A
Olympic Pkwy to Birch Rd	Chula Vista	6-lane Prime	50,000	21,690	A
Eastlake Parkway					
Otay Lakes Rd to Olympic Pkwy	Chula Vista	4-lane Major	30,000	14,170	A
Olympic Pkwy to Birch Rd	Chula Vista	6-lane Major	40,000	16,960	A
Birch Rd to Hunte Pkwy	Chula Vista	6-lane Major	40,000	34,950	B
South of Hunte Pkwy	Chula Vista	Class II Collector	12,000	24,270	F
North of Discovery Falls Rd	Chula Vista	Class II Collector	12,000	DNE	DNE
Discovery Falls Rd to Otay Valley Rd	Chula Vista	Class II Collector	12,000	DNE	DNE
Village 9 St "B"					
Hunte Pkwy to Village 9 St "C"	Chula Vista	Class III Collector ^b	7,500	DNE	DNE
Village 9 St "C" to Village 9 St "E"	Chula Vista	Class III Collector ^b	7,500	DNE	DNE
Village 9 St "E" to Discovery Falls Rd	Chula Vista	Class III Collector ^b	7,500	DNE	DNE
Discovery Falls Rd to Otay Valley Rd	Chula Vista	Class III Collector ^b	7,500	DNE	DNE
Discovery Falls Road					
Hunte Pkwy to St "K"	Chula Vista	4-lane Major	30,000	11,880	A
St "K" to Eastlake Pkwy	Chula Vista	Class III Collector	7,500	DNE	DNE
Eastlake Pkwy to Village 9 St "B"	Chula Vista	Class III Collector	7,500	DNE	DNE

Table 5.3-11 (cont.) EXISTING PLUS PROJECT ROADWAY SEGMENT OPERATIONS

Roadway/Segment	Jurisdiction	Functional Classification	LOS C Capacity ^a	Volume	LOS
Palm Avenue					
I-805 to Dennery Rd	City of San Diego	7-lane Prime	52,500	46,230	C
Ocean View Hills Parkway					
Dennery Rd to Del Sol Blvd	City of San Diego	4-lane Major	30,000	15,420	B
Del Sol Blvd to Otay Mesa Rd	City of San Diego	4-lane Major	40,000	8,800	A
Otay Mesa Road					
Ocean View Hills Pkwy to Heritage Rd	City of San Diego	6-lane Prime	50,000	13,220	A
Lone Star Road					
SR-125 to Harvest Rd	City of San Diego	4-lane Major	30,000	DNE	DNE

Source: LLG 2017

Footnotes:

^a. Capacity of facility at LOS C (Chula Vista) and LOS E (City of San Diego).^b. Capacity of Class III Collector is assumed for this street since only one lane is provided in each direction with the Bus Rapid Transit in the center, and no turn lanes at intervening intersections.

DNE = Does not exist; i.e., roadway segment was not built/operational under Existing Conditions.

Year 2020**Average Daily Trips**

By the Year 2020, the UID would include up to 58.5 acres of university uses, 350,000 sf of research uses, 100,000 sf of commercial uses, and 450 multi-family dwelling units. Table 5.3-9 summarizes Project trip generation for the UID under the Year 2020 scenario. As shown in this table, by Year 2020 the UID is anticipated to result in 13,595 ADT. The EDU for Year 2020 would be 1,360.

No additional network improvements are planned in the Year 2020. However, the SR-125/I-905 interchange is assumed to be built. The major regional access is similar to the existing conditions. I-805 and SR-125 continue to provide north/south access. Access to and from the west is along Telegraph Canyon Road/Olympic Parkway and access to and from the east is along Hunte Parkway.

Traffic Impacts

Access and Frontage. According to Chapter 12.24 of the City's Municipal Code, access related impacts would occur if access and frontage improvements are not provided concurrent with development. Therefore, in 2020, the Project could result in potentially significant impacts related to access and frontage (Impact 5.3-1). To mitigate these potential impacts, the City would impose requirements for the dedication of public right-of-way and installation of public improvements in connection with development.

Intersections. Table 5.3-12, *Year 2020 Intersection Operations*, summarizes the AM and PM peak hour intersection level of service for the Year 2020.

City of Chula Vista

The following Chula Vista intersections would operate at a deficient LOS with implementation of the Project under the Year 2020 scenario:

- Telegraph Canyon Road/Paseo Ranchero (AM – LOS E)
- Telegraph Canyon Road/Otay Lakes Road/La Media Road (PM – LOS E)
- East Palomar Street/Heritage Road (AM – LOS E)
- East Palomar Street/La Media Road (AM – LOS E, PM – LOS E)
- Olympic Parkway/I-805 SB Ramps (AM – LOS F, PM – LOS F)
- Olympic Parkway/I-805 NB Ramps (AM – LOS F, PM – LOS F)
- Olympic Parkway/Oleander Avenue (AM – LOS E, PM – LOS F)
- Olympic Parkway/Brandywine Avenue (AM – LOS F, PM – LOS F)
- Olympic Parkway/Heritage Road (AM – LOS F, PM – LOS F)
- Birch Road/La Media Road (AM – LOS E, PM – LOS F)
- Main Street/I-805 SB Ramps (PM – LOS F)
- Main Street/I-805 NB Ramps (PM – LOS F)
- Main Street/Brandywine Avenue (AM – LOS E, PM – LOS E)

For the Birch Road/La Media Road intersection, the percentage of trips attributable to the Project in Year 2020 would be greater than five percent in both the AM and PM peak hours. Therefore, a significant direct impact to this intersection would occur (Impact 5.3-2).

For the remaining intersections identified above as having a deficient LOS, the percentage of segment trips attributable to the Project in the Year 2020 would be less than five percent. Therefore, direct impacts to these intersections would be less than significant. However, a significant cumulative impact would occur because these intersections would operate at deficient LOS under the Year 2020 scenario (Impacts 5.3-3a through 5.3-3l).

County of San Diego

None of the County of San Diego intersections would operate at a deficient LOS with implementation of the Project under the Year 2020 scenario. Therefore, direct and cumulative impacts to County intersections would be less than significant.

City of San Diego/Caltrans

The following City of San Diego/Caltrans intersections would operate at a deficient LOS with implementation of the Project under the Year 2020 scenario:

- Palm Avenue/I-805 SB Ramps (PM – LOS F)
- Palm Avenue/I-805 NB Ramps (AM – LOS E, PM – LOS F)

Direct impacts to these two City of San Diego/Caltrans intersections would be less than significant because the increase in delay attributable to the Project in the Year 2020 would be less than two seconds. However, a significant cumulative impact would occur because these intersections would operate at deficient LOS under the Year 2020 scenario (Impacts 5.3-4a and 5.3-4b).

City of San Diego

The following City of San Diego intersection would operate at a deficient LOS with implementation of the Project under the Year 2020 scenario:

- Avenida De Las Vistas/Heritage Road (AM – LOS F, PM – LOS F)

Direct impacts to this City of San Diego intersection would be less than significant because the increase in delay attributable to the Project in the Year 2020 would be less than two seconds. However, a significant cumulative impact would occur because this intersection would operate at a deficient LOS under the Year 2020 scenario (Impact 5.3-5).

Table 5.3-12 YEAR 2020 INTERSECTION OPERATIONS

Intersection	Jurisdiction	Traffic Control	Peak Hour	Delay	LOS	Project % of Entering Volume (>5%)	Impact
Bonita Rd/ Otay Lakes Rd	Chula Vista	Signal	AM	27.0	C	0.3%	None
			PM	25.9	C	0.3%	None
Bonita Rd/ San Miguel Rd	County of San Diego	Signal	AM	40.3	D	7 ^a	None
			PM	36.8	D	18 ^a	None
Proctor Valley Rd/ San Miguel Rd	County of San Diego	MSSC	AM	16.6	C	7 ^a	None
			PM	29.0	D	18 ^a	None
Proctor Valley Rd/ San Miguel Ranch Rd	Chula Vista	AWSC	AM	13.5	B	3.3%	None
			PM	44.0	E	2.5%	None ^b
East H St/Otay Lakes Road/ La Media Rd	Chula Vista	Signal	AM	33.9	C	0.9%	None
			PM	39.4	D	0.9%	None
Proctor Valley Rd/ Mt Miguel Rd	Chula Vista	Signal	AM	22.8	C	2.3%	None
			PM	8.2	A	2.8%	None
Proctor Valley Rd/Hunte Pkwy	Chula Vista	Signal	AM	20.4	C	2.4%	None
			PM	16.1	B	3.7%	None
Telegraph Canyon Rd/Paseo Ladera	Chula Vista	Signal	AM	52.4	D	0.2%	None
			PM	32.2	C	0.3%	None
Telegraph Canyon Rd/Paseo Ranchero	Chula Vista	Signal	AM	58.3	E	0.2%	Cumulative
			PM	46.2	D	0.2%	None
Telegraph Canyon Rd/Otay Lakes Rd/La Media Rd	Chula Vista	Signal	AM	38.7	D	0.7%	None
			PM	75.8	E	0.6%	Cumulative
Otay Lakes Rd/ SR-125 SB Ramps	Chula Vista	Signal	AM	5.2	A	0.9%	None
			PM	9.8	A	0.3%	None
Otay Lakes Rd/ SR-125 NB Ramps	Chula Vista	Signal	AM	3.0	A	1.0%	None
			PM	5.1	A	0.9%	None
Otay Lakes Rd/ Eastlake Pkwy	Chula Vista	Signal	AM	30.1	C	0.9%	None
			PM	43.2	D	0.7%	None

Table 5.3-12 (cont.) YEAR 2020 INTERSECTION OPERATIONS

Intersection	Jurisdiction	Traffic Control	Peak Hour	Delay	LOS	Project % of Entering Volume (>5%)	Impact
Otay Lakes Rd/ Hunte Pkwy	Chula Vista	Signal	AM	29.5	C	2.4%	None
			PM	31.6	C	2.4%	None
E. Palomar Rd/ Paseo Ladera	Chula Vista	Signal	AM	24.0	C	0.5%	None
			PM	20.9	C	0.6%	None
E. Palomar Rd/ Heritage Rd	Chula Vista	Signal	AM	60.2	E	0.7%	Cumulative
			PM	48.8	D	0.8%	None
E. Palomar Rd/ La Media Rd	Chula Vista	Signal	AM	58.3	E	1.2%	Cumulative
			PM	70.6	E	1.2%	Cumulative
Olympic Pkwy/ I-805 SB Ramps	Chula Vista	Signal	AM	99.5	F	2.7%	Cumulative
			PM	216.0	F	2.4%	Cumulative
Olympic Pkwy/ I-805 NB Ramps	Chula Vista	Signal	AM	149.1	F	3.6%	Cumulative
			PM	155.1	F	3.3%	Cumulative
Olympic Pkwy/ Oleander Ave	Chula Vista	Signal	AM	68.6	E	4.1%	Cumulative
			PM	98.0	F	3.7%	Cumulative
Olympic Pkwy/ Brandywine Ave	Chula Vista	Signal	AM	132.1	F	3.5%	Cumulative
			PM	130.5	F	3.4%	Cumulative
Olympic Pkwy/ Heritage Rd	Chula Vista	Signal	AM	115.5	F	4.1%	Cumulative
			PM	106.2	F	4.1%	Cumulative
Olympic Pkwy/ Santa Venetia St	Chula Vista	Signal	AM	23.4	C	5.4%	None
			PM	9.0	A	6.6%	None
Olympic Pkwy/ La Media Rd	Chula Vista	Signal	AM	54.0	D	4.4%	None
			PM	41.4	D	4.5%	None
Olympic Pkwy/ E. Palomar St	Chula Vista	Signal	AM	30.5	C	4.0%	None
			PM	34.9	C	3.6%	None
Olympic Pkwy/ SR-125 SB Ramps	Chula Vista	Signal	AM	9.7	A	5.9%	None
			PM	10.1	B	4.8%	None
Olympic Pkwy/ SR-125 NB Ramps	Chula Vista	Signal	AM	10.3	B	6.3%	None
			PM	10.8	B	5.3%	None
Olympic Pkwy/ Eastlake Pkwy	Chula Vista	Signal	AM	33.3	C	4.6%	None
			PM	36.2	D	4.0%	None
Olympic Pkwy/ Hunte Pkwy	Chula Vista	Signal	AM	34.4	C	6.4%	None
			PM	31.9	C	6.7%	None
Birch Rd/ La Media Rd	Chula Vista	Signal	AM	63.9	E	6.5%	Direct
			PM	95.4	F	5.0%	Direct
Birch Rd/ SR-125 SB Ramps	Chula Vista	Signal	AM	13.7	B	11.2%	None
			PM	10.2	B	9.0%	None
Birch Rd/ SR-125 NB Ramps	Chula Vista	Signal	AM	5.5	A	12.1%	None
			PM	5.8	A	10.7%	None
Birch Rd/ Eastlake Pkwy	Chula Vista	Signal	AM	39.4	D	15.9%	None
			PM	40.7	D	15.2%	None
Main St/ Hilltop Drive	Chula Vista	Signal	AM	22.7	C	1.4%	None
			PM	24.7	C	1.2%	None

Table 5.3-12 (cont.) YEAR 2020 INTERSECTION OPERATIONS

Intersection	Jurisdiction	Traffic Control	Peak Hour	Delay	LOS	Project % of Entering Volume (>5%)	Impact
Main St/ Melrose Ave	Chula Vista	Signal	AM	32.4	C	1.1%	None
			PM	54.5	D	1.0%	None
Main St/ I-805 SB Ramps	Chula Vista	Signal	AM	44.5	D	1.1%	None
			PM	107.2	F	1.4%	Cumulative
Main St/ I-805 NB Ramps	Chula Vista	Signal	AM	46.1	D	1.5%	None
			PM	146.1	F	1.1%	Cumulative
Main St/ Oleander Ave	Chula Vista	Signal	AM	19.4	B	1.1%	None
			PM	15.4	B	1.0%	None
Main St/ Brandywine Ave	Chula Vista	Signal	AM	57.5	E	1.0%	Cumulative
			PM	61.6	E	0.9%	Cumulative
Main St/ Heritage Rd	Chula Vista	Signal	AM	43.1	D	1.3%	None
			PM	36.1	D	1.3%	None
Main St (WB)/ La Media Rd (SB)	Chula Vista	AWSC	AM	DNE	DNE	N/A	None
			PM	DNE	DNE	N/A	None
Main St (WB)/ La Media Rd (NB)	Chula Vista	AWSC	AM	DNE	DNE	N/A	None
			PM	DNE	DNE	N/A	None
Main St (EB)/ La Media Rd (SB)	Chula Vista	AWSC	AM	DNE	DNE	N/A	None
			PM	DNE	DNE	N/A	None
Main St (EB)/ La Media Rd (NB)	Chula Vista	AWSC	AM	DNE	DNE	N/A	None
			PM	DNE	DNE	N/A	None
Main St/ Magdalena Ave	Chula Vista	MSSC	AM	DNE	DNE	N/A	N/A
			PM	DNE	DNE	N/A	N/A
Main St/ SR-125 SB Ramps	Chula Vista	Signal	AM	DNE	DNE	N/A	None
			PM	DNE	DNE	N/A	None
Main St/ SR-125 NB Ramps	Chula Vista	Signal	AM	DNE	DNE	N/A	None
			PM	DNE	DNE	N/A	None
Main St/ Village 9 St "B"	Chula Vista	Signal	AM	DNE	DNE	N/A	None
			PM	DNE	DNE	N/A	None
Hunte Pkwy (Main St)/ Eastlake Pkwy	Chula Vista	Signal	AM	39.5	D	28.4%	None
			PM	22.6	C	36.2%	None
Hunte Pkwy/ Discovery Falls Dr	Chula Vista	Signal	AM	20.1	C	12.3%	None
			PM	22.8	C	14.6%	None
Hunte Pkwy/ Exploration Falls Dr	Chula Vista	Signal	AM	25.9	C	19.5%	None
			PM	24.8	C	31.4%	None
Village 9 St "B"/ Village 9 St "C"	Chula Vista	Signal	AM	DNE	DNE	N/A	None
			PM	DNE	DNE	N/A	None
Village 9 St "B"/ Village 9 St "E"	Chula Vista	Signal	AM	DNE	DNE	N/A	None
			PM	DNE	DNE	N/A	None
Discovery Falls Rd/ Village 9 St "I"	Chula Vista	Signal	AM	DNE	DNE	N/A	None
			PM	DNE	DNE	N/A	None
Discovery Falls Rd/ Eastlake Pkwy	Chula Vista	Signal	AM	DNE	DNE	N/A	None
			PM	DNE	DNE	N/A	None

Table 5.3-12 (cont.) YEAR 2020 INTERSECTION OPERATIONS

Intersection	Jurisdiction	Traffic Control	Peak Hour	Delay	LOS	Project % of Entering Volume (>5%)	Impact
Discovery Falls Rd/ St "J"	Chula Vista	Signal	AM	DNE	DNE	N/A	None
			PM	DNE	DNE	N/A	None
Discovery Falls Rd/ St "K"	Chula Vista	Signal	AM	DNE	DNE	N/A	None
			PM	DNE	DNE	N/A	None
Otay Valley Rd/ SR-125 SB Ramps	Chula Vista	Signal	AM	DNE	DNE	N/A	None
			PM	DNE	DNE	N/A	None
Otay Valley Rd/ SR-125 NB Ramps	Chula Vista	Signal	AM	DNE	DNE	N/A	None
			PM	DNE	DNE	N/A	None
Otay Valley Rd/ Village 9 St "B"	Chula Vista	Signal	AM	DNE	DNE	N/A	None
			PM	DNE	DNE	N/A	None
Palm Ave/ I-805 SB Ramps	City of San Diego/ Caltrans	Signal	AM	41.0	D	0.3%	None
			PM	91.8	F	0.3%	Cumulative
Palm Ave/ I-805 NB Ramps	City of San Diego/ Caltrans	Signal	AM	75.2	E	0.2%	Cumulative
			PM	95.7	F	0.1%	Cumulative
Palm Ave/ Dennery Road	City of San Diego	Signal	AM	47.4	D	0.0%	None
			PM	49.2	D	0.0%	None
Avenida De Las Vistas/ Heritage Road	City of San Diego	Signal	AM	53.6	F	1.1%	Cumulative
			PM	64.7	F	1.1%	Cumulative
Lone Star Rd/ SR-125 SB Ramps	Caltrans	Signal	AM	DNE	N/A	N/A	None
			PM	DNE	N/A	N/A	None
Lone Star Rd/ SR-125 NB Ramps	Caltrans	Signal	AM	DNE	N/A	N/A	None
			PM	DNE	N/A	N/A	None
Lone Star Rd/ Harvest Rd	City of San Diego	Signal	AM	DNE	N/A	N/A	None
			PM	DNE	N/A	N/A	None
Ocean View Hills Pkwy/Otay Mesa Rd	City of San Diego	Signal	AM	32.8	C	- ^c	None
			PM	33.3	C	- ^c	None
Heritage Rd/ Otay Mesa Rd	City of San Diego	Signal	AM	24.8	C	- ^c	None
			PM	50.2	D	- ^c	None

Source: LLG 2017

Footnotes:

- Project traffic in the critical movement at unsignalized intersections in the County of San Diego. Per established criteria if this exceeds 20 peak hour trips, a significant impact is determined.
- Since the Project adds less than 20 trips in the critical movement, this is not a significant impact.
- Increase in delay due to the Project is the significance criteria in the City of San Diego and Caltrans. All impacts in the long term are cumulative.

MSSC = Minor Street STOP Controlled. Minor street delay and level of service reported.

AWSC = All Way STOP Controlled. Overall delay and level of service reported.

DNE = Does not exist; i.e., intersection would not be built/operational in Year 2020.

Roadway Segments. Table 5.3-13, *Year 2020 Roadway Segment Operations*, presents the results of the Year 2020 roadway segment impact analysis under implementation of the Project.

City of Chula Vista

The following six Chula Vista segments were calculated to operate at a deficient LOS under the Year 2020 scenario:

- Telegraph Canyon Road from Paseo Ladera to Paseo Ranchero (LOS E)
- Otay Lakes Road from Bonita Road to East H Street (LOS D)
- Otay Lakes Road from East H Street to Telegraph Canyon Road (LOS D)
- Main Street from Hilltop Drive to Melrose Avenue (LOS E)
- Main Street from Melrose Avenue to I-805 (LOS E)
- Eastlake Parkway from Otay Lakes Road to Olympic Parkway (LOS D)

Direct impacts from the Project to these six Chula Vista roadway segments would be less than significant because the Project would not add more than 800 ADT or contribute more than five percent of the ADT volume on each roadway segment. However, significant cumulative impacts would occur to all six of these segments because they would operate at a deficient LOS under the Year 2020 scenario (Impacts 5.3-6a through 5.3-6f).

City of San Diego

None of the City of San Diego roadway segments would operate at a deficient LOS with implementation of the Project under the Year 2020 scenario. Therefore, direct and cumulative impacts to City of San Diego roadway segments would be less than significant.

Table 5.3-13 YEAR 2020 ROADWAY SEGMENT OPERATIONS

Roadway/ Segment	Jurisdiction	LOS C Capacity ^a	Volume	LOS	Significance Criteria			Impact Type
					Project ADT >800	Project Contribution >5%	Segment Operates at LOS D for More than 2 Hours or LOS E or F for More than 1 Hour	
Bonita Road								
Otay Lakes Rd to San Miguel Rd	Chula Vista	30,000	25,900	B	0	0.0%	Yes	None
San Miguel Ranch Road								
Bonita Road to Proctor Valley Rd	Chula Vista	22,000	17,400	B	270	1.6%	Yes	None

Table 5.3-13 (cont.) YEAR 2020 ROADWAY SEGMENT OPERATIONS

Roadway/ Segment	Jurisdiction	LOS C Capacity ^a	Volume	LOS	Significance Criteria			Impact Type
					Project ADT >800	Project Contribution >5%	Segment Operates at LOS D for More than 2 Hours or LOS E or F for More than 1 Hour	
East H St								
SR-125 to Mt Miguel Rd	Chula Vista	50,000	26,700	A	0	0.0%	Yes	None
Mt Miguel Rd to Hunte Pkwy	Chula Vista	50,000	36,200	A	410	1.1%	Yes	None
Telegraph Canyon Road								
Paseo Ladera to Paseo Ranchero	Chula Vista	50,000	57,100	E	140	0.2%	No	Cumulative
Paseo Ranchero to Otay Lakes Rd	Chula Vista	50,000	48,300	C	0	0.0%	Yes	None
Otay Lakes Road								
Bonita Rd to East H St	Chula Vista	30,000	33,500	D	140	0.4%	Yes	Cumulative
East H St to Telegraph Canyon Rd	Chula Vista	30,000	30,100	D	410	1.4%	Yes	Cumulative
La Media Road to SR-125	Chula Vista	50,000	42,400	B	0	0.0%	Yes	None
SR-125 to Eastlake Pkwy	Chula Vista	58,330	48,600	C	0	0.0%	Yes	None
Eastlake Pkwy to Hunte Pkwy	Chula Vista	50,000	30,900	A	270	0.9%	Yes	None
East of Hunte Pkwy	Chula Vista	50,000	21,500	A	0	0.0%	Yes	None
E. Palomar Street								
Paseo Ladera to Heritage Rd	Chula Vista	30,000	24,600	B	270	1.1%	Yes	None
Heritage Road to La Media Rd	Chula Vista	30,000	22,900	B	140	0.6%	Yes	None

Table 5.3-13 (cont.) YEAR 2020 ROADWAY SEGMENT OPERATIONS

Roadway/ Segment	Jurisdiction	LOS C Capacity ^a	Volume	LOS	Significance Criteria			Impact Type
					Project ADT >800	Project Contribution >5%	Segment Operates at LOS D for More than 2 Hours or LOS E or F for More than 1 Hour	
E. Palomar Street (cont.)								
La Media Rd to Olympic Pkwy	Chula Vista	30,000	22,900	B	540	2.4%	Yes	None
Olympic Parkway								
I-805 NB Ramps to Oleander Ave	Chula Vista	50,000	44,200	C	2,450	5.5%	Yes	None
Oleander Ave to Brandywine Ave	Chula Vista	50,000	37,500	A	2,450	6.5%	Yes	None
Brandywine Ave to Heritage Rd	Chula Vista	50,000	30,200	A	2,450	8.1%	Yes	None
Heritage Rd to Santa Venetia St	Chula Vista	50,000	44,400	C	2,850	6.4%	Yes	None
Santa Venetia St to La Media Rd	Chula Vista	50,000	34,900	A	2,850	8.2%	Yes	None
La Media Rd to E. Palomar St	Chula Vista	50,000	27,900	A	1,090	3.9%	Yes	None
E. Palomar St to SR-125	Chula Vista	50,000	48,200	C	1,630	3.4%	Yes	None
SR-125 to Eastlake Pkwy	Chula Vista	66,670	53,700	B	2,040	3.8%	Yes	None
Eastlake Pkwy to Hunte Pkwy	Chula Vista	50,000	34,100	A	1,500	4.4%	Yes	None
Birch Road								
La Media Rd to SR-125	Chula Vista	40,000	32,300	B	3,130	9.7%	Yes	None
SR-125 to Eastlake Pkwy	Chula Vista	40,000	36,900	C	5,440	14.7%	Yes	None

Table 5.3-13 (cont.) YEAR 2020 ROADWAY SEGMENT OPERATIONS

Roadway/ Segment	Jurisdiction	LOS C Capacity ^a	Volume	LOS	Significance Criteria			Impact Type
					Project ADT >800	Project Contribution >5%	Segment Operates at LOS D for More than 2 Hours or LOS E or F for More than 1 Hour	
Main St								
Hilltop Dr to Melrose Ave	Chula Vista	30,000	34,900	E	410	1%	Yes	Cumulative
Melrose Ave to I-805	Chula Vista	30,000	35,600	E	410	1%	Yes	Cumulative
I-805 to Oleander Ave	Chula Vista	50,000	46,200	C	540	1%	Yes	None
Oleander Ave to Brandy- wine Ave	Chula Vista	50,000	37,500	A	540	1%	Yes	None
Brandy- wine Ave to Heritage Rd	Chula Vista	50,000	30,200	A	410	1%	Yes	None
Heritage Rd to Otay Valley Rd	Chula Vista	50,000	26,100	A	410	2%	Yes	None
Otay Valley Rd to Magdalena Ave	Chula Vista	50,000	DNE	DNE	DNE	DNE	DNE	N/A
Magdalena Ave to SR-125	Chula Vista	50,000	DNE	DNE	DNE	DNE	DNE	N/A
SR-125 to Village 9 St "B"	Chula Vista	50,000	DNE	DNE	DNE	DNE	DNE	N/A
Village 9 St "B" to Eastlake Pkwy	Chula Vista	50,000	DNE	DNE	DNE	DNE	DNE	N/A
Otay Valley Road								
La Media Road to SR-125	Chula Vista	30,000	16,700	A	820	5%	Yes	None
SR-125 to Village 9 St "B"	Chula Vista	30,000	DNE	DNE	DNE	DNE	DNE	N/A
Hunte Parkway								
Otay Lakes Rd to Olympic Pkwy	Chula Vista	30,000	16,800	A	1,500	9%	Yes	None

Table 5.3-13 (cont.) YEAR 2020 ROADWAY SEGMENT OPERATIONS

Roadway/ Segment	Jurisdiction	LOS C Capacity ^a	Volume	LOS	Significance Criteria			Impact Type
					Project ADT >800	Project Contribution >5%	Segment Operates at LOS D for More than 2 Hours or LOS E or F for More than 1 Hour	
Hunte Parkway (cont.)								
Olympic Pkwy to Exploration Falls Dr	Chula Vista	50,000	16,500	A	2,180	13%	Yes	None
Exploration Falls Rd to Discovery Falls Dr	Chula Vista	50,000	11,000	A	270	2%	Yes	None
Discovery Falls Rd to Eastlake Pkwy	Chula Vista	50,000	14,700	A	1,900	13%	Yes	None
Heritage Road								
Telegraph Canyon Rd to E. Palomar St	Chula Vista	50,000	24,100	A	140	0.6%	Yes	None
E. Palomar St to Olympic Pkwy	Chula Vista	50,000	45,100	C	410	0.9%	Yes	None
Olympic Pkwy to Main St	Chula Vista	50,000	27,400	A	140	0.5%	Yes	None
Main St to Otay Mesa Rd	Chula Vista	50,000	27,300	A	0	0.0%	Yes	None
La Media Road								
Telegraph Canyon Rd to E. Palomar St	Chula Vista	50,000	26,400	A	410	1.6%	Yes	None
E. Palomar St to Olympic Pkwy	Chula Vista	50,000	20,000	A	0	0.0%	Yes	None
Olympic Pkwy to Birch Rd	Chula Vista	50,000	29,700	A	1,900	6.4%	Yes	None

Table 5.3-13 (cont.) YEAR 2020 ROADWAY SEGMENT OPERATIONS

Roadway/ Segment	Jurisdiction	LOS C Capacity ^a	Volume	LOS	Significance Criteria			Impact Type
					Project ADT >800	Project Contribution >5%	Segment Operates at LOS D for More than 2 Hours or LOS E or F for More than 1 Hour	
Eastlake Parkway								
Otay Lakes Rd to Olympic Pkwy	Chula Vista	30,000	31,300	D	270	0.9%	Yes	Cumulative
Olympic Pkwy to Birch Rd	Chula Vista	40,000	26,900	A	950	3.5%	Yes	None
Birch Rd to Hunte Pkwy	Chula Vista	40,000	34,600	B	7,750	22.4%	Yes	None
South of Hunte Pkwy	Chula Vista	12,000	6,800	A	6,800	100.0%	Yes	None
North of Discovery Falls Rd	Chula Vista	12,000	DNE	DNE	DNE	DNE	DNE	N/A
Discovery Falls Rd to Otay Valley Rd	Chula Vista	12,000	DNE	DNE	DNE	DNE	DNE	N/A
Village 9 St "B" ^b								
Hunte Pkwy to Village 9 St "C"	Chula Vista	7,500	DNE	DNE	DNE	DNE	DNE	N/A
Village 9 St "C" to Village 9 St "E"	Chula Vista	7,500	DNE	DNE	DNE	DNE	DNE	N/A
Village 9 St "E" to Discovery Falls Rd	Chula Vista	7,500	DNE	DNE	DNE	DNE	DNE	N/A
Discovery Falls Rd to Otay Valley Rd	Chula Vista	7,500	DNE	DNE	DNE	DNE	DNE	N/A
Discovery Falls Road								
Hunte Pkwy to St "K"	Chula Vista	30,000	11,600	A	2,580	22.2%	Yes	None
St "K" to Eastlake Pkwy	Chula Vista	7,500	DNE	DNE	DNE	DNE	DNE	N/A

Table 5.3-13 (cont.) YEAR 2020 ROADWAY SEGMENT OPERATIONS

Roadway/ Segment	Jurisdiction	LOS C Capacity ^a	Volume	LOS	Significance Criteria			Impact Type
					Project ADT >800	Project Contribution >5%	Segment Operates at LOS D for More than 2 Hours or LOS E or F for More than 1 Hour	
Discovery Falls Road (cont.)								
Eastlake Pkwy to Village 9 St "B"	Chula Vista	7,500	DNE	DNE	DNE	DNE	DNE	N/A
Palm Avenue								
I-805 to Dennery Rd	City of San Diego	65,000	53,900	D	0	0.0%	Yes	None ^c
Ocean View Hills Parkway								
Dennery Rd to Del Sol Blvd	City of San Diego	40,000	19,700	B	0	0.0%	Yes	None
Del Sol Blvd to Otay Mesa Rd	City of San Diego	50,000	15,600	B	0	0.0%	Yes	None
Otay Mesa Road								
Ocean View Hills Pkwy to Heritage Rd	City of San Diego	60,000	11,600	A	140	1.2%	Yes	None
Lone Star Road								
SR-125 to Harvest Rd	City of San Diego	40,000	7,800	A	140	1.8%	Yes	None

Source: LLG 2017

Footnotes:

- Capacity of facility at LOS C (Chula Vista) and LOS E (City of San Diego).
 - Capacity of Class III Collector is assumed for this street since only one lane is provided in each direction with the Bus Rapid Transit in the center, and no turn lanes at intervening intersections.
 - The Project adds no traffic to this segment operating at LOS D. Therefore, the Project has no significant impact.
- DNE = Does not exist; roadway segment would not be built/operational in Year 2020.

Year 2025

Average Daily Trips

By the Year 2025, the UID would include up to 130 acres of university uses, 1,000,000 sf of research uses, 300,000 sf of commercial uses, and 1,300 multi-family dwelling units. Table 5.3-9 summarizes Project trip generation for the UID under the Year 2025 scenario. As shown in this table, by Year 2025 the UID is anticipated to result in 35,650 ADT. The EDU for Year 2025 would be 3,565.

Heritage Road is assumed to be connected between Olympic Parkway and Main Street in this scenario in addition to the SR-125/I-905 interchange. The major regional access is similar to the

existing conditions. I-805 and SR-125 continue to provide north/south access. Access to and from the west is along Telegraph Canyon Road/Olympic Parkway and access to and from the east is along Hunte Parkway.

Traffic Impacts

Access and Frontage. According to Chapter 12.24 of the City's Municipal Code, access related impacts would occur if access and frontage improvements are not provided concurrent with development. Therefore, in 2025, the Project could result in potentially significant impacts related to access and frontage (Impact 5.3-7). To mitigate these potential impacts, the City would impose requirements for the dedication of public right-of-way and installation of public improvements in connection with development.

Intersections. Table 5.3-14, *Year 2025 Intersection Operations*, summarizes the AM and PM peak hour intersection LOS for the Year 2025.

City of Chula Vista

The following Chula Vista intersections would operate at a deficient LOS with implementation of the Project under the Year 2025 scenario:

- Proctor Valley Road/San Miguel Ranch Road (PM – LOS E)
- Telegraph Canyon Road/Paseo Ladera (AM – LOS E)
- Telegraph Canyon Road/Paseo Ranchero (AM – LOS E, PM – LOS E)
- Telegraph Canyon Road/Otay Lakes Road/La Media Road (AM – LOS E, PM – LOS F)
- East Palomar Street/Heritage Road (AM – LOS E)
- East Palomar Street/La Media Road (AM – LOS F, PM – LOS E)
- Olympic Parkway/I-805 SB Ramps (PM – LOS F)
- Olympic Parkway/I-805 NB Ramps (AM – LOS E, PM – LOS E)
- Olympic Parkway/Oleander Avenue (AM – LOS E, PM – LOS F)
- Olympic Parkway/Brandywine Avenue (AM – LOS F, PM – LOS F)
- Olympic Parkway/Heritage Road (AM – LOS F, PM – LOS F)
- Olympic Parkway/La Media Road (AM – LOS F, PM – LOS E)
- Birch Road/La Media Road (AM – LOS F, PM – LOS F)
- Birch Road/Eastlake Parkway (AM – LOS F, PM – LOS F)
- Main Street/Melrose Avenue (PM – LOS E)
- Main Street/I-805 SB Ramps (PM – LOS E)
- Main Street/I-805 NB Ramps (PM – LOS E)
- Main Street/Brandywine Avenue (PM – LOS E)

For the Proctor Valley Road/San Miguel Ranch Road, Birch Road/Eastlake Parkway, and Birch Road/La Media Road intersections, the percentage of trips attributable to the Project in Year 2025 would be greater than the five percent threshold. Therefore, significant direct impacts to these three intersections would occur (Impacts 5.3-8a through 5.3-8c).

For the remaining 15 intersections identified above as having a deficient LOS, direct impacts to these intersections would be less than significant because the percentage of segment trips attributable to the Project in the Year 2025 would be less than five percent. However, significant cumulative impacts would occur because these 15 intersections would operate at a deficient LOS with the Project in Year 2025 (Impacts 5.3-9a through 5.3-9o).

County of San Diego

The following County of San Diego intersections would operate at a deficient LOS with implementation of the Project under the Year 2025 scenario:

- Proctor Valley Road/San Miguel Road (PM – LOS F)

The Proctor Valley Road/San Miguel Road intersection is unsignalized. For unsignalized intersections, if a project contributes more than 20 peak hour trips to a deficient intersection, a significant direct impact would occur. Therefore, because the Project would contribute 72 peak hour trips to this intersection during the PM peak hour, a significant direct impact to this intersection would occur (Impact 5.3-10).

City of San Diego/Caltrans

The following City of San Diego/Caltrans intersections would operate at a deficient LOS with implementation of the Project under the Year 2025 scenario:

- Palm Avenue/I-805 SB Ramps (PM – LOS F)
- Palm Avenue/I-805 NB Ramps (AM – LOS F, PM – LOS F)

Direct impacts to these two City of San Diego/Caltrans intersections would be less than significant because the increase in delay attributable to the Project in the Year 2025 would be less than two seconds. However, significant cumulative impacts would occur because these intersections would operate at a deficient LOS with the Project in Year 2025 (Impacts 5.3-11a and 5.3-11b).

City of San Diego

The following City of San Diego intersections would operate at a deficient LOS with implementation of the Project under the Year 2025 scenario:

- Avenida De Las Vistas/Heritage Road (AM – LOS F, PM – LOS F)
- Heritage Road/Otay Mesa Road (PM – LOS E)

Direct impacts to these two City of San Diego intersections would be less than significant because the increase in delay attributable to the Project in the Year 2025 would be less than two seconds. However, significant cumulative impacts would occur because these intersections would operate at a deficient LOS with the Project in Year 2025 (Impacts 5.3-12a and 5.3-12b).

Table 5.3-14 YEAR 2025 INTERSECTION OPERATIONS

Intersection	Jurisdiction	Traffic Control	Peak Hour	Delay	LOS	Project % of Entering Volume (>5%)	Impact
Bonita Rd/ Otay Lakes Rd	Chula Vista	Signal	AM	27.1	C	0.9%	None
			PM	24.1	C	0.8%	None
Bonita Rd/ San Miguel Rd	County of San Diego	Signal	AM	42.5	D	26 ^a	None
			PM	54.1	D	72 ^a	None
Proctor Valley Rd/ San Miguel Rd	County of San Diego	MSSC	AM	20.7	C	26 ^a	None
			PM	51.2	F	72^a	Direct
Proctor Valley Rd/ San Miguel Ranch Rd	Chula Vista	AWSC	AM	16.8	C	7.5%	None
			PM	46.1	E	5.6%	Direct
East H St/ Otay Lakes Road/La Media Rd	Chula Vista	Signal	AM	36.6	D	2.0%	None
			PM	41.8	D	2.0%	None
Proctor Valley Rd/ Mt Miguel Rd	Chula Vista	Signal	AM	21.8	C	6.2%	None
			PM	8.3	A	7.6%	None
Proctor Valley Rd/ Hunte Pkwy	Chula Vista	Signal	AM	24.3	C	5.0%	None
			PM	18.0	B	8.1%	None
Telegraph Canyon Rd/ Paseo Ladera	Chula Vista	Signal	AM	60.2	E	0.6%	Cumulative
			PM	34.1	C	0.7%	None
Telegraph Canyon Rd/ Paseo Ranchero	Chula Vista	Signal	AM	73.1	E	0.5%	Cumulative
			PM	66.2	E	0.5%	Cumulative
Telegraph Canyon Rd/ Otay Lakes Rd/ La Media Rd	Chula Vista	Signal	AM	64.1	E	1.6%	Cumulative
			PM	85.1	F	1.4%	Cumulative
Otay Lakes Rd/ SR-125 SB Ramps	Chula Vista	Signal	AM	5.2	A	2.1%	None
			PM	10.2	B	0.8%	None
Otay Lakes Rd/ SR-125 NB Ramps	Chula Vista	Signal	AM	3.0	A	2.4%	None
			PM	5.1	A	2.2%	None

Table 5.3-14 (cont.) YEAR 2025 INTERSECTION OPERATIONS

Intersection	Jurisdiction	Traffic Control	Peak Hour	Delay	LOS	Project % of Entering Volume (>5%)	Impact
Otay Lakes Rd/ Eastlake Pkwy	Chula Vista	Signal	AM	33.5	C	2.1%	None
			PM	49.0	D	1.7%	None
Otay Lakes Rd/ Hunte Pkwy	Chula Vista	Signal	AM	32.6	C	5.6%	None
			PM	36.0	D	6.0%	None
E. Palomar St/ Paseo Ladera	Chula Vista	Signal	AM	24.7	C	1.4%	None
			PM	21.3	C	1.6%	None
E. Palomar St/ Heritage Rd	Chula Vista	Signal	AM	74.6	E	1.7%	Cumulative
			PM	54.3	D	1.9%	None
E. Palomar St/ La Media Rd	Chula Vista	Signal	AM	84.9	F	3.0%	Cumulative
			PM	76.0	E	2.9%	Cumulative
Olympic Pkwy/ I-805 SB Ramps	Chula Vista	Signal	AM	48.5	D	2.8%	None
			PM	165.2	F	1.1%	Cumulative
Olympic Pkwy/ I-805 NB Ramps	Chula Vista	Signal	AM	70.0	E	3.2%	Cumulative
			PM	61.4	E	3.1%	Cumulative
Olympic Pkwy/ Oleander Ave	Chula Vista	Signal	AM	63.0	E	3.6%	Cumulative
			PM	87.5	F	3.4%	Cumulative
Olympic Pkwy/ Brandywine Ave	Chula Vista	Signal	AM	90.4	F	3.0%	Cumulative
			PM	107.1	F	3.0%	Cumulative
Olympic Pkwy/ Heritage Rd	Chula Vista	Signal	AM	83.8	F	3.3%	Cumulative
			PM	86.6	F	3.5%	Cumulative
Olympic Pkwy/ Santa Venetia St	Chula Vista	Signal	AM	50.9	D	4.2%	None
			PM	15.0	B	6.0%	None
Olympic Pkwy/ La Media Rd	Chula Vista	Signal	AM	90.1	F	3.5%	Cumulative
			PM	63.1	E	4.1%	Cumulative
Olympic Pkwy/ E. Palomar St	Chula Vista	Signal	AM	33.5	C	6.4%	None
			PM	34.8	C	6.8%	None

Table 5.3-14 (cont.) YEAR 2025 INTERSECTION OPERATIONS

Intersection	Jurisdiction	Traffic Control	Peak Hour	Delay	LOS	Project % of Entering Volume (>5%)	Impact
Olympic Pkwy/ SR-125 SB Ramps	Chula Vista	Signal	AM	9.9	A	9.9%	None
			PM	10.6	B	8.9%	None
Olympic Pkwy/ SR-125 NB Ramps	Chula Vista	Signal	AM	9.7	A	10.0%	None
			PM	10.8	B	10.5%	None
Olympic Pkwy/ Eastlake Pkwy	Chula Vista	Signal	AM	35.3	D	8.7%	None
			PM	40.8	D	7.5%	None
Olympic Pkwy/ Hunte Pkwy	Chula Vista	Signal	AM	30.2	C	14.2%	None
			PM	41.7	D	11.2%	None
Birch Rd/ La Media Rd	Chula Vista	Signal	AM	>100.0	F	7.5%	Direct
			PM	98.7	F	7.6%	Direct
Birch Rd/ SR-125 SB Ramps	Chula Vista	Signal	AM	15.9	B	17.2%	None
			PM	11.0	B	22.5%	None
Birch Rd/ SR-125 NB Ramps	Chula Vista	Signal	AM	8.3	A	26.3%	None
			PM	8.8	A	31.2%	None
Birch Rd/ Eastlake Pkwy	Chula Vista	Signal	AM	91.3	F	24.7%	Direct
			PM	86.1	F	24.2%	Direct
Main St/ Hilltop Drive	Chula Vista	Signal	AM	25.7	C	3.3%	None
			PM	23.4	C	3.2%	None
Main St/ Melrose Ave	Chula Vista	Signal	AM	25.1	C	2.9%	None
			PM	62.6	E	2.7%	Cumulative
Main St/ I-805 SB Ramps	Chula Vista	Signal	AM	31.3	C	2.3%	None
			PM	75.4	E	2.2%	Cumulative
Main St/ I-805 NB Ramps	Chula Vista	Signal	AM	44.8	D	2.1%	None
			PM	61.0	E	2.0%	Cumulative
Main St/ Oleander Ave	Chula Vista	Signal	AM	10.5	B	2.6%	None
			PM	20.5	C	2.3%	None
Main St/ Brandywine Ave	Chula Vista	Signal	AM	38.5	D	3.1%	None
			PM	83.5	F	2.7%	Cumulative
Main St/ Heritage Rd	Chula Vista	Signal	AM	53.5	D	4.6%	None
			PM	30.2	C	5.1%	None

Table 5.3-14 (cont.) YEAR 2025 INTERSECTION OPERATIONS

Intersection	Jurisdiction	Traffic Control	Peak Hour	Delay	LOS	Project % of Entering Volume (>5%)	Impact
Main St (WB)/ La Media Rd (SB)	Chula Vista	AWSC	AM	DNE	N/A	N/A	None
			PM	DNE	N/A	N/A	None
Main St (WB)/ La Media Rd (NB)	Chula Vista	AWSC	AM	DNE	N/A	N/A	None
			PM	DNE	N/A	N/A	None
Main St (EB)/ La Media Rd (SB)	Chula Vista	AWSC	AM	DNE	N/A	N/A	None
			PM	DNE	N/A	N/A	None
Main St (EB)/ La Media Rd (NB)	Chula Vista	AWSC	AM	DNE	N/A	N/A	None
			PM	DNE	N/A	N/A	None
Main St/ Magdalena Ave	Chula Vista	MSSC	AM	25.6	C	9.8%	None
			PM	16.3	B	10.5%	None
Main St/ SR-125 SB Ramps	Chula Vista	Signal	AM	DNE	N/A	N/A	None
			PM	DNE	N/A	N/A	None
Main St/ SR-125 NB Ramps	Chula Vista	Signal	AM	DNE	N/A	N/A	None
			PM	DNE	N/A	N/A	None
Main St/ Village 9 St "B"	Chula Vista	Signal	AM	34.2	C	N/A	None
			PM	DNE	N/A	N/A	None
Hunte Pkwy (Main St)/ Eastlake Pkwy	Chula Vista	Signal	AM	51.7	D	49.9%	None
			PM	25.8	C	51.3%	None
Hunte Pkwy/ Discovery Falls Dr	Chula Vista	Signal	AM	35.2	D	28.3%	None
			PM	43.2	D	26.5%	None
Hunte Pkwy/ Exploration Falls Dr	Chula Vista	Signal	AM	24.8	C	32.3%	None
			PM	43.8	D	48.0%	None
Village 9 St "B"/ Village 9 St "C"	Chula Vista	Signal	AM	DNE	N/A	N/A	None
			PM	DNE	N/A	N/A	None
Village 9 St "B"/ Village 9 St "E"	Chula Vista	Signal	AM	DNE	N/A	N/A	None
			PM	DNE	N/A	N/A	None

Table 5.3-14 (cont.) YEAR 2025 INTERSECTION OPERATIONS

Intersection	Jurisdiction	Traffic Control	Peak Hour	Delay	LOS	Project % of Entering Volume (>5%)	Impact
Discovery Falls Rd/ Village 9 St "I"	Chula Vista	Signal	AM	DNE	N/A	N/A	None
			PM	DNE	N/A	N/A	None
Discovery Falls Rd/ Eastlake Pkwy	Chula Vista	Signal	AM	DNE	N/A	N/A	None
			PM	DNE	N/A	N/A	None
Discovery Falls Rd/ St "J"	Chula Vista	Signal	AM	DNE	N/A	N/A	None
			PM	DNE	N/A	N/A	None
Discovery Falls Rd/ St "K"	Chula Vista	Signal	AM	DNE	N/A	N/A	None
			PM	DNE	N/A	N/A	None
Otay Valley Rd/ SR-125 SB Ramps	Chula Vista	Signal	AM	DNE	N/A	N/A	None
			PM	DNE	N/A	N/A	None
Otay Valley Rd/ SR-125 NB Ramps	Chula Vista	Signal	AM	DNE	N/A	N/A	None
			PM	DNE	N/A	N/A	None
Otay Valley Rd/ Village 9 St "B"	Chula Vista	Signal	AM	DNE	N/A	N/A	None
			PM	DNE	N/A	N/A	None
Palm Ave/ I-805 SB Ramps	City of San Diego	Signal	AM	44.2	D	0.9% ^b	None
			PM	97.5	F	0.8%^b	Cumulative
Palm Ave/ I-805 NB Ramps	City of San Diego	Signal	AM	80.4	F	0.7%^b	Cumulative
			PM	102.7	F	0.7%^b	Cumulative
Palm Ave/ Dennery Road	City of San Diego	Signal	AM	47.7	D	0.0% ^b	None
			PM	50.5	D	0.0% ^b	None
Avenida De Las Vistas/ Heritage Road	City of San Diego	Signal	AM	55.5	F	3.6%^b	Cumulative
			PM	70.5	F	3.5%^b	Cumulative
Lone Star Rd/ SR-125 SB Ramps	City of San Diego	Signal	AM	DNE	N/A	N/A	None
			PM	DNE	N/A	N/A	None
Lone Star Rd/ SR-125 NB Ramps	City of San Diego	Signal	AM	DNE	N/A	N/A	None
			PM	DNE	N/A	N/A	None

Table 5.3-14 (cont.) YEAR 2025 INTERSECTION OPERATIONS

Intersection	Jurisdiction	Traffic Control	Peak Hour	Delay	LOS	Project % of Entering Volume (>5%)	Impact
Lone Star Rd/ Harvest Rd	City of San Diego	Signal	AM	DNE	N/A	N/A	None
			PM	DNE	N/A	N/A	None
Ocean View Hills Pkwy/ Otay Mesa Rd	City of San Diego	Signal	AM	38.8	D	-. ^b	None
			PM	34.9	C	-. ^b	None
Heritage Rd/ Otay Mesa Rd	City of San Diego	Signal	AM	30.9	C	-. ^b	None
			PM	69.9	E	-. ^b	Cumulative

Source: LLG 2017

Footnotes:

^a Project traffic in the critical movement at unsignalized intersections in the County of San Diego. Per established criteria if this exceeds 20 peak hour trips, a significant direct impact is determined.

^b Increase in delay due to the Project is the significance criteria in the City of San Diego and Caltrans. All impacts in the long term are cumulative.

MSSC = Minor Street STOP Controlled. Minor street delay and level of service reported.

AWSC = All Way STOP Controlled. Overall delay and level of service reported.

DNE = Does not exist; intersection would not be built/operational in Year 2025.

Roadway Segments. Table 5.3-15, *Year 2025 Roadway Segment Operations*, presents the results of the Year 2025 roadway segment impact analysis under implementation of the Project.

City of Chula Vista

The following Chula Vista segments were calculated to operate at a deficient LOS under the Year 2025 scenario:

- Telegraph Canyon Road from Paseo Ladera to Paseo Ranchero (LOS E)
- Otay Lakes Road from Bonita Road to East H Street (LOS E)
- Otay Lakes Road from East H Street to Telegraph Canyon Road (LOS D)
- Olympic Parkway from Heritage Road to Santa Venetia Street (LOS D)
- Olympic Parkway from East Palomar Street to SR-125 (LOS D)
- Birch Road from SR-125 to Eastlake Parkway (LOS D)
- Main Street from Hilltop Drive to Melrose Avenue (LOS E)
- Main Street from Melrose Avenue to I-805 (LOS E)
- Main Street from Oleander Avenue to Brandywine Avenue (LOS D)
- Eastlake Parkway from Otay Lakes Road to Olympic Parkway (LOS D)

For the roadway segments of Olympic Parkway from Heritage Road to Santa Venetia Street, Olympic Parkway from East Palomar Street to SR-125, and Birch Road from SR-125 to Eastlake Parkway, the Project would contribute more than 800 ADT and more than five percent of the segment traffic, which is the significance threshold for roadway segments in the City of Chula Vista. In addition, the intersections along the segments operate at LOS E or F. Therefore,

significant direct impacts would occur to these three Chula Vista roadway segments (Impacts 5.3-13a through 5.3-13c).

Direct impacts to Telegraph Canyon Road from Paseo Ladera to Paseo Ranchero, Otay Lakes Road from Bonita Road to East H Street, and Eastlake Parkway from Otay Lakes Road to Olympic Parkway would be less than significant because the Project would not contribute more than 800 ADT and more than five percent traffic contribution. Similarly, although the Project would add more than 800 ADT to Otay Lakes Road from East H Street to Telegraph Canyon Road, Main Street from Hilltop Drive to Melrose Avenue, Main Street from Melrose Avenue to I-805, and Main Street from Oleander Avenue to Brandywine Avenue, the Project's traffic contribution would not be more than five percent to these segments; therefore, direct impacts would be less than significant. However, a cumulative impact would occur to these seven roadway segments (Impacts 5.3-14a through 5.3-14g).

City of San Diego

None of the City of San Diego roadway segments would operate at a deficient LOS with implementation of the Project under the Year 2025 scenario. Therefore, direct and cumulative impacts to City of San Diego roadway segments would be less than significant.

Table 5.3-15 YEAR 2025 ROADWAY SEGMENT OPERATIONS

Roadway/ Segment	Jurisdiction	LOS C Capacity ^a	Volume	LOS	Significance Criteria			Impact Type
					Project ADT >800	Project Contribution >5%	Intersections Along Segment Operating at LOS D or better?	
Bonita Road								
Otay Lakes Rd to San Miguel Rd	Chula Vista	30,000	26,600	C	0	0%	Yes	None
San Miguel Ranch Road								
Bonita Road to Proctor Valley Rd	Chula Vista	22,000	19,300	B	710	4%	Yes	None
East H St								
SR-125 to Mt Miguel Rd	Chula Vista	50,000	29,300	A	0	0%	Yes	None
Mt Miguel Rd to Hunte Pkwy	Chula Vista	50,000	41,100	B	1,070	3%	Yes	None
Telegraph Canyon Road								
Paseo Ladera to Paseo Ranchero	Chula Vista	50,000	58,700	E	360	1%	No	Cumulative
Paseo Ranchero to Otay Lakes Rd	Chula Vista	50,000	51,300	D	0	0%	Yes	None ^b

Table 5.3-15 (cont.) YEAR 2025 ROADWAY SEGMENT OPERATIONS

Roadway/ Segment	Jurisdiction	LOS C Capacity ^a	Volume	LOS	Significance Criteria			Impact Type
					Project ADT >800	Project Contribution >5%	Intersections Along Segment Operating at LOS D or better?	
Otay Lakes Road								
Bonita Rd to East H St	Chula Vista	30,000	35,000	E	360	1%	No	Cumulative
East H St to Telegraph Canyon Rd	Chula Vista	30,000	32,400	D	1,070	3%	No	Cumulative
La Media Rd to SR-125	Chula Vista	50,000	44,800	C	0	0%	Yes	None
SR-125 to Eastlake Pkwy	Chula Vista	58,330	52,500	D	0	0%	Yes	None ^b
Eastlake Pkwy to Hunte Pkwy	Chula Vista	50,000	34,500	A	710	2%	Yes	None
East of Hunte Pkwy	Chula Vista	50,000	29,400	A	0	0%	Yes	None
E. Palomar Street								
Paseo Ladera to Heritage Rd	Chula Vista	30,000	26,200	B	710	3%	Yes	None
Heritage Rd to La Media Rd	Chula Vista	30,000	23,200	B	360	2%	Yes	None
La Media Rd to Olympic Pkwy	Chula Vista	30,000	24,900	B	1,430	6%	Yes	None
Olympic Parkway								
I-805 NB Ramps to Oleander Ave	Chula Vista	50,000	47,600	C	1,780	4%	Yes	None
Oleander Ave to Brandywine Ave	Chula Vista	50,000	41,200	B	1,780	4%	Yes	None
Brandywine Ave to Heritage Rd	Chula Vista	50,000	34,700	A	1,780	5%	Yes	None
Heritage Rd to Santa Venetia St	Chula Vista	50,000	50,100	D	2,850	6%	No	Direct
Santa Venetia St to La Media Rd	Chula Vista	50,000	40,200	B	2,850	7%	Yes	None
La Media Rd to E. Palomar St	Chula Vista	50,000	30,100	A	1,780	6%	Yes	None
E. Palomar St to SR-125	Chula Vista	50,000	51,700	D	3,210	6%	No	Direct

Table 5.3-15 (cont.) YEAR 2025 ROADWAY SEGMENT OPERATIONS

Roadway/ Segment	Jurisdiction	LOS C Capacity ^a	Volume	LOS	Significance Criteria			Impact Type
					Project ADT >800	Project Contribution >5%	Intersections Along Segment Operating at LOS D or better?	
Olympic Parkway (cont.)								
SR-125 to Eastlake Pkwy	Chula Vista	66,670	57,200	B	4,280	7%	Yes	None
Eastlake Pkwy to Hunte Pkwy	Chula Vista	50,000	37,500	A	3,920	10%	Yes	None
Birch Road								
La Media Rd to SR-125	Chula Vista	40,000	39,800	C	5,350	13%	Yes	None
SR-125 to Eastlake Pkwy	Chula Vista	40,000	44,100	D	11,410	26%	No	Direct
Main St								
Hilltop Dr to Melrose Ave	Chula Vista	30,000	36,500	E	1,070	3%	No	Cumulative
Melrose Ave to I-805	Chula Vista	30,000	37,400	E	1,070	3%	No	Cumulative
I-805 to Oleander Ave	Chula Vista	50,000	49,100	C	1,070	2%	Yes	None
Oleander Ave to Brandywine Ave	Chula Vista	50,000	50,500	D	1,430	3%	No	Cumulative
Brandywine Ave to Heritage Rd	Chula Vista	50,000	36,300	A	1,430	4%	Yes	None
Heritage Rd to Otay Valley Rd	Chula Vista	50,000	DNE	DNE	DNE	DNE	DNE	N/A
Otay Valley Rd to Magdalena Ave	Chula Vista	50,000	DNE	DNE	DNE	DNE	DNE	N/A
Magdalena Ave to SR-125	Chula Vista	50,000	31,200	A	2,140	7%	Yes	None
SR-125 to Village 9 St "B"	Chula Vista	50,000	13,300	A	2,140	16%	Yes	None
Village 9 St "B" to Eastlake Pkwy	Chula Vista	50,000	13,300	DNE	DNE	DNE	DNE	N/A
Otay Valley Road								
La Media Road to SR-125	Chula Vista	30,000	31,200	D	0	0%	Yes	None
SR-125 to Village 9 St "B"	Chula Vista	30,000	DNE	DNE	DNE	DNE	DNE	N/A

Table 5.3-15 (cont.) YEAR 2025 ROADWAY SEGMENT OPERATIONS

Roadway/ Segment	Jurisdiction	LOS C Capacity ^a	Volume	LOS	Significance Criteria			Impact Type
					Project ADT >800	Project Contribution >5%	Intersections Along Segment Operating at LOS D or better?	
Hunte Parkway								
Otay Lakes Rd to Olympic Pkwy	Chula Vista	30,000	18,600	A	3,920	21%	Yes	None
Olympic Pkwy to Exploration Falls Dr	Chula Vista	50,000	20,500	A	5,700	28%	Yes	None
Exploration Falls Rd to Discovery Falls Dr	Chula Vista	50,000	12,800	A	710	6%	Yes	None
Discovery Falls Rd to Eastlake Pkwy	Chula Vista	50,000	22,600	A	4,990	22%	Yes	None
Heritage Road								
Telegraph Canyon Rd to E. Palomar St	Chula Vista	50,000	17,600	A	360	2%	Yes	None
E. Palomar St to Olympic Pkwy	Chula Vista	50,000	18,300	A	1,070	6%	Yes	None
Olympic Pkwy to Main St	Chula Vista	50,000	33,500	A	360	1%	Yes	None
Main St to Otay Mesa Rd	Chula Vista	50,000	34,800	A	2,850	8%	Yes	None
La Media Road								
Telegraph Canyon Rd to E. Palomar St	Chula Vista	50,000	30,700	A	1,070	3%	Yes	None
E. Palomar St to Olympic Pkwy	Chula Vista	50,000	23,700	A	0	0%	Yes	None
Olympic Pkwy to Birch Rd	Chula Vista	50,000	37,200	A	1,430	4%	Yes	None
Eastlake Parkway								
Otay Lakes Rd to Olympic Pkwy	Chula Vista	30,000	32,000	D	710	2%	No	Cumulative
Olympic Pkwy to Birch Rd	Chula Vista	40,000	30,600	B	1,430	5%	Yes	None
Birch Rd to Hunte Pkwy	Chula Vista	40,000	28,500	A	16,400	58%	Yes	None
South of Hunte Pkwy	Chula Vista	12,000	11,050	C	11,050	100%	Yes	None

Table 5.3-15 (cont.) YEAR 2025 ROADWAY SEGMENT OPERATIONS

Roadway/ Segment	Jurisdiction	LOS C Capacity ^a	Volume	LOS	Significance Criteria			Impact Type
					Project ADT >800	Project Contribution >5%	Intersections Along Segment Operating at LOS D or better?	
Eastlake Parkway (cont.)								
North of Discovery Falls Rd	Chula Vista	12,000	DNE	DNE	DNE	DNE	DNE	N/A
Discovery Falls Rd to Otay Valley Rd	Chula Vista	12,000	DNE	DNE	DNE	DNE	DNE	N/A
Village 9 St "B"^b								
Hunte Pkwy to Village 9 St "C"	Chula Vista	7,500	DNE	DNE	DNE	DNE	DNE	N/A
Village 9 St "C" to Village 9 St "E"	Chula Vista	7,500	DNE	DNE	DNE	DNE	DNE	N/A
Village 9 St "E" to Discovery Falls Rd	Chula Vista	7,500	DNE	DNE	DNE	DNE	DNE	N/A
Discovery Falls Rd to Otay Valley Rd	Chula Vista	7,500	DNE	DNE	DNE	DNE	DNE	N/A
Discovery Falls Road								
Hunte Pkwy to St "K"	Chula Vista	30,000	27,100	C	6,770	25%	Yes	None
St "K" to Eastlake Pkwy	Chula Vista	7,500	DNE	DNE	DNE	DNE	DNE	N/A
Eastlake Pkwy to Village 9 St "B"	Chula Vista	7,500	DNE	DNE	DNE	DNE	DNE	N/A
Palm Avenue								
I-805 to Dennery Rd	City of San Diego	65,000	55,000	D	360	1%	No	None ^c
Ocean View Hills Parkway								
Dennery Rd to Del Sol Blvd	City of San Diego	40,000	20,300	B	0	0%	Yes	None
Del Sol Blvd to Otay Mesa Rd	City of San Diego	50,000	16,800	B	0	0%	Yes	None

Table 5.3-15 (cont.) YEAR 2025 ROADWAY SEGMENT OPERATIONS

Roadway/ Segment	Jurisdiction	LOS C Capacity ^a	Volume	LOS	Significance Criteria			Impact Type
					Project ADT >800	Project Contribution >5%	Intersections Along Segment Operating at LOS D or better?	
Otay Mesa Road								
Ocean View Hills Pkwy to Heritage Rd	City of San Diego	60,000	31,500	B	360	1%	Yes	None
Lone Star Road								
SR-125 to Harvest Rd	City of San Diego	40,000	7,800	A	360	5%	Yes	None

Source: LLG 2017

Footnotes:

- ^a Capacity of facility at LOS C (Chula Vista) and LOS E (City of San Diego).
^b Capacity of Class III Collector is assumed for this street since only one lane is provided in each direction with the Bus Rapid Transit in the center, and no turn lanes at intervening intersections.
^c The Project adds no traffic to this segment operating at LOS D. Therefore, the Project's impact would be less than significant.
DNE = Does not exist; roadway segment would not be built/operational in Year 2025.

Year 2030

Average Daily Trips

By the Year 2030, the Project would include up to 260 acres of university uses, 1,800,000 sf of research uses, 200,000 sf of commercial uses, and 2,000 multi-family dwelling units. Table 5.3-9 summarizes ADT generation for the Project under the Year 2030 scenario. As shown in this table, by Year 2030 the Project is anticipated to result in 51,642 ADT. The EDU for Year 2030 would be 5,164 EDU.

Long-term (full buildout) Project traffic was included in this scenario. The following additional network improvements are assumed in this scenario:

- Main Street connection between Heritage Road and Eastlake Parkway
- The SR-125/Main Street interchange
- The SR-125/Otay Valley Road interchange
- All internal roads in Village 9 (Street "B")
- All internal roads in the Project

Traffic Impacts

Access and Frontage. According to Chapter 12.24 of the City's Municipal Code, access related impacts would occur if access and frontage improvements are not provided concurrent with development. Therefore, in 2030, the Project could result in potentially significant impacts related to access and frontage (Impact 5.3-15). To mitigate these potential impacts, the City would impose requirements for the dedication of public right-of-way and installation of public improvements in connection with development.

Intersections. Table 5.3-16, *Year 2030 Intersection Operations*, summarizes the AM and PM peak hour intersection level of service for the Year 2030.

City of Chula Vista

The following Chula Vista intersections would operate at a deficient LOS with implementation of the Project under the Year 2030 scenario:

- Main Street/I-805 NB Ramps (PM – LOS E)
- Village 9 Street “B”/Village 9 Street “C” (PM – LOS E)
- Proctor Valley Road/San Miguel Ranch Road (PM – LOS E)
- Telegraph Canyon Road/Paseo Ranchero (AM – LOS E, PM - LOS E)
- Birch Road/La Media Road (AM – LOS E, PM – LOS E)
- Main Street/I-805 SB Ramps (PM – LOS E)

For the intersections of Main Street/I-805 NB Ramps, Village 9 Street “B”/Village 9 Street “C”, and Proctor Valley Road/San Miguel Ranch Road, the percentage of trips attributable to the Project in Year 2030 would be greater than five percent. Therefore, significant direct impacts to these three intersections would occur (Impacts 5.3-16a through 5.3-16c).

For the remaining three Chula Vista intersections identified above as having a deficient LOS, the percentage of segment trips attributable to the Project in the Year 2030 would be less than five percent. Therefore, no significant direct impacts to these intersections would occur. Cumulative impacts would occur to the Telegraph Canyon Road/Paseo Ranchero, Birch Road/La Media Road, and Main Street/I-805 SB Ramps intersections (Impacts 5.3-17a through 5.3-17c); however, the University-related TDIF has been accounted for in the TDIF Ordinance and cumulative impacts are considered to be mitigated to a level below significance without any additional TDIF fee payments by the University-related portion of the Project. The non-University, or Innovation District, portion of the Project would be required to pay TDIF fees prior to obtaining building permits.

County of San Diego

The following Chula Vista intersections would operate at a deficient LOS with implementation of the Project under the Year 2030 scenario:

- Bonita Road/San Miguel Road (PM – LOS E)
- Proctor Valley Road/San Miguel Road (PM – LOS E)

The Proctor Valley Road/San Miguel Road intersection is unsignalized. For unsignalized intersections in the County of San Diego, if a project contributes more than 20 peak hour trips to a deficient intersection, a significant direct impact would occur. Therefore, as the Project would contribute 72 peak hour trips to this intersection during the PM, a significant direct impact would occur (Impact 5.3-18).

For the intersection of Bonita Road/San Miguel Road, the percentage of segment trips attributable to the Project in the Year 2030 would be less than five percent. Therefore, no significant direct

impact to this intersection would occur; however, a cumulative impact would occur to this intersection (Impact 5.3-19).

City of San Diego/Caltrans

The following City of San Diego/Caltrans intersections would operate at a deficient LOS with implementation of the Project under the Year 2030 scenario:

- Palm Avenue/I-805 SB Ramps (PM – LOS F)
- Palm Avenue/I-805 NB Ramps (AM – LOS F, PM – LOS F)

Direct impacts to these two City of San Diego/Caltrans intersections would be less than significant because the increase in delay attributable to the Project in the Year 2030 would be less than two seconds. However, significant cumulative impacts would occur because these two intersections would operate at a deficient LOS with the Project in Year 2030 (Impacts 5.3-20a and 5.3-20b).

City of San Diego

The following City of San Diego intersections would operate at a deficient LOS with implementation of the Project under the Year 2030 scenario:

- Avenida De Las Vistas/Heritage Road (AM – LOS F, PM – LOS F)
- Heritage Road/Otay Mesa Road (PM – LOS E)

Direct impacts to these two City of San Diego intersections would be less than significant because the increase in delay attributable to the Project in the Year 2030 would be less than two seconds. However, significant cumulative impacts would occur because these intersections would operate at a deficient LOS with the Project in Year 2030 (Impacts 5.3-21a and 5.3-21b).

Table 5.3-16 YEAR 2030 INTERSECTION OPERATIONS

Intersection	Jurisdiction	Traffic Control	Peak Hour	Delay	LOS	Project % of Entering Volume (>5%)	Impact
Bonita Rd/ Otay Lakes Rd	Chula Vista	Signal	AM	33.2	C	1.4%	None
			PM	30.5	C	1.2%	None
Bonita Rd/ San Miguel Rd	County of San Diego	Signal	AM	48.2	D	26 ^a	None
			PM	61.3	E	72^a	Cumulative
Proctor Valley Rd/ San Miguel Rd	County of San Diego	MSSC ^a	AM	21.2	C	26 ^a	None
			PM	46.8	E	72^a	Direct
Proctor Valley Rd/ San Miguel Ranch Rd	Chula Vista	AWSC ^c	AM	18.7	C	12.2%	None
			PM	46.8	E	8.0%	Direct
East H St/Otay Lakes Road/La Media Rd	Chula Vista	Signal	AM	35.0	C	3.6%	None
			PM	43.6	D	3.2%	None
Proctor Valley Rd/ Mt Miguel Rd	Chula Vista	Signal	AM	8.1	A	12.9%	None
			PM	3.8	A	10.7%	None

Table 5.3-16 (cont.) YEAR 2030 INTERSECTION OPERATIONS

Intersection	Jurisdiction	Traffic Control	Peak Hour	Delay	LOS	Project % of Entering Volume (>5%)	Impact
Proctor Valley Rd/ Hunte Pkwy	Chula Vista	Signal	AM	23.3	C	8.2%	None
			PM	17.7	B	11.7%	None
Telegraph Canyon Rd/ Paseo Ladera	Chula Vista	Signal	AM	53.6	D	1.0%	None
			PM	38.1	D	1.1%	None
Telegraph Canyon Rd/ Paseo Ranchero	Chula Vista	Signal	AM	62.2	E	0.8%	Cumulative
			PM	55.6	E	0.8%	Cumulative
Telegraph Canyon Rd/ Otay Lakes Rd/ La Media Rd	Chula Vista	Signal	AM	47.3	D	2.4%	None
			PM	50.0	D	2.2%	None
Otay Lakes Rd/ SR-125 SB Ramps	Chula Vista	Signal	AM	5.3	A	3.6%	None
			PM	9.8	A	1.1%	None
Otay Lakes Rd/ SR-125 NB Ramps	Chula Vista	Signal	AM	3.0	A	4.2%	None
			PM	5.4	A	3.3%	None
Otay Lakes Rd/ Eastlake Pkwy	Chula Vista	Signal	AM	33.0	C	3.5%	None
			PM	43.0	D	2.7%	None
Otay Lakes Rd/ Hunte Pkwy	Chula Vista	Signal	AM	31.1	C	8.8%	None
			PM	20.6	C	9.2%	None
E. Palomar St/ Paseo Ladera	Chula Vista	Signal	AM	20.6	C	2.7%	None
			PM	18.1	B	2.6%	None
E. Palomar St/ Heritage Rd	Chula Vista	Signal	AM	54.6	D	3.1%	None
			PM	35.6	D	3.4%	None
E. Palomar St/ La Media Rd	Chula Vista	Signal	AM	54.7	D	4.8%	None
			PM	44.1	D	5.5%	None
Olympic Pkwy/ I-805 SB Ramps	Chula Vista	Signal	AM	43.4	D	0.0%	None
			PM	73.1	E	0.0%	None
Olympic Pkwy/ I-805 NB Ramps	Chula Vista	Signal	AM	43.8	D	0.0%	None
			PM	26.6	C	0.0%	None
Olympic Pkwy/ Oleander Ave	Chula Vista	Signal	AM	38.6	D	0.0%	None
			PM	20.9	C	0.0%	None
Olympic Pkwy/ Brandywine Ave	Chula Vista	Signal	AM	19.5	B	0.0%	None
			PM	23.8	C	0.0%	None
Olympic Pkwy/ Heritage Rd	Chula Vista	Signal	AM	52.6	D	2.4%	None
			PM	44.4	D	2.4%	None
Olympic Pkwy/ Santa Venetia St	Chula Vista	Signal	AM	14.8	B	3.3%	None
			PM	8.2	A	3.4%	None
Olympic Pkwy/ La Media Rd	Chula Vista	Signal	AM	51.8	D	2.5%	None
			PM	34.5	C	2.4%	None
Olympic Pkwy/ E. Palomar St	Chula Vista	Signal	AM	32.5	C	9.3%	None
			PM	37.1	D	6.9%	None

Table 5.3-16 (cont.) YEAR 2030 INTERSECTION OPERATIONS

Intersection	Jurisdiction	Traffic Control	Peak Hour	Delay	LOS	Project % of Entering Volume (>5%)	Impact
Olympic Pkwy/ SR-125 SB Ramps	Chula Vista	Signal	AM	9.6	A	15.4%	None
			PM	10.4	B	9.2%	None
Olympic Pkwy/ SR-125 NB Ramps	Chula Vista	Signal	AM	9.8	A	15.8%	None
			PM	16.9	B	11.7%	None
Olympic Pkwy/ Eastlake Pkwy	Chula Vista	Signal	AM	30.7	C	15.7%	None
			PM	33.2	C	12.3%	None
Olympic Pkwy/ Hunte Pkwy	Chula Vista	Signal	AM	31.7	C	23.2%	None
			PM	29.7	C	21.2%	None
Birch Rd/ La Media Rd	Chula Vista	Signal	AM	71.1	E	4.0%	Cumulative
			PM	61.5	E	3.6%	Cumulative
Birch Rd/ SR-125 SB Ramps	Chula Vista	Signal	AM	10.7	B	9.2%	None
			PM	12.8	B	7.8%	None
Birch Rd/ SR-125 NB Ramps	Chula Vista	Signal	AM	4.4	A	8.7%	None
			PM	4.4	A	7.4%	None
Birch Rd/ Eastlake Pkwy	Chula Vista	Signal	AM	26.9	C	14.4%	None
			PM	26.5	C	11.1%	None
Main St/Hilltop Drive	Chula Vista	Signal	AM	20.8	C	6.3%	None
			PM	33.7	C	5.0%	None
Main St/Melrose Ave	Chula Vista	Signal	AM	27.2	C	4.6%	None
			PM	37.3	D	3.8%	None
Main St/ I-805 SB Ramps	Chula Vista	Signal	AM	47.8	D	8.0%	None
			PM	70.0	E	4.5%	Cumulative
Main St/ I-805 NB Ramps	Chula Vista	Signal	AM	53.8	D	8.7%	None
			PM	77.1	E	7.2%	Direct
Main St/ Oleander Ave	Chula Vista	Signal	AM	9.1	A	10.2%	None
			PM	8.1	A	8.3%	None
Main St/ Brandywine Ave	Chula Vista	Signal	AM	29.6	C	11.0%	None
			PM	31.0	C	9.0%	None
Main St/ Heritage Rd	Chula Vista	Signal	AM	42.1	D	10.4%	None
			PM	43.4	D	9.5%	None
Main St (WB)/ La Media Rd (SB)	Chula Vista	AWSC	AM	15.7	B	9.7%	None
			PM	18.7	B	23.3%	None
Main St (WB)/ La Media Rd (NB)	Chula Vista	AWSC	AM	14.7	B	9.7%	None
			PM	15.8	B	23.3%	None
Main St (EB)/ La Media Rd (SB)	Chula Vista	AWSC	AM	18.8	B	36.3%	None
			PM	49.3	D	8.4%	None
Main St (EB)/ La Media Rd (NB)	Chula Vista	AWSC	AM	14.9	B	33.9%	None
			PM	20.7	C	10.7%	None
Main St/ Magdalena Ave	Chula Vista	MSSC	AM	13.9	B	24.7%	None
			PM	17.0	B	22.4%	None

Table 5.3-16 (cont.) YEAR 2030 INTERSECTION OPERATIONS

Intersection	Jurisdiction	Traffic Control	Peak Hour	Delay	LOS	Project % of Entering Volume (>5%)	Impact
Main St/ SR-125 SB Ramps	Chula Vista	Signal	AM	13.8	B	33.1%	None
			PM	13.1	B	25.8%	None
Main St/ SR-125 NB Ramps	Chula Vista	Signal	AM	8.6	A	38.0%	None
			PM	10.8	B	33.2%	None
Main St/ Village 9 St "B"	Chula Vista	Signal	AM	34.1	C	32.2%	None
			PM	49.8	D	30.6%	None
Hunte Pkwy (Main St)/ Eastlake Pkwy	Chula Vista	Signal	AM	34.1	C	38.4%	None
			PM	21.5	C	40.9%	None
Hunte Pkwy/ Discovery Falls Dr	Chula Vista	Signal	AM	22.1	C	34.2%	None
			PM	36.9	D	31.9%	None
Hunte Pkwy/ Exploration Falls Dr	Chula Vista	Signal	AM	50.7	D	44.5%	None
			PM	36.9	D	49.1%	None
Village 9 St "B"/ Village 9 St "C"	Chula Vista	Signal	AM	48.9	D	44.1%	None
			PM	95.4	F	41.6%	Direct
Village 9 St "B"/ Village 9 St "E"	Chula Vista	Signal	AM	46.7	D	32.7%	None
			PM	41.9	D	32.5%	None
Discovery Falls Rd/Village 9 St "I"	Chula Vista	Signal	AM	38.3	D	61.4%	None
			PM	36.9	D	54.5%	None
Discovery Falls Rd/Eastlake Pkwy	Chula Vista	Signal	AM	48.3	D	45.7%	None
			PM	47.9	D	36.5%	None
Discovery Falls Rd/ St "J"	Chula Vista	Signal	AM	20.5	C	6.5%	None
			PM	18.1	B	6.0%	None
Discovery Falls Rd/ St "K"	Chula Vista	Signal	AM	23.6	C	47.5%	None
			PM	51.2	D	44.7%	None
Otay Valley Rd/ SR-125 SB Ramps	Chula Vista	Signal	AM	9.2	A	7.4%	None
			PM	49.2	D	13.0%	None
Otay Valley Rd/ SR-125 NB Ramps	Chula Vista	Signal	AM	15.1	B	33.2%	None
			PM	15.7	B	21.8%	None
Otay Valley Rd/ Village 9 St "B"	Chula Vista	Signal	AM	33.0	C	35.0%	None
			PM	51.1	D	22.3%	None
Palm Ave/ I-805 SB Ramps	City of San Diego	Signal	AM	54.0	D	1.4% ^b	None
			PM	92.4	F	1.1%^b	Cumulative
Palm Ave/ I-805 NB Ramps	City of San Diego	Signal	AM	83.4	F	1.2%^b	Cumulative
			PM	99.3	F	0.9%^b	Cumulative
Palm Ave/ Dennery Road	City of San Diego	Signal	AM	35.9	D	2.1% ^b	None
			PM	36.3	D	1.8% ^b	None
Avenida De Las Vistas/Heritage Road	City of San Diego	Signal	AM	54.6	F	6.4%^b	Cumulative
			PM	52.5	F	6.0%^b	Cumulative
Lone Star Rd/ SR-125 SB Ramps	City of San Diego	Signal	AM	14.9	B	-. ^b	None
			PM	16.3	B	-. ^b	None

Table 5.3-16 (cont.) YEAR 2030 INTERSECTION OPERATIONS

Intersection	Jurisdiction	Traffic Control	Peak Hour	Delay	LOS	Project % of Entering Volume (>5%)	Impact
Lone Star Rd/ SR-125 NB Ramps	City of San Diego	Signal	AM	8.9	A	-. ^b	None
			PM	8.9	A	-. ^b	None
Lone Star Rd/ Harvest Rd	City of San Diego	Signal	AM	13.1	B	-. ^b	None
			PM	5.8	A	-. ^b	None
Ocean View Hills Pkwy/Otay Mesa Rd	City of San Diego	Signal	AM	45.7	D	-. ^b	None
			PM	34.8	C	-. ^b	None
Heritage Rd/ Otay Mesa Rd	City of San Diego	Signal	AM	25.9	C	-. ^b	None
			PM	60.5	E	-. ^b	Cumulative

Source: LLG 2017

Footnotes:

^a Project traffic in the critical movement at unsignalized intersections in County of San Diego. Per established criteria if this exceeds 20 peak hour trips, a significant impact is determined.

^b Increase in delay due to the Project is the significance criteria in the City of San Diego and Caltrans. All impacts in the long term are cumulative.

MSSC = Minor Street STOP Controlled. Minor street delay and level of service reported.

AWSC = All Way STOP Controlled. Overall delay and level of service reported.

Roadway Segments. Table 5.3-17, *Year 2030 Roadway Segment Operations*, and Figure 5.3-3, *Year 2030 Daily with Project Traffic Volumes*, presents the results of the Year 2030 roadway segment impact analysis under implementation of the Project.

City of Chula Vista

The following Chula Vista segments were calculated to operate at a deficient LOS under the Year 2030 scenario:

- Telegraph Canyon Road from Paseo Ladera to Paseo Ranchero (LOS E)
- Otay Lakes Road from East H Street to Telegraph Canyon Road (LOS D)
- Main Street from Hilltop Drive to Melrose Avenue (LOS E)
- Main Street from Melrose Avenue to I-805 (LOS E)
- Main Street from I-805 to Oleander Avenue (LOS E)
- Main Street from Oleander Avenue to Brandywine Avenue (LOS F)
- Main Street from Brandywine Avenue to Heritage Road (LOS D)
- Eastlake Parkway from Otay Lakes Road to Olympic Parkway (LOS D)

For the roadway segments of Main Street from I-805 to Oleander Avenue and Main Street from Oleander Avenue to Brandywine Avenue, the Project would contribute more than 800 ADT and more than five percent of the segment traffic, which are significance thresholds for roadway segments in the City of Chula Vista. Therefore, a significant direct impact would occur to these two Chula Vista roadway segments (Impacts 5.3-22a and 5.3-22b).

Direct impacts to Telegraph Canyon Road from Paseo Ladera to Paseo Ranchero would be less than significant because the Project would not contribute more than 800 ADT and more than five percent traffic contribution. Similarly, although the Project would add more than 800 ADT to Otay Lakes Road from East H Street to Telegraph Canyon Road, Birch Road from Hilltop Drive to Melrose Avenue, Main Street from Melrose Avenue to I-805, and Eastlake Parkway from Otay Lakes Road to Olympic Parkway, the Project's traffic contribution would not be more than five percent to these segments; therefore, direct impacts would be less than significant. Regarding the roadway segment of Main Street from Brandywine Avenue to Heritage Road, the Project would add more than 800 ADT and would contribute more than 5 percent of the traffic to this segment; however, because the intersections along this segment operate at LOS D or better, the direct impact to this segment would be less than significant. Nonetheless, a significant cumulative impact would occur to these six roadway segments because they would operate at a deficient LOS under the Year 2030 scenario (Impacts 5.3-23a through 5.3-23f).

City of San Diego

None of the City of San Diego roadway segments would operate at a deficient LOS with implementation of the Project under the Year 2030 scenario. Therefore, direct and cumulative impacts to City of San Diego roadway segments would be less than significant.

Table 5.3-17 YEAR 2030 ROADWAY SEGMENT OPERATIONS

Roadway/ Segment	Jurisdiction	LOS C Capacity ^a	Volume	LOS	Significance Criteria			Impact Type
					Project ADT >800	Project Contribution >5%	Intersections Along Segment Operating at LOS D or better?	
Bonita Road								
Otay Lakes Rd to San Miguel Rd	Chula Vista	30,000	27,200	C	0	0.0%	Yes	None
San Miguel Ranch Road								
Bonita Road to Proctor Valley Rd	Chula Vista	22,000	19,700	C	1,030	5.2%	Yes	None
East H St								
SR-125 to Mt Miguel Rd	Chula Vista	50,000	27,100	A	0	0.0%	Yes	None
Mt Miguel Rd to Hunte Pkwy	Chula Vista	50,000	40,900	B	1,550	3.8%	Yes	None
Telegraph Canyon Road								
Paseo Ladera to Paseo Ranchero	Chula Vista	50,000	56,800	E	520	0.9%	No	Cumulative

Table 5.3-17 (cont.) YEAR 2030 ROADWAY SEGMENT OPERATIONS

Roadway/ Segment	Jurisdiction	LOS C Capacity ^a	Volume	LOS	Significance Criteria			Impact Type
					Project ADT >800	Project Contribution >5%	Intersections Along Segment Operating at LOS D or better?	
Telegraph Canyon Road (cont.)								
Paseo Ranchero to Otay Lakes Rd	Chula Vista	50,000	48,600	C	0	0.0%	Yes	None ^b
Otay Lakes Road								
Bonita Rd to East H St	Chula Vista	30,000	34,600	E	520	1.5%	Yes	None
East H St to Telegraph Canyon Rd	Chula Vista	30,000	31,500	D	1,550	4.9%	Yes	Cumulative
La Media Road to SR-125	Chula Vista	50,000	44,600	C	0	0.0%	Yes	None
SR-125 to Eastlake Pkwy	Chula Vista	58,330	49,500	C	0	0.0%	Yes	None
Eastlake Pkwy to Hunte Pkwy	Chula Vista	50,000	32,300	A	1,030	3.2%	Yes	None
East of Hunte Pkwy	Chula Vista	50,000	25,500	A	0	0.0%	Yes	None
E. Palomar Street								
Paseo Ladera to Heritage Rd	Chula Vista	30,000	23,200	B	1,030	4.4%	Yes	None
Heritage Road to La Media Rd	Chula Vista	30,000	23,300	B	520	2.2%	Yes	None
La Media Rd to Olympic Pkwy	Chula Vista	30,000	23,700	B	2,070	8.7%	Yes	None
Olympic Parkway								
I-805 NB Ramps to Oleander Ave	Chula Vista	50,000	44,700	C	0	0.0%	Yes	None
Oleander Ave to Brandywine Ave	Chula Vista	50,000	37,800	B	0	0.0%	Yes	None
Brandywine Ave to Heritage Rd	Chula Vista	50,000	29,300	A	0	0.0%	Yes	None

Table 5.3-17 (cont.) YEAR 2030 ROADWAY SEGMENT OPERATIONS

Roadway/ Segment	Jurisdiction	LOS C Capacity ^a	Volume	LOS	Significance Criteria			Impact Type
					Project ADT >800	Project Contribution >5%	Intersections Along Segment Operating at LOS D or better?	
Olympic Parkway (cont.)								
Heritage Rd to Santa Venetia St	Chula Vista	50,000	38,700	B	1,550	4.0%	Yes	None
Santa Venetia St to La Media Rd	Chula Vista	50,000	31,900	A	1,550	4.9%	Yes	None
La Media Rd to E. Palomar St	Chula Vista	50,000	26,600	A	1,550	5.8%	Yes	None
E. Palomar St to SR-125	Chula Vista	50,000	47,000	C	3,610	7.7%	Yes	None
SR-125 to Eastlake Pkwy	Chula Vista	66,670	49,300	A	5,160	10.5%	Yes	None
Eastlake Pkwy to Hunte Pkwy	Chula Vista	50,000	33,000	A	5,680	17.2%	Yes	None
Birch Road								
La Media Rd to SR-125	Chula Vista	40,000	32,300	B	1,550	4.8%	Yes	None
SR-125 to Eastlake Pkwy	Chula Vista	40,000	31,400	B	2,070	6.6%	Yes	None
Main St								
Hilltop Dr to Melrose Ave	Chula Vista	30,000	36,500	E	1,550	4.2%	Yes	Cumulative
Melrose Ave to I-805	Chula Vista	30,000	37,300	E	1,550	4.2%	No	Cumulative
I-805 to Oleander Ave	Chula Vista	50,000	61,700	E	4,130	6.7%	No	Direct
Oleander Ave to Brandywine Ave	Chula Vista	50,000	63,600	F	4,130	6.5%	Yes	Direct
Brandywine Ave to Heritage Rd	Chula Vista	50,000	54,500	D	4,650	8.5%	Yes	Cumulative

Table 5.3-17 (cont.) YEAR 2030 ROADWAY SEGMENT OPERATIONS

Roadway/ Segment	Jurisdiction	LOS C Capacity ^a	Volume	LOS	Significance Criteria			Impact Type
					Project ADT >800	Project Contribution >5%	Intersections Along Segment Operating at LOS D or better?	
Main St (cont.)								
Heritage Rd to Otay Valley Rd	Chula Vista	50,000	42,300	B	6,710	15.9%	Yes	None
Otay Valley Rd to Magdalena Ave	Chula Vista	50,000	30,800	A	8,260	26.8%	Yes	None
Magdalena Ave to SR-125	Chula Vista	50,000	44,700	C	9,810	21.9%	Yes	None
SR-125 to Village 9 St "B"	Chula Vista	50,000	49,500	C	12,390	25.0%	Yes	None
Village 9 St "B" to Eastlake Pkwy	Chula Vista	50,000	24,200	A	6,200	25.6%	Yes	None
Otay Valley Road								
La Media Road to SR-125	Chula Vista	30,000	34,800	E	0	0.0%	Yes	None ^d
SR-125 to Village 9 St "B"	Chula Vista	30,000	21,400	A	6,200	29.0%	Yes	None
Hunte Parkway								
Otay Lakes Rd to Olympic Pkwy	Chula Vista	30,000	19,500	A	5,680	29.1%	Yes	None
Olympic Pkwy to Exploration Falls Dr	Chula Vista	50,000	28,400	A	8,260	29.1%	Yes	None
Exploration Falls Rd to Discovery Falls Dr	Chula Vista	50,000	21,300	A	1,030	4.8%	Yes	None
Discovery Falls Rd to Eastlake Pkwy	Chula Vista	50,000	27,800	A	7,230	26.0%	Yes	None

Table 5.3-17 (cont.) YEAR 2030 ROADWAY SEGMENT OPERATIONS

Roadway/ Segment	Jurisdiction	LOS C Capacity ^a	Volume	LOS	Significance Criteria			Impact Type
					Project ADT >800	Project Contribution >5%	Intersections Along Segment Operating at LOS D or better?	
Heritage Road								
Telegraph Canyon Rd to E. Palomar St	Chula Vista	50,000	26,200	A	520	2.0%	Yes	None
E. Palomar St to Olympic Pkwy	Chula Vista	50,000	49,100	C	1,550	3.2%	Yes	None
Olympic Pkwy to Main St	Chula Vista	50,000	36,300	A	520	1.4%	Yes	None
Main St to Otay Mesa Rd	Chula Vista	50,000	43,500	B	520	1.2%	Yes	None
La Media Road								
Telegraph Canyon Rd to E. Palomar St	Chula Vista	50,000	27,700	A	1,550	5.6%	Yes	None
E. Palomar St to Olympic Pkwy	Chula Vista	50,000	22,800	A	0	0.0%	Yes	None
Olympic Pkwy to Birch Rd	Chula Vista	50,000	30,700	A	2,070	6.7%	Yes	None
Eastlake Parkway								
Otay Lakes Rd to Olympic Pkwy	Chula Vista	30,000	31,700	D	1,030	3.2%	Yes	Cumulative
Olympic Pkwy to Birch Rd	Chula Vista	40,000	28,200	A	1,030	3.7%	Yes	None
Birch Rd to Hunte Pkwy	Chula Vista	40,000	24,500	A	8,260	33.7%	Yes	None
South of Hunte Pkwy	Chula Vista	12,000	6,600	A	6,200	93.9%	Yes	None
North of Discovery Falls Rd	Chula Vista	12,000	9,100	B	6,200	68.1%	Yes	None
Discovery Falls Rd to Otay Valley Rd	Chula Vista	12,000	7,000	A	1,550	22.1%	Yes	None

Table 5.3-17 (cont.) YEAR 2030 ROADWAY SEGMENT OPERATIONS

Roadway/ Segment	Jurisdiction	LOS C Capacity ^a	Volume	LOS	Significance Criteria			Impact Type
					Project ADT >800	Project Contribution >5%	Intersections Along Segment Operating at LOS D or better?	
Village 9 St "B" ^b								
Hunte Pkwy to Village 9 St "C"	Chula Vista	7,500	9,200	B	5,680	61.7%	Yes	None
Village 9 St "C" to Village 9 St "E"	Chula Vista	7,500	6,000	A	5,680	94.7%	Yes	None
Hunte Pkwy to Village 9 St "C"	Chula Vista	7,500	9,200	B	5,680	61.7%	Yes	None
Village 9 St "C" to Village 9 St "E"	Chula Vista	7,500	6,000	A	5,680	94.7%	Yes	None
Village 9 St "E" to Discovery Falls Rd	Chula Vista	7,500	1,500	A	0	0.0%	Yes	None
Discovery Falls Rd to Otay Valley Rd	Chula Vista	7,500	7,000	A	4,650	66.4%	Yes	None
Discovery Falls Road								
Hunte Pkwy to St "K"	Chula Vista	30,000	15,400	A	9,810	63.7%	Yes	None
St "K" to Eastlake Pkwy	Chula Vista	7,500	5,600	A	0	0.0%	Yes	None
Eastlake Pkwy to Village 9 St "B"	Chula Vista	7,500	12,000	C	10,330	86.1%	Yes	None
Palm Avenue								
I-805 to Dennery Rd	City of San Diego	65,000	57,900	D	520	0.9%	No	None
Ocean View Hills Parkway								
Dennery Rd to Del Sol Blvd	City of San Diego	40,000	19,700	B	0	0.0%	Yes	None
Del Sol Blvd to Otay Mesa Rd	City of San Diego	50,000	15,400	B	0	0.0%	Yes	None

Table 5.3-17 (cont.) YEAR 2030 ROADWAY SEGMENT OPERATIONS

Roadway/ Segment	Jurisdiction	LOS C Capacity ^a	Volume	LOS	Significance Criteria			Impact Type
					Project ADT >800	Project Contribution >5%	Intersections Along Segment Operating at LOS D or better?	
Otay Mesa Road								
Ocean View Hills Pkwy to Heritage Rd	City of San Diego	60,000	31,500	B	520	1.7%	Yes	None
Lone Star Road								
SR-125 to Harvest Rd	City of San Diego	40,000	22,800	C	520	2.3%	Yes	None

Source: LLG 2017

Footnotes:

- ^a. Capacity of facility at LOS C (Chula Vista) and LOS E (City of San Diego).
- ^b. Capacity of Class III Collector is assumed for this street since only one lane is provided in each direction with the Bus Rapid Transit in the center, and no turn lanes at intervening intersections.
- ^c. The Project adds no traffic to this segment operating at LOS D. Therefore, the Project's impact would be less than significant.

Lake Property

Use of the Lake Property was analyzed in the 2001 EastLake III Woods and Vistas Replanning Program Subsequent EIR. In the EIR, it was referred to as the "Panhandle Site." The transportation/traffic circulation section of the EIR found that, although detailed development plans had not been prepared for the site, the trips generated from either of the proposed land use options could represent a significant impact. The two land use options proposed in that EIR were uses as a Public/Quasi-Public District (school, public service facility, etc.) or a low-density residential use.

The conclusions of the 2001 EastLake III Woods and Vistas Replanning Program Subsequent EIR are still applicable to the Project site, as the proposed land uses in the 2001 EIR are similar or higher density than the UID SPA Plan's proposed land uses for the site and as detailed development plans are not available for the UID SPA Plan's proposed land uses on the Lake Property, an updated analysis was not included in the TIA. However, based on the conclusions in the 2001 EIR, traffic impacts from the Lake Property are assessed as potentially significant and would require the preparation of a detailed traffic study when development plans are available (Impact 5.3-24).

2. Construction

Construction of the Project would have the potential to generate traffic from worker trips, and building material and equipment deliveries. During grading of the site, cut and fill would be balanced on site; therefore, there will be limited need to haul material to or from the site. Construction traffic is not anticipated to generate enough traffic on its own to result in a significant impact; however, construction within the UID would occur continuously until full buildout. Therefore, construction traffic would result in a temporary addition to operational traffic generated by the Project. As discussed previously, operation of the Project would have the potential to

generate substantial traffic during each traffic scenario (Existing, Year 2020, Year 2025, and Year 2030), and construction traffic would incrementally contribute to these impacts. Therefore, impacts from construction traffic could potentially be significant (Impact 5.3-25).

B. Threshold 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.

The City LOS standards are the applicable standard to determine if the Project would result in traffic that would conflict with regional congestion management plans, such as SANDAG's San Diego Forward: The Regional Plan. Additionally, the UID SPA Plan would result in a conflict with the Regional Plan if it would not encourage uses of alternative forms of transportation and overall reductions in vehicle miles traveled.

The UID would be accessible by bus service through the South Bay BRT. Most UID streets would include dedicated, striped, on-street Class I bicycle facilities (see Figure 4E of the SPA Plan). Sidewalks would also be provided throughout the UID and would include bulb-outs at key locations to reduce pedestrian crossing distances. As discussed under Threshold 1, the proposed transit facilities would reduce total vehicle trips by approximately five percent. Therefore, the Project would not result in any conflicts with the San Diego Forward – The Regional Plan's goals to reduce vehicle trips and vehicle miles traveled.

However, as discussed under Threshold 1, implementation of the UID SPA Plan would have the potential to exceed the City LOS standards, as well as City of San Diego, County of San Diego, and Caltrans standards for intersections and roadways under the Existing Plus Project, Year 2020, Year 2025, and Year 2030 (buildout) scenarios. Therefore, the Project would contribute to regional congestion and a potentially significant impact would occur related to level of service standards (Impact 5.3-26).

C. Threshold 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.

The UID is located approximately 1.9 miles to the northeast of Brown Field Municipal Airport. The UID is located within the approach area for Brown Field Municipal Airport subject to over flights from both Brown Field and the Tijuana Airport, a commercial facility, just over one mile to the south of Brown Field. Aircraft operations at Brown Field would be required to comply with all applicable FAA regulations that are intended to ensure safe operation of aircraft. Flights to and from the Tijuana Airport in U.S. airspace over the site would be required to coordinate with FAA traffic controllers. Additionally, Mexico is rated Category 1, the top category, in FAA's International Aviation Safety Assessment Program (Aviation Safety Network 2010). This program focuses on a country's ability to adhere to international standards and recommended practices for aircraft operations and maintenance established by the United Nation's technical agency for aviation, the International Civil Aviation Organization (ICAO). With continued compliance with safety regulations and standards, it is not reasonably foreseeable that continued operations at Brown Field or the Tijuana Airport would result in a safety hazard to the UID.

As discussed in greater detail in Section 5.13, *Hazards and Hazardous Materials*, and shown on Figure 5.1-1, the Project area is located within the FAA Overflight Notification Area for proposed construction or alteration projects, and Review Area 2 of the Brown Field Airport Influence Area. However, it is not anticipated that the Project would exceed the noted 200-foot height limit and a substantial safety risk would not occur related to air traffic patterns.

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

The circulation design for the Project provides roadways within the UID and their connections to the surrounding roads. As part of the design review process, site access and circulation for the UID would be reviewed by the City of Chula Vista's Public Works and Engineering Departments. Traffic calming measures would be included to increase safety. Specific traffic calming measures included as part of the Project design include narrow, multi-modal streets, multiple connections, and on-street parking. Traffic calming measures would also promote pedestrian and bicycle safety as well as vehicle safety by controlling the speed and distribution of vehicles travelling throughout the UID. The streets would also include intersection bulb outs to narrow the through travel way at intersections; narrow, multi-modal streets to slow vehicular traffic; and multiple connections to evenly distribute traffic. Therefore, the Project would not result in significant impacts related to hazards due to a design feature.

As discussed in Section 5.1, *Land Use*, implementation of the Project would not result in any land use incompatibilities with incorporation of the mitigation measures identified for various resources sections, including transportation/traffic, air quality, noise, biological resources, public services, hydrology and water quality, agricultural resources, and hazards and hazardous materials. Currently, vacant land surrounds the Project site on three sides and Hunte Parkway and Village 11 to the north. Future land uses planned for the areas surrounding the Project would be similar to the non-university land uses proposed for the UID and would generate similar types of traffic. As discussed in Section 5.12, *Agricultural Resources*, potential agriculture use in the UID would be required to comply with the Agricultural Plan (Mitigation Measure 5.12-1) to ensure compatibility between university-related crop production for research and small-scale production. Therefore, hazard impacts due to incompatible uses would be less than significant.

E. Threshold 5: Result in inadequate emergency access.

As discussed in Section 5.13, implementation of the Project would not interfere with the city emergency response plans because it does not interfere with any existing roadways or evacuation routes. Evacuation from and emergency response within the UID would be enhanced by the proposed circulation system (see Figure 5.3-3), which provides multiple points of ingress and egress from the site to the surrounding regional circulation system. Individual developments within the UID would be required to demonstrate adequate emergency access as part of the City design review process, including review by the Chula Vista Fire Department. In addition, construction activities including staging would occur in accordance with City requirements (such as Chula Vista Municipal Code Chapter 12.12, which prohibits street obstructions), which would ensure that adequate emergency access would be provided during construction of the Project. Therefore, impacts related to emergency access would be less than significant.

F. Threshold 6: Conflict with adopted policies, plans or programs regarding the circulation network, public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Local and regional plans such as the General Plan, GDP, and SANDAG's San Diego Forward: The Regional Plan emphasize development patterns and transportation systems that work together to reduce the use of automobiles. The Project would be designed to incorporate a future BRT stop, which would allow for the use of public transit to project uses. The Project's high density uses would allow people to live, work, or attend university through the use of the BRT stop. In addition, bike lanes and pedestrian-friendly avenues would be incorporated throughout much of the Project site to encourage non-vehicular circulation to and within the Project area and surrounding villages in Otay Ranch (see Figure 3-4 for proposed pedestrian and bicycle facilities). Therefore, the Project would not conflict with policies, plans or programs regarding the circulation network, public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities, and impacts would be less than significant.

5.3.4 Level of Significance Prior to Mitigation

A. Traffic and Level of Service Standards

The traffic analysis assumed certain roadway improvements to be in place prior to commencement of each study scenario. These assumed roadways were taken into account due to other Otay Ranch communities planned for development in the Project's study area. If these improvements are not in place prior to each of the respective scenarios, as assumed, additional traffic impacts would occur, resulting in a potentially significant impact.

1. Year 2020

Access and Frontage

Impact 5.3-1: According to Chapter 12.24 of the City's Municipal Code, access related impacts would occur if access and frontage improvements are not provided concurrent with development. Therefore, in 2020, the Project could result in potentially significant impacts related to access and frontage.

Intersections

City of Chula Vista

Impact 5.3-2: Under the Year 2020 scenario, the Project would result in a potentially significant direct impact to the following Chula Vista intersection:

- Birch Road/La Media Road (AM – LOS E, PM – LOS F)

Impacts 5.3-3a through 5.3-3l: Under the Year 2020 scenario, the Project would result in a potentially significant cumulative impact to the following Chula Vista intersections:

- Impact 5.3-3a: Telegraph Canyon Road/Paseo Ranchero (AM – LOS E)
- Impact 5.3-3b: Telegraph Canyon Road/Otay Lakes Road/La Media Road (PM – LOS E)
- Impact 5.3-3c: East Palomar Street/Heritage Road (AM – LOS E)
- Impact 5.3-3d: East Palomar Street/La Media Road (AM – LOS E, PM – LOS E)
- Impact 5.3-3e: Olympic Parkway/I-805 SB Ramps (AM – LOS F, PM – LOS F)
- Impact 5.3-3f: Olympic Parkway/I-805 NB Ramps (AM – LOS F, PM – LOS F)
- Impact 5.3-3g: Olympic Parkway/Oleander Avenue (AM – LOS E, PM – LOS F)
- Impact 5.3-3h: Olympic Parkway/Brandywine Avenue (AM – LOS F, PM – LOS F)
- Impact 5.3-3i: Olympic Parkway/Heritage Road (AM – LOS F, PM – LOS F)
- Impact 5.3-3j: Main Street/I-805 SB Ramps (PM – LOS F)
- Impact 5.3-3k: Main Street/I-805 NB Ramps (PM – LOS F)
- Impact 5.3-3l: Main Street/Brandywine Avenue (AM – LOS E, PM – LOS E)

City of San Diego/Caltrans

Impacts 5.3-4 and 5.3-4b: Under the Year 2020 scenario, the Project would result in a potentially significant cumulative impact to the following City of San Diego/Caltrans intersections:

- Impact 5.3-4a: Palm Avenue/I-805 SB Ramps (PM – LOS F)
- Impact 5.3-4b: Palm Avenue/I-805 NB Ramps (AM – LOS E, PM – LOS F)

City of San Diego

Impact 5.3-5: Under the Year 2020 scenario, the Project would result in a potentially significant cumulative impact to the following City of San Diego intersection:

- Avenida De Las Vistas/Heritage Road (AM – LOS F, PM – LOS F)

Roadway Segments

City of Chula Vista

Impacts 5.3-6a through 5.3-6f: Under the Year 2020 scenario, the Project would result in a potentially significant cumulative impact to the following six Chula Vista roadway segments:

- Impact 5.3-6a: Telegraph Canyon Road from Paseo Ladera to Paseo Ranchero (LOS E)
- Impact 5.3-6b: Otay Lakes Road from Bonita Road to East H Street (LOS D)
- Impact 5.3-6c: Otay Lakes Road from East H Street to Telegraph Canyon Road (LOS D)
- Impact 5.3-6d: Main Street from Hilltop Drive to Melrose Avenue (LOS E)
- Impact 5.3-6e: Main Street from Melrose Avenue to I-805 (LOS E)
- Impact 5.3-6f: Eastlake Parkway from Otay Lakes Road to Olympic Parkway (LOS D)

2. Year 2025

Access and Frontage

Impact 5.3-7: According to Chapter 12.24 of the City's Municipal Code, access related impacts would occur if access and frontage improvements are not provided concurrent with development. Therefore, in 2025, the Project could result in potentially significant impacts related to access and frontage.

Intersections

City of Chula Vista

Impacts 5.3-8a through 5.3-8c: Under the Year 2025 scenario, the Project would result in a potentially significant direct impact to the following three Chula Vista intersections:

- Impact 5.3-8a: Proctor Valley Road/San Miguel Ranch Road (PM – LOS E)
- Impact 5.3-8b: Birch Road/La Media Road (AM – LOS F, PM – LOS F)
- Impact 5.3-8c: Birch Road/Eastlake Parkway (AM – LOS F, PM – LOS F)

Impacts 5.3-9a through 5.3-9o: Under the Year 2025 scenario, the Project would result in a potentially significant cumulative impact to the following Chula Vista intersections:

- Impact 5.3-9a: Telegraph Canyon Road/Paseo Ladera (AM – LOS E)
- Impact 5.3-9b: Telegraph Canyon Road/Paseo Ranchero (AM – LOS E, PM - LOS E)
- Impact 5.3-9c: Telegraph Canyon Road/Otay Lakes Road/La Media Road (AM – LOS E, PM – LOS F)
- Impact 5.3-9d: East Palomar Street/Heritage Road (AM – LOS E)
- Impact 5.3-9e: East Palomar Street/La Media Road (AM – LOS F, PM – LOS E)
- Impact 5.3-9f: Olympic Parkway/I-805 SB Ramps (PM – LOS F)
- Impact 5.3-9g: Olympic Parkway/I-805 NB Ramps (AM – LOS E, PM – LOS E)
- Impact 5.3-9h: Olympic Parkway/Oleander Avenue (AM – LOS E, PM – LOS F)
- Impact 5.3-9i: Olympic Parkway/Brandywine Avenue (AM – LOS F, PM – LOS F)
- Impact 5.3-9j: Olympic Parkway/Heritage Road (AM – LOS F, PM – LOS F)
- Impact 5.3-9k: Olympic Parkway/La Media Road (AM – LOS F, PM – LOS E)
- Impact 5.3-9l: Main Street/Melrose Avenue (PM – LOS E)
- Impact 5.3-9m: Main Street/I-805 SB Ramps (PM – LOS E)
- Impact 5.3-9n: Main Street/I-805 NB Ramps (PM – LOS E)
- Impact 5.3-9o: Main Street/Brandywine Avenue (PM – LOS E)

County of San Diego

Impact 5.3-10: Under the Year 2025 scenario, the Project would result in a potentially significant direct impact to the following County of San Diego intersection:

- Proctor Valley Road/San Miguel Road (PM – LOS F)

City of San Diego/Caltrans

Impacts 5.3-11a and 5.3-11b: Under the Year 2025 scenario, the Project would result in a potentially significant cumulative impact to the following City of San Diego/Caltrans intersections:

- Impact 5.3-11a: Palm Avenue/I-805 SB Ramps (PM – LOS F)
- Impact 5.3-11b: Palm Avenue/I-805 NB Ramps (AM – LOS F, PM – LOS F)

City of San Diego

Impacts 5.3-12a and 5.3-12b: Under the Year 2025 scenario, the Project would result in a potentially significant cumulative impact to the following City of San Diego intersections:

- Impact 5.3-12a: Avenida De Las Vistas/Heritage Road (AM – LOS F, PM – LOS F)
- Impact 5.3-12b: Heritage Road/Otay Mesa Road (PM – LOS E)

Roadway SegmentsCity of Chula Vista

Impacts 5.3-13a through 5.3-13c: Under the Year 2025 scenario, the Project would result in a potentially significant direct impact to the following Chula Vista roadway segments:

- Impact 5.3-13a: Olympic Parkway from Heritage Road to Santa Venetia Street (LOS D)
- Impact 5.3-13b: Olympic Parkway from East Palomar Street to SR-125 (LOS D)
- Impact 5.3-13c: Birch Road from SR-125 to Eastlake Parkway (LOS D)

Impacts 5.3-14a through 5.3-14g: Under the Year 2025 scenario, the Project would result in a potentially significant cumulative impact to the following Chula Vista roadway segments:

- Impact 5.3-14a: Telegraph Canyon Road from Paseo Ladera to Paseo Ranchero (LOS E)
- Impact 5.3-14b: Otay Lakes Road from Bonita Road to East H Street (LOS E)
- Impact 5.3-14c: Otay Lakes Road from East H Street to Telegraph Canyon Road (LOS D)
- Impact 5.3-14d: Main Street from Hilltop Drive to Melrose Avenue (LOS E)
- Impact 5.3-14e: Main Street from Melrose Avenue to I-805 (LOS E)
- Impact 5.3-14f: Main Street from Oleander Avenue to Brandywine Avenue (LOS D)
- Impact 5.3-14g: Eastlake Parkway from Otay Lakes Road to Olympic Parkway (LOS D)

3. Year 2030**Access and Frontage**

Impact 5.3-15: According to Chapter 12.24 of the City’s Municipal Code, access related impacts would occur if access and frontage improvements are not provided concurrent with development. Therefore, in 2030, the Project could result in potentially significant impacts related to access and frontage.

Intersections

City of Chula Vista

Impacts 5.3-16a through 5.3-16c: Under the Year 2030 scenario, the Project would result in a potentially significant direct impact to the following Chula Vista intersections:

- Impact 5.3-16a: Main Street/I-805 NB Ramps (PM – LOS E)
- Impact 5.3-16b: Village 9 Street “B”/Village 9 Street “C” (PM – LOS E)
- Impact 5.3-16c: Proctor Valley Road/San Miguel Ranch Road (PM – LOS E)

Impacts 5.3-17a through 5.3-17c: Under the Year 2030 scenario, the Project would result in potentially significant cumulative impacts to the following Chula Vista intersections:

- Impact 5.3-17a: Telegraph Canyon Road/Paseo Ranchero (AM – LOS E, PM - LOS E)
- Impact 5.3-17b: Main Street/I-805 SB Ramps (PM – LOS E)
- Impact 5.3-17c: Birch Road/La Media Road (AM – LOS E, PM – LOS E)

County of San Diego

Impact 5.3-18: Under the Year 2030 scenario, the Project would result in a potentially significant direct impact to the following County of San Diego intersection:

- Proctor Valley Road/San Miguel Road (PM – LOS E)

Impact 5.3-19: Under the Year 2030 scenario, the Project would result in a potentially significant cumulative impact to the following County of San Diego intersection:

- Bonita Road/San Miguel Road (PM – LOS E)

City of San Diego/Caltrans

Impacts 5.3-20a and 5.3-20b: Under the Year 2030 scenario, the Project would result in a potentially significant cumulative impact to the following City of San Diego/Caltrans intersections:

- Impact 5.3-20a: Palm Avenue/I-805 SB Ramps (PM – LOS F)
- Impact 5.3-20b: Palm Avenue/I-805 NB Ramps (AM – LOS F, PM – LOS F)

City of San Diego

Impacts 5.3-21a and 5.3-21b: Under the Year 2030 scenario, the Project would result in a potentially significant cumulative impact to the following City of San Diego intersections:

- Impact 5.3-21a: Avenida De Las Vistas/Heritage Road (AM – LOS F, PM – LOS F)
- Impact 5.3-21b: Heritage Road/Otay Mesa Road (PM – LOS E)

Roadway Segments

City of Chula Vista

Impacts 5.3-22a and 5.3-22b: Under the Year 2030 scenario, the Project would result in a potentially significant direct impact to the following Chula Vista roadway segments:

- Impact 5.3-22a: Main Street from I-805 to Oleander Avenue (LOS E)
- Impact 5.3-22b: Main Street from Oleander Avenue to Brandywine Avenue (LOS F)

Impacts 5.3-23a through 5.3-23f: Under the Year 2030 scenario, the Project would result in a potentially significant cumulative impact to the following Chula Vista roadway segments:

- Impact 5.3-23a: Telegraph Canyon Road from Paseo Ladera to Paseo Ranchero (LOS E)
- Impact 5.3-23b: Otay Lakes Road from East H Street to Telegraph Canyon Road (LOS D)
- Impact 5.3-23c: Main Street from Hilltop Drive to Melrose Avenue (LOS E)
- Impact 5.3-23d: Main Street from Melrose Avenue to I-805 (LOS E)
- Impact 5.3-23e: Main Street from Brandywine Avenue to Heritage Road (LOS D)
- Impact 5.3-23f: Eastlake Parkway from Otay Lakes Road to Olympic Parkway (LOS D)

4. Lake Property

Impact 5.3-24: Based on the conclusions in the 2001 EIR, traffic impacts from the Lake Property are assessed as potentially significant. An updated traffic analysis of the Lake Property was not included in the TIA for the UID because specific development plans are not currently available and uses assumed in the UID SPA Plan are similar or lower in density than those considered in the 2001 EIR. Therefore, a detailed traffic study would need to be prepared when development plans are available.

5. Construction

Impact 5.3-25: Construction within the UID would occur continuously until full buildout. Therefore, construction traffic would result in a temporary addition to operational traffic generated by the Project. As discussed above, operation of the Project would have the potential to generate substantial traffic during each traffic scenario (Year 2020, Year 2025, and Year 2030), and construction traffic would incrementally contribute to these impacts. Therefore, impacts from construction traffic could potentially be significant.

B. Congestion Management

Impact 5.3-26: The Project would have the potential to exceed the City of Chula Vista's LOS standards, as well as the City of San Diego, Caltrans, and the County of San Diego's standards under the Existing Plus Project, Year 2020, Year 2025, and Year 2030 scenarios. Therefore, the Project would contribute to regional congestion and a potentially significant impact would occur related to level of service standards.

C. Air Traffic Patterns

Implementation of the Project would not result in a significant direct impact related to air traffic patterns. Cumulative impacts are addressed in Chapter 6.0, *Cumulative Impacts*.

D. Road Safety

Implementation of the Project would not result in a significant direct impact related to road safety. Cumulative impacts are addressed in Chapter 6.0, *Cumulative Impacts*.

E. Emergency Access

Implementation of the Project would not result in a significant direct impact related emergency access. Cumulative impacts are addressed in Chapter 6.0, *Cumulative Impacts*.

F. Consistency with Transportation Policies

Implementation of the Project would not result in a significant direct impact related to consistency with transportation policies. Cumulative impacts are addressed in Chapter 6.0, *Cumulative Impacts*.

5.3.5 Mitigation Measures

Development of the UID site would occur as future applicants apply for various permits. The measures below identify that a future applicant would be responsible for the implementation of the mitigation measures.

A. Traffic and Level of Service Standards**1. Year 2020****Access and Frontage**

According to Chapter 12.24 of the City's Municipal Code, access related impacts would occur if access and frontage improvements are not provided concurrent with development. Therefore, in 2020, the Project could result in potentially significant impacts related to access and frontage (Impact 5.3-1). To mitigate these impacts, the City imposes Mitigation Measures 5.3-1a through 5.3-1d, which require the Project applicant to dedicate public ROW and install the public improvements in connection with development:

5.3-1a Eastlake Parkway/Hunte Parkway Intersection: Eastlake Parkway south of Hunte Parkway within the UID will provide primary access to the site. Corresponding improvements to the geometry (as seen in Figure 10-2 in EIR Appendix B) shall be provided by the applicant at the Eastlake Parkway/Hunte Parkway intersection prior to construction. Needed modifications to the traffic signal shall also be made to accommodate the third (south) leg at this intersection. This improvement shall be provided prior to construction of the first building within the University Campus/Innovation District, in accordance with City Ordinances.

- 5.3-1b Discovery Falls Road Secondary Access:** A new secondary access shall be provided by the applicant from Discovery Falls Road, just south of Hunte Parkway. Corresponding improvements to the geometry, as shown in Figure 10-2 of EIR Appendix B (Intersection #57), shall be provided. A traffic signal shall be installed to the satisfaction of the City Engineer. This improvement shall be provided prior to construction of the first building within the UID, in accordance with City Ordinances.
- 5.3-1c Hunte Parkway/Exploration Falls Road Intersection:** The applicant shall be responsible for constructing the fourth (south) leg of the Hunte Parkway/Exploration Falls Road intersection and modifying the signal as needed to accommodate the fourth leg prior to construction of the first building within the UID, in accordance with City Ordinances.
- 5.3-1d Internal Circulation Roads:** Internal circulation roads shall be constructed on-site by the applicant in conformance with City standards. Final design and siting of internal roads will be subject to the approval of the City, including the Development Services Department, Public Works Department, and Fire Department.

Potential Mitigation Measures (if not Completed by Others by the 1,360th EDU)

Anticipated 2020 Roadway Improvements: The traffic analysis assumed certain roadway improvements to be in place prior to commencement of each study scenario. These assumed roadways were taken into account due to other Otay Ranch communities planned for development in the Project's study area. The traffic analysis assumes the following roadway improvements to be in place prior to commencement of the Year 2020 scenario and based on the fact that they are City CIP projects, as further described below. If these improvements are not in place prior to each of the respective scenarios, as assumed, the Project would be required to complete these improvements to ensure no additional potentially significant impacts (other than those stated in this section) would occur.

- Heritage Road, south of Main Street to Chula Vista city limit: This facility is included in its ultimate classification by 2020. As indicated in the City's currently adopted General Plan Circulation Element, the ultimate classification designation for Heritage Road south of Main Street is a 6-lane Prime Arterial. This improvement project (STM364 – Heritage Road Bridge Replacement) is included in the Chula Vista adopted FY 2012-13 through FY 2016-17 CIP and will be funded by a mix of the Highway Bridge Program, Transportation Development Impact Fees, and other miscellaneous transportation grants.
- Otay Lakes Road, between H Street and Telegraph Canyon Road: This facility is identified for widening from a 4-lane Major Road to a 6-lane Prime Arterial consistent with the classification identified in the City's currently adopted General Plan Circulation Element. This improvement project (STM355 – Otay Lakes Road Widening) is included in the Chula Vista adopted FY 2012-13 through FY 2016-17 CIP and will be funded by the Transportation Development Impact Fees.

If the first final map or development in the Year 2020 scenario (1,360 EDUs) is submitted for approval prior to the above improvements being constructed and open to traffic, then

one of the following three steps shall be taken to the satisfaction of the City Engineer. The City of Chula Vista or successor in interest will make every effort to coordinate improvements outside of their jurisdiction with the appropriate agencies.

- Development in the UID shall stop until those assumed future roadways are constructed by others; or
- The applicant shall secure or construct the incomplete roadway segments. A number of factors, including changes to the tolling structure at SR-125, may affect the traffic patterns in the Otay Ranch. Additional traffic analysis of the roadway network and levels of service assessment may be necessary to determine if such improvements are necessary and the scope and timing of additional circulation improvements; or
- The City of Chula Vista or successor in interest shall construct the missing roadway links and receive a transportation development impact fee credit for those improvements as applicable.

Intersections

In accordance with the PFFP, the City will monitor traffic conditions and determine the timing of the following improvements as they are needed.

City of Chula Vista

Under the Year 2020 scenario, the Project would result in a significant direct impact to the intersection of Birch Road/La Media Road (Impact 5.3-2). Implementation of Mitigation Measure 5.3-2 would reduce impacts to less than significant levels:

5.3-2 Birch Road/La Media Road Intersection: Prior to the issuance of the final map that contains the 1,360th EDU, the applicant shall secure or construct the Main Street connection between Heritage Road and Eastlake Parkway. Since this improvement includes the construction of a 6-lane road and a bridge, it is beyond the scope of a single development project. If this improvement is not in place by the issuance of the final map that contains the 1,360th EDU, the Project would be required to implement the “Anticipated 2020 Roadway Improvements.”

Under the Year 2020 scenario, the Project would result in a significant cumulative impact to 13 Chula Vista intersections (Impacts 5.3-3a through 5.3-3l). Implementation of Mitigation Measure 5.3-3 would reduce impacts to less than significant levels:

5.3-3 Cumulative impacts within the City of Chula Vista will be mitigated using Transportation Development Impact Fees (TDIF). The UID-related TDIF has been accounted for in the TDIF Ordinance (for City of Chula Vista intersections) and Western TDIF Program (for City of Chula Vista/Caltrans intersections). Therefore, cumulative impacts within the City of Chula Vista are considered to be mitigated to a level below significance without any additional TDIF fee payments by the UID Project.

City of San Diego/Caltrans

Under the Year 2020 scenario, the Project would result in a significant cumulative impact to two City of San Diego/Caltrans intersections: Palm Avenue/I-805 SB Ramps and Palm Avenue/I-805 NB Ramps (Impacts 5.3-4a and 5.3-4b). Implementation of Mitigation Measures 5.3-4a and 5.3-4b would reduce impacts to less than significant levels:

5.3-4a Palm Avenue/I-805 SB Ramps Intersection: The improvement of the Palm Avenue/I-805 SB Ramps Intersection is included in the FBA in the City of San Diego. If the City of San Diego does not complete this improvement prior to the issuance of the final map that contains the Project's 1,360th EDU, the City of Chula Vista or successor in interest shall coordinate with the City of San Diego to implement this improvement.

5.3-4b Palm Avenue/I-805 NB Ramps Intersection: The improvement of the Palm Avenue/I-805 NB Ramps Intersection is included in the FBA, in the City of San Diego. If the City of San Diego does not complete this Project prior to the issuance of the final map that contains the Project's 1,360th EDU, the City of Chula Vista or successor in interest shall coordinate with the City of San Diego to implement this improvement.

City of San Diego

Under the Year 2020 scenario, the Project would result in a significant cumulative impact to the intersection of Avenida De Las Vistas/Heritage Road (Impact 5.3-5). Implementation of Mitigation Measure 5.3-5 would reduce impacts to less than significant levels:

5.3-5 Avenida De Las Vistas/Heritage Road Intersection: The improvement of the Avenida De Las Vistas/Heritage Road Intersection is included in the FBA, in the City of San Diego. If the City of San Diego does not complete this Project prior to the issuance of the final map that contains the Project's 1,360th EDU, the City of Chula Vista or successor in interest shall coordinate with the City of San Diego to implement this improvement.

Roadway SegmentsCity of Chula Vista

Under the Year 2020 scenario, the Project would result in a significant cumulative impact to six Chula Vista roadway segments (Impacts 5.3-6a through 5.3-6f). Cumulative impacts to roadway segments in Chula Vista in the Year 2020 scenario will be mitigated by implementing Mitigation Measure 5.3-3.

2. Year 2025**a. Access and Frontage**

According to Chapter 12.24 of the City's Municipal Code, access related impacts would occur if access and frontage improvements are not provided concurrent with development. Therefore, in 2025, the Project could result in potentially significant impacts related to access and frontage

(Impact 5.3-7). Implementation of Mitigation Measure 5.3-7 would reduce impacts to less than significant levels:

5.3-7 Construction of Street “E” between Village 9 Street “B” and Eastlake Parkway. Prior to the issuance of the final map that contains the 3,565th EDU, the City of Chula Vista or successor of interest shall construct Street “E” between Village 9 Street “B” and Eastlake Parkway, in accordance with City Ordinances.

Potential Mitigation Measures (if not Completed by Others by 3,565th EDU)

Anticipated 2025 Roadway Improvements: The traffic analysis assumed certain roadway improvements to be in place prior to commencement of each study scenario. These assumed roadways were taken into account due to other Otay Ranch communities planned for development in the Project’s study area. The traffic analysis assumes the following roadway improvements to be in place prior to commencement of the Year 2025 scenario and based on the fact that they are City CIP projects, as further described below. If these improvements are not in place prior to each of the respective scenarios, as assumed, the Project would be required to complete these improvements to ensure to no additional potentially significant impacts (other than those stated in this section) would occur.

- Eastlake Parkway between Main Street/Hunte Parkway and Discovery Falls Road as a Class II Collector.
- Discovery Falls Drive, between Hunte Parkway and Village 9 Street “B”.

As mentioned previously in the Year 2020 mitigation measures, if the first final map or development in the Year 2025 scenario (3,565 EDUs) is submitted for approval prior to the above improvements being constructed and open to traffic, then one of the following three steps shall be taken as determined to the satisfaction of the City Engineer. The City of Chula Vista will make every effort to coordinate improvements outside of their jurisdiction with the appropriate agencies.

- Development in the UID shall stop until those assumed future roadways are constructed by others; or
- The applicant shall secure or construct the incomplete roadway segments. A number of factors, including changes to the tolling structure at SR-125, may affect the traffic patterns in the Otay Ranch. Additional traffic analysis of the roadway network and levels of service assessment may be necessary to determine if such improvements are necessary and the scope and timing of additional circulation improvements; or
- The City of Chula Vista or successor in interest shall construct the missing roadway links and receive a TDIF credit for those improvements as applicable.

Intersections

City of Chula Vista

Under the Year 2025 scenario, the Project would result in a significant direct impact to three Chula Vista intersections (Impacts 5.3-8a through 8c). In addition to Mitigation Measure 5.3-2 identified for 2020, which would mitigate the 2025 impact identified at Birch Road/La Media Road Intersection (Impact 5.3-8c), the following measures would be required:

5.3-8a Proctor Valley Road/San Miguel Ranch Road Intersection: Installation of a traffic signal at this intersection will fully mitigate the corresponding impact to less than significant. The City of Chula Vista or successor in interest shall coordinate with the County of San Diego to construct a traffic signal at this intersection, if this improvement has not been built by others, prior to the construction issuance of the final map that contains the of the Project's 3,565th EDU.

5.3-8b Birch Road/Eastlake Parkway Intersection: Prior to the issuance of the final map that contains the 3,565th EDU, the applicant shall secure or construct the Main Street connection between Heritage Road and Eastlake Parkway. Since this improvement includes the construction of a major 6-lane road and a 6-lane bridge, it is beyond the scope of a single development project. If this improvement is not in place by the issuance of the final map that contains the 3,565th EDU, the Project would be required to implement the "Anticipated 2025 Roadway Improvements."

Under the Year 2025 scenario, the Project would result in a significant cumulative impact to 15 Chula Vista intersections (Impacts 5.3-9a through 5.3-9o). Implementation of Mitigation Measure 5.3-3 would reduce impacts to less than significant levels.

County of San Diego

Under the Year 2025 scenario, the Project would result in a significant direct impact to Proctor Valley Road/San Miguel Road intersection (Impact 5.3-10). Implementation of Mitigation Measure 5.3-10 would be required to reduce significant impacts:

5.3-10 Proctor Valley Road/San Miguel Road Intersection: The City of Chula Vista or successor in interest shall coordinate with the County of San Diego to construct a traffic signal and associated improvements to this intersection prior to the issuance of the final map that contains the Project's 3,565th EDU.

City of San Diego/Caltrans

Under the Year 2025 scenario, the Project would result in a significant cumulative impact to Palm Avenue/I-805 SB Ramps and Palm Avenue/I-805 NB Ramps intersections (Impacts 5.3-11a and 5.3-11b). Implementation of Mitigation Measures 5.3-4a and 5.3-4b above would reduce impacts to less than significant levels.

City of San Diego

Under the Year 2025 scenario, the Project would result in a significant cumulative impact to Avenida De Las Vistas/Heritage Road and Heritage Road/Otay Mesa Road intersections (Impacts 5.3-12a and 5.3-12b). Implementation of Mitigation Measures 5.3-12a and 5.3-12b would reduce impacts to less than significant levels:

5.3-12a Avenida De Las Vistas/Heritage Road Intersection: The City of Chula Vista or successor in interest shall coordinate with the City of San Diego to construct a traffic signal and associated improvements to this intersection prior to the issuance of the final map that contains the Project's 3,565th EDU

5.3-12b Heritage Road/Otay Mesa Road Intersection: The City of Chula Vista or successor in interest shall coordinate with the City of San Diego to install a WB right-turn overlap phase prior to the construction of the Project's 3,565th EDU.

Roadway Segments

City of Chula Vista

Under the Year 2025 scenario, the Project would result in a significant direct impact to three Chula Vista roadway segments (Impacts 5.3-13a through 5.3-13c). Implementation of Mitigation Measures 5.3-13a through 5.3-13c would reduce impacts to less than significant levels:

5.3-13a Olympic Parkway from Heritage Road to Santa Venetia Street: Prior to the issuance of the final map that contains the 3,565th EDU, the applicant shall secure or construct the Main Street connection between Heritage Road and Eastlake Parkway. Since this improvement includes the construction of a major 6-lane road and a 6-lane bridge, it is beyond the scope of a single development project. If this improvement is not in place by the issuance of the final map that contains the 3,565th EDU, the Project would be required to implement the "Anticipated 2025 Roadway Improvements."

5.3-13b Olympic Parkway from E. Palomar Street to SR-125: Prior to the issuance of the final map that contains the 3,565th EDU, the applicant shall secure or construct the Main Street connection between Heritage Road and Eastlake Parkway. Since this improvement includes the construction of a major 6-lane road and a 6-lane bridge, it is beyond the scope of a single development project. If this improvement is not in place by the issuance of the final map that contains the 3,565th EDU, the Project would be required to implement the "Anticipated 2025 Roadway Improvements."

5.3-13c Birch Road from SR-125 to Eastlake Parkway: Prior to the issuance of the final map that contains the 3,565th EDU, the applicant shall secure or construct the Main Street connection between Heritage Road and Eastlake Parkway. Since this improvement includes the construction of a major 6-lane road and a 6-lane bridge, it is beyond the scope of a single development project. If this improvement is not in place by the issuance of the final map that contains the 3,565th EDU, the Project would be required to implement the "Anticipated 2025 Roadway Improvements."

Under the Year 2025 scenario, the Project would result in a significant cumulative impact to seven Chula Vista roadway segments (Impacts 5.3-14a through 5.3-14g). Cumulative impacts to roadway segments in Chula Vista in the Year 2025 scenario will be mitigated by implementing Mitigation Measure 5.3-3.

3. Year 2030

Access and Frontage

According to Chapter 12.24 of the City's Municipal Code, access related impacts would occur if access and frontage improvements are not provided concurrent with development. Therefore, in 2030, the Project could result in potentially significant impacts related to access and frontage (Impact 5.3-15). Implementation of Mitigation Measure 5.3-15 would reduce impacts to less than significant levels:

- 5.3-15** The City of Chula Vista or successor in interest shall construct Street "C" between Village 9 Street "B" and Eastlake Parkway prior to construction of the 5,164th EDU within the UID.

Potential Mitigation Measures (if not Completed by Others by 5,164th EDU)

Anticipated 2030 Roadway Improvements: The traffic analysis assumed certain roadway improvements to be in place prior to commencement of each study scenario. These assumed roadways were taken into account due to other Otay Ranch communities planned for development in the Project's study area. The traffic analysis assumes the following roadway improvements to be in place prior to commencement of the Year 2030 scenario and based on the fact that they are City CIP projects, as further described below. If these improvements are not in place prior to each of the respective scenarios, as assumed, the Project would be required to complete these improvements to ensure to no additional potentially significant impacts (other than those stated in this section) would occur.

- Main Street, between SR-125 right-of-way (western boundary) and Eastlake Parkway is included as a 6-lane Gateway Street, consistent with the currently adopted Circulation Element.
- SR-125/Main Street interchange is included, consistent with the currently adopted Circulation Element.
- SR-125/Otay Valley Road half interchange (south only) is included.

As mentioned previously in the Year 2020 and 2025 mitigation measures, if the first final map or development in the Year 2030 scenario (5,164 EDUs) is submitted for approval prior to the above improvements being constructed and open to traffic, then one of the following three steps shall be taken as determined to the satisfaction of the City Engineer. The City of Chula Vista or successor in interest will make every effort to coordinate improvements outside of their jurisdiction with the appropriate agencies.

- Development in the UID shall stop until those assumed future roadways are constructed by others; or
- The applicant shall secure or construct the incomplete roadway segments. A number of factors, including changes to the tolling structure at SR-125, may affect the traffic patterns in the Otay Ranch. Additional traffic analysis of the roadway network and levels of service assessment may be necessary to determine if such improvements are necessary and the scope and timing of additional circulation improvements; or
- The City of Chula Vista or successor in interest shall construct the missing roadway links and receive TDIF fee credit for those improvements as applicable.

Intersections

City of Chula Vista

Under the Year 2030 scenario, the Project would result in a significant direct impact to three Chula Vista intersections (Impacts 5.3-16a through 16c). In addition to Mitigation Measure 5.3-10 identified for 2025, which would mitigate the 2030 impact (Impact 5.3-16c) identified at Proctor Valley Road/San Miguel Road Intersection, implementation of Mitigation Measures 5.3-16a and 5.3-16b would reduce impacts to less than significant levels:

5.3-16a Main Street/I-805 NB Ramps Avenue Intersection: Improvements at this interchange are included in the Western TDIF program. Therefore, this impact is considered fully mitigated.

5.3-16b Village 9 Street “B”/Village 9 Street “C” Intersection: The City of Chula Vista or successor in interest shall construct a westbound right-turn lane on Village 9 Street “C” if this improvement is not in place prior to the construction of the final map that contains the Project’s 5,164th DU.

Under the Year 2030 scenario, the Project would result in a significant cumulative impact to three Chula Vista intersections (Impacts 5.3-17a through 5.3-17c). Cumulative impacts to intersections in Chula Vista in the Year 2030 scenario will be mitigated by implementing Mitigation Measure 5.3-3.

County of San Diego

Under the Year 2030 scenario, the Project would result in a significant direct impact to Proctor Valley Road/San Miguel Road (Impact 5.3-18). Mitigation Measure 5.3-10 identified for 2025 would mitigate the 2030 impact to this intersection.

Under the Year 2030 scenario, the Project would result in a significant cumulative impact to Bonita Road/San Miguel Road (Impact 5.3-19). Implementation of Mitigation Measure 5.3-19 would mitigate the impact to this intersection.

- 5.3-19** The City of Chula Vista or successor in interest shall coordinate with the County of San Diego and provide payment of the San Diego County Traffic Impact Fee (TIF) prior to the issuance of the final map that contains the Project's 5,164th EDU.

City of San Diego/Caltrans

Under the Year 2030 scenario, the Project would result in a significant cumulative impact to two City of San Diego/Caltrans intersections (Impacts 5.3-20a and 5.3-20b). Implementation of Mitigation Measures 5.3-4a and 5.3-4b identified above in 2020 would reduce impacts to the Palm Avenue/I-805 SB Ramps Intersection and the Palm Avenue/I-805 NB Ramps Intersection in 2030, respectively.

City of San Diego

Under the Year 2030 scenario, the Project would result in a significant cumulative impact to the Avenida De Las Vistas/Heritage Road and Heritage Road/Otay Mesa Road intersections (Impacts 5.3-21a and 5.3-21b). Implementation of Mitigation Measures 5.3-21a and 5.3-21b would reduce impacts to less than significant levels:

- 5.3-21a Avenida De Las Vistas/Heritage Road:** The City of Chula Vista or successor in interest shall coordinate with the City of San Diego to construct a traffic signal and associated improvements to this intersection prior to the issuance of the final map that contains the Project's 5,164th EDU.
- 5.3-21b Heritage Road/Otay Mesa Road:** The City of Chula Vista or successor in interest shall coordinate with the City of San Diego to construct a WB right-turn overlap phase prior to the issuance of the final map that contains the Project's 5,164th EDU.

Roadway Segments

City of Chula Vista

Under the Year 2030 scenario, the Project would result in a significant direct impact to ~~three~~ two Chula Vista roadway segments (Impacts 5.3-22a and 5.3-22b). Implementation of Mitigation Measures 5.3-22a and 5.3-22b would reduce impacts to less than significant levels:

- 5.3-22a Main Street from I-805 to Oleander Avenue:** Prior to the issuance of the final map that contains the 5,164th EDU, the applicant shall secure or construct the Main Street/SR-125 interchange. Since this improvement includes the construction of a full interchange, it is beyond the scope of a single development project. If this improvement is not in place by the issuance of the final map that contains the 5,164th EDU, Mitigation Measure 5.3-21 would apply.
- 5.3-22b Main Street from Oleander Avenue to Brandywine Avenue:** Prior to the issuance of the final map that contains the 5,164th EDU, the applicant shall secure or construct the Main Street/SR-125 interchange. Since this improvement includes the construction of a full interchange, it is beyond the scope of a single development project. If this

improvement is not in place by the issuance of the final map that contains the 5,164th EDU, Mitigation Measure 5.3-21 would apply.

Under the Year 2030 scenario, the Project would result in a significant cumulative impact to six Chula Vista roadway segments (Impacts 5.3-23a through 5.3-23f). Cumulative impacts to roadway segments in Chula Vista in the Year 2030 scenario will be mitigated by implementing Mitigation Measure 5.3-3.

4. Lake Property

Based on the conclusions in the 2001 EIR, traffic impacts from the Lake Property are assessed as potentially significant (Impact 5.3-24). An updated traffic analysis of the Lake Property was not included in the TIA for the UID because specific development plans are not currently available and uses assumed in the UID SPA Plan are similar or lower in density than those considered in the 2001 EIR. Implementation of Mitigation Measure 5.3-24 below, which is equivalent to Mitigation Measure 4.2.5.15 of the 2001 SEIR, would reduce impacts to less than significant levels:

5.3-24 Subsequent Traffic Analysis for Lake Property. Prior to the approval of any detailed development plans for the Lake Property, a detailed traffic study shall be conducted by a City-approved traffic consultant. Specific mitigation measures for traffic impacts associated with the Lake Property shall be required at that time, to the satisfaction of the City Engineer, including any improvements related to any necessary roadway segments, intersections, and ingress-egress to reduce impacts to below a level of significance and to comply with the City's GMOC standards.

5. Construction

Construction within the UID would occur until full buildout. Therefore, construction traffic would result in a temporary addition to operational traffic generated by the Project. As discussed above, operation of the Project would have the potential to generate substantial traffic during each traffic scenario (Year 2020, Year 2025, and Year 2030), and construction traffic would incrementally contribute to these impacts. Therefore, impacts from construction traffic would be significant (Impact 5.3-25). Implementation of Mitigation Measure 5.3-25 would reduce impacts to less than significant levels:

5.3-25 Prior to the commencement of construction activities at the Main Campus Property or Lake Property, a detailed traffic management plan shall be prepared by a City-approved traffic consultant. Specific measures to implement to maintain acceptable traffic conditions during construction shall be reviewed to the satisfaction of the City Engineer.

B. Congestion Management

The Project would have the potential to exceed level of service standards under the Existing Plus Project, Year 2020, Year 2025, and Year 2030 scenarios. Therefore, the Project would contribute to regional congestion and a potentially significant impact would occur related to level of service standards (Impact 5.3-26). Direct and cumulative congestion management impacts would be mitigated to less than significant levels through implementation of Mitigation Measures 5.3-1 through 5.3-25.

C. Air Traffic Patterns

No mitigation measures are required.

D. Road Safety

No mitigation measures are required.

E. Emergency Access

No mitigation measures are required.

5.3.6 Level of Significance After Mitigation

A. Traffic and Level of Service Standards

Impacts related to access and frontage (Impacts 5.3-1, 5.3-7, and 5.3-15) would be reduced to less than significant levels with implementation of Mitigation Measures 5.3-1, 5.3-7, and 5.3-15 because specific improvements would be required to be built or funding shall be secured prior to issuing final map approval at different phases throughout buildout of the Project. If the improvements are not built or if funding is not secured, then development of the Project would stop until they are built.

Direct and cumulative impacts to intersections and roadway segments (Impacts 5.3-2 through 5.3-6f, 5.3-8a through 5.3-14g, and 5.3-16a through 5.3-23f) would be reduced to less than significant levels with implementation of Mitigation Measures 5.3-2 through 5.3-6f, 5.3-8a through 5.3-14g, and 5.3-16a through 5.3-23f because the mitigation would require that specific intersection and roadway improvements be in place prior to issuing final map approval at different phases throughout buildout of the Project.

Potential traffic impacts related to the Lake Property (Impact 5.3-24) would be reduced to less than significant levels with implementation of Mitigation Measure 5.3-24; with mitigation, the Project applicant would be required to analyze and mitigate any traffic impacts associated with the Lake Property.

Potential traffic impacts during Project construction (Impact 5.3-25) would be reduced to less than significant levels with implementation of Mitigation Measure 5.3-25; with mitigation, the Project applicant would be required to obtain a City-reviewed and approved traffic management plan.

B. Congestion Management

Potentially significant impacts related to level of service standards (Impact 5.3-26) would be reduced to less than significant levels with implementation of Mitigation Measures 5.3-1 through 5.3-25 because the mitigation would require that specific improvements be built or funding be secured prior to issuing final map approval at different phases throughout buildout of the Project.

C. Air Traffic Patterns

Impacts associated with air traffic patterns would be less than significant without mitigation.

D. Road Safety

Impacts associated with road safety would be less than significant without mitigation.

E. Emergency Access

Impacts associated with emergency access would be less than significant without mitigation.