2.9 Transportation and Traffic

This section describes the potential transportation and traffic-related impacts of Otay Ranch Village 14 and Planning Areas 16/19 (Proposed Project). The analysis presented in this section is based on the Transportation Impact Study (TIS), Otay Ranch Village 14 and Planning Areas 16/19, prepared by Chen Ryan Associates, included as Appendix 2.9-1 to this Environmental Impact Report (EIR). The TIS was prepared in compliance with the County of San Diego's Guidelines for Determining Significance and Report Format and Content Requirements, Transportation and Traffic (County of San Diego 2011a).

This section begins by describing the existing setting and methodology used to estimate and evaluate the transportation conditions. This includes a description of the various interim-year and build-out scenarios analyzed, roadways and intersections studied, level of service (LOS) forecast for these roadways and intersections, and methodology by which the traffic estimates were calculated. An evaluation of the existing transportation conditions for roadways, intersections, public transportation, and non-motorized transportation is then provided, followed by a description of how the significance of a potential impact is determined, an analysis of the Proposed Project's impacts, and recommended mitigation.

Because the Proposed Project implements the circulation roadways that were analyzed in the 1993 Otay Ranch General Development Plan/Subregional Plan (GDP/SRP) Program EIR, this section tiers from the 1993 Otay Ranch GDP/SRP (County of San Diego 1993) Program EIR. The 1993 Otay Ranch GDP/SRP Program EIR determined that traffic and circulation impacts would be significant and unavoidable due to potential secondary impacts related to off-site roadway improvements. However, the County of San Diego Board of Supervisors determined that traffic impacts were acceptable because of specific overriding considerations.

Following the issuance of the Notice of Preparation (NOP) for the Proposed Project, the lead agency, the County of San Diego (County), received comment letters regarding transportation and traffic. Comments included a recommendation for a traffic impact study to determine near-term and long-term impacts to state and regional transportation facilities, consideration of Caltrans resources needed, and analysis of freeway entrance and exit ramps that would be affected by the Proposed Project. The analysis presented in this section addresses each of these topics.

The Proctor Valley Road North, Perimeter Trail and Preserve Trails Options, as described in Chapter 1, Project Description, Location, and Environmental Setting, have been analyzed as applicable throughout this Draft EIR. If these options are selected by the Board of Supervisors, there would be no potential for impacts related to transportation and traffic.

2.9.1 Existing Conditions

2.9.1.1 Environmental Setting

Existing Intersections, Roadways, and Study Area

Several regionally and locally significant roadways within the County of San Diego and City of Chula Vista traverse the Project Area. Each of these roadways and associated intersections is discussed herein. Nearby state highways and freeways that provide connectivity to the Project Area also are included within this analysis.

The SANDAG Series 11 Transportation Model was used to perform a select zone analysis, which identified the number of project-related peak hour trips distributed across the transportation network. All intersections and roadways where the Proposed Project would add 50 or more peak hour trips in either direction to the existing traffic levels were included for analysis. In addition, the study area also includes intersections and roadways where the Proposed Project would add 25 peak hour trips on County facilities. A total of 41 study area intersections, including 5 in San Diego County, 28 in the City of Chula Vista, and 8 project access points (also in San Diego County) were analyzed in the TIS (Appendix 2.9-1), shown as follows:

1. State Route (SR) 94 and Lyons Valley Road
2. Proctor Valley Road/Jefferson Road and SR-94
3. Proctor Valley Road and Maxfield Road
4. Proctor Valley Road and Melody Road
5. SR-94 and Melody Road
6. San Miguel Ranch Road and SR-125 southbound ramps
7. San Miguel Ranch Road and SR-125 northbound ramp
8. Interstate (I) 805 southbound ramp and East H Street
9. I-805 northbound ramp and East H Street
10. Terra Nova Drive and East H Street
11. East H Street and Del Rey Boulevard
12. Pasel Del Rey and East H Street
13. Paseo Ranchero and East H Street
14. Otay Lakes Road and East H Street
15. SR-125 southbound ramp and East H Street

16. SR-125 northbound ramp and Proctor Valley Road
17. Mt. Miguel Road and Proctor Valley Road
18. Lane Avenue and Proctor Valley Road
19. Hunte Parkway and Proctor Valley Road
20. Agua Vista Drive and Proctor ey Road
21. Eastlake Parkway and Fenton Street
22. Lane Avenue and Fenton Street
23. Heritage Road/Paseo Ranchero and Telegraph Canyon Road
24. La Media Road and Telegraph Canyon Road/Otay Lakes Road
25. SR-125 southbound ramps and Otay Lakes Road
26. SR-125 northbound ramps and Otay Lakes Road
27. Eastlake Parkway and Otay Lakes Road
28. Lane Avenue and Otay Lakes Road
29. Hunte Parkway and Otay Lakes Road
30. Fenton Street and Otay Lakes Road
31. Eastlake Parkway and Olympic Parkway
32. Hunte Parkway and Olympic Parkway
33. Eastlake Parkway and Hunte Parkway
34. Proctor Valley Road and Project Driveway No. 1
35. Proctor Valley Road and Project Driveway No. 2
36. Proctor Valley Road and Project Driveway No. 3
37. Proctor Valley Road and Project Driveway No. 4
38. Proctor Valley Road and Project Driveway No. 5
39. Proctor Valley Road and Project Driveway No. 6
40. Proctor Valley Road and Project Driveway No. 7
41. Proctor Valley Road and Project Driveway No. 8

County of San Diego

North/South Facilities

Proctor Valley Road. Proctor Valley Road is a partially paved two-lane undivided roadway that extends from Chula Vista's eastern boundary to SR-94 in the unincorporated community of Jamul, with posted speed limits ranging between 40 and 45 miles per hour (mph) within the City of Chula Vista. There are currently no sidewalks or bicycle facilities along either side of the roadway. The portion of Proctor Valley Road located within the unincorporated County is classified as two-lane Light Collector (2.2E) in the County's currently adopted General Plan Mobility Element Update. Major portions of Proctor Valley Road are currently unpaved and unimproved within the County boundaries.

Jefferson Road. Jefferson Road is a two-lane undivided roadway between Lyons Valley Road and SR-94. There are no sidewalk or bicycle facilities along either side of the roadway. Jefferson Road is classified as a two-lane Light Collector with Raised Median (2.2A) in the County's currently adopted General Plan Mobility Element Update.

East–West Facilities

Lyons Valley Road. Lyons Valley Road is a two-lane undivided roadway with a 45 mph posted speed limit between SR-94 and Jefferson Road in San Diego County. Sidewalks and bicycle facilities are not present on either side of the roadway. Parking is prohibited on both sides of the roadway. Lyons Valley Road is classified as a two-lane Light Collector with a Continuous Turn-Lane (2.2B) in the County's currently adopted General Plan Mobility Element Update.

Melody Road. Melody Road is a two-lane undivided roadway with no posted speed limit signs present between Proctor Valley Road and SR-94, in the unincorporated community of Jamul. There are no sidewalk or bicycle facilities along either side of the roadway. There is 245 feet of permitted parking to the east of Calle Mesquite. Melody Road is classified as a two-lane Light Collector (2.2E) in the County's currently adopted General Plan Mobility Element Update.

City of Chula Vista Roadway Facilities

North–South Facilities

Otay Lakes Road. The north/south portion of Otay Lakes Road extends from Bonita Road to Telegraph Canyon Road where it becomes La Media Road. Otay Lakes Road is a six-lane roadway with a raised median between Ridgeback Road and Telegraph Canyon Road. Posted speed limits of 40 and 45 mph are present between Ridgeback Road and Telegraph Canyon, and between Telegraph Canyon and East Palomar Street, respectively. Sidewalk and Class II bicycle

facilities are present on both sides of the roadway. This roadway is currently classified as a six-lane Prime Arterial in the Chula Vista General Plan Circulation Element.

Eastlake Parkway. Eastlake Parkway is a four-lane roadway with a landscaped raised median and a 40 mph posted speed limit between Miller Drive and Corte Vista. It then transitions into a six-lane roadway with a landscaped raised median and posted speed limits of 40 and 50 mph between Corte Vista and Olympic Parkway, and between Olympic Parkway and Hunte Parkway, respectively. Sidewalks as well as Class II bicycle facilities are present on both sides of the roadway. Parking is prohibited on both sides of the roadway. Eastlake Parkway is currently classified as a four-lane Major Arterial between Miller Drive and Corte Vista, a six-lane Prime Arterial between Corte Vista and Olympic Parkway, and as a six-lane Major Arterial between Olympic Parkway and Hunte Parkway in the Chula Vista General Plan Circulation Element.

Lane Avenue. Lane Avenue is a four-lane roadway with a painted median and a 40 mph posted speed limit between Proctor Valley Road and Boswell Road. Lane Avenue transitions into a four-lane roadway with a continuous left-turn-lane median and a 35 mph posted speed limit between Boswell Road and Otay Lakes Road. Sidewalks as well as Class II bicycle facilities are present on both sides of the roadway. Parking is prohibited on both sides of the roadway. Lane Avenue is currently classified as a four-lane Collector in the City of Chula Vista General Plan Circulation Element.

Hunte Parkway. Hunte Parkway is a four-lane roadway with a landscaped raised median and a 45 mph posted speed limit between Proctor Valley Road and Olympic Parkway. Hunte Parkway transitions into a six-lane roadway with a landscaped raised median and a 50 mph posted speed limit between Olympic Parkway and its current southern terminus. Sidewalks as well as Class II bicycle facilities are present on both sides of the roadway. Parking is prohibited on both sides of the roadway. Hunte Parkway is classified in the City of Chula Vista General Plan Circulation Element as a four-lane Major Street between Proctor Valley Road and Olympic Parkway, and a six-lane Prime Arterial south of Olympic Parkway.

Northwoods Drive. Northwoods Drive is a two-lane roadway with a raised median and no posted speed limit signs present between Proctor Valley Road and Blue Ridge Drive. Sidewalks as well as Class II bicycle facilities are present on both sides of the roadway. Parking is prohibited on both sides of the roadway. Northwoods Drive is not classified as a Circulation Element roadway in the Chula Vista General Plan Circulation Element.

Mt. Miguel Road/San Miguel Ranch. Mt. Miguel Road is a four-lane roadway with a landscaped raised median and a 40 mph posted speed limit between Proctor Valley Road/East H Street and Plaza Palmera. Sidewalks as well as Class II bicycle facilities are present on both sides of the roadway. Parking is prohibited on both sides of the roadway. Mt. Miguel Road/San

Miguel Ranch Road is currently classified as a Class I Collector in the Chula Vista General Plan Circulation Element.

Paseo Del Rey. Paseo Del Rey is a four-lane roadway with a continuous-left-turn-lane median and a 35 mph posted speed limit between East H Street and East J Street. Sidewalks as well as Class II bicycle facilities are present on both sides of the roadway. A continuous barrier (guard rail) to protect pedestrians from vehicular traffic is present on both sides of the roadway. Parking is prohibited on both sides of the roadway. Paseo Del Rey is classified as a Class I Collector in the Chula Vista General Plan Circulation Element.

Heritage Road. Heritage Road is a six-lane roadway with a landscaped raised median and a 40 mph posted speed limit between Telegraph Canyon Road and Olympic Parkway. Sidewalks as well as Class II bicycle facilities are present on both sides of the roadway. Parking is prohibited on both sides of the roadway. Heritage Road is classified as a six-lane Prime Arterial between Telegraph Canyon Road and Olympic Parkway in the Chula Vista General Plan Circulation Element.

La Media Road. La Media Road is a six-lane roadway with a landscaped raised median and a 45 mph posted speed limit between Telegraph Canyon Road/Otay Lakes Road and East Palomar Street. Sidewalks as well as Class II bicycle facilities are present on both sides of the roadway. Parking is prohibited on both sides of the roadway. La Media Road is classified as a six-lane Prime Arterial in the Chula Vista General Plan Circulation Element.

Old Trail Drive. Old Trail Drive is a two-lane undivided residential roadway between North Trail Court and Proctor Valley Road in the City of Chula Vista. There are no posted speed limit signs along the entire extent of Old Trail Drive. Sidewalks are present on both sides of the roadway but bicycle facilities are not. Parking is permitted on both sides of the roadway. Old Trail Drive is not classified as a Circulation Element roadway in the Chula Vista General Plan Circulation Element.

East/West Facilities

Proctor Valley Road. Proctor Valley Road is a six-lane roadway with a landscaped raised median and a 45 mph posted speed limit in the City of Chula Vista. Meandering pedestrian facilities (sidewalks) as well as Class II bicycle facilities are present on both sides of the roadway. Parking is prohibited on both sides of the roadway. Proctor Valley Road is classified as a six-lane Prime Arterial between SR-125 and Hunte Parkway, and as a four-lane Major Road between Hunte Parkway and the City's eastern border with San Diego County.

East H Street. East H Street is a four-lane roadway between Hilltop Drive and the I-805 southbound ramps, a five-lane roadway between the I-805 ramps, a seven-lane roadway with 50 mph posted speed limit between the I-805 northbound ramps and Terra Nova Drive, a six-lane

roadway between Terra Nova and Otay Lakes Road, and a four-lane roadway between Otay Lakes Road and the SR-125 ramps. Sidewalks as well as Class II bicycle facilities are present on both sides of the roadway except on the roadway segment between Hilltop Drive and the I-805 ramps, where no bicycle facilities are present on either side. Parking is prohibited on both sides of the roadway. East H Street is classified as a six-lane Gateway Street between Hilltop Drive and the I-805 southbound ramps, as a six-lane Prime Arterial between the I-805 northbound ramps and Otay Lakes Road, and as a four-lane Major Arterial between Otay Lakes Road and the SR-125 southbound ramps in the Chula Vista General Plan Circulation Element.

San Miguel Ranch Road. San Miguel Ranch Road is a four-lane roadway with a landscaped raised median and a 40 mph posted speed limit between Proctor Valley Road and Plaza Palmera. Sidewalks as well as Class II bicycle facilities are present on both sides of the roadway. Parking is prohibited on both sides of the roadway. San Miguel Ranch Road is classified as a Class I Collector in the Chula Vista General Plan Circulation Element.

Telegraph Canyon Road. Telegraph Canyon Road is a seven-lane roadway between I-805 and Oleander Avenue with a 40 mph posted speed limit, and a six-lane roadway with a landscaped raised median between Oleander Avenue and Otay Lakes Road with a 45 mph posted speed limit. Sidewalks as well as Class II bicycle facilities are present on both sides of the roadway. Parking is prohibited on both sides of the roadway. Telegraph Canyon Road is classified in the Chula Vista General Plan Circulation Element as a seven-lane Expressway between I-805 and Oleander Avenue, and a six-lane Prime Arterial between Oleander Avenue and Otay Lakes Road.

Otay Lakes Road. Otay Lakes Road is a six-lane roadway with a landscaped raised median and a posted speed limit of 50 mph between Telegraph Canyon Road and the eastern boundary of Chula Vista, just east of Wueste Road. Sidewalks as well as Class II bicycle facilities are present on both sides of the roadway. Parking is prohibited on both sides of the roadway. Otay Lakes Road is classified as a six-lane Prime Arterial, with the exception of the segment between I-805 and Eastlake Parkway, which is classified as a seven-lane Expressway in the Chula Vista General Plan Circulation Element.

Olympic Parkway. Olympic Parkway between La Media Road and Hunte Parkway is a six-lane roadway with a raised median, with the exception of the segment between the SR-125 northbound ramps and Eastlake Parkway, which is an eight-lane roadway with a raised median. Between Hunte Parkway and Wueste Drive, Olympic Parkway narrows to a four-lane roadway with a raised median. Sidewalks as well as Class II bicycle facilities are present on both sides of the roadway. Parking is prohibited on both sides of the roadway. Olympic Parkway is classified as a six-lane Prime Arterial between I-805 and the SR-125, an eight-lane Expressway between SR-125 and Eastlake Parkway, a six-lane Prime Arterial between Eastlake Parkway and Hunte Parkway, and a four-lane Major Street between Hunte Parkway and Wueste Road.

Figure 2.9-1a, Study Area Intersection Locations display the location of the study area intersections. Figures 2.9-1b, 2.9-1c, and 2.9-1d, Existing Conditions Peak Hour Intersection Volumes, shows existing intersection volumes. Figure 2.9-2a, Existing Conditions Roadway Geometry, and Figure 2.9-2b, Existing Conditions Roadway Volumes, display the current roadway geometrics and segment volumes, respectively.

Freeway and State Highway Facilities

Four California Department of Transportation (Caltrans) freeway and state highway facilities traverse the study area, as follows:

I-805. Within the Proposed Project study area, I-805 ranges from eight lanes to ten lanes between Home Avenue and SR-905. Construction of two new high-occupancy-vehicle (HOV) lanes on I-805, between Home Avenue and East Palomar Street, has been recently completed (approximately 10.0 miles west of the Project Area).

SR-125. Within the Proposed Project study area, SR-125 is a four-lane state highway between East H Street and SR-905. It would 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 the Year 2035 (approximately 4.5 miles west of the Project Area).

SR-94. Within the Proposed Project study area, SR-94 is a two-lane state highway between Lyons Valley Road and the community of Tecate. There are currently no improvements planned by Caltrans to the portions of SR-94 located within the study area. However, the Jamul Indian Village Environmental Evaluation has identified several capacity enhancing improvements that they would implement along key study segments of SR-94. Caltrans is also proposing to implement several operational improvements along the study area segment of the SR-94 corridor (0.7 miles east of the Project Area).

SR-54. Within the Proposed Project study area, SR-54 is six lanes between I-805 and SR-125, with HOV lanes between Briarwood Road and SR-125 (4 miles northwest of the Project Area).

Existing Intersection and Roadway Volumes

Table 2.9-1, Freeway/State Highway Segments Level of Service Results – Existing Conditions, and Table 2.9-2, Ramp Intersection Capacity Analysis – Existing Conditions, show the existing average daily traffic (ADT) volumes for the Proposed Project study area roadway segments and the AM/PM peak hour traffic volumes for the study area intersections, respectively. The study area freeway/state highway analysis was performed using traffic counts that were conducted in April 2014 and March 2015. Additional traffic counts were conducted in January 2017, after the opening of the Jamul Casino, to validate the counts conducted in 2014 and 2015. As shown in

the Count Validation Memorandum provided as an attachment in Appendix 2.9, Transportation Impact Study, all of the traffic volumes within the Jamul and Chula Vista areas are within 10% of the original count, or significantly lower, with the exception of one count on SR-94 between Lyons Valley Road and Jefferson Road. Since all of the other counts within the area are shown to be lower in 2017 than 2015, it is the traffic engineer's opinion that the 2015 count on this segment of SR-94 between Lyons Valley Road and Jefferson Road was an anomaly. Therefore, the existing count in the TIS for SR-94 between Lyons Valley Road and Jefferson Road has been updated to reflect the 2017 count, with the remaining counts unchanged as valid.

Existing Conditions Traffic Operations Analysis

LOS analyses under Existing conditions were conducted using the methodologies described in Section 2.9.1.3, Methodology.

2.9.1.2 Regulatory Setting

Federal

Department of Transportation Act of 1966

Section 4(f) of the Department of Transportation Act of 1966 specifies that a transportation project requiring the use of publicly owned parks, recreation areas, historic sites (including those owned privately), wildlife and waterfowl refuges, and many other types of resources can be approved only if there is no feasible and prudent alternative to using that land and if the project is planned to minimize harm to the property.

Americans with Disabilities Act

The Americans with Disabilities Act (ADA) (1990) is a wide-ranging civil rights law that prohibits, under certain circumstances, discrimination based on disability. Pedestrian facility design must comply with the accessibility standards identified in the ADA, which applies to all projects involving new or altered pedestrian facilities. The scoping and technical provisions for new construction and alterations identified in the ADA Accessibility Guidelines (Sections 4.3, 4.7, and 4.8) can be used to help design pedestrian facilities that are ADA compliant. For example, Title II-6.600 of the Technical Assistance Manual states, "When streets, roads, or highways are newly built or altered, they must have ramps or sloped areas whenever there are curbs or other barriers to entry from a sidewalk or path." Certain facilities, such as historic buildings, may be exempt from ADA requirements (County of San Diego 2011b).

Highway Capacity Manual

The 2010 Highway Capacity Manual (HCM), prepared by the federal Transportation Research Board, is the result of a collaborative multiagency effort between the Transportation Research Board, Federal Highway Administration, and American Association of State Highway and Transportation Officials. The 2010 HCM contains concepts, guidelines, and computational procedures for computing the capacity and quality of service of various highway facilities, including freeways, signalized and unsignalized intersections, rural highways, and the effects of transit, pedestrian, and bicycles on the performance of these systems (County of San Diego 2011b).

Safe, Accountable, Flexible, Efficient Transportation Equity Act

On August 10, 2005, Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) was signed into law. SAFETEA-LU Addresses the many challenges facing transportation systems, and sets funding and programs to improve safety, reduce traffic congestion, improve efficiency in freight movement, increase intermodal connectivity, and protect the environment. SAFETEA-LU promotes more efficient and effective federal surface transportation programs by focusing on transportation issues of national significance while giving state and local transportation decision makers more flexibility for solving transportation problems in their communities.

State

California Department of Transportation

Caltrans is the public agency responsible for designing, building, operating, and maintaining California's state highway system, which consists of freeways, highways, expressways, toll roads, and the area between the roadways and property lines. Caltrans is also responsible for permitting and regulating the use of state roadways. Caltrans' construction practices require temporary traffic control planning during any activities that interfere with the normal function of a roadway.

Statewide Transportation Improvement Program

The California 2007 Statewide Transportation Improvement Program, approved by the U.S. Department of Transportation in October 2006, is a multiyear, statewide, intermodal program of transportation projects that is consistent with the statewide transportation plan and planning processes, metropolitan plans, and Title 23 of the Code of Federal Regulations. The Statewide Transportation Improvement Program is prepared by Caltrans in cooperation with the Metropolitan Planning Organizations and the Regional Transportation Planning Agencies. In San Diego County, the Metropolitan Planning Organization and Regional Transportation Agency is

SANDAG. The Statewide Transportation Improvement Program 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 U.S. Code, including federally funded projects (County of San Diego 2011b).

Transportation Development Act

The Transportation Development Act provides two major sources of funding for public transportation: the Local Transportation Fund and the State Transit Assistance Fund. These funds are for the development and support of public transportation needs in California and are allocated to areas of each county based on population, taxable sales, and transit performance. Some counties have the option of using the Local Transportation Fund for local street and road projects if they can show there are no unmet transit needs. The Transportation Development Act provides interpretation of and initiates changes or additions to legislation and regulations concerning all aspects of the act. It also provides training and documentation regarding Transportation Development Act statues and regulations. Caltrans ensures that local planning agencies complete performance audits required for participation in the Transportation Development Act (County of San Diego 2011b).

Regional Transportation Plan

The Regional Transportation Plan (RTP) is a 25-year long-range transportation plan that focuses on improving the balance between land use and current and future transportation systems throughout the region. RTPs are developed to provide a clear vision of the regional transportation goals, objectives, and strategies. In addition, RTPs must reflect Senate Bill 375 (Steinberg, Statutes of 2008), which targets regional greenhouse gas emissions reductions from passenger vehicles and light-duty trucks through changes in land use and transportation development patterns.

The responsible Regional Transportation Planning Agency in Southern California is SANDAG. Therefore, SANDAG is required to adopt and submit an updated RTP to the California Transportation Commission and Caltrans every 4 or 5 years, depending on air quality attainment within the region. SANDAG, in partnership with local governments, is required by federal law to create an RTP that determines the needs of the transportation system and prioritizes proposed transportation projects.

2050 Regional Transportation Plan and Sustainable Communities Strategy

The 2050 RTP lays out a plan for investing an estimated $214 billion in local, state, and federal transportation funds expected to come to the region over the next 40 years. The 2050 RTP is the blueprint for a regional transportation system that further enhances quality of life, promotes

sustainability, and offers more mobility options for people and goods. The plan outlines projects for transit, rail and bus service, express or managed lanes, highways, local streets, bicycling, and walking to provide an integrated, multimodal transportation system by mid-century. Pursuant to Senate Bill 375, the 2050 RTP also includes the Sustainable Communities Strategy (SCS), which details how the region would reduce greenhouse gas emissions to state-mandated levels over time. The 2050 RTP and SCS are components of *San Diego Forward: The Regional Plan*, which was adopted by the SANDAG Board of Directors on October 9, 2015.

Regional Transportation Improvement Program

The Regional Transportation Improvement Program (RTIP) is a multibillion dollar, 5-year program of major transportation projects funded by federal, state, TransNet local sales tax, and other local and private funding. The RTIP is a prioritized program designed to implement the region's overall strategy for providing mobility and improving the efficiency and safety of the transportation system, while reducing transportation-related air pollution in support of the efforts to attain federal and state air quality standards for the region. The RTIP also incrementally implements the 2050 RTP, which is the long-range transportation plan for the San Diego region. The RTIP covers multiple fiscal years and is amended frequently to reflect near term priorities and expenditures.

Congestion Management Program

State Proposition 111, passed by voters in 1990, established a requirement that urbanized areas prepare and regularly update a Congestion Management Program (CMP), which is a part of SANDAG's RTP. The purpose of the CMP 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. SANDAG provided regular updates for the state CMP from 1991 through 2008. In October 2009, the San Diego region elected to be exempt from the state CMP and, since this decision, SANDAG has been abiding by 23 CFR 450.320 to ensure the region's continued compliance with the federal congestion management process. *San Diego Forward: The Regional Plan*, the region's long-range transportation plan and SCS, meets the requirements of 23 CFR 450.320 by incorporating the following federal congestion management process: performance monitoring and measurement of the regional transportation system, multimodal alternatives and non–single-occupancy vehicle analysis, land use impact analysis, the provision of congestion management tools, and integration with the RTIP process.

Local

San Diego County General Plan, Mobility Element

The County Mobility Element establishes policies and implementation measures for the assessment and mitigation of traffic impacts of new development. An objective in the

transportation section is the provision of LOS D or better on County Mobility Element Roads; LOS D is an off-site mitigation limit for discretionary projects. If the existing LOS is D, an LOS of D may be allowed. Projects that significantly increase congestion of roads already operating at LOS E or F must provide mitigation. Mitigation can consist of road improvements or a fair share contribution to an established program or project to mitigate the project's impacts. Select applicable General Plan goals and policies are as follows (County of San Diego 2011c):

Goal M-1: Balanced Road Network. A safe and efficient road network that balances regional travel needs with the travel requirements and preferences of local communities.

- **Policy M-1.2: Treatment of High-Volume Roadways.** Consider narrower rights-of-way, flexibility in design standards, and lower design speeds in areas planned for substantial development in order to avoid bisecting communities or town centers. Reduce noise, air, and visual impacts of new freeways, regional arterials, and Mobility Element roads through landscaping, design, and/or careful location of facilities.

Goal M-2: Responding to Physical Constraints and Preservation Goals. A road network that provides adequate capacity to reasonably accommodate both planned land uses and regional traffic patterns while supporting other General Plan goals such as providing environmental protections and enhancing community character.

- **Policy M-2.1: Level of Service Criteria.** Require development projects to provide associated road improvements necessary to achieve a level of service of "D" or higher on all Mobility Element roads except for those where a failing level of service has been accepted by the County pursuant to the criteria specifically identified in the accompanying text box found on pages 4-13 and 4-14 of The County of San Diego Mobility Element titled Criteria for Accepting a Road Classification with Level of Service E/F. When development is proposed on roads where a failing level of service has been accepted, require feasible mitigation in the form of road improvements or a fair share contribution to a road improvement program, consistent with the Mobility Element road network.
- **Policy M-2.2: Access to Mobility Element Designated Roads.** Minimize direct access points to Mobility Element roads from driveways and other non-through-roads to maintain the capacity and improve traffic operations.
- **Policy M-2.3: Environmentally Sensitive Road Design.** Locate and design public and private roads to minimize impacts to significant biological and other environmental and visual resources. Avoid road alignments through floodplains to minimize impacts on floodplain habitats and limit the need for constructing flood control measures. Design new roads to maintain wildlife movement and retrofit

existing roads for that purpose. Use fencing to reduce road kill and to direct animals to undercrossings.

Goal M-3: Transportation Facility Development. New or expanded transportation facilities that are phased with and equitably funded by the development that necessitates their construction.

- **Policy M-3.2: Traffic Impact Mitigation.** Require development to contribute its fair share toward financing transportation facilities, including mitigating the associated direct and cumulative traffic impacts caused by their project on both the local and regional road networks. Transportation facilities include road networks and related transit, pedestrian and bicycle facilities, and equestrian uses.
- **Policy M-3.3: Multiple Ingress and Egress.** Require development to provide multiple ingress/egress routes in conformance with State law and local regulations.
- **Policy M-4.3: Rural Roads Compatible with Rural Character.** Design and construct public roads to meet travel demands in Semi-Rural and Rural Lands that are consistent with rural character while safely accommodating transit stops when deemed necessary, along with bicyclists, pedestrians, and equestrians. Where feasible, use rural road design features (e.g., no curb and gutter improvements) to maintain community character. [See applicable community plan for possible relevant policies.]
- **Policy M-4.5: Context Sensitive Road Design.** Design and construct roads that are compatible with the local terrain and the uses, scale, and pattern of the surrounding development. Provide wildlife crossings in road design and construction where it would minimize impacts in wildlife corridors.
- **Policy M-5.2: Impact Mitigation for New Roadways and Improvements.** Coordinate with Caltrans to mitigate negative impacts from existing, expanded, or new State freeways or highways and to reduce impacts of road improvements and/or design modifications to State facilities on adjacent communities.

Applicable County General Plan goals and policies related to alternative transportation are as follows (County of San Diego 2011c):

Goal M-8: Public Transit System. A public transit system that reduces automobile dependence and serves all segments of the population.

- **Policy M-8.1:Maximize Transit Service Opportunities.** Maximize opportunities for transit services in unincorporated communities. Coordinate with SANDAG, the CTSA [Consolidated Transportation Services Agency], NCTD [North County Transit

District], and MTS [San Diego Metropolitan Transit System] to provide capital facilities and funding, where appropriate, to:

- Maximize the speed and efficiency of transit service through the development of transit priority treatments such as transit signal priority, transit queue jump lanes, and dedicated transit only lanes;
- Provide for transit-dependent segments of the population, such as the disabled, seniors, low income, and children, where possible; and
- Reserve adequate rights-of-way to accommodate existing and planned transit facilities including bus stops.

- **Policy M-8.3: Transit Stops That Facilitate Ridership.** Coordinate with SANDAG, NCTD, and MTS to locate transit stops and facilities in areas that facilitate transit ridership, and designate such locations as part of planning efforts for Town Centers, transit nodes, and large-scale commercial or residential development projects. Ensure that the planning of Town Centers and Village Cores incorporates uses that support the use of transit, including multifamily residential and mixed-use transit-oriented development, when appropriate.
- **Policy M-8.5: Improved Transit Facilities.** Require development projects, when appropriate, to improve existing nearby transit and/or park and ride facilities, including the provision of bicycle and pedestrian facilities, provisions for bus transit in coordination with NCTD and MTS as appropriate including, but not limited to, shelters, benches, boarding pads, and/or trash cans, and to provide safe, convenient, and attractive pedestrian connections.

Goal M-11: Bicycle and Pedestrian Facilities. Bicycle and pedestrian networks and facilities that provide safe, efficient, and attractive mobility options, as well as recreational opportunities for County residents.

- **Policy M-11.1: Bicycle Facility Design.** Support regional and community-scaled planning of pedestrian and bicycle networks.
- **Policy M-11.2: Bicycle and Pedestrian Facilities in Development.** Require development and Town Center plans in Villages and Rural Villages to incorporate site design and on-site amenities for alternate modes of transportation, such as comprehensive bicycle and pedestrian networks and facilities, including both on-street facilities as well as off-street bikeways, to safely serve the full range of intended users, along with areas for transit facilities, where appropriate and coordinated with the transit service provider.

- **Policy M-11.3: Bicycle Facilities on Roads Designated in the Mobility Element.** Maximize the provision of bicycle facilities on County Mobility Element roads in Semi-Rural and Rural Lands to provide a safe and continuous bicycle network in rural areas that can be used for recreation or transportation purposes while retaining rural character.

County of San Diego Transportation Impact Fee Program/Ordinance

The Transportation Impact Fee (TIF) Program requires payment of fees as a fair share contribution toward the construction costs of the planned transportation facilities that are affected by a proposed development to mitigate cumulative impacts. TIFs are collected as a condition of approval of a project or prior to issuance of a development permit, typically a building permit. Existing deficiencies in transportation infrastructure cannot be financed with these fees. Mitigation of direct impacts of future development is the responsibility of individual projects. A TIF Program is designed to address the indirect, cumulative impacts of future development.

San Diego County Public Road Standards

These standards provide design and construction requirements for public road improvement projects located within the unincorporated areas of San Diego County. These standards apply to County-initiated public road improvement projects and privately initiated public road improvement projects. These standards provide minimum design and construction requirements for public roads (County of San Diego 2011b).

County of San Diego Consolidated Fire Code

The County, in collaboration with the local fire protection districts, created the Consolidated Fire Code in 2001. The Consolidated Fire Code contains the County's and fire protection districts' amendments to the California Fire Code. Emergency ingress/egress is established by the County's Consolidated Fire Code. Ingress/egress is necessary for citizen evacuation and to provide access for emergency vehicles in the event of a fire or other emergency. Section 902.2 of the Consolidated Fire Code dictates minimum design standards for "Fire Apparatus Access Roads," and includes minimum road standards, secondary access requirements, and restrictions for gated communities. Road standard requirements for emergency vehicles specify a minimum 12-foot-wide paved lane or 24-foot-wide travel-way (County of San Diego 2011b).

City of Chula Vista Growth Management Program

The City of Chula Vista's Growth Management Program requires an additional analysis of roadway segment performance under near-term conditions (Years 0–4) using the methodology described in Chapter 17, Urban Street Segment, of the HCM (TRB 2010). This methodology

determines roadway segment LOS based on functional classification, roadway segment length, and travel speeds. Current information relating to roadway functional classifications, segment lengths, and travel speeds is maintained by the City of Chula Vista's Growth Management Traffic Monitoring Program.

The Growth Management Program's LOS standard requires maintenance of LOS C or better, or LOS D for no more than any 2 hours of the day. If LOS D occurs for any period greater than 2 hours, additional analyses may be required along the respective high-volume segments based on direction provided by the Development Services Director (or his/her designee). For planned arterial facilities that are not currently included in the Traffic Monitoring Program, the definitions of segment length and facility classification are based on direction provided by the Development Services Director (or his/her designee).

2.9.2 Methodology

The traffic analyses prepared for the Proposed Project were performed in accordance with the County Traffic Impact Guidelines, California Environmental Quality Act project review process, City of Chula Vista Traffic Impact Study Guidelines, and San Diego Traffic Engineers' Council/Institute of Traffic Engineers (SANTEC/ITE) Guidelines for Traffic Impact Studies in San Diego.

The SANTEC/ITE guidelines require delineation of a project study area based on the following criteria:

- All local roadway segments, including all state surface routes, intersections, and mainline freeway locations where the Proposed Project would add 50 or more peak-hour trips in either direction to the existing roadway traffic.
- All freeway entrance and exit ramps where the Proposed Project would add a significant number of peak-hour trips that cause traffic queues to exceed ramp storage capacities.

In addition to the SANTEC/ITE requirements, County Guidelines require that the Proposed Project study area also include all County Mobility Element roadways and intersections where the Proposed Project is projected to add 25 or more peak hour trips.

Level of Service Definition

LOS is a quantitative measure describing operational conditions within a traffic stream, and the motorist's and/or passenger's perception of operations. A LOS definition generally describes these conditions in terms of such factors as delay, speed, travel time, freedom to maneuver, interruptions in traffic flow, queuing, comfort, and convenience. Table 2.9-3, Level of Service

Definitions, describes generalized definitions of the various LOS categories (A through F) as applied to roadway operations.

Roadway Segment Level of Service

Roadway segment LOS standards and thresholds provide the basis for analysis of arterial roadway segment performance. The analysis of roadway segment LOS is based on the functional classification of the roadway, the maximum capacity, roadway geometrics, and existing or forecast ADT volumes**.** Table 2.9-4, County of San Diego Roadway Classification and Level of Service Standards, and Table 2.9-5, City of Chula Vista Roadway Classification and Level of Service Standards, present the roadway segment capacity and LOS standards used to analyze roadway segments within San Diego County and the City of Chula Vista, respectively.

These standards are generally used as long-range planning guidelines to determine the functional classification of roadways. The actual capacity of a roadway facility varies according to its physical attributes. Typically, the performance and LOS of a roadway segment are heavily influenced by the ability of the arterial intersections to accommodate peak hour volumes.

For the purposes of this traffic analysis, LOS D is considered acceptable for Mobility Element roadway segments within San Diego County. LOS C is considered acceptable for Circulation Element roadway segments within the City of Chula Vista. Per the Otay SRP (Page 104), LOS D is permitted within the Otay Ranch Villages.

Two-Lane State Highway Level of Service Standards and Thresholds

The two-lane state highway SR-94 was analyzed using both the County and Caltrans (or HCM 2000) methodologies. As previously stated, per County requirements, all facilities where the Proposed Project would add 25 or more peak hour trips were included in the Proposed Project study area. Thus, SR-94 from Lyons Valley Road to south of Otay Lakes Road was included in the analysis.

Table 2.9-6, Two-Lane Highway Level of Service Thresholds – With Signalized Intersection Spacing Over 1 Mile, displays the two-lane state highway ADT thresholds for LOS E and LOS F when signalized intersection spacing is more than 1 mile. For facilities where signalized intersections are less than 1 mile apart, the LOS is determined to be that of the intersections along the subject highway.

Peak Hour Intersection Level of Service Standards and Thresholds

This section presents the methodologies used to perform peak hour intersection capacity analysis, including both signalized and unsignalized intersections. Based on professional

engineering judgment, the following assumptions were used in conducting all intersection LOS analyses:

- **Signal Timing:** Based on existing signal timing plans (as of March 2015) provided in Appendix 2.9-1.
- **Peak Hour Factor:** Based on existing peak hour count data for existing conditions and 0.92, which is the typical industry standard, for all future conditions.

The County of San Diego and the City of Chula Vista both consider LOS D or better during the AM and PM peak hours to be acceptable for intersection LOS.

Signalized Intersection Analysis

The analysis of signalized intersections used the operational analysis procedures as outlined in the 2010 HCM. This method defines LOS in terms of delay, or more specifically, average stopped delay per vehicle. Delay is a measure of driver and/or passenger discomfort, frustration, fuel consumption and lost travel time. This technique uses 1,900 vehicles per hour per lane as the maximum saturation volume of an intersection. This saturation volume is adjusted to account for lane width, on-street parking, pedestrians, traffic composition (i.e., percentage trucks) and shared lane movements (i.e., through and right-turn movements originating from the same lane). The LOS criteria used for this technique are described in Table 2.9-7, Signalized Intersection Level of Service Criteria. The computerized analysis of intersection operations was performed using SYNCHRO 8.0 traffic analysis software.

Unsignalized Intersection Analysis

Unsignalized intersections, including two-way and all-way-stop controlled intersections, were analyzed using the 2010 HCM unsignalized intersection analysis methodology. The SYNCHRO 8.0 Traffic Analysis software supports this methodology and was used to produce LOS results. The LOS for a side street stop controlled (SSSC) intersection is determined by the computed control delay and is defined for each minor movement. Table 2.9-8, Unsignalized Intersection Level of Service Criteria, summarizes the LOS criteria for unsignalized intersections.

Freeway Mainline Analysis

Freeway LOS and performance analysis is based upon procedures developed by Caltrans District 11. The procedure for calculating freeway LOS involves estimating a peak hour volume-to-capacity (V/C) ratio. Peak hour volumes are estimated from the application of design hour (K), directional (D) and truck (T) factors to ADT volumes. The base capacities used were 2,400

passenger cars per hour per lane for mainline, and 1,200 passenger cars per hour per lane for auxiliary lane.

The resulting V/C is then compared to acceptable ranges of V/C values corresponding to the various levels of service for each facility classification, as shown in Table 2.9-9, Caltrans District 11 Freeway and State Highway Segment LOS. The corresponding LOS represents an approximation of existing or anticipated future freeway operating conditions in the peak direction of travel during the peak hour. LOS D or better is used in the TIS (Appendix 2.9-1) as the threshold for acceptable freeway operations based upon Caltrans and the SANDAG Regional Growth Management Strategy requirements.

For the purposes of this analysis, all of the traffic adjustment factors used in the analysis of existing and future conditions were obtained from Caltrans.

Ramp Intersection Capacity Analysis

Consistent with Caltrans requirements, all signalized intersections at freeway ramps were analyzed using Intersecting Lane Volume (ILV) procedures as described in Topic 406 of the Caltrans Highway Design Manual (HDM) (Caltrans 2012). This methodology is based upon an assessment of each intersection as an isolated unit, without consideration of the effects from adjacent intersections. For this reason, the ILV analysis is used as an additional validation of signalized ramp intersection operations derived from the 2010 HCM methodology. Table 2.9-10, Traffic Flow Conditions at Ramp Intersections at Various Levels of Operation, provides values of ILV/hr associated with various traffic flow thresholds. Caltrans, the City of Chula Vista, and the County do not use ILV results in determining significance of project impacts; therefore, the analyses are included for informational purposes only.

Ramp Meter Analysis

Ramp metering analysis was conducted based upon the SANTEC/ITE Guidelines for Traffic Impact Studies in the San Diego region to calculate delays and queues at the study area freeway on-ramps. The demand per hour per lane was calculated using the following equation:

$$D_{vol} = \frac{(P_{vol} - H_{vol})}{N}$$

- **D_{vol} (Demand Volume per hour per Lane):** total peak hour demand expected to use the on-ramp (non-HOV lane only);
- **P_{vol} (Peak Hour Ramp Volume):** sum of all peak hour volumes using the on-ramp;

- **H_{vol} (HOV lane volume):** based on field observation, approximately 20% of the P_{vol} used the HOV lane; and
- **N:** number of non-HOV lanes at the on-ramp

Trip Generation

Trip generation is a measure or forecast of the number of trips that begin or end at a particular site, and is a function of the extent and types of land use proposed as part of a project. Vehicular traffic generation characteristics for projects are estimated based on established rates. These rates identify the probable traffic generation of various land uses based on studies of developments in comparable settings. The rates used in this analysis were determined based on the SANDAG Guide to Vehicular Traffic Generation Rates for the San Diego Region (SANDAG 2002). This manual provides standards and recommendations for the probable traffic generation of various land uses based on local, regional, and nationwide studies of existing developments in comparable settings. See Table 2.9-11 for the Proposed Project trip generation.

Proposed Project Equivalent Dwelling Units

The metric equivalent dwelling unit (EDU) is used to determine the number of homes the Proposed Project can construct prior to triggering each of its identified significant impact(s) and when the recommended mitigation measure(s) would need to be implemented. EDUs are calculated by converting the total ADT generated by the Proposed Project land use(s) into an equivalent single-family dwelling unit. This conversion is calculated by dividing the number of ADT generated by each particular land use type by the number of trips generated by a single-family dwelling unit (10 ADT). For example, a development consisting of 10 multifamily dwelling units would generate 80 ADT (10 multifamily units x 8 trips/unit = 80 ADT), which is equivalent to 8 single-family dwelling units (80 ADT / 10 trips = 8 single-family units) or 8 EDU.

Whispering Meadows Lane

The Proposed Project would include an access point via a new connection to Whispering Meadows Lane. The new connection point would extend from an internal Proposed Project roadway, which provides access to the 125 estate homes located in Planning Areas 16/19, and connects to Proctor Valley Road to the west. Due to the location of the connection and the route that would be required for residents within the Village 14 portion of the Proposed Project (994 single-family homes) to access this connection (residents would need to drive out of direction approximately 1.1 miles to reach Melody Road), it is anticipated that this connection would be utilized primarily by the 125 estate homes in Planning Areas 16/19, and only those accessing the Jamul area (which is 6% of the total traffic generated from Planning Areas 16/19). The 125 estate homes would generate a total of 120 AM peak hour trips; thus, a total of 7 trips in the AM

peak hour (120 total peak hour trips x 6%) and 9 trips in the PM peak hour (150 total peak hour trips x 6%) would use the Whispering Meadows connection on a typical day (see Table 4.1 of Appendix 2.9-1 for detailed Proposed Project trip generation calculations).

The County traffic study guidelines require the analysis of all local roadway segments, including all state surface routes, intersections, and mainline freeway locations, where the Proposed Project would add 20 or more peak-hour trips in either direction to the existing roadway traffic. The reasoning behind the 20 peak-hour threshold is because it is reasonable to conclude that projects that would generate less than 20 peak hour trips at a particular location would not result in significant impacts at that location. Based on the calculations provided in the previous paragraph and the minimal number of peak hour trips that potentially would use the subject access point, the traffic added to Whispering Meadows Lane by the Proposed Project would be less than the 20 trip minimum. Therefore, no further analysis is required as the Proposed Project would not result in significant project related impacts along Whispering Meadows Lane.

Analysis Scenarios and Assumptions

Five scenarios were analyzed in the TIS (Appendix 2.9-1):

1. The Existing Conditions scenario is used to establish the existing baseline traffic operations within the Proposed Project study area.
2. Existing Plus Project Build-Out Conditions represents the existing transportation network with the addition of traffic from build out of the Proposed Project, which is expected to be completed by 2028.
3. Year 2025 Cumulative Conditions represents 2025 conditions, including cumulative traffic and traffic generated from the Proposed Project. The Proposed Project trip generation was determined based on the partial build out of the Proposed Project by the Year 2025.
4. Year 2030 Cumulative Conditions represents projected long-range Cumulative Conditions for the Year 2030, with the addition of traffic from the build out of the Proposed Project.
5. Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property represents projected long-range Cumulative Conditions for the Year 2030, assuming all cumulative units from the Otay Ranch GDP/SRP would be developed (including those that are unlikely to be developed as they are included in the State of California's Rancho Jamul Ecological Reserve), with the addition of traffic from the build out of the Proposed Project.

2.9.3 Analysis of Project Effects and Determination as to Significance

The following significance guidelines evaluate whether a significant impact to transportation and traffic would occur as a result of Proposed Project implementation. The Proposed Project would generally be considered to have a significant impact if it results in any of the following impacts, absent specific evidence to the contrary.

For the purposes of this EIR, the County's Guidelines for Determining Significance and Report Format and Content Requirements, Transportation and Traffic (County of San Diego 2011a) applies to the direct and indirect impact analysis, as well as the cumulative impact analysis.

Analysis of the Proposed Project's impacts relative to roadway segments is presented first, followed by separate analyses of intersections, state highways and freeways, and freeway ramps.

2.9.3.1 Roadway Segments

Guidelines for the Determination of Significance

County of San Diego

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 LOS traffic impact on a roadway segment, unless specific facts show that there are other circumstances that mitigate or avoid such impacts (County of San Diego 2011a):

- 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;
- The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a Circulation Element Road or State Highway currently operating at LOS E or LOS F, or will cause a Circulation Element Road or State Highway to operate at a LOS E or LOS F as a result of the proposed project as identified in Table 2.9-2; or
- The additional or redistributed ADT generated by the proposed project will cause a residential street to exceed its design capacity.

City of Chula Vista

Proposed Project impacts would be defined as either project-specific impacts or cumulative impacts. Project-specific impacts are those impacts for which the addition of Proposed Project trips would result in an identifiable degradation in LOS on freeway segments, roadway segments, or intersections, triggering the need for specific Proposed Project–related mitigation

strategies. Cumulative impacts are those in which Proposed Project trips, in combination with vehicle trips from other planned, future development, results in unacceptable traffic conditions.

Study horizon year as used herein is intended to describe a future time that corresponds to SANDAG's traffic model years, and are meant to synchronize study impacts to be in line with typical study years of 2015, 2020, 2025, and 2030.

Criteria for determining whether the Proposed Project would result in either project-specific or cumulative impacts on freeway segments, roadway segments, or intersections are described below.

Short-Term (Study Horizon Year 0–4)

For purposes of the short-term analysis required for Chula Vista roads, roadway sections may be 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 a combination of contiguous links used in the Chula Vista 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 methodology if the typical planning analysis using volume-to-capacity ratios on an individual link indicates a potential impact to that link. The Growth Management Oversight Committee 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.

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 Growth Management Oversight Committee method should be used. The following criteria would then be used:

a. Project-specific impact if all the following criteria are met:
    i. Level of service is LOS D for more than 2 hours or LOS E/F for 1 hour
    ii. Project trips comprise 5% or more of segment volume
    iii. Project adds greater than 800 ADT to the segment
b. Cumulative impact if only (a) is met.

Long-Term (Study Horizon Year 5 and Later)

For purposes of the long-term analysis roadway segments, the planning analysis uses the V/C ratio methodology only. The Growth Management Oversight Committee analysis methodology is not applicable beyond a 4-year horizon. The following criteria are used to analyze long-term conditions:

a. Project-specific impact if all three of the following criteria are met:
    i. Level of service is LOS D, LOS E, or LOS F

ii. Project trips comprise 5% or more of total segment volume

iii. Project adds greater than 800 ADT to the segment

b. Cumulative impact if only (a) is met. However, if the intersections along an LOS D or LOS E segment all operate at LOS D or better, the segment impact is considered not significant since intersection analysis is more indicative of actual roadway system operations than street segment analysis. If segment level of service is LOS F, impact is significant regardless of intersection LOS.

c. Notwithstanding the foregoing, if the impact identified in paragraph (a), above, occurs at study horizon Year 10 or later, and is off site and not adjacent to the project, the impact is considered cumulative. Study horizon Year 10 may be that typical SANDAG model year that is between 8 and 13 years in the future. In this case of a traffic study being performed in a model year not divisible by 5 (i.e., 2005, 2010, 2015, and 2020), 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.

d. In the event a direct identified project-specific impact in paragraph (a), above, occurs 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 project-specific impact is no longer a direct impact, then the impact would be considered cumulative.

Analysis

Existing Plus Project Build-Out

This section provides an analysis of existing traffic conditions with the addition of the Proposed Project. Existing Plus Project Build-Out traffic volumes were derived by adding the project trip assignment volumes (Table 2.9-11, Project Trip Generation – Buildout) to the existing traffic volumes. Figure 2.9-3, Existing Plus Project Build Out Roadway Volumes shows the daily roadway segment volumes based on existing volumes plus project-generated traffic.

County of San Diego

Table 2.9-12, Roadway Segment Level of Service Results – Existing Plus Project Build-Out Conditions – County of San Diego, shows the LOS analysis results for the Proposed Project study area roadway segments located within the County under Existing Plus Project Build-Out

conditions. As shown, study area roadway segments within the County are projected to operate at LOS D or better with the addition of Proposed Project traffic.

Based on the County Guidelines for Determining Significance criteria, traffic associated with the Proposed Project would not cause any significant changes in roadway segment operations under Existing Plus Project Build-Out conditions. Therefore, impacts to roadway segments in the County would be **less than significant**.

City of Chula Vista

Table 2.9-13, Roadway Segment Level of Service Results – Existing Plus Project Build-Out Conditions – City of Chula Vista, shows the LOS analysis results for the study area roadway segments within the City of Chula Vista under Existing Plus Project Build-Out conditions.

Study area roadway segments are anticipated to continue to operate at LOS C or better with the exception of the following segments:

- East H Street between I-805 southbound ramps and I-805 northbound ramps (LOS D)
- East H Street between Terra Nova Drive and Del Rey Boulevard (LOS D)
- Proctor Valley Road between Northwoods Drive to the City of Chula Vista Boundary (LOS D)

However, for the roadway segments along East H Street, Proposed Project trips would comprise fewer than 5% of the total segment volume, and intersections along the roadway segment would operate at LOS D or better; therefore, impacts would be **less than significant** for these roadway segments.

For the roadway segment of Proctor Valley Road between Northwoods Drive and the City of Chula Vista Boundary, Proposed Project trips would comprise 98.40% (more than 5%) of the total segment volume, and would add 12,300 ADT (more than 800 ADT). The intersection of Northwoods Drive/Agua Vista Drive and Proctor Valley Road is projected to operate at LOS F during the AM peak hour and LOS E during the PM peak hour; therefore, the Proposed Project would have a **significant project specific impact** to this roadway segment **(Impact TR-1)**.

Year 2025 Cumulative Conditions

The Proposed Project is anticipated to be partially built out and occupied under Year 2025 Cumulative Conditions. Year 2025 Proposed Project trip assignments were derived by assigning the Proposed Project build-out trip generation estimate to the surrounding roadway network, based on the Year 2025 trip distribution patterns. As shown in Table 2.9-14, Project Trip Generation – Year 2025 Cumulative Conditions, the Proposed Project is anticipated to generate

9,377 daily trips, including 690 (219 inbound/471 outbound) AM peak hour trips and 924 (625 inbound/299 outbound) PM peak-hour trips under build-out conditions. To be conservative no Proposed Project internal trip capture was assumed (Appendix 2.9-1).

Proposed Project construction is anticipated to begin in Year 2021, with full build out occurring in Year 2028. Therefore, Year 2025 Cumulative Conditions assumes the partial development of the Proposed Project. Based on the Proposed Project's construction schedule and market conditions, it is anticipated that by the start of Year 2025, the following Proposed Project land uses would be developed and occupied:

- 1,119 single-family units[1]
- 15.2 acres of public park space
- 9.5 acres of private park facilities
- 10,000 square feet of commercial space
- 2.3-acre public safety site (fire station/sheriff)

As shown under Year 2025 Cumulative Conditions, the Proposed Project is anticipated to generate a total of 9,377 daily trips, including 690 (219 inbound/471 outbound) AM peak hour trips, and 924 (625 inbound/299 outbound) PM peak hour trips.

Year 2025 Proposed Project trip assignments were derived by assigning the Proposed Project partial build-out trip generation estimates to the surrounding roadway network, based on the Year 2025 Proposed Project trip distribution patterns displayed in Table 2.9-14. The Year 2025 Proposed Project trip distribution patterns were derived based upon a SANDAG Series 11 Year 2025 Select Zone Assignment, which is provided in Appendix C of Appendix 2.9-1. Figure 2.9-4, Daily Roadway Segment Traffic Volumes – Year 2025 Cumulative Conditions shows the daily roadway segment volumes under Year 2025 Cumulative conditions.

County of San Diego

Table 2.9-15, Roadway Segment Level of Service Results – Year 2025 Cumulative Conditions – County of San Diego, displays the LOS analysis results for the Proposed Project study area roadway segments located within the County under Year 2025 conditions.

[1] Contingent upon the needs of the Chula Vista Elementary School District, the Proposed Project would designate approximately 9.7 acres for an elementary school site in the Village Core. However, it is possible that the school would not be built. To provide for this potential outcome, the Proposed Project includes an option of building 97 residential units at the school site location.

Under this scenario, study area roadway segments within the County are projected to operate at LOS D or better with the addition of Proposed Project traffic, with the exception of the following:

- Proctor Valley Road, between City of Chula Vista boundary to Project Driveway No. 1 (LOS E); and
- Proctor Valley Road, between Project Driveway No. 1 to Project Driveway No. 2 (LOS E).

Based on the County significance criteria outlined in Section 2.8 of Appendix 2.9-1, the addition of trips generated by the Proposed Project would cause **significant cumulative impacts** under Year 2025 conditions along the roadway segments previously listed **(Impacts TR-2a and 2b)**.

City of Chula Vista

Table 2.9-16, Roadway Segment Level of Service Results – Year 2025 Cumulative Conditions – City of Chula Vista, shows the LOS analysis results for the study area roadway segments within the City of Chula Vista under Year 2025 conditions.

Under this scenario, study area roadway segments within the City of Chula Vista are projected to operate at LOS C or better under Year 2025 conditions with the exception of the following roadway segments. Whether the Proposed Project would result in a significant impact at each segment is identified as follows.

- East H Street between Terra Nova Drive and Del Rey Boulevard (LOS D)

  Proposed Project trips at build-out would comprise 1.60% (less than 5%) of the total segment volume and would add 800 ADT (equal to 800 ADT). The intersections of East H Street/Terra Nova Drive and East H Street/Del Rey Boulevard are both projected to operate at LOS B or better during both the AM and PM peak hours. Therefore, the Proposed Project would have a **less than significant** impact to this roadway segment.

- East H Street between Del Rey Boulevard and Paseo Del Rey (LOS D)

  Proposed Project trips at build-out would comprise 1.60% (less than 5%) of the total segment volume and would add 800 ADT (equal to 800 ADT). The intersections of East H Street/Del Rey Boulevard and East H Street/Paseo Del Rey are both projected to operate at LOS C or better during both the AM and PM peak hours. Therefore, the Proposed Project would have a **less than significant** impact to this roadway segment.

- East H Street between Paseo Del Rey and Paseo Ranchero (LOS D)

  Proposed Project trips at build-out would comprise 1.80% (less than 5%) of the total segment volume and would add 900 ADT (more than 800 ADT). The intersections of East H Street/Del Rey Boulevard and East H Street/Paseo Del Rey are both projected to

operate at LOS D or better during both the AM and PM peak hours. Therefore, the Proposed Project would have a **less than significant** impact to this roadway segment.

- East H Street between Otay Lakes Road and SR-125 southbound ramps (LOS D)

  Proposed Project trips at build-out would comprise 4.00% (less than 5%) of the total segment volume and would add 1,200 ADT (more than 800 ADT). The intersections of East H Street/Otay Lakes Road and East H Street/SR-125 southbound are both projected to operate at LOS D or better during both the AM and PM peak hours. Therefore, the Proposed Project would have a **less than significant** impact to this roadway segment.

- Proctor Valley Road between Northwoods Drive to the City of Chula Vista Boundary (approximately 2,100 feet in length) (LOS F)

  Proposed Project trips at build-out would comprise 53.33% (more than 5%) of the total segment volume and would add 6,400 ADT (more than 800 ADT). The intersections of Northwoods Drive/Agua Vista Drive and Proctor Valley Road is projected to operate at LOS F during both the AM and PM peak hours. Therefore, the Proposed Project would have a **significant project specific impact** to this roadway segment **(Impact TR-3)**.

- Telegraph Canyon Road between Paseo Ranchero to Otay Lakes Road (LOS D)

  Proposed Project trips at build-out would comprise 0.60% (less than 5%) of the total segment volume and would add 300 ADT (less than 800 ADT). The intersections of Telegraph Canyon Road/Paseo Ranchero and Telegraph Canyon Road/Otay Lakes Road are both projected to operate at LOS D or better during both the AM and PM peak hours. Therefore, the Proposed Project would have a **less than significant** impact to this roadway segment.

- Otay Lakes Road between SR-125 northbound ramps and Eastlake Parkway (LOS D)

  Proposed Project trips at build-out would comprise 0.60% (less than 5%) of the total segment volume and would add 300 ADT (less than 800 ADT). The intersections of Otay Lakes Road/SR-125 northbound and Otay Lakes Road/Eastlake Parkway are both projected to operate at LOS D or better during both the AM and PM peak hours. Therefore, the Proposed Project would have a **less than significant** impact to this roadway segment.

Year 2030 Cumulative Conditions

This section provides an analysis of Year 2030 Cumulative Conditions with the Proposed Project. This scenario does not include the planned or unplanned remaining undeveloped dwelling units, outside of the Proposed Project, within the Village 14 and Planning Areas 16/19 allowed by Otay Ranch GDP/SRP. However, since the remaining lands within these areas are

owned by the state and are currently targeted as Preserve lands, it is not anticipated that they would be developed. Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property will provide an analysis of the full build-out of Village 14 and Planning Areas 16/19 under Year 2030 conditions.

Year 2030 Proposed Project trip assignment was derived by assigning the Proposed Project build-out trip generation estimates (Table 2.9-11) to the surrounding roadway network based on the Year 2030 Proposed Project trip distribution patterns. Figure 2.9-5, Daily Roadway Segment Traffic Volumes – Year 2030 Cumulative Conditions shows the daily roadway segment volumes under Year 2030 Cumulative conditions.

County of San Diego

Table 2.9-17, Roadway Segment Level of Service Results – Year 2030 Cumulative Conditions – County of San Diego, displays the LOS analysis results for the study area roadway segments located within San Diego County under Year 2030 Cumulative Conditions. As shown on the table, study area roadway segments within the County are projected to operate at LOS D or better within the addition of Proposed Project traffic, with the exception of the following:

- Proctor Valley Road, between City of Chula Vista boundary to Project Driveway No. 1 (LOS E)
- Proctor Valley Road, between Project Driveway No. 1 to Project Driveway No. 2 (LOS E)
- Proctor Valley Road, between Project Driveway No. 2 to Project Driveway No. 3 (LOS E)
- Proctor Valley Road, between Project Driveway No. 3 to Project Driveway No. 4 (LOS E)

Based on the County significance criteria outlined in Section 2.9, the addition of trips generated by the Proposed Project would cause **significant cumulative impacts** under Year 2030 Cumulative Conditions along the roadway segments previously listed **(Impacts TR-4a, 4b, 4c, 4d).**

City of Chula Vista

Table 2.9-18, Roadway Segment Level of Service Results – Year 2030 Cumulative Conditions – City of Chula Vista, shows the LOS analysis results for study area roadway segments within the City of Chula Vista under Year 2030 conditions.

Under this scenario, study area intersections within the City of Chula Vista are anticipated to operate at LOS C or better under Year 2030 conditions, with the exception the following segments. Whether the Proposed Project would result in a significant impact at each segment is identified.

- East H Street, between Terra Nova Drive and Del Rey Boulevard (LOS D)

  Proposed Project trips at build-out would comprise 2.67% (less than 5%) of the total segment volume and add 1,400 ADT (more than 800 ADT). The intersections of East H

Street/Terra Nova Drive and East H Street/Del Rey Boulevard are both projected to operate at LOS C or better during both the AM and PM peak hours. Therefore, the Proposed Project would have a **less than significant** impact to this roadway segment.

- East H Street, between Del Rey Boulevard and Paseo Del Rey (LOS D)

  Proposed Project trips at build-out would comprise 2.65% (less than 5%) of the total segment volume and add 1,400 ADT (more than 800 ADT). The intersections of East H Street/Del Rey Boulevard and East H Street/Paseo Del Rey are both projected to operate at LOS D or better during both the AM and PM peak hours. Therefore, the Proposed Project would have a **less than significant** impact to this roadway segment.

- East H Street between Paseo Del Rey and Paseo Ranchero (LOS D)

  Proposed Project trips at build-out would comprise 3.57% (less than 5%) of the total segment volume and add 1,800 ADT (more than 800 ADT). The intersections of East H Street/Del Rey Boulevard and East H Street/Paseo Del Rey are both projected to operate at LOS D or better during both the AM and PM peak hours. Therefore, the Proposed Project would have a **less than significant** impact to this roadway segment.

- East H Street, between Otay Lakes Road and SR-125 southbound ramps (LOS D)

  Proposed Project trips at build-out would comprise 7.23% (more than 5%) of the total segment volume and add 2,300 ADT (more than 800 ADT). The intersections of East H Street/Otay Lakes Road and East H Street/SR-125 southbound are both projected to operate at LOS D or better during both the AM and PM peak hours. Therefore, the Proposed Project would have a **less than significant** impact to this roadway segment.

- Proctor Valley Road from Northwoods Drive to the City of Chula Vista boundary (approximately 2,100 feet in length) (LOS F)

  Proposed Project trips at build-out would comprise 74.84% (more than 5%) of the total segment volume and add 11,900 ADT (more than 800 ADT). The intersections of Northwoods Drive/Agua Vista Drive and Proctor Valley Road is projected to operate at LOS F during both the AM and PM peak hours. Therefore, the Proposed Project would have a **significant project specific impact** to this roadway segment **(Impact TR-5)**.

- Otay Lakes Road between SR-125 northbound ramps and Eastlake Parkway (LOS D)

  Proposed Project trips at build-out would comprise 1.46% (less than 5%) of the total segment volume and add 800 ADT (not exceeding 800 ADT). The intersections of Otay Lakes Road/SR-125 northbound and Otay Lakes Road/Eastlake Parkway are projected to operate at LOS D or better during both the AM and PM peak hours. Therefore, the Proposed Project would have a **less than significant** impact to this segment.

Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property

This section provides an analysis of Year 2030 traffic conditions with the assumption that the additional cumulative units allowed by the Otay Ranch GDP/SRP, in the areas not owned by the Proposed Project, would be developed. This is a theoretical, highly unlikely scenario as the site of a majority of the additional dwelling units that would be developed under this scenario is located in Village 14 and Planning Area 16 on state property (Rancho Jamul Preserve). Accordingly, it is highly unlikely that these additional units would ever be developed. Nevertheless, the analysis of impacts associated with this scenario is presented in the following section.

The Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property roadway network is based on build-out of the County Mobility Element, the proposed City of Chula Vista General Plan Circulation Element, as well as the City of San Diego's adopted Community Plan Circulation Element. See Table 2.9-19, Otay Ranch Cumulative Land Uses Trip Generation, for average daily trips for each land use (854 additional single-family dwelling units, 4.7 acres of community facilities, and 1.2 acres of commercial). Figure 2.9-6, Daily Roadway Segment Traffic Volumes – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property shows the daily roadway segment volumes under Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property. This is a hypothetical scenario that includes units that are unlikely to be developed because although they are approved for development in the Otay Ranch GDP/SRP, the property has since been acquired by the State of California and is now included in the state's Rancho Jamul Ecological Reserve.

County of San Diego

Table 2.9-20, Roadway Segment Level of Service Results – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property – County of San Diego, shows the LOS analysis results for the study area roadway segments located within San Diego County under Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property. Under this scenario, all study area roadway segments within the County are projected to operate at LOS D or better within the addition of Proposed Project traffic, with the exception of the following:

- Proctor Valley Road, between City of Chula Vista boundary to Project Driveway No. 1 (LOS F)
- Proctor Valley Road, between Project Driveway No. 1 to Project Driveway No. 2 (LOS F)
- Proctor Valley Road, between Project Driveway No. 2 to Project Driveway No. 3 (LOS F)
- Proctor Valley Road, between Project Driveway No. 3 to Project Driveway No. 4 (LOS F)

Based on the significance criteria outlined in Section 2.9, the addition of trips generated by the Proposed Project would cause **significant cumulative impacts** under Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property along the roadway segments previously listed **(Impacts TR-6a, 6b, 6c, 6d)**.

City of Chula Vista

Table 2.9-21, Roadway Segment Level of Service Results – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property – City of Chula Vista, shows the LOS analysis results for study area roadway segments within the City of Chula Vista under Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property.

Under this scenario, study area roadway segments within the City of Chula Vista are projected to operate at LOS C or better under Year 2030 with Cumulative Conditions Plus Hypothetical Development of State Preserve Property with the exception of the following segments. Whether the Proposed Project would result in a significant impact at each segment is identified.

- East H Street, between Terra Nova Drive and Del Rey Boulevard (LOS D)

  Proposed build-out project trips would comprise 2.60% (less than 5%) of the total segment volume and add 1,400 ADT (more than 800 ADT). The intersections of East H Street / Terra Nova Drive and East H Street / Del Rey Boulevard are both projected to operate at LOS C or better during both peak hours. Therefore, the Proposed Project would have a **less than significant** impact on this roadway segment.

- East H Street, between Del Rey Boulevard and Paseo Del Rey (LOS D)

  Proposed build-out project trips would comprise 2.58% (less than 5%) of the total segment volume and add 1,400 ADT (more than 800 ADT). The intersections of East H Street / Del Rey Boulevard and East H Street / Paseo Del Rey are both projected to operate at LOS D or better during both peak hours. Therefore, the Proposed Project would have a **less than significant** impact on this roadway segment.

- East H Street between Paseo Del Rey and Paseo Ranchero (LOS D)

  Proposed build-out project trips would comprise 3.45% (less than 5%) of the total segment volume and add 1,800 ADT (more than 800 ADT). The intersections of East H Street / Del Rey Boulevard and East H Street/Paseo Del Rey are both projected to operate at LOS D or better during both peak hours. Therefore, the Proposed Project would have a **less than significant** impact on this roadway segment.

- East H Street, between Otay Lakes Road and SR-125 southbound ramps (LOS E)

  Proposed build-out project trips would comprise 6.76% (more than 5%) of the total segment volume and add 2,300 ADT (more than 800 ADT). The intersections of East H

Street/Otay Lakes Road and East H Street / SR-125 southbound are both projected to operate at LOS D or better during both peak hours. Therefore, the Proposed Project would have a **less than significant** impact on this roadway segment.

- Proctor Valley Road, between Hunte Parkway between Northwoods Drive (LOS E)

  Proposed build-out project trips would comprise 29.89% (more than 5%) of the total segment volume and add 10,700 ADT (more than 800 ADT). The intersection of Northwoods Drive/Agua Vista Drive and Proctor Valley Road is projected to operate at LOS F during both the AM and PM peak hours. Therefore, the Proposed Project would have a **significant project specific impact** to this roadway segment. (**Impact TR-7)**

- Proctor Valley Road, between Northwoods Drive to the City of Chula Vista Boundary (approximately 2,100 feet in length) (LOS F)

  Proposed build-out project trips would comprise 43.59% (more than 5%) of the total segment volume and add 11,900 ADT (more than 800 ADT). The intersection of Northwoods Drive/Agua Vista Drive and Proctor Valley Road is projected to operate at LOS F during both the AM and PM peak hours. Therefore, the Proposed Project would have a **significant project specific impact** to this roadway segment. (**Impact TR-8)**

- Otay Lakes Road, between SR-125 northbound ramps and Eastlake Parkway (LOS D)

  Proposed build-out project trips would comprise 1.46% (less than 5%) of the total segment volume and add 800 ADT (not exceeding 800 ADT). The intersections of Otay Lakes Road/SR-125 northbound and Otay Lakes Road/Eastlake Parkway are projected to operate at LOS D or better during both peak hours. Therefore, the Proposed Project would have a **less than significant** impact on this segment

2.9.3.2 Signalized and Unsignalized Intersection Operation Impacts

Guidelines for the Determination of Significance

County of San Diego

The Proposed Project would result in a significant volume and/or LOS traffic impact on an intersection if:

Signalized

- The additional or redistributed ADT generated by the Proposed Project would significantly increase congestion at a signalized intersection currently operating at LOS E or LOS F, as identified in Table 2.9-22, Measures of Significant Project Impacts to

Congestion at Intersections – Allowable Increases at Congested Intersections, or would cause a signalized intersection to operate at LOS E or LOS F.

Unsignalized

- The additional or redistributed ADT generated by the Proposed Project would add 20 or more peak-hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate below LOS D (refer to Table 2.9-22); or
- The additional or redistributed ADT generated by the Proposed Project would add 20 or more peak-hour trips to a critical movement of an unsignalized intersection currently operating at LOS E (refer to Table 2.9-22); or
- The additional or redistributed ADT generated by the Proposed Project would add five or more peak-hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate at LOS F (refer to Table 2.9-22); or
- The additional or redistributed ADT generated by the Proposed Project would add five or more peak-hour trips to a critical movement of an unsignalized intersection currently operating at LOS F (refer to Table 2.9-22); or
- Based on an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance, and/or other factors, it is found that the Proposed Project's generation rate less than those previously specified would significantly impact the operations of the intersection.

City of Chula Vista

Short-Term (Study Horizon Year 0–4)

a. Project-specific impact if both the following criteria are met:
   i. Level of service is LOS E or LOS F
   ii. Project trips comprise 5% or more of entering volume
b. Cumulative impact if only (i) is met.

Long-Term (Study Horizon Year 5 and Later)

a. Project-specific impact if both the following criteria are met:
   i. Level of service is LOS E or LOS F
   ii. Project trips comprise 5% or more of entering volume
b. Cumulative impact if only (i) is met.

Analysis

Existing Plus Project Build-Out Conditions

Figures 2.9-7a through 2.9-7c, Peak Hour Intersection Traffic Volumes – Existing Plus Project Build Out Conditions, show the peak-hour intersection volumes under Existing Plus Project conditions. As shown in Table 2.9-23, Peak Hour Intersection Level of Service Results – Existing Plus Project Build-Out Conditions, Proposed Project study area intersections are projected to operate at LOS D or better under Existing Plus Project Build-Out Conditions, with the exception of the following:

- SR-94 and Lyons Valley Road (LOS F during the AM and PM peak hours)
- Northwoods Drive/Agua Vista Drive and Proctor Valley Road (LOS F in the AM peak hour and LOS E in the PM peak hour)

Based on the significance criteria outlined above, traffic associated with the Proposed Project would cause a **significant direct impact** at the intersection of SR-94 and Lyons Road within San Diego County **(Impact TR-9)**, and a **significant project specific impact** at the intersection of Northwoods Drive/Agua Vista Drive and Proctor Valley Road within the City of Chula Vista **(Impact TR-10)**.

Year 2025 Cumulative Conditions

Figure 2.9-8a through 2.9-8c, Peak Hour Intersection Traffic Volumes – Year 2025 Cumulative Conditions show the peak-hour intersection volumes under Year 2025 with Proposed Project Cumulative Conditions. Traffic volumes for the Year 2025 scenario were developed using the SANDAG Series 11 "Southbay 2" Year 2025 model. Thus, the most recent City of Chula Vista approved model (developed for the Otay Ranch Village Two Comprehensive Sectional Planning Area (SPA) Amendment project) was used as a starting point to ensure the accuracy of the modeling assumptions within the City of Chula Vista's jurisdiction. Land use assumptions for the Otay Ranch Village Two Comprehensive SPA Amendment project model were developed in coordination with City of Chula Vista staff, and include estimated growth for all of the Otay Ranch villages, as well as the future university, the eastern urban center, and other developments. Year 2025 model land use assumptions are provided within Appendix I of Appendix 2.9-1.

Table 6-2 in the TIS (Appendix 2.9-1), Peak Hour Intersection LOS Results – Year 2025 Cumulative Conditions, shows intersection LOS and average vehicle delay results for the study area intersections under Year 2025 conditions. As shown in the table, similar to the Existing Plus Project Build Out Conditions, study area intersections are projected to operate at LOS D or better under Year 2025 Cumulative Conditions, with the exception of the following:

- SR-94 and Lyons Valley Road (LOS F during the AM and PM peak hours)

- Northwoods Drive/Agua Vista Drive and Proctor Valley Road (LOS F in the AM peak hour and LOS E in the PM peak hour)

Based on the significance criteria outlined in Section 2.9.1.2, traffic associated with the Proposed Project would cause a **significant cumulative impact** at the intersection of SR-94 and Lyons Road within the County **(Impact TR-11)**, and a **significant project specific impact** at the intersection of Northwoods Drive/Agua Vista Drive and Proctor Valley Road within the City of Chula Vista **(Impact TR-12)**.

Year 2030 Cumulative Conditions

Year 2030 scenario traffic volumes were developed using the SANDAG Series 11 "Southbay 2" Year 2030 model. Figures 2.9-9a through 2.9-9c, Peak Hour Intersection Traffic Volumes – Year 2030 Cumulative Conditions, show the peak-hour intersection volumes under Year 2030 Cumulative with Proposed Project conditions. Table 7-1 of Appendix 2.9-1 shows intersection LOS and average vehicle delay results for the study area intersections under Year 2030 conditions. All intersections are signalized. LOS calculation worksheets for Year 2030 conditions are provided in Appendix L of Appendix 2.9-1. As shown on the table, similar to the Existing Plus Project Build Out and 2025 Cumulative Conditions, all study area intersections are projected to operate at LOS D or better under Year 2030 Cumulative Conditions, with the exception of the following:

- SR-94 and Lyons Valley Road (LOS F during the AM and PM peak hours)
- Northwoods Drive/Agua Vista Drive and Proctor Valley Road (LOS F during the AM and PM peak hours).

Based on the significance criteria outlined above, Under Year 2030 Cumulative Conditions, traffic associated with the Proposed Project would cause a **significant cumulative impact** at the intersection of SR-94 and Lyons Road within the **(Impact TR-13)**, and a **significant project specific impact** at the intersection of Northwoods Drive/Agua Vista Drive and Proctor Valley Road within the **(Impact TR-14)**.

Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property

Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property scenario traffic volumes were developed using the SANDAG Series 11 "Southbay 2" Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property model. Figures 2.9-10a through 2.9-10c, Peak Hour Intersection Traffic Volumes – Year 2030 with Cumulative Conditions Plus Hypothetical Development of State Preserve Property, show the daily roadway segment and peak-hour intersection volumes under Year 2030

Cumulative Conditions Plus Hypothetical Development of State Preserve Property with Proposed Project conditions. As previously explained, this is a hypothetical scenario that includes units that are unlikely to be developed because although they are approved for development in the Otay Ranch GDP/SRP, the property has since been acquired by the State of California and is now included in the state's Rancho Jamul Ecological Reserve.

Table 2.9-24, Peak Hour Intersection LOS Results – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property, shows intersection LOS and average vehicle delay results for the study area intersections under Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property. All intersections are signalized. LOS calculation worksheets for Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property are provided in Appendix N of the TIS (Appendix 2.9-1). As shown on the table, Proposed Project study area intersections are projected to operate at LOS D or better under Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, with the exception of the following:

- SR-94 and Lyons Valley Road (LOS F during the AM and PM peak hours)
- Paseo Ranchero and East H Street (LOS E during the AM and PM peak hours)
- Mt. Miguel Road and East H Street (LOS F during the AM peak hour and LOS E during the PM peak hour)
- Lane Avenue and East H. Street (LOS F during the AM peak hour and LOS E during the PM peak hour)
- Northwoods Drive/Agua Vista Drive and Proctor Valley Road (LOS F during the AM and PM peak hours)
- Proctor Valley Road and Project Driveway No. 1 – (LOS F – during both the AM and PM peak hours)
- Proctor Valley Road and Project Driveway No. 2 – (LOS E – during the PM peak hour)
- Proctor Valley Road and Project Driveway No. 3 – (LOS F – during both the AM and PM peak hours)
- Proctor Valley Road and Project Driveway No. 4 – (LOS F – during both the AM and PM peak hours)
- Proctor Valley Road and Project Driveway No. 5 – (LOS E – during the AM peak hour)

Based on the significance criteria outlined above, under Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would result in a **significant cumulative impact** at the intersection of SR-94 and Lyons Valley Road (**Impact TR-15)**.

Based on the significance criteria outlined above, under Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would cause a **significant cumulative impact** at the intersection of Paseo Ranchero and East H Street in the City of Chula Vista **(Impact TR-16).**

Based on the significance criteria outlined above, under Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would cause a significant project **a significant cumulative impact** at the following intersections within the County:

- Proctor Valley Road and Project Driveway No. 1 **(Impact TR-17)**
- Proctor Valley Road and Project Driveway No. 2 **(Impact TR-18)**
- Proctor Valley Road and Project Driveway No. 3 **(Impact TR-19)**
- Proctor Valley Road and Project Driveway No. 4 **(Impact TR-20)**
- Proctor Valley Road and Project Driveway No. 5 **(Impact TR-21)**.

Based on the significance criteria outlined above, under Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would cause a **significant project specific impact** at the following intersections within the City of Chula Vista:

- Mt. Miguel Road and East H Street **(Impact TR-22)**
- Lane Avenue and East H Street **(Impact TR-23)**
- Northwoods Drive/Agua Vista Drive and Proctor Valley Road **(Impact TR-24)**

2.9.3.3 Two-Lane Highways and Freeway Mainline

Guidelines for the Determination of Significance

County of San Diego

Two-Lane Highways with Signalized Intersection Spacing Over 1 Mile

Traffic volume increases from public or private projects that trigger the following criteria will have a significant traffic volume or LOS traffic impact on a two-lane highway facility with signalized intersection spacing of more than 1 mile (County of San Diego 2011a):

- The additional or redistributed ADT generated by the project will significantly increase congestion on a two-lane highway segment currently operating at LOS E or LOS F, as identified in Table 2.9-25, Measures of Significant Project Impacts to Congestion – Allowable Increases on Two-Lane Highways with Signalized Intersection Spacing Over

1 Mile, or will cause a two-lane highway segment to operate at LOS E or LOS F as a result of the project.

Two-Lane Highways with Signalized Intersection Spacing Under 1 Mile

Traffic volume increases from public or private projects that trigger the following criteria will have a significant traffic volume or LOS traffic impact on a two-lane highway facility with signalized intersection spacing under 1 mile (County of San Diego 2011a):

- The additional or redistributed ADT generated by the project would significantly increase congestion on a two-lane highway segment currently operating at LOS E or LOS F, as identified in Table 2.9-26, Measures of Significant Project Impacts to Congestion – Allowable Increases on Two-Lane Highways with Signalized Intersection Spacing Under 1 Mile, or would cause a two-lane highway segment to operate at LOS E or LOS F as a result of the project.

City of Chula Vista

Short-Term (Study Horizon Year 0–4)

Freeways

a. Project-specific impact if both the following criteria are met:
    i. Freeway segment LOS is LOS E or LOS F.
    ii. Project comprises 5% or more of the total forecasted ADT on that freeway segment.
b. Cumulative impact if only (i) is met.

Long-Term (Study Horizon Year 5 and Later)

Freeways

a. Project-specific impact if both the following criteria are met:
    i. Freeway segment LOS is LOS E or LOS F.
    ii. Project comprises 5% or more of the total forecasted ADT on that freeway segment.
b. Cumulative impact if only (i) is met.

San Diego Traffic Engineers' Council/Institute of Traffic Engineers Guidelines

Facilities under the jurisdiction of Caltrans that are located within San Diego County should comply with the traffic study requirements identified in the SANTEC/ITE guidelines, as

summarized in Table 2.9-27, San Diego Traffic Engineers' Council/Institute of Traffic Engineers Measure of Significant Project Traffic Impacts.

Analysis

Existing Plus Project Build-Out

Two-Lane Highways

Table 2.9-28, Two-Lane Highway Segment Level of Service Results – Existing Plus Project Conditions, shows two-lane highway LOS analysis results for SR-94 under Existing Plus Project Build-Out conditions. As seen in Table 2.9-28, two-lane highway segments within San Diego County are projected to operate at LOS D or better with the addition of Proposed Project traffic, with the exception of SR-94 between Vista Sage Lane and Lyons Valley Road, which would operate at LOS E. However, based on the County significance criteria, traffic associated with the Proposed Project would not cause any significant changes in two-lane highway operations under Existing Plus Project Build-Out conditions. Therefore, impacts would be **less than significant**.

Freeway Mainline

Table 2.9-29, Freeway/State Highway Segment Level of Service Results – Existing Plus Project Build-Out Conditions, shows I-805 LOS analysis results for the study area freeway mainline facilities under Existing Plus Project Build-Out conditions. The freeway/state highway segment LOS analysis was performed using the methodology presented in Section 2.0 in Appendix 2.9-1. The percent of traffic during the peak hour (K), directional split (D), and percent of heavy vehicles (HV) are expected to be the same as those under Existing conditions.

As shown in Table 2.9-29, Proposed Project study area freeway mainline segments are projected to operate at LOS D or better with the addition of Proposed Project traffic, with the exception of the following:

- I-805 between Home Avenue and SR-94 (LOS F)
- I-805 between SR-94 and Market Street (LOS F)
- I-805 between Market Street and Imperial Avenue (LOS F)
- I-805 between SR-54 and Bonita Road (LOS F)

Based on the freeway mainline significance criteria outlined in Section 2.8 of Appendix 2.9-1, the traffic associated with the Proposed Project would not increase the V/C ratio by more than 0.01 on any freeway segments operating at LOS E or F under Existing Plus Project Build-Out Conditions. Therefore, impacts would be **less than significant**.

Year 2025 Cumulative Conditions

Two-Lane Highway Segment Analysis

Table 2.9-30, Two-Lane Highway Segment Level of Service Results – Year 2025 Cumulative Conditions, shows two-lane-highway LOS analysis results for SR-94 under Year 2025 Cumulative Conditions. This analysis was performed using the County methodologies as described in Chapter 2.0 in Appendix 2.9-1. Two segments of SR-94 (between Jefferson Road and Maxfield Road, and between Maxfield Road and Melody Road) were not included as part of this analysis since the distance between these signalized intersections is less than 1 mile; the LOS for these highway segments is determined based on the intersections' LOS along these segments.

As shown in Table 2.9-30, two-lane-highway segments within the County are projected to operate at LOS D or better with the addition of Proposed Project traffic, with the exception of the following:

- SR-94 between Vista Sage Lane and Lyons Valley Road (LOS F)
- SR-94 between Lyons Valley Road and Jefferson Road (LOS F)

Based on the County's significance criteria, traffic associated with the Proposed Project would add less than 225 daily trips to the two-lane-highway segments operating at LOS F. Therefore, impacts would be **less than significant**.

Freeway Mainline

Table 2.9-31, Freeway/State Highway Segment Level of Service Results – Year 2025 Cumulative Conditions, shows freeway LOS analysis results for the study area freeway mainline facilities under Year 2025 Cumulative Conditions. The freeway/state highway segment LOS analysis was performed using the methodology presented in Section 2.5 of Appendix 2.9-1. The following 12 study area freeway mainline segments are projected to operate at LOS E or F under Year 2025 conditions:

- I-805 between Home Avenue and SR-94 (LOS F)
- I-805 between SR-94 and Market Street (LOS F)
- I-805 between Market Street and Imperial Avenue (LOS F)
- I-805 between Imperial Avenue and East Division Street (LOS F)
- I-805 between East Division Street and Plaza Boulevard (LOS F)
- I-805 between Plaza Boulevard to SR-54 (LOS F)

- I-805 between SR-54 and Bonita Road (LOS F)
- I-805 between Bonita Road and East H Street (LOS F)
- I-805 between East H Street and Telegraph Canyon Road (LOS F)
- SR-125 between SR-94 Junction and Jamacha Road (LOS F)
- SR-125 between Jamacha Road and Paradise Valley Road (LOS E)
- SR-54 between I-805 and Reo Drive/Plaza Bonita Center Way (LOS E)

Based on the Freeway Mainline significance criteria outlined in Section 2.5 of Appendix 2.9-1, traffic associated with the Proposed Project would not increase the V/C ratio by more than 0.01 on any freeway segments operating at LOS E or F under Year 2025 conditions. Therefore, Proposed Project impacts on freeways would be **less than significant**.

Year 2030 Cumulative Conditions

Two-Lane Highway Segment Analysis

Table 2.9-32, Two-Lane Highway Segment Level of Service Results – Year 2030 Cumulative Conditions, shows two-lane highway LOS analysis results for SR-94 under Year 2030 Cumulative Conditions. Two segments of SR-94 (between Jefferson Road and Maxfield Road, and between Maxfield Road and Melody Road) were not included as a part of this analysis; because the distance between these signalized intersections is less than 1 mile, the LOS for these highway segments is determined based on the intersections' LOS along these segments.

Under this condition, two-lane highway segments within the County are projected to operate at LOS D or better with the addition of Proposed Project traffic, with the exception of SR-94 between Vista Sage Lane and Lyons Valley Road, and SR-94 between Lyons Valley Road and Jefferson Road, both of which are projected to operate at LOS F.

However, based on the County significance criteria outlined in Section 2.8 of Appendix 2.9-1, the traffic associated with the Proposed Project would on SR-94 within the Proposed Project study area would add less than 225 daily trips and, therefore, impacts would be **less than significant**.

Freeway Mainline

Table 2.9-33, Freeway/State Highway Segment Level of Service Results – Year 2030 Cumulative Conditions, shows freeway LOS analysis results for the study area freeway mainline facilities under Year 2030 Cumulative Conditions. The freeway/state highway segment LOS analysis was performed using the methodology presented in Section 2.5 of Appendix 2.9-1.

As shown in Table 2.9-33, the following 12 study area freeway mainline segments are projected to operate at LOS E or F under Year 2030 conditions:

- I-805 between Home Avenue and SR-94 (LOS F)
- I-805 between SR-94 and Market Street (LOS F)
- I-805 between Market Street and Imperial Avenue (LOS F)
- I-805 between Imperial Avenue and East Division Street (LOS F)
- I-805 between East Division Street and Plaza Boulevard (LOS F)
- I-805 between Plaza Boulevard to SR-54 (LOS F)
- I-805 between SR-54 and Bonita Road (LOS F)
- I-805 between Bonita Road and East H Street (LOS F)
- I-805 between East H Street and Telegraph Canyon Road (LOS F)
- SR-125 between SR-94 Junction and Jamacha Road (LOS F)
- SR-125 between Jamacha Road and Paradise Valley Road (LOS E)
- SR-54 between I-805 and Reo Drive/Plaza Bonita Center Way (LOS F)

Based on the Freeway Mainline significance criteria, traffic associated with the Proposed Project would not increase the V/C ratio by more than 0.01 on any freeway segments operating at LOS E or F under Year 2030 conditions. Therefore, Proposed Project impacts would be **less than significant**.

Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property

Two-Lane Highway Segment Analysis

Table 2.9-34, Two-Lane Highway Segment Level of Service Results – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property, shows two-lane highway LOS analysis results for SR-94 under Year 2030 Cumulative Conditions. Two segments of SR-94 (between Jefferson Road and Maxfield Road, and between Maxfield Road and Melody Road) were not included as a part of this analysis; because the distance between these signalized intersections is less than 1 mile, the LOS for these highway segments is determined based on the intersections' LOS along these segments.

Under this condition, two-lane highway segments within the County are projected to operate at LOS D or better with the addition of Proposed Project traffic, with the exception of SR-94

between Vista Sage Lane and Lyons Valley Road, and SR-94 between Lyons Valley Road and Jefferson Road, both of which are projected to operate at LOS F.

However, based on the County significance criteria outlined in Section 2.8 of Appendix 2.9-1, the traffic associated with the Proposed Project on SR-94 within the Proposed Project study area as would add less than 225 daily trips and, therefore, impacts would be **less than significant**.

Freeway Mainline

Table 2.9-35, Freeway/State Highway Segment Level of Service Results – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property, shows freeway LOS analysis results for the study area freeway mainline facilities under Year 2030 Cumulative Conditions. The freeway/state highway segment LOS analysis was performed using the methodology presented in Section 2.5 of Appendix 2.9-1. As previously explained, this is a hypothetical scenario that includes units that are unlikely to be developed because although they are approved for development in the Otay Ranch GDP/SRP, the property has since been acquired by the California Department of Fish and Wildlife (CDFW) and is now included in the CDFW Rancho Jamul Ecological Reserve.

As shown in the table, the following 12 study area freeway mainline segments are projected to operate at LOS E or F under Year 2030 Cumulative Conditions:

- I-805, between Home Avenue and SR-94 (LOS F)
- I-805, between SR-94 and Market Street (LOS F)
- I-805, between Market Street and Imperial Avenue (LOS F)
- I-805, between Imperial Avenue and E Division Street (LOS F)
- I-805, between East Division Street and Plaza Boulevard (LOS F)
- I-805, between Plaza Boulevard to SR-54 (LOS F)
- I-805, between SR-54 and Bonita Road (LOS F)
- I-805, between Bonita Road and East H Street (LOS F)
- I-805, between East H Street and Telegraph Canyon Road (LOS F)
- SR-125, between SR-94 Junction and Jamacha Road (LOS F)
- SR-125, between Jamacha Road and Paradise Valley Road (LOS E)
- SR-54, between I-805 and Reo Drive/Plaza Bonita Center Way (LOS F)

Based on the Freeway Mainline significance criteria outlined in Section 2.8 of Appendix 2.9-1, the traffic associated with the Proposed Project would not increase the V/C ratio by more than 0.01 on any freeway segments operating at LOS E or F under Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property. Therefore, Proposed Project impacts would be **less than significant**.

2.9.3.4 Freeway Ramps

County of San Diego

Additional or redistributed ADT generated by the Proposed Project would significantly increase congestion at a freeway ramp. The Caltrans Guide for the Preparation of Traffic Impact Studies states that an operational analysis based on the Caltrans HDM should be used in the evaluation of ramps, and the Caltrans Ramp Metering Guidelines should be used in the preparation of the operational analysis (Caltrans 2002). However, specific criteria for the determination of an impact at a ramp are not provided in the previously mentioned documents.

The County has not adopted specific criteria for determining an impact at a ramp; however, the County states that the CMP guidelines for the determination of traffic impacts at a ramp may be used as a guide in determining significant increases in congestion on ramps and for identifying conflicts with the CMP (County of San Diego 2011a). Accordingly, this methodology was used in the analysis of potential impacts related to freeway ramps.

Existing Plus Project Build-Out Conditions

Consistent with Caltrans requirements, signalized intersections at freeway ramps were analyzed under Existing plus Project Build-Out conditions using ILV procedures, as described in Topic 406 of the Caltrans HDM (Caltrans 2012). This methodology is based on an assessment of each intersection as an isolated unit, without consideration of the effects from adjacent intersections. For this reason, the ILV analysis is used as an additional validation of signalized ramp intersection operations derived from the 2010 HCM methodology. However, as previously explained, neither Caltrans, the City of Chula Vista, nor the County uses ILV results in determining significance of a project's impacts; therefore, the analyses are included for informational purposes only. ILV analysis results for Existing Plus Project Build-Out conditions are shown in Table 2.9-36, Ramp Intersection Capacity Analysis – Existing Plus Project Build-Out Conditions.

As shown Table 2.9-36, with the addition of Proposed Project traffic, and study area ramp interchanges would continue to operate under capacity.

Separate from the ILV analysis, Table 2.9-37, Ramp Metering Analysis – Existing Plus Project Build-Out Conditions, shows the results of the ramp metering analysis conducted at study area freeway ramps under Existing Plus Project Build-Out conditions. Existing ramp meter rates were obtained from Caltrans and are expected to be the same under Existing Plus Project Build-Out conditions.

As shown on Table 2.9-37, the projected peak-hour ramp volumes under Existing Plus Project Build-Out conditions are not anticipated to exceed the current ramp meter rates at either metered study area freeway ramp. Thus, no significant impact would occur at either I-805 H Street ramp locations. Therefore, traffic associated with the Proposed Project would not cause any substantial change or further deterioration in ramp meter operations under Existing Plus Project Build-Out conditions, and impacts would be **less than significant**.

Year 2025 Cumulative Conditions

Consistent with Caltrans' requirements, the signalized ramp intersections within the Proposed Project study area were analyzed using ILV procedures under Year 2025 Cumulative Conditions. ILV analysis results are shown in Table 2.9-38, Ramp Intersection Capacity Analysis – Year 2025 Cumulative Conditions. As shown on the table, freeway ramp interchange intersections are projected to operate under capacity under Year 2025 Cumulative Conditions.

Table 2.9-39, Ramp Metering Analysis – Year 2025 Cumulative Conditions, shows the results of the ramp metering analysis conducted at study area freeway ramps under Year 2025 Cumulative Conditions. Ramp meter rates are expected to be the same in Year 2025 as under Existing conditions. Ramp meter excess demand, delay, and queuing results were calculated using the methodologies outlined in Section 2.7 of Appendix 2.9-1.

As shown on the table, the projected peak-hour ramp volumes under Year 2025 conditions are not anticipated to exceed the current ramp meter rates at either metered study area freeway ramp. Thus, no significant impact would occur at either I-805 ramp location; therefore, traffic associated with the Proposed Project would not cause any substantial change or further deterioration in ramp meter operations under Year 2025 conditions, and impacts would be **less than significant**.

Year 2030 Cumulative Conditions

Consistent with Caltrans' requirements, the signalized ramp intersections within the study area were analyzed using ILV procedures under Year 2030 Cumulative Conditions. ILV analysis results are shown in Table 2.9-40, Ramp Intersection Capacity Analysis – Year 2030 Cumulative Conditions, and analysis worksheets for Year 2030 conditions are provided in Appendix L of Appendix 2.9-1.

Table 2.9-40, Ramp Intersection Capacity Analysis – Year 2030 Cumulative Conditions, shows that freeway ramp interchange intersections are projected to operate under capacity under Year 2030 conditions.

Table 2.9-41, Ramp Metering Analysis – Year 2030 Cumulative Conditions, shows the results of the ramp metering analysis conducted at study area freeway ramps under Year 2030 Cumulative Conditions. Ramp meter rates are expected to be the same in 2030 as under Existing conditions. Ramp meter excess demand, delay, and queuing results were calculated using the methodologies outlined in Section 2.7 of Appendix 2.9-1.

As shown in Table 2.9-41, the projected peak-hour ramp volumes under Year 2030 Cumulative Conditions are not anticipated to exceed the current ramp meter rates at either metered study area freeway ramp. Thus, no significant impact would occur at either I-805 ramp location. Therefore, traffic associated with the Proposed Project would not cause any substantial change or further deterioration in ramp meter operations under Year 2030 Cumulative Conditions, and impacts would be **less than significant**.

Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property

Consistent with Caltrans' requirements, the signalized ramp intersections within the Proposed Project study area were analyzed using ILV procedures. ILV analysis results are displayed in Table 2.9-42, Ramp Intersection Capacity Analysis – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property, and analysis worksheets for Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property are provided in Appendix N of the TIS (Appendix 2.9-1). As previously explained, this is a hypothetical scenario that includes units that are unlikely to be developed because although they are approved for development in the Otay Ranch GDP/SRP, the property has since been acquired by CDFW and is now included in the CDFW Rancho Jamul Ecological Reserve. As shown in Table 2.9-42, freeway ramp interchange intersections are projected to operate under capacity under Year 2030 Cumulative Conditions.

Table 2.9-43, Ramp Intersection Capacity Analysis – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property, shows the results of the ramp metering analysis conducted at study area freeway ramps under Year 2030 Cumulative Conditions. Ramp meter rates are expected to be the same in 2030 as under Existing conditions. Ramp meter excess demand, delay, and queuing results were calculated using the methodologies outlined in Section 2.7 of Appendix 2.9-1.

As shown in Table 2.9-43, under Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, the peak hour ramp volumes are not anticipated to exceed the current ramp meter rates at either metered study area freeway ramp. Thus, no significant impact would occur at either I-805 H Street ramp location. Therefore, traffic associated with the Proposed Project would not cause any substantial change or further deterioration in ramp meter operations under Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, and impacts would be **less than significant**.

2.9.3.5 Construction Impacts

Roadway Segments

Proposed Project construction is expected to be continuous over 7 years (2021–2028). It is expected that the greatest potential impacts would occur around Year 2024, when earlier construction would be completed and a portion of the development would be occupied, combined with continuing construction activities. As seen in Chapter 1, Figure 1-13, Conceptual Phasing Plan, the Proposed Project is divided into phases, with Village 14 as the first phase, followed by Planning Area 16 and Planning Area 19. The development of the various project phases/areas overlap throughout project construction process, making it so there are no distinct construction timing phases. Instead, project construction would be continuous throughout multiple areas of the project area between the years 2021 through 2028. Since the project phases are area based and not timing based, no phased project analysis was conducted. Instead an interim year (Year 2025) was analyzed to identify the project related impacts that may occur as the project is developed and impact triggers are defined based on the number of units that could be developed by the Proposed Project prior to the impact occurring. Trip generation for occupied residential, commercial, and other land uses under a Year 2024 scenario is estimated at 6,565 daily trips. The 6,565 daily trips would be generated by 590 residential units, 5,000 square feet of commercial/retail stores, 2.9 acres of public park areas, and 2.2 acres of community facilities.

Earthwork associated with construction of the Proposed Project would be balanced on site; therefore, no import or export of soil is anticipated. Therefore, construction traffic analyzed for the Proposed Project focuses on construction material transport activities and trips generated by construction workers. Neither construction material transport activities nor construction workers would generate substantial amounts of traffic during the peak commute hours (both AM and PM), since deliveries and pick-ups typically are planned to occur during off-peak hours, and construction workers typically are scheduled to arrive before 7:00 a.m. and leave by 3:30 p.m.

Year 2024 would generate the highest amount of construction worker traffic, which would include approximately 380 daily truck trips and 1,436 daily construction worker trips. Table 2.9-44, Year 2024 Construction Trip Generation, shows the expected maximum construction-related

vehicle trip generation rates. As shown, 2,386 daily vehicle trips would be generated by the Proposed Project's construction activities during Year 2024.

Table 2.9-45, Worst-Case Trip Generation During Construction – Year 2024, shows the total daily trips that would be generated under this scenario. As shown on the table, the Year 2024 Plus Construction scenario would generate 8,951 daily trips. Under the scenarios for both Existing Plus Project Build-Out and Year 2025 Plus Project Build-Out, the Proposed Project would generate 13,897 ADT and 9,377 ADT, respectively. Therefore, since the Year 2024 Plus Construction scenario would generate fewer vehicle trips, potential traffic impacts associated with the worst-case scenario during construction would be less than those identified under either the Existing Plus Project Build-Out or Year 2025 Plus Project Build-Out scenarios.

Based on the information provided in Table 2.9-46, Project Year 2024 Trip Generation, the Proposed Project would have constructed 657 EDUs by Year 2024. Therefore, the Proposed Project would have already triggered impacts at the Northwoods Drive/Agua Vista Drive and Proctor Valley Road intersection, as well as the segment of Proctor Valley Road between Northwoods Drive and the City of Chula Vista boundary. These impacts are triggered at 287 and 563 EDUs, respectively. Both impacts would be triggered by Proposed Project traffic prior to the peak of construction. Mitigation road improvements would occur prior to construction activities. Therefore, any potential significant impacts that might occur in connection with construction activities would be mitigated by road improvements previously constructed as Project mitigation.

2.9.3.6 Hazards Due to an Existing Transportation Design Feature

Guidelines for the Determination of Significance

Many roadways and intersections in the County were designed and constructed prior to the adoption of current road design standards. Roadways and intersections that were designed to handle lower traffic volumes may pose an increased risk if traffic volumes substantially increase along the road segment or at the intersection as a result of the Proposed Project. Increased traffic generated or redistributed by the Proposed Project may cause a significant traffic operational impact to an existing transportation design feature. Therefore, it is necessary to evaluate potential hazards to existing transportation design features (County of San Diego 2011a). A significant traffic hazard due to a transportation design feature would occur if a project would do any of the following (County of San Diego 2011a):

- Include a design feature or physical configuration of an access road that may adversely affect the safe transport of vehicles along the roadway.
- Result in a percentage and/or magnitude of increased traffic on the road that would affect the safety of the roadway.

- Result in the physical conditions of the project site and surrounding area, such as curves, slopes, walls, landscaping, or other barriers that may result in vehicle conflicts with other vehicles or stationary objects.
- Not conform to the requirements of the private or public road standards, as applicable.

Analysis

Regional access to the Project Area is provided by SR-125, located approximately 3 miles to the west. I-805, approximately 8 miles to the west, provides secondary north/south access. SR-54, located approximately 6 miles to the northwest, connects to SR-125 and I-805 and provides regional east/west access. SR -94, located approximately 1 mile to the northeast, which connects to SR-125 and I-8 to the north. Proctor Valley Road provides the main access to the Project Area, with secondary access via Whispering Meadows though Planning Area 16.

Under the Proposed Project, five roundabouts in Village 14 and one roundabout in Planning Areas 16/19 would identify the entrance into each residential area, as well as provide traffic calming at key internal intersections. The internal circulation plan also includes a series of collectors and residential streets to provide access to the residential neighborhoods. Proctor Valley Road presently is a two-lane unpaved road between Northwoods Drive/Agua Vista Drive in the City of Chula Vista and the northern Project Area boundary. Proctor Valley Road is designated as a "County Designated Scenic Highway" from the Chula Vista city limits to SR-94.

As part of the Proposed Project, the existing unimproved northern portion of Proctor Valley Road, which provides access to Jamul to the north of the Project Area, would be paved substantially in its existing width and alignment to provide public access and secondary emergency access to Chula Vista and Jamul. The northern portion of Proctor Valley Road alignment is approximately 1 mile in length and is located outside of the Development Area but within the Project Area, and is considered an off-site improvement.

The Proposed Project would consist of numerous roadway and circulation improvements, including internal streets, internal intersections, pedestrian walkways, sidewalks, trails, and bicycle facilities. Proposed circulation improvements would be reviewed and approved by County transportation engineers (and Caltrans, as applicable) to ensure that the design conforms with the County Code of Regulatory Ordinances and applicable roadway/highway design manuals as they apply to the safety of motorists, pedestrian, and bicyclists. Such safety issues include travel speed along internal roadways, line of sight, width and setback of pedestrian facilities, buffering of bicycle facilities, and queuing of cars at intersections. With conformance to applicable safety design standards as set forth by the County and Caltrans, impacts related to hazardous design would be **less than significant**.

2.9.3.7 Hazards to Pedestrians or Bicyclists

Guidelines for the Determination of Significance

Many roadways and intersections in the County do not currently have pedestrian or bicycle facilities. The roadways and intersections designed prior to adoption of current road standards may have conditions that pose an increased risk if traffic volumes, pedestrian volumes, or bicycle volumes substantially increase along the road segment or at the intersection as a result of the Proposed Project (County of San Diego 2011a). Increased traffic generated or redistributed by the Proposed Project may cause a significant traffic operational impact to pedestrians or bicyclists if any of the following would occur (County of San Diego 2011a):

- The Proposed Project includes design features/physical configurations on a road segment or at an intersection that may adversely affect the visibility of pedestrians or bicyclists to drivers entering and exiting the site, and the visibility of cars to pedestrians and bicyclists.
- The amount of pedestrian activity at the Proposed Project access points adversely affects pedestrian safety.
- The Proposed Project results in the preclusion or substantial hindrance of the provision of a planned bike lane or pedestrian facility on a roadway adjacent to the Proposed Project.
- The percentage or magnitude of increased traffic on the road due to the Proposed Project adversely affects pedestrian and bicycle safety.
- The physical conditions of the Project Area and surrounding area, such as curves, slopes, walls, landscaping, or other barriers, result in vehicle/pedestrian or vehicle/bicycle conflicts.
- The Proposed Project does not conform with existing and proposed roads to the requirements of the private or public road standards, as applicable.
- The Proposed Project results in a substantial increase in pedestrian or bicycle activity without the presence of adequate facilities.

Analysis

The Proposed Project includes construction of an approximately 4.5 mile Community Pathway along Proctor Valley Road from Chula Vista to Jamul, and a 1.5 mile park-to-park pedestrian connection. The Community Pathway along Proctor Valley Road would be a regional, multi-use facility between the City of Chula Vista boundary and the community of Jamul. The Community Pathway is included in the County General Plan Mobility Element and would be designed to accommodate pedestrian, bicycle, and equestrian uses. The Community Pathway and all internal pedestrian facilities would be designed to County standards as set forth in the Specific Plan for the Proposed Project to ensure the safety of pedestrians, bicyclists, and equestrians.

The Proposed Project also would include a network of local pedestrian facilities that circulate throughout each of the neighborhoods, providing connections between the Community Pathway and the public parks throughout the Project Area. Proposed local pedestrian facilities and locations would be reviewed by the County prior to implementation to confirm pedestrian and bicyclists safety.

Five roundabouts are proposed along Proctor Valley Road and the Project Area access points. Roundabouts have been proven to calm traffic, improve safety, and increase roadway capacity, thereby enhancing the comfort and safety of cyclists and pedestrians. Proposed roundabouts would be designed to meet County safety and design standards.

Circulation improvements would be reviewed and approved by County transportation engineers (and Caltrans transportation engineers, as applicable, to improvements affecting SR-94) to ensure that the design conforms with the County Code of Regulatory Ordinances and applicable roadway/highway design manuals as they apply to the safety of motorists, pedestrians, and bicyclists. Such safety issues include travel speed along internal roadways, line of sight at Project Area entrances, width and setback of pedestrian facilities, buffering of bicycle facilities, and queueing of cars at intersections. With conformance to applicable safety design standards as set forth by the County and Caltrans, the Proposed Project would adequately facilitate pedestrian and bicyclist travel, and impacts would be **less than significant**.

2.9.3.8 Alternative Transportation

Guidelines for the Determination of Significance

Alternative transportation (transit use, cycling, and walking) is addressed in the County General Plan Mobility Element. If a project is not in conformance with the applicable alternative transportation policies in the Mobility Element, a significant conflict with the County's alternative transportation policies may occur.

Analysis

Bus service to the Project Area may be provided by the Metropolitan Transit System (MTS). MTS provides bus service throughout San Diego, including the Chula Vista eastern territories of Southwestern College and Otay Ranch Town Center. Proctor Valley Road connects to MTS bus route 707, which connects to routes 705 (E Street), 709 (H Street), and 712 (Palomar Street/Telegraph Canyon Road). Future expansion of transit service to the Project Area may include a bus route farther east along Proctor Valley Road to the Village Core area; however, no such service is proposed at this time. Furthermore, there is no indication that the Proposed Project would increase transit ridership such that it would decrease the performance or safety of transit facilities.

With respect to pedestrian movement and bicycle facilities, as previously explained, the Proposed Project would include construction of an approximately 4.5 mile Community Pathway along Proctor Valley Road and an additional 1.5 mile park-to-park connection. The Community Pathway is included in the County General Plan Mobility Element and would be designed to accommodate pedestrian, bicycle, and equestrian uses. Pedestrian facilities and proposed roundabouts would be designed to County standards and be approved by the County as set forth in the Specific Plan for the Proposed Project to ensure the safety of pedestrians, bicyclists, and equestrians.

The Proposed Project also includes the following Project Design Feature (PDF) to reduce vehicle trips in favor of alternative modes of transportation:

PDF-TR-1 Transportation Demand Management (TDM). The Proposed Project applicant or its designee shall implement a TDM program to facilitate increased opportunities for transit, bicycling, and pedestrian travel, as well as provide the resources, means, and incentives for ridesharing and carpooling. The following components are to be included in the TDM program:

- Develop a comprehensive pedestrian network designed to provide safe bicycle and pedestrian access between the various Proposed Project phases, land uses, parks/open spaces, schools, and the Village Core. Where approved by the appropriate jurisdiction, the pedestrian network would also provide connections to the various recreational trails and multimodal facilities accessing the Project Area.
- Provide bicycle racks along main travel corridors adjacent to commercial developments and at public parks and open spaces within the Project Area.
- Coordinate with the San Diego Association of Governments' (SANDAG) iCommute program for carpool, vanpool, and rideshare programs that are specific to the Proposed Project.
- Promote available websites providing transportation options for residents and businesses.
- Create and distribute a "new resident" information packet addressing alternative modes of transportation.
- Coordinate with San Diego Metropolitan Transit System (MTS) and SANDAG about the future sighting of transit stops/stations within the Project Area.
- Provide a school carpool program by coordinating with the local school district and SANDAG. Provide dedicated parking space for the school carpool program in the Village Core.
- Implement a school bus program in coordination with the school district.
- Require homeowner's associations within the Project Area to coordinate with the local school district and partner with the on-site elementary school to create a "walking school bus program" for neighborhood students to safely walk to and from school. The Proposed

Project applicant would also coordinate with the local school district to encourage the provision of bicycle storage facilities at the on-site elementary school.

In addition, the Proposed Project would comply with County General Plan Mobility Element goals and policies related to alternative transportation. Impacts related to alternative transportation would be **less than significant**.

2.9.3.9 VMT Analysis

Although not yet required by CEQA, this section presents an evaluation of the potential VMT-related impacts associated with the Proposed Project, consistent with the methodology and significance thresholds recommended by the California Governor's Office of Planning and Research (OPR) in its Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA (OPR 2016).

2.9.3.9.1 Regulatory Framework

Senate Bill 743

Senate Bill 743, approved in 2013, initiated a process that, when completed, is expected to change the way transportation impact analyses are conducted under CEQA. These changes, which presently are in draft form only and not yet formally approved or required, will eliminate auto delay, LOS, and similar measurements of vehicular roadway capacity and traffic congestion as the basis for determining significant impacts, and replace them with automobile vehicle miles traveled, or VMT, as the new CEQA transportation metric.

Senate Bill (SB) 743 required that OPR prepare and submit to the Secretary of the Natural Resources Agency revisions to the CEQA Guidelines that establish criteria for determining the significance of transportation impacts within transit-priority areas (Legislative Counsel's Digest(2)). "Transit priority areas" means, generally, an area within one-half mile of a major transit stop.[2] SB 743 did not require OPR to establish such criteria for areas outside of the one-half mile major transit stop locale, although it gave OPR the discretion to apply the new criteria to these areas.

[2] "'Transit priority areas' means an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations" (Public Resources Code Section 21099(a)(7)). A "major transit stop" is "a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods" (Public Resources Code Section 21064.3).

In support of SB 743, the Legislature found that transportation analyses under CEQA "typically study changes in automobile delay. New methodologies under [CEQA] are needed for evaluating transportation impacts that are better able to promote the state's goals of reducing greenhouse gas emissions and traffic-related air pollution, promoting the development of a multimodal transportation system, and providing clean, efficient access to destinations" (SB 743, Section 1(a)(2)). With that, the Legislature declared its intent to "(1) Ensure that the environmental impacts of traffic, such as noise, air pollution, and safety concerns, continue to be properly addressed and mitigated through [CEQA]; and (2) More appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions" (SB 743, Section 1(b)(1) and (2)).

To implement the identified legislative intent, SB 743 included the following directive to OPR, as included in newly added Public Resources Code Section 21099:

> (b) (1) The Office of Planning and Research shall prepare, develop, and transmit to the Secretary of the Natural Resources Agency for certification and adoption proposed revisions to the guidelines adopted pursuant to Section 21083 [CEQA Guidelines] establishing criteria for determining the significance of transportation impacts of projects within transit priority areas. Those criteria shall promote the reduction of greenhouse gas emissions, the development of multi modal transportation networks, and a diversity of land uses. In developing the criteria, the office shall recommend potential metrics to measure transportation impacts that may include, but are not limited to, vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated. The office may also establish criteria for models used to analyze transportation impacts to ensure the models are accurate, reliable, and consistent with the intent of this section.
>
> (2) Upon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division [CEQA], except in locations specifically identified in the guidelines, if any.
>
> (c) (1) The Office of Planning and Research may adopt guidelines pursuant to Section 21083 establishing alternative metrics to the metrics used for traffic levels of service for transportation impacts outside transit priority areas. The alternative metrics may include the retention of traffic levels of service, where appropriate and as determined by the office.

Thus, the Legislature directed OPR to establish revised criteria for determining the significance of transportation impacts within transit-priority areas; however, as to those areas *outside* of transit priority areas, such as the area where the Proposed Project would be developed, the Legislature stated that OPR "may" adopt guidelines establishing alternative metrics.

Draft Proposed OPR Guidelines

As directed by SB 743, in August 2014, OPR issued draft proposed CEQA guideline revisions for public review and comment in the Preliminary Discussion Draft of Updates to the CEQA Guidelines Implementing SB 743 (Preliminary Discussion Draft). Following review of the public comments and subsequent OPR revisions, OPR revised the Preliminary Discussion Draft and on January 20, 2016, issued the Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA (Draft Proposal).

The January 2016 Draft Proposal consisted of three component sections: (1) explanation of Revised Updates to the CEQA Guidelines Implementing Senate Bill 743; (2) revised Proposed Changes to the CEQA Guidelines; and (3) technical advisory on Evaluating Transportation Impacts in CEQA (OPR 2016).

On November 27, 2017, OPR issued a revised Draft Proposal, which it sent to the Natural Resources Agency for review and, ultimately, distribution for further public review and comment (OPR 2017). On January 26, 2018, the Natural Resources Agency issued further revisions and distributed the revised Draft Proposal for public review and comment. The comment period closes March 15, 2018, after which the Natural Resources Agency may make additional revisions to the Draft Proposal. Final approval of the revised guidelines is expected later in 2018, although, based on the current version of the revisions, lead agencies will have until January 1, 2020, to comply with the SB 743 analysis requirements.

As to the proposed changes to the CEQA Guidelines, the Draft Proposal would add new Section 15064.3, Determining the Significance of Transportation Impacts, to the CEQA Guidelines. As presented in the January 2018 Draft Proposal, Section 15064.3 would provide as follows:

(a) Purpose

> This section describes specific considerations for evaluating a project's transportation impacts. Generally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, "vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) below

(regarding roadway capacity), a project's effect on automobile delay does not constitute a significant environmental impact.

(b) Criteria for Analyzing Transportation Impacts

(1) Land Use Projects. Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be considered to have a less than significant transportation impact.

(2) Transportation Projects. Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, a lead agency may tier from that analysis as provided in Section 15152.

(3) Qualitative Analysis. If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.

(4) Methodology. A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled, and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.

(c) Applicability. The provisions of this section shall apply prospectively as described in Section 15007. A lead agency may elect to be governed by the provisions of this

> section immediately. Beginning on July 1, 2019, the provisions of this section shall apply statewide.

Thus, in addition to the fact that the proposed guidelines are presently in draft form only, even after adoption, lead agencies, such as the County of San Diego, would have until July 1, 2019, to conform to the requirements of the new guidelines.

As to the CEQA Guidelines Appendix G criteria, as proposed, Section XVI, Transportation, would read as follows (new SB 743 criterion shown in underline):

> XVI. Transportation – Would the project:
>
> a) Conflict with a plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian paths?
>
> b) For a land use project, would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1)?
>
> c) For a transportation project, would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(2)?
>
> d) Substantially increase hazards due to a geometric design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?
>
> e) Result in inadequate emergency access?

As noted above, final approval of the proposed guidelines is expected sometime later this year (2018), although based on the current draft, lead agencies will have until January 1, 2020, to comply with the proposed revisions. Thus, the proposed guidelines presently are in draft form only, and final guidelines have not yet been issued nor formally adopted. As such, preparation of an SB 743 compliant analysis consistent with the proposed guidelines is not required by the County or the State at this time, and the following information is for disclosure purposes only.

In summary, while not required by CEQA, this section presents an evaluation of the potential VMT-related impacts associated with the Proposed Project, consistent with the methodology and significance thresholds recommended by OPR in its Draft Proposal, dated January 26, 2018.

2.9.3.9.2 Land Use Project VMT Analysis

This subsection presents an analysis of the Proposed Project's traffic impacts relative to VMT based on draft CEQA Guidelines and related guidance issued by the state OPR and Natural Resources Agency pursuant to SB 743. As explained above, the guidelines and related materials are in draft form only, subject to further revisions and public comment, and they are not expected to be adopted by the Resources Agency until later this year and, therefore, the guidelines are not

presently in effect. Nonetheless, while not legally required, this section presents an analysis of the potential VMT-related impacts associated with the Proposed Project, consistent with the methodology and thresholds recommended in the draft guidance.

As previously noted, the draft proposed guidelines do not require a specific methodology to be used when conducting the analysis. Instead, the draft guidelines state that "a lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled" and "may use models to estimate a project's vehicle miles traveled, and may revise those estimates to reflect professional judgment based on substantial evidence" (Proposed CEQA Guidelines Section 15064.3(b)(4)). In essence, the Draft Proposal defers to a local agency's professional judgment, as supported by substantial evidence, when deciding how best to evaluate VMT.

As with many other California counties and cities, the County of San Diego has not yet adopted methodologies for performing land use project VMT analysis under SB 743, since the draft guidelines and related guidance is not yet final, nor has it been approved or adopted by the Natural Resources Agency. Therefore, in the absence of adopted County methodologies, the methodologies suggested in the Draft Proposal are applied to the analysis presented in this section.

Proposed Appendix G Criterion (b)

As to proposed Appendix G criterion (b), would the project "conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1)," the Draft Proposal recommended methodology generally requires comparison of a project's VMT per capita with a threshold VMT. If a project's VMT per-capita exceeds the threshold, a significant impact is identified; if a project's VMT is below the threshold, impacts would be less than significant. Based on the Draft Proposal Technical Advisory, the threshold may be calculated by first determining a "baseline," and then identifying the number 15% below the baseline to arrive at the OPR recommended significance threshold.

As noted above, the methodology used in the Draft Proposal and the analysis presented here is based on the metric "VMT per capita," which is the average number of miles traveled by each person (i.e., per capita) during a specified time period. The VMT per capita used in the analysis of residential land uses is further specified as the "home-based automobile VMT per capita," which is the sum of all distances of all automobile trips per weekday originating from or destined for a residential land use (i.e., the trip crosses the home's driveway) within a defined area, divided by the population of the area. This metric is specific to the SB 743 VMT analysis and is to be distinguished from other metrics used elsewhere in this EIR, such as home-based VMT, total project VMT, or average trip length.

As to calculation of the two numbers essential to the analysis (baseline VMT per capita and project VMT per capita), within San Diego County, the primary source for calculating these numbers

is the SANDAG regional travel demand model. In this case, the SANDAG Series 11 regional travel demand model, which was used to generate total project VMT for the analysis of the Proposed Project's impacts relative to air quality, greenhouse gas emissions, and energy, is not capable of isolating home-based automobile VMT per capita for either the Proposed Project or the region. Accordingly, for the limited purpose of the analysis presented in this EIR, the home-based VMT per capita for the unincorporated San Diego County Southwestern Region, which includes the Project Area, was used to represent the Proposed Project VMT (see Appendix 2.9-1). The VMT per capita for the sub-region was calculated using the SANDAG Series 13 Year 2035 Regional Model using the VMT methodology developed by SANDAG, which is the most current SANDAG regional travel demand model available as of the writing of this EIR (February 2018).

Baseline VMT

In calculating the baseline VMT and the corresponding significance threshold, two sources are available, both of which were used in the analysis presented here: the SANDAG regional average and the unincorporated San Diego County southwestern region average, described below:

1. SANDAG Region Average Home-Based VMT/Capita: The Draft Proposal indicates that, for a residential use in an unincorporated area, the suggested baseline is the regional average. This baseline is referred to herein as Scenario 1. Per the Draft Proposal, the Scenario 1 significance threshold is 15% below the regional baseline.
2. Unincorporated San Diego County Southwestern Region: This baseline is based on the VMT per capita for the subregion as calculated using the SANDAG Series 13 Year 2035 Regional Model and based on the VMT methodology developed by SANDAG. The subregion includes the Project Area, as well as the communities of Ramona, Lakeside, Alpine, Crest-Dehesa, Valle De Oro, Spring Valley, Jamul-Dulzura, and Otay. This baseline is referred to herein as Scenario 2. Per the Draft Proposal, the Scenario 2 significance threshold is 15% below the sub-regional baseline.

As previously explained, the Draft Proposal does not require a specific methodology to be used when calculating VMT; rather, the Draft Proposal defers to a local agency's professional judgment supported by substantial evidence when deciding how best to model VMT.

Although using a subregional area to establish baseline values for home-based VMT per capita is not specified in the Draft Proposal, use of the unincorporated San Diego County Southwestern Region to determine existing VMT is presented here because the overall intent of SB 743 is to evaluate how a project would perform relative to existing proximate land uses. The larger San Diego region is composed of 18 cities and 107 towns and communities in the unincorporated area, with a land area more than 4,500 square miles. As a result, travel characteristics vary widely across the region, as well as between individual cities and communities. In contrast, the

unincorporated San Diego County Southwestern Region represents a smaller geographic area that includes existing land uses proximate to the Project Area. Thus, the subregion is more representative of existing land uses in the Project Area than is the larger San Diego region.

For these reasons, application of the unincorporated San Diego County Southwestern Region home-based VMT per capita as the baseline to derive the significance threshold is consistent with the overall intent of SB 743 and the Draft Proposal, which is to evaluate how a project would perform relative to existing proximate land uses. As such, use of the subregion (instead of the entire San Diego region) provides a more accurate baseline against which to assess impacts, since it results in a comparison to residential uses in a similar context. For additional details regarding the calculation of baseline VMT per capita, please see Appendix 2.9-1.

Significance Threshold

As noted above, The Draft Proposal would add the following criterion to CEQA Guidelines Appendix G:

> Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1)?

As described above, two baseline scenarios are included in this analysis: the SANDAG region average automobile home-based VMT per capita and the unincorporated San Diego County southwestern region average automobile home-based VMT per capita. Table 2.9-47, Residential Home-Based Automobile VMT Per Capita Baseline and Threshold Values, illustrates the residential daily home-based automobile VMT per capita baseline and the corresponding recommended significance thresholds based on the Draft Proposal. As shown in Table 2.9-47, the region-wide VMT per capita is 17.6 VMT per capita, and the subregion-wide VMT per capita is 21.71 VMT per capita.

As shown in Table 2.9-47, the corresponding significance thresholds are 15% below the stated VMT per capita. As shown on the table, the San Diego region threshold is 14.96 VMT per capita, and the southwestern region threshold is 18.45 VMT per capita.

Project VMT Per Capita

For the purposes of the analysis presented in this EIR, the home-based VMT per capita used for the Proposed Project is the VMT per capita for the unincorporated San Diego County southwestern region, which includes the Project Area. The VMT per capita for the subregion was calculated using the SANDAG Series 13 Year 2035 Regional Model based on the VMT methodology developed by SANDAG. For additional details regarding the calculation of Proposed Project VMT per capita, please see Appendix 2.9-1.

Table 2.9-48, Project Residential Home-Based Automobile VMT Per Capita, summarizes the Proposed Project's home-based automobile VMT per capita, along with the corresponding significance thresholds under Scenario 1 (region-wide) and Scenario 2 (sub-region). Additional information is provided in Appendix 2.9-1. Appendix 2.9-1 also discusses whether Proposed Project VMT per capita would exceed the applicable thresholds, thereby resulting in a potentially significant impact.

Implementation of the Transportation Demand Management (TDM) Program would result in a 4.338% reduction in Proposed Project VMT attributable to residential land uses (Appendix 2.9-1). Table 2.9-48, Home-Based Automobile VMT per Capita with TDM Program, summarizes the Proposed Project's residential home-based automobile VMT per capita adjusted to account for the 4.338% reduction attributable to implementation of the TDM Program. The table also shows the corresponding significance thresholds under Scenario 1 (region-wide) and Scenario 2 (sub-region).

As shown in Table 2.9-48, the Proposed Project VMT per capita for the residential land use types would exceed the corresponding thresholds for each residential type under Scenarios 1 and 2. Specifically, under Scenario 1 (region-wide threshold), Proposed Project VMT would exceed the threshold of 14.96 VMT per capita by approximately 45% for home-based auto trips. Under Scenario 2 (sub-region threshold), absent VMT reduction strategies, Proposed Project VMT per capita would exceed the corresponding threshold of 18.45 VMT per capita for home-based auto trips by approximately 17.6%. As a result, based on the recommended thresholds provided in the Draft Proposal, the Proposed Project would result in a potentially significant impact related to home-based automobile VMT per capita for all residential land use types when compared to either the San Diego region-wide threshold or the unincorporated San Diego County Southwestern Region threshold (**Impact TR-25).**

The Draft Proposal includes potential measures recommended to reduce VMT. These measures include the following, each of which has been incorporated into the design of the Proposed Project or is incorporated into the Proposed Project as part of the TDM Program (OPR 2016):

- Increase access to common goods and services, such as groceries, schools, and daycare.
- Orient the project toward transit, bicycle and pedestrian facilities.
- Improve pedestrian or bicycle networks, or transit service.
- Provide traffic calming.
- Provide bicycle parking.

As noted above, the Proposed Project TDM Program would reduce VMT by approximately 4.338%; however, the resulting adjusted VMT would continue to exceed the San Diego region threshold of 14.96 VMT per capita by approximately 39% for home-based auto trips. Under

Scenario 2 (sub-region threshold), Proposed Project VMT per capita would exceed the corresponding threshold of 18.45 VMT per capita for home-based auto trips by approximately 12.5%. Accordingly, impacts associated with Proposed Project home-based automobile VMT per capita would be **significant and unavoidable**.

2.9.3.9.3 Transportation Project VMT Analysis

Similar to Land Use Project VMT Analysis, the County of San Diego has not yet adopted methodologies for performing Transportation Project VMT analysis under SB 743, since the draft guidelines are not yet final, nor have they been approved or adopted by the Natural Resources Agency. Therefore, in the absence of adopted County methodologies, the methodologies suggested in the Draft Proposal are applied to the analysis presented in this section.

Proposed Appendix G Criterion (c)

The Draft Proposal addresses transportation, or roadway capacity, projects within the context of VMT analysis and provides that lead agencies "have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements" (OPR 2016). Specifically, proposed revised Appendix G asks, "For a transportation project, would the project conflict with or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b)(2)?"

The Proposed Project would include improvements to Proctor Valley Road. The San Diego County General Plan Mobility Element identifies Proctor Valley Road as a Two-Lane Light Collector, and the Otay Ranch GDP/SRP identifies Proctor Valley Road as a Four-Lane Major Road between Chula Vista and connecting directly to SR-94.

As described in EIR Chapter 1, Project Description, the Proposed Project would improve Proctor Valley Road to a two-lane light collector from its current condition as two-lane undivided, unpaved road connecting the community of Jamul to the east to Chula Vista to the west. This improvement, which would be considered a roadway capacity improvement, is, therefore, the focus of this impact analysis.

Impact Analysis

The Proposed Project would improve Proctor Valley Road from a two-lane undivided, unpaved road to its ultimate County of San Diego Mobility Element classification as a two-lane light collector with raised median, consistent with the County General Plan Mobility Element designation for this roadway. The Proctor Valley Road improvements would include upgrading the road to meet the County's Public Road Standards, constructing roundabouts along the Proposed Project frontage, and constructing a 4.5-mile multi-purpose Community Pathway

between the City of Chula Vista and the unincorporated community of Jamul that would facilitate bicycle and pedestrian travel.

As to proposed criterion (c), would the transportation project "conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b)(2)," Section F of OPR's Technical Advisory provides a comprehensive list of transportation projects that are not likely lead to a substantial or measurable increase in VMT and, therefore, should not require an induced travel analysis. (Relevant excerpts of the OPR Technical Advisory are provided in Attachment A to Appendix 2.9-1 of this EIR.) Relevant to the Proposed Project improvements to Proctor Valley Road, Section F includes the following transportation improvements:

- Addition of roadway capacity on local or collector streets provided the project also substantially improves conditions for pedestrians, cyclists, and, if applicable, transit.

The Proposed Project improvements to Proctor Valley Road would meet the above description. Specifically, the Proposed Project would retain the Mobility Element's two-lane designation for Proctor Valley Road, but would modify the Mobility Element classification from 2.2E Light Collector (no median two-lane undivided) to 2.2A Light Collector (raised median two-lane divided) for the segment between the City of Chula Vista/County boundary and Village 14 Street "Y." The segment of Proctor Valley Road between Village 14 Streets "Y" and "AA" would remain consistent with the Mobility Element 2.2E Light Collector classification. The northern segment of Proctor Valley Road would be reclassified as a modified 2.2F Light Collector. Note also that the Proposed Project would include an amendment to the Otay Ranch GDP/SRP to reclassify Proctor Valley Road from a four-lane major road to a two-lane collector, consistent with previous amendments to the County General Plan Mobility Element for Proctor Valley Road, which have reduced the capacity of Proctor Valley Road compared to the original approvals granted for the Otay Ranch GDP/SRP.

With regards to conditions for pedestrians and cyclists, Proctor Valley Road is presently an unpaved dirt road with no facilities for bicyclists or pedestrians. As described above, the Proposed Project improvements to Proctor Valley Road would include a 4.5-mile, 10-foot wide Community Pathway along the road, from Eastlake Woods (City of Chula Vista) to Jamul. The 10-foot-wide pathway would be landscaped. Bike lanes are proposed along the entire length of the improved roadway, which would substantially improve conditions for bicyclists and pedestrians. Additionally, a future transit stop potentially would be located in the Village Core within Village 14 to accommodate the future extension of bus transit, should service ultimately be extended to the Project Area.

In summary, the Proposed Project's improvements to Proctor Valley Road would meet the criteria identified in Section F of the OPR's Technical Advisory for transportation projects that

are not likely to lead to a substantial or measurable increase in VMT; therefore, an induced travel analysis is not required. Additionally, although the improvements to Proctor Valley Road may result in an increase in traffic on the road, the regional effect of the improvements likely would be a reduction in area-wide VMT, since the improvements would facilitate a shorter route between Jamul and Chula Vista. Accordingly, Proposed Project VMT impacts related to transportation projects would be **less than significant**.

2.9.4 Cumulative Impact Analysis

Cumulative impacts are those in which Proposed Project vehicle trips would contribute a "cumulatively considerable" amount to an unacceptable LOS, thus resulting in a significant cumulative impact and requiring the developer to contribute a fair share toward the improvements necessary to mitigate the impact. Since the Proposed Project land uses are less than those provided for in the County General Plan, the Proposed Project is necessarily consistent with the General Plan and no long-range General Plan consistency assessment is required for the Proposed Project. The analysis for the TIS (Appendix 2.9-1) was based on the City of Chula Vista 2025 traffic model for Year 2025 conditions. Therefore, the Year 2025 analysis is considered a cumulative impact analysis.

As previously noted, the Proposed Project is anticipated to reach full build-out by approximately 2028, and is calculated to generate 12,767 ADT, including 964 (303 inbound/661 outbound) AM peak-hour trips and 1,260 (859 inbound/401 outbound) PM peak-hour trips. Model Year 2030 conditions, previously described, are based on land use assumptions that include both existing land uses and future development projects forecast by SANDAG, which takes into account cumulative traffic growth and the changing roadway network and land uses that accompany a long-range development project such as the Proposed Project. Therefore, the Year 2030 analysis is also considered a cumulative impact analysis.

As previously described in Section 2.9.3, under Year 2025 Cumulative Conditions and Year 2030 Cumulative Conditions, the Proposed Project would have a **significant cumulative impact** (**Impact TR-2a, 2b, Impact TR-4a, 4b, 4c, and 4d, respectively**) along the following four segments of Proctor Valley Road along the Proposed Project frontage:

- Proctor Valley Road between City of Chula Vista boundary to Project Driveway No. 1;
- Proctor Valley Road between Project Driveway No. 1 to Project Driveway No. 2;
- Proctor Valley Road between Project Driveway No. 2 to Project Driveway No. 3; and
- Proctor Valley Road, between Project Driveway No. 3 to Project Driveway No. 4.

In addition, the segment of Proctor Valley Road between Agua Vista Drive/Northwoods Drive and San Diego County Boundary (Impacts TR-3 and TR-5) is considered a **significant cumulative impact.**

As Section 2.9.3 describes, under Year 2030 2025 and Year 2030 Cumulative Conditions, study area intersections are anticipated to operate at LOS D, with exception of SR-94 and Lyons Valley Road - (LOS F – during both the AM and PM peak hours); and Northwoods Drive/Agua Vista Drive and Proctor Valley Road - (LOS F – during both the AM and PM peak hours). Based on the significance criteria, the traffic associated with the Proposed Project would cause a **significant cumulative impact** to the intersection of SR-94 and Lyons Valley Road **(Impacts TR-11 and TR-13)**, and a **significant project specific impact** to the intersection of Northwoods Drive/Agua Vista Drive and Proctor Valley Road **(Impact TR-12 and TR-14)** these.

Under 2030 Cumulative Conditions, County two-lane highway segments within the study area are projected to operate at LOS D or better with the addition of Proposed Project traffic, with the exception of SR-94 between Vista Sage Lane and Lyons Valley Road, and SR-94 between Lyons Valley Road and Jefferson Road, both of which are projected to operate at LOS F. However, based on the County's significance criteria, traffic associated with the Proposed Project would have a **less than significant cumulative impact** on SR-94 within the project study area because the Proposed Project would add less than 225 daily trips.

Similarly, the Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property conditions analysis presented in Section 2.9.3 are based on land use assumptions that include both existing land uses and future development projects forecast by SANDAG to be in place by 2030. Therefore, the Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property conditions analysis is also a cumulative impact analysis. Accordingly**, Impacts TR-6a, 6b, 6c,** and **6d, Impact TR-7, Impact TR-8** and **Impacts TR-15** through **24** are considered **significant cumulative impacts**.

2.9.5 Significance of Impacts Prior to Mitigation

This section presents a brief summary of the impacts determined to be significant. The impacts are presented by analysis scenarios (i.e., Existing plus Project Build Out, Year 2025 Cumulative Conditions, etc.) rather than by segments, intersections, etc., as was presented in the preceding impacts analysis section. Hence, the significant impacts are presented in a different order than presented above and, as a result, the impact numbers are not presented sequentially due to the different categorization format utilized here.

Existing Plus Project Build-Out Conditions

Segments

City of Chula Vista

Impact TR-1: During Existing Plus Project Build-Out conditions, the Proposed Project would have a **significant project specific impact** to one roadway segment approximately 2,100 feet in length along Proctor Valley Road between Northwoods Drive and the City of Chula Vista boundary, located within the City of Chula Vista.

Intersections

County of San Diego

Impact TR-9: During Existing Plus Project Build-Out conditions, traffic associated with the Proposed Project would result in a **significant direct impact** at the intersection of SR-94 and Lyons Valley Road in the County.

City of Chula Vista

Impact TR-10: During Existing Plus Project Build-Out conditions, traffic associated with the Proposed Project would result in a **significant project specific impact** at the intersection of Northwoods Drive/Agua Vista Drive and Proctor Valley Road in the City of Chula Vista.

Year 2025 Cumulative Conditions

Segments

County of San Diego

Impact TR-2a, 2b: The Proposed Project would have a **significant cumulative impact** along the following four roadway segments of Proctor Valley Road during Year 2025 Cumulative Conditions:

- Proctor Valley Road between the City of Chula Vista boundary and Project Driveway No. 1
- Proctor Valley Road between Project Driveway No. 1 and Project Driveway No. 2

City of Chula Vista

Impact TR-3: The Proposed Project would result in a **significant project specific impact** to one roadway segment at Proctor Valley Road between Northwoods Drive and the City of Chula Vista boundary, located within the City of Chula Vista, under Year 2025 Cumulative Conditions.

Intersections

County of San Diego

Impact TR-11: During Year 2025 conditions, the Proposed Project would have a **significant cumulative impact** on the intersection of SR-94 and Lyons Valley Road within San Diego County.

City of Chula Vista

Impact TR-12: During Year 2025 Cumulative Conditions, traffic associated with the Proposed Project would result in a **significant project specific impact** at the intersection of Northwoods Drive/Agua Vista Drive and Proctor Valley Road in Chula Vista.

Year 2030 Cumulative Conditions

Roadway Segments

County of San Diego

Impact TR-4a, 4b, 4c, 4d: The Proposed Project would have a **significant cumulative impact** along the following four roadway segments of Proctor Valley Road during Year 2030 Cumulative Conditions:

- Proctor Valley Road between the City of Chula Vista boundary and Project Driveway No. 1
- Proctor Valley Road between Project Driveway No. 1 and Project Driveway No. 2
- Proctor Valley Road between Project Driveway No. 2 and Project Driveway No. 3
- Proctor Valley Road between Project Driveway No. 3 to Project Driveway No. 4

City of Chula Vista

Impact TR-5: During Year 2030 Cumulative Conditions, the Proposed Project would have a **significant project specific impact** to the roadway of Proctor Valley Road from Northwoods Drive to the City of Chula Vista boundary.

Intersections

County of San Diego

Impact TR-13: During Year 2030 Cumulative Conditions, traffic associated with the Proposed Project would result in a **significant cumulative impact** at the intersection of SR-94 and Lyons Valley Road.

City of Chula Vista

Impact TR-14: During Year 2030 Cumulative Conditions, traffic associated with the Proposed Project would result in a **significant project specific impact** at the intersection of Northwoods Drive/Agua Vista Drive and Proctor Valley Road.

Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property

Segments

County of San Diego

Impact TR-6a, 6b, 6c, 6d: The Proposed Project would cause **significant cumulative impacts** under Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property within San Diego County on the road segments along Proctor Valley Road, between:

- City of Chula Vista boundary to Project Driveway No. 1 (LOS F);
- Proctor Valley Road, between Project Driveway No. 1 to Project Driveway No. 2 (LOS F);
- Proctor Valley Road, between Project Driveway No. 2 to Project Driveway No. 3 (LOS F); and
- Proctor Valley Road, between Project Driveway No. 3 to Project Driveway No. 4 (LOS F).

City of Chula Vista

Impact TR-7: During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, the Proposed Project would result in a **significant project specific impact** to Proctor Valley Road, between Hunte Parkway and Northwoods Drive.

Impact TR-8: During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, the Proposed Project would result in a **significant project specific impact** to Proctor Valley Road, between Northwoods Drive and the City of Chula Vista Boundary.

Intersections

County of San Diego

Impact TR-15: During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would result in a **significant cumulative impact** at the intersection of SR-94 and Lyons Valley Road.

Impact TR-17: During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would result in a **significant cumulative impact** at the intersection of Proctor Valley Road and Project Driveway No. 1.

Impact TR-18: During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would result in a **significant cumulative impact** at the intersection of Proctor Valley Road and Project Driveway No. 2.

Impact TR-19: During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would result in a **significant cumulative impact** at the intersection of Proctor Valley Road and Project Driveway No. 3.

Impact TR-20: During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would result in a **significant cumulative impact** at the intersection of Proctor Valley Road and Project Driveway No. 4.

Impact TR-21: During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would result in a **significant cumulative impact** at the intersection of Proctor Valley Road and Project Driveway No. 5.

City of Chula Vista

Impact TR-16: During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would result in a **significant cumulative impact** at the intersection of Paseo Ranchero and East H Street.

Impact TR-22: During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would result in a **significant project specific impact** at the intersection of Mt. Miguel Road and East H Street.

Impact TR-23: During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would result in a **significant project specific impact** at the intersection of Lane Avenue and East H Street.

Impact TR-24: During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would result in a **significant project specific impact** at the intersection of Northwoods Drive/Agua Vista Drive and Proctor Valley Road.

SB 743 Land Use Project per Capita VMT Analysis

Impact TR-25: Implementation of the Proposed Project would result in a potentially **significant impact** related to vehicle miles traveled (VMT) per capita because the Proposed Project VMT per capita would exceed the significance threshold suggested by the SB 743 Draft Proposal currently being circulated for public review and comment, not yet in effect.

2.9.6 Mitigation

This section presents the Proposed Project's mitigation measures. Similar to Section 2.9.5, Significance of Impacts Prior to Mitigation, the mitigation measures are presented by analysis scenario (i.e., Existing plus Project Build Out, Year 2025 Cumulative Conditions, etc.), rather

than by segments, intersections, etc., as presented in the impacts analysis section. For a complete listing of each of the mitigation measures listed below, including the corresponding impact numbers (i.e., Impact TR-1, Impact TR-2, etc.), please see Table 2.9-49, Summary of Significant Impacts and Mitigation Measures.

Existing Plus Project Build-Out Conditions

Segments

City of Chula Vista

Mitigation Measures requiring improvements within the City of Chula Vista, such as the following measure, are considered infeasible because the County does not have the jurisdiction to permit or implement the improvements within the City of Chula Vista and, therefore, the County cannot be assured of their implementation. As a result, because there is no feasible alternative mitigation, for purposes of this EIR significant impacts within the City of Chula Vista are considered significant and unavoidable; see Table 2.9-49, Summary of Impacts and Mitigation Measures.

M-TR-1 **Proctor Valley Road between Northwoods Drive and the City of Chula Vista boundary (Project-Specific Impact, City of Chula Vista)**: The Proposed Project applicant, or its designee, shall coordinate with the City of Chula Vista to widen the roadway segment of Proctor Valley Road between Northwoods Drive and the City of Chula Vista boundary from a two-lane roadway to a Class I Collector prior to issuance of a building permit for the 1,229th equivalent dwelling unit (EDU). (This mitigation measure applies under Existing Plus Project Build-Out (Impact TR-1), Year 2025 (Impact TR-3), Year 2030 Cumulative Conditions (Impact TR-5), and Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property (Impact TR-8). Under the Year 2025, Year 2030, and Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, the building permit threshold is the 563rd EDU.)

As per the City of Chula Vista Roadway Standards, a Class I collector is a four-lane roadway, typically divided by a two-way left-turn lane. The daily traffic capacity of a Class I Collector is 22,000 ADT (LOS C). With widening to a Class I Collector, the Proposed Project's significant impacts to this roadway segment would be fully mitigated as the segment would operate at LOS A once widened and no further mitigation would be required. Widening to a Class I Collector is consistent with the City of Chula Vista Circulation Plan, which designates the segment of Proctor Valley Road between Northwoods Drive and the City of Chula Vista boundary as a 4-

Lane Major Street; improving the segment to a Class I Collector would not preclude the City from improving the segment to a 4-Lane Major at a future date when/if future traffic conditions warrant such action.

Intersections

County of San Diego

The following Mitigation Measure requires the implementation of improvements to a Caltrans facility. Because the improvements are under the jurisdiction and control of Caltrans and, therefore, the County does not have authority to permit or implement the improvements, implementation of the improvements cannot be assured. As a result, because is there is no other feasible alternative mitigation, for purposes of this EIR, the impact is considered significant and unavoidable; see Table 2.9-49, Summary of Impacts and Mitigation Measures.

M-TR-2 **Intersection at SR-94 and Lyons Valley Road (Direct Impact, Cumulative Impact, Caltrans Facility:** The Proposed Project applicant, or its designee, shall coordinate with Caltrans to install a traffic signal at the intersection of SR-94 and Lyons Valley Road prior to issuance of a building permit for the 741st EDU. (This mitigation measure applies under Existing Plus Project Build-Out (Impacts TR-9), Year 2025 (Impacts TR-11), Year 2030 Cumulative Condition (Impacts TR-13), and Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property (Impacts TR-15).)

City of Chula Vista

M-TR-3 **Intersection at Northwoods Drive/Agua Vista Drive and Proctor Valley Road (Project-Specific Impact, City of Chula Vista):** The Proposed Project applicant, or its designee, shall coordinate with the City of Chula Vista to install a traffic signal at the intersection of Northwoods Drive/Agua Vista Drive and Proctor Valley Road prior to issuance of a building permit for the 660th EDU. (This mitigation measure applies under Existing Plus Project Build-Out (Impacts TR-10), Year 2025 (Impacts TR-12), Year 2030 Cumulative Conditions (Impacts TR-14), and Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property (Impacts TR-24). Under the Year 2025, Year 2030 Cumulative Conditions, and Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, the threshold is the 287th EDU.)

Year 2025 Cumulative Conditions

Segments

County of San Diego

Mitigation Measures within the jurisdiction and control of the County are feasible and, once implemented, would reduce the project's potential significant impacts to less than significant; see Table 2.9-49, Summary of Impacts and Mitigation Measures.

M-TR-4 The Proposed Project applicant, or its designee, shall pay the appropriate County of San Diego Transportation Impact Fee (TIF) to reduce the Proposed Project's identified significant **cumulative impact** along the following roadway segments of Proctor Valley Road:

- Proctor Valley Road between the City of Chula Vista boundary and Project Driveway No. 1 (this mitigation applies under Year 2025 (Impact TR-2a), as well as Year 2030 Cumulative Conditions (Impact TR-4a))
- Proctor Valley Road between Project Driveway No. 1 and Project Driveway No. 2 (this mitigation applies under Year 2025 (Impact TR-2b), as well as Year 2030 Cumulative Conditions (Impact TR-4b)
- Proctor Valley Road between Project Driveway No. 2 and Project Driveway No. 3 (this mitigation applies under Year 2030 Cumulative Conditions (Impact TR-4c)
- Proctor Valley Road, between Project Driveway No. 3 to Project Driveway No. 4 (this mitigation applies under Year 2030 Cumulative Conditions (Impact TR-4d))

(This mitigation measure applies under Year 2025 and Year 2030 Cumulative Conditions.)

In addition to **M-TR-4** previously listed, **M-TR-1, M-TR-2,** and **M-TR-3** would apply to the 2025 Cumulative Condition to mitigate for impacts **TR-3** (Proctor Valley Road, between Northwoods Drive and the City/County Boundary; City of Chula Vista), **TR-11** (SR-94 and Lyons Valley Road Intersection; Caltrans), and **TR-12** (Northwoods Drive/Agua Vista Drive and Proctor Valley Road Intersection; City of Chula Vista).

Implementation of **M-TR-1** prior to the issuance of the building permit for the 563rd EDU would fully mitigate impact **TR-3**. Implementation of **M-TR-2** prior to the issuance of the building permit for the 741st EDU would fully mitigate impact **TR-11**. Implementation of **M-**

TR-3 prior to the issuance of the building permit for the 287th EDU would fully mitigate impact **TR-12**. Because these mitigation measures are outside the jurisdiction and control of the County, impacts **TR-3, TR-11** and **TR-12** in the 2025 Cumulative Conditions scenario are considered **significant and unavoidable**.

Year 2030 Cumulative Conditions

Roadway Segments

County of San Diego

M-TR-4, listed above, would apply to the 2030 Cumulative Condition and would mitigate for impacts **TR-4a, 4b, 4c, and 4d** (Proctor Valley Road, between the City/County Boundary and Project Driveway No. 4) and no further mitigation is necessary.

City of Chula Vista

M-TR-1, listed above, would apply to the 2030 Cumulative Condition to mitigate the significant impact **TR-5** (Proctor Valley Road, between Northwoods Drive and the City/County Boundary). Implementation of **M-TR-1** prior to the issuance of the building permit for the 563rd EDU would fully mitigate impact **TR-5** and no further mitigation would be necessary. However, because this mitigation measure is outside the jurisdiction and control of the County, this impact in the 2030 Cumulative conditions scenario is considered **significant and unavoidable**.

Intersections

County of San Diego

M-TR-2, listed above, would apply to the 2030 Cumulative condition to mitigate the significant impact **TR-13** (SR-94 and Lyons Valley Road intersection; Caltrans). Implementation of **M-TR-2** prior to the issuance of the building permit for the 741st EDU would fully mitigate impact **TR-13** and no further mitigation would be necessary. However, because this mitigation measure is outside the jurisdiction and control of the County, this impact in the 2030 Cumulative condition scenario is considered **significant and unavoidable**.

City of Chula Vista

M-TR-3, listed above, would apply to the 2030 Cumulative condition to mitigate the significant impact **TR-14** (Northwoods Drive/Agua Vista Drive and Proctor Valley Road intersection; City of Chula Vista). Implementation of **M-TR-3** prior to the issuance of the building permit for the 287th EDU would fully mitigate impact **TR-14** and no further mitigation would be necessary. However, because this mitigation measure is outside the

jurisdiction and control of the County, this impact in the 2030 Cumulative Condition scenario is considered **significant and unavoidable**.

Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property

The following Mitigation Measures apply to the potentially significant impacts associated with the hypothetical Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property build-out scenario. This scenario assumes that all of the additional dwelling units allowed under the approved Otay Ranch GDP/SRP, in the areas not included within the site of the Proposed Project, would be developed. This is a theoretical, highly unlikely scenario as a majority of the additional dwelling units that would be developed under this scenario would be located within Village 14 and Planning Area 16 on state-owned property within the Rancho Jamul Preserve. Because development of these units would take place on state-owned Preserve land, it is highly unlikely that these additional units would ever be developed. Nevertheless, the analysis of potential impacts associated with this scenario identified significant impacts and the mitigation recommended for these impacts is set forth as follows.

Segments

County of San Diego

If the Rancho Jamul Preserve is developed and these improvements are therefore required, the project applicant, or its designee, shall pay its fair share of the proposed improvement costs of the following:

M-TR-5 **Proctor Valley Road, between the City of Chula Vista Boundary and Project Driveway No. 1 (Cumulative Impact, County of San Diego; Impact TR-6a):** In the event development of the Rancho Jamul Preserve were to be approved, and construction commenced prior to buildout of the Proposed Project, to mitigate an over-capacity road segment, the project applicant, or it's designee, would be required to pay its fair-share of the costs to widen Proctor Valley Road from a 2-Lane Collector with Raised Median (2.2A) to a 4-Lane Major (4.1A).

With widening to a 4-Lane Major, the Proposed Project's significant cumulative impacts to this roadway segment would be fully mitigated as the segment would operate at LOS C once widened and no further mitigation would be required. This impact would only occur with development of the Rancho Jamul Preserve; however, there currently is no application pending to develop within the Rancho Jamul Preserve, nor are there any known plans for development

within the Preserve. Therefore, any development within the Rancho Jamul Preserve is not reasonably foreseeable at this point.

M-TR-6 **Proctor Valley Road, between Project Driveway No. 1 and Project Driveway No. 2 (Cumulative Impact, County of San Diego; Impact TR-6b):** In the event development of the Rancho Jamul Preserve were to be approved, and construction commenced prior to buildout of the Proposed Project, to mitigate an over-capacity road segment, the project applicant, or it's designee, would be required to pay its fair-share of the costs to widen Proctor Valley Road from a 2-Lane Collector with Raised Median (2.2A) to a 4-Lane Major (4.1A).

With widening to a 4-Lane Major, the Proposed Project's significant cumulative impacts to this roadway segment would be fully mitigated as the segment would operate at LOS C once widened and no further mitigation would be required. This impact would only occur with development of the Rancho Jamul Preserve; however, there currently is no application pending to develop within the Rancho Jamul Preserve, nor are there any known plans for development within the Preserve. Therefore, any development within the Rancho Jamul Preserve is not reasonably foreseeable at this point.

M-TR-7 **Proctor Valley Road, between Project Driveway No.2 Project Driveway No. 3 (Cumulative Impact, County of San Diego; Impact TR-6c):** In the event development of the Rancho Jamul Preserve were to be approved, and construction commenced prior to buildout of the Proposed Project, to mitigate an over-capacity road segment, the project applicant, or it's designee, would be required to pay its fair-share of the costs to widen Proctor Valley Road from a 2-Lane Collector with Raised Median (2.2A) to a 4-Lane Major (4.1A).

With widening to a 4-Lane Major, the Project's significant cumulative impacts to this roadway segment would be fully mitigated as the segment would operate at LOS C once widened and no further mitigation would be required. This impact would only occur with development of the Rancho Jamul Preserve; however, there currently is no application pending to develop within the Rancho Jamul Preserve, nor are there any known plans for development within the Preserve. Therefore, any development within the Rancho Jamul Preserve is not reasonably foreseeable at this point.

M-TR-8 **Proctor Valley Road, between Project Driveway No. 3 and Project Driveway No. 4 (Cumulative Impact, County of San Diego; Impact TR-6d):** In the event development of the Rancho Jamul Preserve were to be approved, and construction commenced prior to buildout of the Proposed Project, to mitigate an over-capacity road segment, the project applicant, or

it's designee, would be required to pay its fair-share of the costs to widen Proctor Valley Road from a 2-Lane Collector with Raised Median (2.2A) to a 4-Lane Major (4.1A).

With widening to a 4-Lane Major, the Project's significant cumulative impacts to this roadway segment would be fully mitigated as the segment would operate at LOS C once widened and no further mitigation would be required. This impact would only occur with development of the Rancho Jamul Preserve; however, there currently is no application pending to develop within the Rancho Jamul Preserve, nor are there any known plans for development within the Preserve. Therefore, any development within the Rancho Jamul Preserve is not reasonably foreseeable at this point.

As noted above, there currently is no application pending to develop within the Rancho Jamul Preserve, nor are there any known plans for development within the Rancho Jamul Preserve. Therefore, any development within the Rancho Jamul Preserve is not reasonably foreseeable at this point. Further, the County has no plans to amend the Mobility Element to accommodate a four-lane Major on this segment because 1) there currently is no intention to develop the Rancho Jamul Preserve and 2) the County would accept 2-lane Proctor Valley Road LOS E/F operations consistent with Mobility Element findings. Moreover, if the State of California does decide to sell or develop the Rancho Jamul Preserve at a later date, further study would need to be conducted at that time to determine the specific roadway facilities needed to accommodate the development, once the scale of that development is known. Therefore, because there are no plans in place to widen the road to a 4-Lane Major, nor is there a funding program for any such improvement due to the lack of a reasonably foreseeable development plan within the Ranch Jamul Preserve, implementation of the improvements to mitigate this significant impact, should it occur, is infeasible and the impact is considered **significant and unavoidable**.

City of Chula Vista

If the Rancho Jamul Preserve were to develop prior to buildout of the Proposed Project, the following mitigation measure would apply:

M-TR-9 **Proctor Valley Road, between Hunte Parkway and Northwoods Drive (Project Specific Impact, City of Chula Vista; Impact TR-7):** If development of the Rancho Jamul Preserve is approved, and construction commenced prior to buildout of the Proposed Project, the project applicant, or its designee, shall coordinate with the City of Chula Vista to widen Proctor Valley Road between Hunte Parkway and Northwoods Drive from a four-lane roadway to a six-lane Major Street, by the issuance of the building permit for the 487th equivalent dwelling unit.

Widening to a 6-Lane Major Street is not consistent with the City of Chula Vista Circulation Plan, which identifies the segment of Proctor Valley Road between Hunte Parkway and Northwoods Drive as a 4-Lane Major Street. Widening the segment from the 4-lanes configuration to six lanes, as recommended by the mitigation measure, would conflict with the City's long-range road widening plans. Because this mitigation measure is outside the jurisdiction and control of the County, and because the necessary improvement is not consistent with the City of Chula Vista Circulation Plan, this impact is considered **significant and unavoidable.**

In addition, **M-TR-**1, listed above, would apply to the 2030 Cumulative condition to mitigate for impact **TR-8** (Proctor Valley Road, between Northwoods Drive and the City/County Boundary). Implementation of **M-TR-1** prior to the issuance of the building permit for the 563rd EDU would fully mitigate impact **TR-8**. However, because this mitigation measure is outside the jurisdiction and control of the County, this impact is considered **significant and unavoidable**.

Intersections

County of San Diego

If the Rancho Jamul Preserve is developed and these improvements are therefore required, the project applicant, or its designee, shall pay its fair share of the proposed improvement costs of the following:

M-TR-10 **Proctor Valley Road and Project Driveway No. 1 (Cumulative Impact, County of San Diego; Impact TR-17):** Signalization would mitigate the cumulative impact at the intersection. This impact would occur with the full development of the Proposed Project as well as the development of 74 additional units within the Rancho Jamul Preserve.

M-TR-11 **Proctor Valley Road and Project Driveway No. 2 (Cumulative Impact, County of San Diego; Impact TR-18):** Widening Proctor Valley Road from two to four lanes would mitigate the cumulative impact at this intersection. This impact would occur with the full development of the Proposed Project as well as the development of 1,083 additional units within the Rancho Jamul Preserve.

M-TR-12 **Proctor Valley Road and Project Driveway No. 3 (Cumulative Impact, County of San Diego; Impact TR-19):** Signalization would mitigate the cumulative impact at this intersection. This impact would occur with the full development of the Proposed Project as well as the development of 397 additional units within the Rancho Jamul Preserve.

M-TR-13 **Proctor Valley Road and Project Driveway No. 4 (Cumulative Impact, County of San Diego; Impact TR-20):** Signalization would mitigate the cumulative impact at this intersection. This impact would occur with the full development of the Proposed Project as well as the development of 563 additional units within the Rancho Jamul Preserve.

M-TR-14 **Proctor Valley Road and Project Driveway No. 5 (Cumulative Impact, County of San Diego; Impact TR-21):** Signalization would mitigate the cumulative impact at this intersection. This impact would occur with the full development of the Proposed Project as well as the development of 481 additional units within the Rancho Jamul Preserve.

In addition, **M-TR-2** would apply to the 2030 Cumulative condition to mitigate for impact **TR-15** (SR-94 and Lyons Valley Road intersection; Caltrans). Implementation of **M-TR-2** prior to the issuance of the building permit for the 741st EDU would fully mitigate impact **TR-15**. Because this mitigation measure is outside the jurisdiction and control of the County, this impact in the 2030 Cumulative conditions scenario is considered **significant and unavoidable**.

City of Chula Vista

If the Rancho Jamul Preserve is developed and these improvements are therefore required, the Proposed Project applicant, or its designee, shall pay its fair share of the proposed improvement costs of the following:

M-TR-15 **Intersection at Paseo Ranchero and East H Street (Cumulative Impact, City of Chula Vista; Impact TR-16):** The Proposed Project applicant, or its designee, shall coordinate with the City of Chula Vista to restripe the eastbound approach to the intersection of Paseo Ranchero and East H Street to include an exclusive right-turn lane.

M-TR-16 **Intersection at Mt. Miguel Road and East H Street (Project Specific Impact City of Chula Vista; Impact TR-22):** The Proposed Project applicant, or its designee, shall coordinate with the City of Chula Vista to restripe the westbound approach to the intersection of Mt. Miguel Road and East H Street to include an exclusive right-turn lane prior to issuance of a building permit for the 638th equivalent dwelling unit.

M-TR-17 **Intersection at Lane Avenue and East H Street (Project Specific Impact City of Chula Vista; Impact TR-23):** The Proposed Project applicant, or its designee, shall coordinate with the City of Chula Vista to adjust the median

and restripe the westbound approach at the intersection of Lane Avenue and East H Street to include a second left-turn lane.

In addition, **M-TR-3** would apply to the 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property scenario to mitigate significant impact **TR-24** (Northwoods-Agua Vista Drive/Proctor Valley Road intersection). Implementation of **M-TR-3** by the issuance of the building permit for the 287th EDU would fully mitigate impact **TR-24**. However, because this mitigation measure is outside the jurisdiction and control of the County, this impact is considered **significant and unavoidable**

2.9.7 Conclusion

The following summarizes the impacts, mitigation measures and significance conclusions which are also depicted in Table 2.9-49. The conclusions are categorized by each of the analysis scenarios. Because the Proposed Project would be constructed in five phases (Southern Village, Central Village, Northern Village, Planning Area 16, and Planning Area 19), Table 2.9-50, Project Public Roadway Improvement Features, indicates the timing of implementation for each of the public roadway improvement features. The development of the various project phases/areas would overlap throughout the project construction process.

Existing Plus Project Build-Out Conditions

Segments

City of Chula Vista

Impact TR-1

During Existing Plus Project Build-Out Conditions, the Proposed Project would have a **significant project specific impact** to one roadway segment approximately 2,100 feet in length along Proctor Valley Road between Northwoods Drive and the City of Chula Vista boundary, located within the City of Chula Vista.

If implemented by the 1,229th EDU, mitigation measure **M-TR-1** would fully mitigate the Proposed Project's impacts to one roadway segment approximately 2,100 feet in length along Proctor Valley Road between Northwoods Drive and the City of Chula Vista boundary, located within the City of Chula Vista. As per the City of Chula Vista Roadway Standards, a Class I collector is a four-lane roadway, typically divided by a two-way left-turn lane. The daily traffic capacity of a Class I Collector is 22,000 ADT (LOS C). Widening to a Class I Collector is consistent with the

City of Chula Vista Circulation Plan, which identifies the segment of Proctor Valley Road between Northwoods Drive and the City of Chula Vista boundary as a four-Lane Major Street. Widening the segment from the existing two-lane configuration to four lanes, would not conflict with the City's long-range road widening plans because the mitigation improvement (widen from two to four lanes) does not foreclose or conflict with the City's ultimate build-out plans or programs, and would not preclude the City from improving the segment to a four-lane Major at a future date when/if future traffic conditions warrant such action. However, because this roadway segment is located within the City of Chula Vista and the County does not have the jurisdiction to permit or implement any improvements, for purposes of this analysis, implementation of **M-TR-1** mitigation is considered infeasible and the **Impact TR-1** would remain **significant and unavoidable.**

Intersections

County of San Diego

Impact TR-9

During Existing Plus Project Build-Out Conditions, traffic associated with the Proposed Project would result in a **significant direct impact** at the intersection of SR-94 and Lyons Valley Road in the County.

Signalization by the 741st equivalent dwelling unit (**M-TR-2)** would fully mitigate the impact at the intersection of SR-94 and Lyons Valley Road, if implemented. A traffic signal warrant was conducted, and this intersection would satisfy both the "Minimum Vehicular Traffic" and "Interruption of Continuous Traffic" warrants. This intersection is a Caltrans facility in which the County does not have jurisdiction to permit or implement improvements. Therefore, for purposes of this analysis, mitigation is considered infeasible and the impact would remain **significant and unavoidable.** However, it should be noted that this improvement is part of the improvement project analyzed in the Caltrans SR-94 Improvement Project Draft EIR (Caltrans 2015). In addition, this improvement is also included as a mitigation measure in the Jamul Indian Village Final Environmental Evaluation.

City of Chula Vista

Impact TR-10 During Existing Plus Project Build-Out Conditions, traffic associated with the Proposed Project would result in a **significant project specific impact** at the intersection of Northwoods Drive/Agua Vista Drive and Proctor Valley Road in the City of Chula Vista.

Signalization by the 660th equivalent dwelling unit **(M-TR-3)** would fully mitigate the impact at the intersection of Northwoods Drive/Agua Vista Drive and Proctor Valley Road, if implemented. A traffic signal warrant was conducted, and found that this intersection would satisfy both the "Minimum Vehicular Traffic" and "Interruption of Continuous Traffic" warrants. However, this intersection is located within the City of Chula Vista and the County does not have the jurisdiction to permit or implement improvements. Therefore, for purposes of this analysis, mitigation is considered infeasible because the County cannot be assured of implementation and the impact would remain **significant and unavoidable**. However, it should be noted that the signalization of this intersection is a condition of the Rolling Hills Ranch Plan and the signal mast arms have already been constructed at this intersection. Therefore, only minor improvements would be required to implement a signal at this intersection. After implementation of the identified improvements, the impacted intersection would operate at acceptable LOS B during both AM and PM peak hours.

Year 2025 Cumulative Conditions

Segments

County of San Diego

Impact TR-2a, 2b The Proposed Project would have a **significant cumulative impact** along the following two roadway segments of Proctor Valley Road during Year 2025 Cumulative Conditions:

- Proctor Valley Road between the City of Chula Vista boundary and Project Driveway No. 1

- Proctor Valley Road between Project Driveway No. 1 and Project Driveway No. 2

Payment of the appropriate County of San Diego TIF by the Proposed Project applicant, or its designee, would be required **(M-TR-4)** to reduce the cumulative impact along the two segments of Proctor Valley Road at the Proposed Project frontage. However, based on the daily roadway segment volume to capacity analysis method, the four identified segments are projected to continue to operate at substandard LOS E under Year 2025 conditions even after the segments are constructed to their ultimate classification as a 2.2A facility. Based on an arterial analysis, when constructed to 2.2A, the average travel speed along these segments would be around 30 mph, which is just under the roadway design speed of 40 mph since there are minimal to no interruptions along this corridor, thereby indicating acceptable conditions. However, based on the results of the volume to capacity analysis, and to be conservative, this impact is considered **significant and unavoidable.**

City of Chula Vista

Impact TR-3

The Proposed Project would result in a **significant project specific impact** to one roadway segment at Proctor Valley Road between Northwoods Drive and the City of Chula Vista boundary, located within the City of Chula Vista, under Year 2025 conditions.

If implemented, mitigation measure **M-TR-1** by the 563rd EDU would fully mitigate the Proposed Project's impacts at the segment of Proctor Valley Road between Northwoods Drive and the City of Chula Vista boundary and no further mitigation is necessary. Widening to a Class I Collector is consistent with the City of Chula Vista Circulation Plan, which identifies the segment of Proctor Valley Road between Northwoods Drive and the City of Chula Vista boundary as a four-lane Major Street. Widening the segment from the two-lane configuration to four lanes, would not conflict with the City's long-range road widening plans because the mitigation improvement (widen from two to four lanes) does not foreclose or conflict with the City's ultimate build-out plans or programs, and would not preclude the City from improving the segment to a four-lane Major at a future date when/if future traffic

conditions warrant such action. However, because this roadway segment is located within the City of Chula Vista and the County does not have the jurisdiction to permit or implement any improvements, for purposes of this analysis, implementation of **M-TR-1** mitigation is considered infeasible and the impact would remain **significant and unavoidable.**

Intersection

County of San Diego

Impact TR-11 During Year 2025 Conditions, the Proposed Project would have a **significant cumulative impact** on the intersection of SR-94 and Lyons Valley Road within San Diego County.

Signalization by the 741st equivalent dwelling unit (**M-TR-2)** would fully mitigate the impact at the intersection of SR-94 and Lyons Valley Road, if implemented. A traffic signal warrant was conducted, and this intersection would satisfy both the "Minimum Vehicular Traffic" and "Interruption of Continuous Traffic" warrants. This intersection is a Caltrans facility in which the County does not have jurisdiction to permit or implement improvements. Therefore, for purposes of this analysis, mitigation is considered infeasible and the impact would remain **significant and unavoidable.** However, it should be noted that this improvement is part of the improvement project analyzed in the Caltrans State Route 94 Improvement Project Draft EIR (Caltrans 2015). In addition, this improvement is also included as a mitigation measure in the Jamul Indian Village Final Environmental Evaluation.

City of Chula Vista

Impact TR-12 During Year 2025 Cumulative Conditions, traffic associated with the Proposed Project would result in a **significant project specific impact** at the intersection of Northwoods Drive/Agua Vista Drive and Proctor Valley Road in Chula Vista.

Signalization by the 287th equivalent dwelling unit **(M-TR-3)** would fully mitigate the impact at the intersection of Northwoods Drive/Agua Vista Drive and Proctor Valley Road, if implemented.

A traffic signal warrant was conducted, and found that this intersection would satisfy both the "Minimum Vehicular Traffic" and "Interruption of Continuous Traffic" warrants. However, this intersection is located within the City of Chula Vista and the County does not have the jurisdiction to permit or implement improvements. Therefore, for purposes of this analysis, mitigation is considered infeasible because the County cannot be assured of implementation and the impact would remain **significant and unavoidable**. However, it should be noted that the signalization of this intersection is a condition of the Rolling Hills Ranch Plan and the signal mast arms have already been constructed at this intersection. Therefore, only minor improvements would be required to implement a signal at this intersection. After implementation of the identified improvements, the impacted intersection would operate at acceptable LOS B during both peak hours.

Year 2030 Cumulative Conditions

Roadway Segments

County of San Diego

Impact TR-4a, 4b, 4c, 4d The Proposed Project would have a **significant cumulative impact** along the following four roadway segments of Proctor Valley Road during Year 2030 Cumulative Conditions:

- Proctor Valley Road between the City of Chula Vista boundary and Project Driveway No. 1
- Proctor Valley Road between Project Driveway No. 1 and Project Driveway No. 2
- Proctor Valley Road between Project Driveway No. 2 and Project Driveway No. 3
- Proctor Valley Road between Project Driveway No. 3 to Project Driveway No. 4

Payment of the appropriate County TIF by the Proposed Project applicant would be required **(M-TR-4)** to reduce the cumulative impact along the two segments of Proctor Valley Road at the Proposed Project frontage. However, based on the daily roadway

segment volume to capacity analysis method, the four identified segments are projected to continue to operate at substandard LOS E under Year 2030 conditions even after the segments are constructed to their ultimate classification as a 2.2A facility. Based on an arterial analysis, when constructed to 2.2A, the average travel speed along these segments would be around 30 mph, which is just under the roadway design speed of 40 mph since there are minimal to no interruptions along this corridor, thereby indicating acceptable conditions. However, based on the results of the volume to capacity analysis, and to be conservative, this impact is considered **significant and unavoidable**.

City of Chula Vista

Impact TR-5

During Year 2030 Cumulative Conditions, the Proposed Project would have a **significant project specific impact** to the roadway of Proctor Valley Road from Northwoods Drive to the City of Chula Vista boundary.

If implemented, mitigation measure **M-TR-1** by the 563rd EDU would fully mitigate the Proposed Project's impacts at the segment of Proctor Valley Road from Northwoods Drive to the City of Chula Vista boundary and no further mitigation is necessary. However, because this roadway segment is located within the City of Chula Vista and the County does not have the jurisdiction to permit or implement any improvements, for purposes of this analysis, implementation of **M-TR-1** mitigation is considered infeasible because the County cannot be assured of implementation and the impact would remain **significant and unavoidable.**

Intersection

County of San Diego

Impact TR-13

During Year 2030 Cumulative Conditions, traffic associated with the Proposed Project would result in a **significant cumulative impact** at the intersection of SR-94 and Lyons Valley Road.

Signalization by the 741st equivalent dwelling unit (**M-TR-2)** would fully mitigate the impact at the intersection of SR-94 and Lyons Valley Road, if implemented. A traffic signal warrant was

conducted, and this intersection would satisfy both the "Minimum Vehicular Traffic" and "Interruption of Continuous Traffic" warrants. This intersection is a Caltrans facility in which the County does not have jurisdiction to permit or implement improvements. Therefore, for purposes of this analysis, mitigation is considered infeasible and the impact would remain **significant and unavoidable.** However, it should be noted that this improvement is part of the improvement project analyzed in the Caltrans State Route 94 Improvement Project Draft EIR (Caltrans 2015). In addition, this improvement is also included as a mitigation measure in the Jamul Indian Village Final Environmental Evaluation.

City of Chula Vista

Impact TR-14

During Year 2030 Cumulative Conditions, traffic associated with the Proposed Project would result in a **significant project specific impact** at the intersection of Northwoods Drive/Agua Vista Drive and Proctor Valley Road.

Signalization by the 287th equivalent dwelling unit **(M-TR-3)** would fully mitigate the impact at the intersection of Northwoods Drive/Agua Vista Drive and Proctor Valley Road, if implemented. A traffic signal warrant was conducted, and found that this intersection would satisfy both the "Minimum Vehicular Traffic" and "Interruption of Continuous Traffic" warrants. However, this intersection is located within the City of Chula Vista and the County does not have the jurisdiction to permit or implement improvements. Therefore, for purposes of this analysis, mitigation is considered infeasible because the County cannot be assured of implementation and the impact would remain **significant and unavoidable**. However, it should be noted that the signalization of this intersection is a condition of the Rolling Hills Ranch Plan and the signal mast arms have already been constructed at this intersection. Therefore, only minor improvements would be required to implement a signal at this intersection. After implementation of the identified improvements, the impacted intersection would operate at acceptable LOS B during both peak hours.

Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property

Segments

County of San Diego

Impact TR-6a, 6b, 6c, 6d The Proposed Project would cause **significant cumulative impacts** under Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property within San Diego County on the road segments along Proctor Valley Road, between

- City of Chula Vista boundary to Project Driveway No. 1 (LOS F);
- Proctor Valley Road, between Project Driveway No. 1 to Project Driveway No. 2 (LOS F);
- Proctor Valley Road, between Project Driveway No. 2 to Project Driveway No. 3 (LOS F);and
- Proctor Valley Road, between Project Driveway No. 3 to Project Driveway No. 4 (LOS F).

Widening Proctor Valley Road between the City of Chula Vista Boundary and Project Driveway No. 1 from a two-lane Collector with Raised Median (2.2A) to a four-lane Major (4.1A) **(M-TR-5)** would mitigate the cumulative impact **(Impact TR-6a)** to this roadway segment. With widening to a four-lane Major, the Project's significant impacts to this roadway segment would be fully mitigated as the segment would operate at LOS C once widened and no further mitigation would be required. Impacts would be less than significant with mitigation.

Widening Proctor Valley Road between Project Driveway No. 1 and Project Driveway No. 2, from a two-lane Collector with Raised Median (2.2A) to a four-lane Major (4.1A) **(M-TR-6)** would mitigate the cumulative impact **(Impact TR-6b)** to this roadway segment. With widening to a four-lane Major, the Project's significant impacts to this roadway segment would be fully mitigated as the segment would operate at LOS C once widened and no further mitigation would be required. Impacts would be less than significant with mitigation.

Widening Proctor Valley Road between Project Driveway No. 2 and Project Driveway No. 3 from a two-lane Collector with Raised Median (2.2A) to a four-lane Major (4.1A) **(M-TR-7)** would mitigate the cumulative impact **(Impact TR-6c)** to this roadway segment. With widening to a four-lane Major, the Project's significant impacts to this roadway segment would be fully mitigated as the segment would operate at LOS B once widened and no further mitigation would be required. Impacts would be less than significant with mitigation.

Widening Proctor Valley Road between Project Driveway No. 3 and Project Driveway No. 4, from a two-lane Collector with Raised Median (2.2A) to a four-lane Major (4.1A) **(M-TR-8)** would mitigate the cumulative impact **(Impact TR-6d)** to this roadway segment. Impacts would be less than significant with mitigation.

It should be noted that **Impacts 6a through 6d** would only occur with the development of the Rancho Jamul Preserve; however, there currently is no application pending to develop within the Rancho Jamul Preserve, nor are there any known plans for development within the Rancho Jamul Preserve. Therefore, any development within the Rancho Jamul Preserve is not reasonably foreseeable at this point. In the event the Rancho Jamul Preserve were to be developed, to mitigate an over-capacity road segment, Proctor Valley Road could be widened from a 2-Lane Collector with Raised Median (2.2A) to a 4-Lane Major (4.1A). With widening to a 4-Lane Major, the Proposed Project's significant cumulative impacts to this roadway segment would be fully mitigated as the segment would operate at LOS C once widened and no further mitigation would be required. However the County has no plans to amend the Mobility Element to accommodate a four lane Major on this segment because 1) there currently is no intention to develop the Rancho Jamul Preserve and 2) the County would accept 2-lane Proctor Valley Road LOS E/F operations consistent with Mobility Element findings. Moreover, if the State of California does decide to sell or develop the Rancho Jamul Preserve at a later date, further study would need to be conducted at that time to determine the precise roadway facilities needed to accommodate the development, once the scale of that development is known. Therefore, because there are no plans in place to widen the road to a 4-Lane Major, nor

is there a funding program for any such improvement due to the lack of a reasonably foreseeable development plan within the Ranch Jamul Preserve, implementation of the improvements to mitigate this impact is infeasible and the impact is considered **significant and unavoidable**.

City of Chula Vista

Impact TR-7

During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, the Proposed Project would result in a **significant project specific impact** to Proctor Valley Road, between Hunte Parkway and Northwoods Drive.

Widening Proctor Valley Road, between Hunte Parkway and Northwoods Drive from a four-lane roadway to a six-lane Major Street, by the 487th EDU **(M-TR-9)** would fully mitigate the impacts to this roadway segment as the segment would operate at LOS C once widened and no further mitigation would be required. However, widening to a six-lane Major Street is not consistent with the City of Chula Vista Circulation Plan, which identifies the segment of Proctor Valley Road between Hunte Parkway and Northwoods Drive as a four-lane Major Street. Widening the segment from the four-lane configuration to six lanes, as recommended by the mitigation measure, would conflict with the City's long-range road widening plans. Therefore, because this roadway segment is located within the City of Chula Vista and the County does not have the jurisdiction to permit or implement any improvements, and because the necessary improvement is not consistent with the City of Chula Vista Circulation Plan, for purposes of this analysis, implementation of **M-TR-9** is considered infeasible because the County cannot be assured of implementation and impacts would remain **significant and unavoidable.**

Impact TR-8

During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, the Proposed Project would result in a **significant project specific impact** to Proctor Valley Road, between Northwoods Drive and the City of Chula Vista Boundary.

If implemented, mitigation measure **M-TR-1** by the 563rd EDU would fully mitigate the project's impacts at Proctor Valley Road between Northwoods Drive and the City of Chula Vista Boundary and no further mitigation is necessary. However, because this roadway segment is located within the City of Chula Vista and the County does not have the jurisdiction to permit or implement any improvements, for purposes of this analysis, implementation of **M-TR-1** mitigation is considered infeasible because the County cannot be assured of implementation and the impact would remain **significant and unavoidable**.

Intersections

County of San Diego

Impact TR-15

During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would result in a **significant cumulative impact** at the intersection of SR-94 and Lyons Valley Road.

Signalization by the 741st EDU (**M-TR-2)** would fully mitigate the impact at the intersection of SR-94 and Lyons Valley Road, if implemented. A traffic signal warrant was conducted, and this intersection would satisfy both the "Minimum Vehicular Traffic" and "Interruption of Continuous Traffic" warrants. This intersection is a Caltrans facility in which the County does not have jurisdiction to permit or implement improvements. Therefore, for purposes of this analysis, mitigation is considered infeasible and the impact would remain **significant and unavoidable.** However, it should be noted that this improvement is part of the improvement project analyzed in the Caltrans SR-94 Improvement Project Draft EIR (Caltrans 2015). In addition, this improvement is also included as a mitigation measure in the Jamul Indian Village Final Environmental Evaluation.

Impact TR-17

During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would result in a **significant cumulative impact** at the intersection of Proctor Valley Road and Project Driveway No. 1.

Signalizing the intersection of Proctor Valley Road and Project Driveway No. 1 **(M-TR-10)** within San Diego County would fully mitigate the cumulative impact at this intersection. A traffic signal warrant was conducted, and found that this intersection would satisfy both the "Minimum Vehicular Traffic" and "Interruption of Continuous Traffic" warrants. Impacts would be less than significant with mitigation. However, this impact would only occur with the full development of the Proposed Project as well as the development of 74 additional units within the Rancho Jamul Preserve which, as previously explained, is highly unlikely. If the State of California does decide to sell or develop the Rancho Jamul Preserve at a later date, further study would need to be conducted at that time to determine the appropriate roadway facilities needed to accommodate the development, once the scale of that development is known. Therefore, because there is not a funding program for any such improvement due to the lack of a reasonably foreseeable development plan within the Ranch Jamul Preserve, implementation of the improvements to mitigate this impact is infeasible and the impact is considered **significant and unavoidable**.

Impact TR-18

During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would result in a **significant cumulative impact** at the intersection of Proctor Valley Road and Project Driveway No. 2.

Widening Proctor Valley Road from two to four lanes would fully mitigate the cumulative impact at the intersection of Proctor Valley Road and Project Driveway No. 2 **(M-TR-11)** within San Diego County. Impacts would be less than significant with mitigation. This impact would only occur with the development of the Rancho Jamul Preserve, which is highly unlikely. This impact would occur with the full development of the Proposed Project as well as the development of 1,083 additional units within the Rancho Jamul Preserve. However the County has no plans to amend the Mobility Element to accommodate a four lane Major on this segment because 1) there currently is no intention to develop the Rancho Jamul Preserve and 2) the County would proposed to accept 2-lane Proctor Valley Road LOS E/F operations consistent with Mobility Element findings. Moreover, if the State of California

does decide to sell or develop the Rancho Jamul Preserve at a later date, further study would need to be conducted at that time to determine the appropriate roadway facilities needed to accommodate the development, once the scale of that development is known. Therefore, because there are no plans in place to widen the road to a 4-Lane Major, nor is there a funding program for any such improvement due to the lack of a reasonably foreseeable development plan within the Ranch Jamul Preserve, implementation of the improvements to mitigate this impact is infeasible and the impact is considered **significant and unavoidable**.

Impact TR-19

During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would result in a **significant cumulative impact** at the intersection of Proctor Valley Road and Project Driveway No. 3.

Signalization **(M-TR-12)** would fully mitigate the cumulative impact at the intersection of Proctor Valley Road and Project Driveway No. 3 within San Diego County. A traffic signal warrant was conducted, and found that this intersection would satisfy both the "Minimum Vehicular Traffic" and "Interruption of Continuous Traffic" warrants. Impacts would be less than significant with mitigation. This impact would only occur with the development of the Rancho Jamul Preserve, which is highly unlikely. This impact would occur with the full development of the Proposed Project as well as the development of 397 additional units within the Rancho Jamul Preserve. If the State of California does decide to sell or develop the Rancho Jamul Preserve at a later date, further study would need to be conducted at that time to determine the specific roadway facilities needed to accommodate the development, once the scale of that development is known. Therefore, because there is not a funding program for any such improvement due to the lack of a reasonably foreseeable development plan within the Ranch Jamul Preserve, implementation of the improvements to mitigate this impact is infeasible and the impact is considered **significant and unavoidable**.

Impact TR-20

During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would result in a **significant cumulative**

impact at the intersection of Proctor Valley Road and Project Driveway No. 4.

Signalization **(M-TR-13)** would fully mitigate the cumulative impact at the intersection of Proctor Valley Road and Project Driveway No. 4 within San Diego County. A traffic signal warrant was conducted, and found that this intersection would satisfy both the "Minimum Vehicular Traffic" and "Interruption of Continuous Traffic" warrants. Impacts would be less than significant with mitigation. This impact would only occur with the development of the Rancho Jamul Preserve, which is highly unlikley. This impact would occur with the full development of the Proposed Project as well as the development of 563 additional units within the Rancho Jamul Preserve. If the State of California does decide to sell or develop the Rancho Jamul Preserve at a later date, further study would need to be conducted at that time to determine the specific roadway facilities needed to accommodate the development, once the scale of that development is known. Therefore, because there is not a funding program for any such improvement due to the lack of a reasonably foreseeable development plan within the Ranch Jamul Preserve, implementation of the improvements to mitigate this impact is infeasible and the impact is considered **significant and unavoidable**.

Impact TR-21

During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would result in a **significant cumulative impact** at the intersection of Proctor Valley Road and Project Driveway No. 5.

Signalization **(M-TR-14)** would fully mitigate the cumulative impact at the intersection of Proctor Valley Road and Project Driveway No. 5 within San Diego County. A traffic signal warrant was conducted, and found that this intersection would satisfy both the "Minimum Vehicular Traffic" and "Interruption of Continuous Traffic" warrants. Impacts would be less than significant with mitigation. It should be noted that this impact would only occur with the development of the Rancho Jamul Preserve, which is highly unlikely. This impact would occur with the full development of the Proposed Project as well as the development of 481 additional units within the Rancho Jamul Preserve. If the State of California does

decide to sell or develop the Rancho Jamul Preserve at a later date, further study would need to be conducted at that time to determine the specific roadway facilities needed to accommodate the development, once the scale of that development is known. Therefore, because there is not a funding program for any such improvement due to the lack of a reasonably foreseeable development plan within the Ranch Jamul Preserve, implementation of the improvements to mitigate this impact is infeasible and the impact is considered **significant and unavoidable**.

City of Chula Vista

Impact TR-16

During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would result in a **significant cumulative impact** at the intersection of Paseo Ranchero and East H Street.

Restriping the eastbound approach to include an exclusive right-turn lane at the intersection of Paseo Ranchero and East H Street **(M-TR-15)** would fully mitigate this cumulative impact. However, this intersection is located within the City of Chula Vista and the County does not have the jurisdiction to permit or implement improvements. Therefore, for purposes of this analysis, mitigation is considered infeasible because the County cannot be assured of implementation and the impact would remain **significant and unavoidable**. It should be noted that this intersection is projected to operate at LOS E without the Proposed Project. Therefore, the Proposed Project would have a cumulative impact regardless of the number of units built, so no mitigation trigger can be provided.

Impact TR-22

During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would result in a **significant project specific impact** at the intersection of Mt. Miguel Road and East H Street.

Restriping the westbound approach to include an exclusive right-turn lane by the 638th equivalent dwelling unit **(M-TR-16)** would fully mitigate the impact at the intersection of Mt. Miguel Road and East H Street. However, this intersection is located within the City of Chula Vista and the County does not have the jurisdiction

to permit or implement improvements. Therefore, for purposes of this analysis, mitigation is considered infeasible because the County cannot be assured of implementation and the impact would remain **significant and unavoidable.**

Impact TR-23

During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would result in a **significant project specific impact** at the intersection of Lane Avenue and East H Street.

Adjusting the median and restriping the westbound approach to include a second left-turn lane **(M TR-17)** would fully mitigate the impact at the intersection of Lane Avenue and East H Street. However, this intersection is located within the City of Chula Vista and the County does not have the jurisdiction to permit or implement improvements. Therefore, for purposes of this analysis, mitigation is considered infeasible because the County cannot be assured of implementation and the impact would remain **significant and unavoidable**. It should be noted that this intersection is projected to operate at LOS E without the Proposed Project. Therefore, the Proposed Project would have a cumulative impact regardless of the number of units built, so no mitigation trigger can be provided.

Impact TR-24

During Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, traffic associated with the Proposed Project would result in a **significant project specific impact** at the intersection of Northwoods Drive/Agua Vista Drive and Proctor Valley Road.

Signalization **(M-TR-3)** would fully mitigate the impact at the intersection of Northwoods Drive/Agua Vista Drive and Proctor Valley Road, if implemented. However, this intersection is located within the City of Chula Vista and the County does not have the jurisdiction to permit or implement improvements. Therefore, for purposes of this analysis, mitigation is considered infeasible because the County cannot be assured of implementation and the impact would remain **significant and unavoidable**.

SB 743 Land Use Project Per Capita VMT Analysis

Impact TR-25 Under the Draft 743 Proposal currently being circulated for public review and comment, Proposed Project VMT per Capita for home-based auto trips would exceed draft thresholds, thereby resulting in a significant impact.

The Draft Proposal includes potential measures recommended to reduce VMT. Several of these measures have been incorporated into the design of the Proposed Project or are incorporated as part of the TDM Program, which would reduce VMT per capita by approximately 4.338%; however, the resulting adjusted VMT would continue to exceed the thresholds applied in this DEIR. Accordingly, impacts associated with Proposed Project home-based automobile VMT per capita would be **significant and unavoidable**.

Table 2.9-1
Freeway/State Highway Segment Level of Service Results – Existing Conditions

Freeway	Segment	ADT	K	Peak Hour Volume	D	Lanes Per Direction	PHF	HVF	Volume (pc/h/ln)	V/C	LOS
I-805	Home Avenue to SR-94	220,000	7.9%	17,292	0.58	4M	0.95	6.0%	2,813	1.172	**F**
	SR-94 to Market Street	219,000	8.0%	17,586	0.60	4M	0.95	6.0%	2,943	1.226	**F**
	Market Street to Imperial Avenue	227,000	8.0%	18,228	0.60	4M + 1 HOV + 1 Aux	0.95	6.0%	2,440	1.017	**F**
	Imperial Avenue to East Division Street	209,000	8.0%	16,783	0.60	5M + 1 HOV	0.95	6.0%	2,042	0.851	D
	East Division Street to Plaza Boulevard	198,000	8.0%	15,919	0.60	5M + 1 HOV + 1 Aux	0.95	6.0%	1,793	0.747	D
	Plaza Boulevard to SR-54	206,000	8.0%	16,562	0.60	5M + 1 HOV	0.95	6.0%	2,035	0.848	D
	SR-54 to Bonita Road	262,000	8.0%	20,986	0.57	4M + 1 HOV + 1 Aux	0.95	7.3%	2,702	1.126	**F**
	Bonita Road to East H Street	207,000	8.0%	16,581	0.57	4M + 1 HOV + 1 Aux	0.95	7.3%	2,135	0.889	D
	East H Street to Telegraph Canyon Road	192,000	8.0%	15,379	0.57	5M + 1 HOV	0.95	7.3%	1,800	0.750	D
SR-125	SR-94 Junction to Jamacha Road	112,000	8.8%	9,811	0.56	3M	0.95	4.4%	2,004	0.835	D
	Jamacha Road to Paradise Valley Road	93,000	8.8%	8,147	0.56	3M	0.95	4.4%	1,664	0.693	C
	Paradise Valley Road to SR-54 Junction	99,000	8.8%	8,672	0.56	3M + 1 HOV	0.95	4.4%	1,518	0.633	C
	SR-54 to Mt. Miguel Road	17,500	7.0%	1,225	0.59	2M	0.95	1.9%	388	0.162	A
	Mt. Miguel Road to Proctor Valley Road	16,300	7.0%	1,141	0.59	2M	0.95	1.9%	361	0.150	A
	Proctor Valley Road to Otay Lakes Road	12,600	7.0%	882	0.59	2M	0.95	1.9%	279	0.116	A
	Otay Lakes Road to Olympic Parkway	4,700	7.0%	329	0.59	2M	0.95	1.9%	104	0.043	A
	Olympic Parkway to Birch Road	4,300	7.0%	301	0.59	2M	0.95	1.9%	95	0.040	A

Table 2.9-1
Freeway/State Highway Segment Level of Service Results – Existing Conditions

Freeway	Segment	ADT	K	Peak Hour Volume	D	Lanes Per Direction	PHF	HVF	Volume (pc/h/ln)	V/C	LOS
	Birch Road to Main Street	4,600	7.0%	322	0.59	2M	0.95	1.9%	102	0.042	A
	Main Street to Otay Valley Road	4,600	7.0%	322	0.59	2M	0.95	1.9%	102	0.042	A
	Otay Valley Road to Lone Star Road	4,600	7.0%	322	0.59	2M	0.95	1.9%	102	0.042	A
	Lone Star Road to Otay Mesa Road	4,600	7.0%	322	0.59	2M	0.95	1.9%	102	0.042	A
SR-54	I-805 to Reo Drive/Plaza Bonita Center Way	118,000	8.2%	9,711	0.58	3M	0.95	1.9%	2,005	0.836	D
	Reo Drive/Plaza Bonita Center Way to Woodman Street	118,000	8.3%	9,818	0.55	3M	0.95	1.9%	1,936	0.806	D
SR-54	Woodman Street to Briarwood Road	106,000	8.3%	8,766	0.55	3M	0.95	1.9%	1,728	0.720	C
	Briarwood Road to SR-125 Junction	98,000	8.5%	8,281	0.52	3M + 1 HOV	0.95	1.9%	1,313	0.547	C

Source: Appendix 2.9-1.
ADT = average daily traffic; K = percent of traffic during the peak hour; D = Directional split; PHF =peak-hour Factor; HVF = percent of heavy vehicles; pc/h/ln = passenger cars per hour per lane; V/C = volume-to-capacity ratio; M = mainline lane; HOV = high-occupancy vehicle lane; Aux = auxiliary lane
Bold indicates Level of Service (LOS) E or F.

Table 2.9-2
Ramp Intersection Capacity Analysis – Existing Conditions

Intersection	Peak Hour	ILV per Hour	Capacity
SR-125 southbound / Mt. Miguel	AM	218	Under Capacity
	PM	417	Under Capacity
SR-125 northbound / Mt. Miguel	AM	300	Under Capacity
	PM	317	Under Capacity
I-805 southbound / H Street	AM	1,350	At Capacity
	PM	1,866	Over Capacity
I-805 northbound / H Street	AM	870	Under Capacity
	PM	792	Under Capacity
SR-125 southbound / H Street	AM	470	Under Capacity
	PM	523	Under Capacity
SR-125 northbound / H Street	AM	329	Under Capacity
	PM	276	Under Capacity
SR-125 southbound / Mt. Miguel	AM	598	Under Capacity
	PM	792	Under Capacity
SR-125 northbound / Otay Lakes Road	AM	538	Under Capacity
	PM	755	Under Capacity

Source: Appendix 2.9-1.
ILV = intersecting lane volume

Table 2.9-3
Level of Service Definitions

LOS Category	Definition of Operation
A	This LOS represents a completely free-flow condition, where the operation of vehicles is virtually unaffected by the presence of other vehicles and only constrained by the geometric features of the highway and by driver preferences.
B	This LOS represents a relatively free-flow condition, although the presence of other vehicles becomes noticeable. Average travel speeds are the same as in LOS A, but drivers have slightly less freedom to maneuver.
C	At this LOS, the influence of traffic density on operations becomes marked. The ability to maneuver within the traffic stream is clearly affected by other vehicles.
D	At this LOS, the ability to maneuver is notably restricted due to traffic congestion, and only minor disruptions can be absorbed without extensive queues forming and the service deteriorating.
E	This LOS represents operations at or near capacity. LOS E is an unstable level, with vehicles operating with minimum spacing for maintaining uniform flow. At LOS E, disruptions cannot be dissipated readily thus causing deterioration down to LOS F.
F	At this LOS, forced or breakdown of traffic flow occurs, although operations appear to be at capacity, queues form behind these breakdowns. Operations within queues are highly unstable, with vehicles experiencing brief periods of movement followed by stoppages.

Source: TRB 2010.

Table 2.9-4
County of San Diego Roadway Classification and Level of Service Standards

No.	Travel Lanes	Design Speed	Road Classification	Level of Service (in ADT)				
				A	*B*	*C*	*D*	*E*
6.1	6	65 mph	Expressway	36,000	54,000	70,000	**86,000**	108,000
6.2	6	65 mph	Prime Arterial	22,200	37,000	44,600	**50,000**	57,000
4.1A	4	55 mph	Major Road with Raised Median	14,800	24,700	29,600	**33,400**	37,000
4.1B			Major Road with Intermittent Turn Lanes	13,700	22,800	27,400	**30,800**	34,200
4.2A	4	40 mph	Boulevard with Raised Median	18,000	21,000	24,000	**27,000**	30,000
4.2B			Boulevard with Intermittent Turn Lane	16,800	19,600	22,500	**25,000**	28,000
2.1A	2	45 mph	Community Collector with Raised Median	10,000	11,700	13,400	**15,000**	19,000
2.1B			Community Collector w/ Continuous Turn Lane	3,000	6,000	9,500	**13,500**	19,000
2.1C			Community Collector w/ Intermittent Turn Lane	3,000	6,000	9,500	**13,500**	19,000
2.1D			Community Collector with Improvement Options	3,000	6,000	9,500	**13,500**	19,000
2.1E	2	45 mph	Community Collector	1,900	4,100	7,100	**10,900**	16,200
2.2A	2	40 mph	Light Collector with Raised Median	3,000	6,000	9,500	**13,500**	19,000
2.2B			Light Collector with Continuous Turn Lane	3,000	6,000	9,500	**13,500**	19,000
2.2C			Light Collector with Intermittent Turn Lanes	3,000	6,000	9,500	**13,500**	19,000
2.2D			Light Collector with Improvement Options	3,000	6,000	9,500	**13,500**	19,000
2.2E			Light Collector	1,900	4,100	7,100	**10,900**	16,200
2.2F			Light Collector with Reduced Shoulder	5,800	6,800	7,800	**8,700**	9,700
2.3A	2	35 mph	Minor Collector with Raised Median	3,000	6,000	7,000	**8,000**	9,000
2.3B			Minor Collector with Intermittent Turn Lane	3,000	6,000	7,000	**8,000**	9,000
2.3C			Minor Collector	1,900	4,100	6,000	**7,000**	8,000

Source: County of San Diego 2012.
ADT = average daily traffic; mph = miles per hour
Bold numbers indicate the ADT thresholds for acceptable LOS.

Table 2.9-5
City of Chula Vista Roadway Classification and Level of Service Standards

Circulation Element Roadway Classification	Level of Service				
	A	*B*	*C*	*D*	*E*
Expressway (7- or 8-lane)	52,500	61,300	**70,000**	78,800	87,500
Gateway Street (6-lane)	40,800	47,600	54,400	**61,200**	68,000
Prime Arterial (6-lane)	37,500	43,800	**50,000**	56,300	62,500
Major Street (6-lane)	30,000	35,000	**40,000**	45,000	50,000
Major Street (4-lane)	22,500	26,300	**30,000**	33,800	37,500
Town Center Arterial (6-lane)	37,500	43,800	**50,000**	56,300	62,500
Town Center Arterial (4-lane)	22,500	26,300	**30,000**	33,800	37,500

Table 2.9-5
City of Chula Vista Roadway Classification and Level of Service Standards

Circulation Element Roadway Classification	Level of Service				
	A	*B*	*C*	*D*	*E*
Class I Collector (4-lane)	16,500	19,300	**22,000**	24,800	27,500
Class II Collector (3-lane)	9,000	10,500	**12,000**	13,500	15,000
Class III Collector (2-lane)	5,600	6,600	**7,500**	8,400	9,400

Source: City of Chula Vista.
Bold numbers indicate the ADT thresholds for acceptable LOS.

Table 2.9-6
Two-Lane Highway Level of Service Thresholds – With Signalized Intersection Spacing Over 1 Mile

LOS	LOS Criteria
LOS E	> 16,200 ADT
LOS F	> 22,900 ADT

Source: County of San Diego.
Notes: LOS = level of service; ADT = average daily traffic.
Where detailed data are available, the Director of Public Works may also accept a detailed level of service analysis based upon the two-lane highway analysis procedures provided in the Chapter 20 Highway Capacity Manual.

Table 2.9-7
Signalized Intersection Level of Service Criteria

Average Stopped Delay Per Vehicle (seconds)	Level of Service Characteristics
<10.0	*LOS A* describes operations with very low delay. This occurs when progression is extremely favorable, and most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
10.1–20.0	*LOS B* describes operations with generally good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.
20.1–35.0	*LOS C* describes operations with higher delays, which may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
35.1–55.0	*LOS D* describes operations with high delay, resulting from some combination of unfavorable progression, long cycle lengths, or high volumes. The influence of congestion becomes more noticeable, and individual cycle failures are noticeable.
55.1–80.0	*LOS E* is considered the limit of acceptable delay. Individual cycle failures are frequent occurrences.
>80.0	*LOS F* describes a condition of excessively high delay, considered unacceptable to most drivers. This condition often occurs when arrival flow rates exceed the LOS D capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes to such delay.

Source: TRB 2010.

Table 2.9-8
Unsignalized Intersection Level of Service Criteria

Average Control Delay (seconds per vehicle)	Level of Service (LOS)
≤10	A
>10 and ≤15	B
>15 and ≤25	C
>25 and ≤35	D
>35 and ≤50	E
>50	F

Source: TRB 2010.

Table 2.9-9
Caltrans District 11 Freeway and State Highway Segment Level of Service

LOS	V/C	Congestion/Delay	Traffic Description
Free Flow Speed = 65 mph			
A	<0.30	None	Free flow.
B	0.30–0.50	None	Free to stable flow, light to moderate volumes.
C	0.50–0.71	None to minimal	Stable flow, moderate volumes, freedom to maneuver noticeably restricted.
D	0.71–0.89	Minimal to substantial	Approaches unstable flow, heavy volumes, very limited freedom to maneuver.
E	0.89–1.00	Significant	Extremely unstable flow; maneuverability and psychological comfort extremely poor.
F	>1.00	Considerable	Forced or breakdown flow. Delay measured in average travel speed (mph). Signalized segments experience delays >60.0 seconds/vehicle.

Source: Caltrans 2002.
Caltrans = California Department of Transportation; LOS = level of service; V/C = volume-to-capacity ratio; mph = miles per hour.

Table 2.9-10
Traffic Flow Conditions at Ramp Intersections at Various Levels of Operation

ILV per Hour	Capacity	Description
<1,200	Under capacity	Stable flow with slight, but acceptable delay. Occasional signal loading may develop. Free midblock operations.
1,200–1,500	At capacity	Unstable flow with considerable delays possible. Some vehicles occasionally wait two or more cycles to pass through the intersection. Continuous backup occurs on some approaches.
>1,500	Over capacity	Stop-and-go operation with severe delay and heavy congestion.[a] Traffic volume is limited by maximum discharge rates of each phase. Continuous backup in varying degrees occurs on all approaches. Where downstream capacity is restrictive, mainline congestion can impede orderly discharge through the intersection.

Source: Caltrans 2017.
ILV = Intersecting Lane Volume
[a] The amount of congestion depends on how much the ILV/hr value exceeds 1,500. Observed flow rates will normally not exceed 1,500 ILV/hr, and the excess will be delayed in a queue.

Table 2.9-11
Project Trip Generation – Build-Out

Land Use	Units	Trip Rate	ADT	AM Peak Hour					PM Peak Hour				
				%	Trips	Split	In	Out	%	Trips	Split	In	Out
Estate	125 DU	12/DU	1,500	8%	120	(3:7)	36	84	10%	150	(7:3)	105	45
Single-Family Detached Housing	994 DU	10/DU	9,940	8%	795	(3:7)	238	557	10%	994	(7:3)	697	297
Neighborhood/County Park (Undeveloped)	15.2 AC	5/AC	76	4%	3	(5:5)	1	1	8%	6	(5:5)	3	3
Community Facility	4.5 AC	30/AC	135	5%	7	(5:5)	4	3	8%	11	(5:5)	5	5
Fire Station	3 Staff	5.33/Staff	16	—	6	(6:4)	3	3	—	0	(5:5)	0	0
Mixed Use: Commercial /Residential	10 KSF	110/KSF	1,100	3%	33	(6:4)	20	13	9%	99	(5:5)	50	50
		Total	**12,767**	**—**	**964**	**—**	**303**	**661**	**—**	**1,260**	**—**	**859**	**401**

Source: SANDAG 2002.
ADT = average daily traffic; DU = dwelling units; AC = acres; KSF = thousand square feet
Note: As a worst-case scenario, this analysis assumes that 97 additional single-family dwelling units would be constructed instead of the proposed elementary school. This was assumed to be a worst-case scenario because the 97 single-family dwelling units will generate more traffic than the proposed school site (970 ADT vs 720 ADT). Additionally, the removal of the school site significantly limits the possibility for internal trip capture within the Project Area.
If the school site is developed in lieu of the additional 97 single-family units, the Proposed Project would generate 12,517 daily trips, with 1,117 (419 inbound/698 outbound) during the AM peak hour, and 1,228 (817 inbound/411 outbound) during the PM peak hour. It should be noted that these calculations do not assume an internal trip capture (which would be around 10%).

Table 2.9-12
Roadway Segment Level of Service Results – Existing Plus Project Build-Out Conditions – County of San Diego

Roadway	Segment	Cross-Section	ADT	LOS Threshold (LOS D)	LOS w/ Project	LOS w/o Project	Project ADT	Significant Impact?
Proctor Valley Road	City of Chula Vista boundary to Project Driveway No. 1	2-Lane w/ RM	12,100	13,500	D	A	11,900	No
	Project Driveway No. 1 to Project Driveway No. 2	2-Lane w/ RM	10,400	13,500	D	A	10,200	No
	Project Driveway No. 2 to Project Driveway No. 3	2-Lane w/ RM	9,000	13,500	C	A	8,800	No
	Project Driveway No. 3 to Project Driveway No. 4	2-Lane w/ RM	8,900	13,500	C	A	8,700	No

Table 2.9-12
Roadway Segment Level of Service Results – Existing Plus Project Build-Out Conditions – County of San Diego

Roadway	Segment	Cross-Section	ADT	LOS Threshold (LOS D)	LOS w/ Project	LOS w/o Project	Project ADT	Significant Impact?
	Project Driveway No. 4 to Project Driveway No. 5	2-Lane w/ RM	2,800	13,500	A	A	2,600	No
	Project Driveway No. 5 to Project Village 14 boundary	2-Lane	1,800	10,900	A	A	1,600	No
	Village 14 boundary to Project Driveway No. 7	2-Lane	1,400	10,900	A	A	1,200	No
	Project Driveway No. 7 to Project Driveway No. 8	2-Lane	1,200	10,900	A	A	1,000	No
	Project Driveway No. 8 to Melody Road	2-Lane	700	8,700	A	A	500	No
	Melody Rd to Schlee Canyon Road	2-Lane	2,200	8,700	A	A	500	No
	Schlee Canyon Rd to Maxfield Road	2-Lane	2,500	8,700	A	A	400	No
	Maxfield Road to SR-94	2-Lane	2,800	8,700	A	A	300	No
Melody Road	Proctor Valley Road to SR-94	2-Lane	600	8,700	A	A	300	No
Jefferson Road	SR-94 to Olive Vista Drive	2-Lane	2,200	8,700	A	B	0	No
Lyons Valley Road	SR-94 to Olive Vista Drive	2-Lane	6,300	8,700	B	B	100	No

Source: Appendix 2.9-1.
RM = raised median

Table 2.9-13
Roadway Segment Level of Service Results – Existing Plus Project Build-Out Conditions – City of Chula Vista

Roadway	Segment	Cross-Section	ADT	LOS Threshold (LOS C)	LOS w/ Project	Project ADT > 800?	Project Traffic ≥ 5%?	Peak Hour Operations	Significant Impact?
San Miguel Ranch Road	Proctor Valley Road to SR-125 southbound ramp	4-Lane w/ RM	9,400	22,000	A	1,100	11.70%	—	No

Table 2.9-13
Roadway Segment Level of Service Results – Existing Plus Project Build-Out Conditions – City of Chula Vista

Roadway	Segment	Cross-Section	ADT	LOS Threshold (LOS C)	LOS w/ Project	Project ADT > 800?	Project Traffic ≥ 5%?	Peak Hour Operations	Significant Impact?
	SR-125 southbound ramp to SR-125 northbound ramp	4-Lane w/ RM	10,600	22,000	A	1,100	10.38%	—	No
San Miguel Ranch / Mt. Miguel Road	SR-125 northbound ramp to Proctor Valley Road	4-Lane w/ RM	11,200	22,000	A	1,100	9.82%	—	No
Mt. Miguel Road	Proctor Valley Road to Mackenzie Creek Road	4-Lane w/ CLTL	5,500	22,000	A	400	7.27%	—	No
H Street	I-805 southbound ramps to I-805 northbound ramps	6-Lane w/ RM	53,100	50,000	**D**	**900**	**1.69%**	**Yes**	**No**
	I-805 northbound ramps to Terra Nova Drive	7-Lane w/ RM	53,400	70,000	B	1,100	2.06%	—	No
	Terra Nova Drive to Del Rey Boulevard	6-Lane w/ RM	51,200	50,000	**D**	**1,300**	**2.54%**	**Yes**	**No**
	Del Rey Boulevard to Paseo Del Rey	6-Lane w/ RM	48,600	50,000	C	1,300	2.67%	—	No
	Paseo Del Rey to Paseo Ranchero	6-Lane w/ RM	46,200	50,000	C	1,500	3.25%	—	No
	Paseo Ranchero to Otay Lakes Road	6-Lane w/ RM	39,000	50,000	B	1,500	3.85%	—	No
	Otay Lakes Road to SR-125 southbound ramps	4-Lane w/ RM	26,800	30,000	C	2,400	8.96%	—	No
Proctor Valley Road	SR-125 southbound ramps to SR-125 northbound ramps	6-Lane w/ RM	23,700	50,000	A	3,600	15.19%	—	No
	SR-125 northbound ramps to Mt. Miguel Road	6-Lane w/ RM	26,800	50,000	A	5,100	19.03%	—	No
	Mt. Miguel Road to Lane Avenue	6-Lane w/ RM	27,400	50,000	A	7,400	27.01%	—	No
	Lane Avenue to Hunte Parkway	6-Lane w/ RM	23,400	50,000	A	9,200	39.32%	—	No
	Hunte Parkway to Northwood Drive	4-Lane w/ RM	17,500	30,000	A	11,700	66.86%	—	No
	Northwoods Drive to County of San Diego Boundary	2-Lane w/ RM	12,500	12,000	**D**	**12,300**	**98.40%**	**No**	**Yes (Direct)**

Table 2.9-13
Roadway Segment Level of Service Results – Existing Plus Project Build-Out Conditions – City of Chula Vista

Roadway	Segment	Cross-Section	ADT	LOS Threshold (LOS C)	LOS w/ Project	Project ADT > 800?	Project Traffic ≥ 5%?	Peak Hour Operations	Significant Impact?
Telegraph Canyon Road	Paseo Ranchero to Otay Lakes Road	6-Lane w/ RM	35,900	50,000	A	400	1.11%	—	No
Otay Lakes Road	Ridgeback Road to East H Street	6-Lane w/ RM	26,300	50,000	A	100	0.38%	—	No
	East H Street to Otay Lakes Road	6-Lane w/ RM	29,500	50,000	A	600	2.03%	—	No
	Telegraph Canyon Road to SR-125 southbound ramps	6-Lane w/ RM	42,000	50,000	B	100	0.24%	—	No
	SR-125 southbound ramps to SR-125 northbound ramps	6-Lane w/ RM	46,800	50,000	C	400	0.85%	—	No
	SR-125 northbound ramps to Eastlake Parkway	6-Lane w/ RM	40,700	50,000	B	400	0.98%	—	No
	Eastlake Parkway to Lane Avenue	6-Lane w/ RM	26,500	50,000	A	400	1.51%	—	No
	Lane Avenue to Hunte Parkway	6-Lane w/ RM	19,700	50,000	A	900	4.57%	—	No
	Hunte Parkway to Woods Drive	6-Lane w/ RM	9,800	50,000	A	100	1.02%	—	No
Olympic Parkway	SR-125 northbound ramps to Eastlake Parkway	8-Lane w/ RM	43,800	70,000	A	300	0.68%	—	No
	Eastlake Parkway to Hunte Parkway	6-Lane w/ RM	16,800	50,000	A	500	2.98%	—	No
	Hunte Parkway to Olympic Vista Road	4-Lane w/ RM	9,900	30,000	A	0	0.00%	—	No
Paseo Del Rey	East H Street to East J Street	4-Lane w/ CLTL	11,500	22,000	A	100	0.87%	—	No
Heritage Road	Telegraph Canyon Road to East Palomar Street	6-Lane w/ RM	21,200	50,000	A	100	0.47%	—	No
La Media Road	Otay Lakes Road to East Palomar Street	6-Lane w/ RM	26,500	50,000	A	100	0.38%	—	No
Eastlake Parkway	Miller Road to Otay Lakes Road	4-Lane w/ RM	24,600	30,000	B	500	2.03%	—	No
	Otay Lakes Road to Olympic Parkway	6-Lane w/ RM	29,800	50,000	A	0	0.00%	—	No

Table 2.9-13
Roadway Segment Level of Service Results – Existing Plus Project Build-Out Conditions – City of Chula Vista

Roadway	Segment	Cross-Section	ADT	LOS Threshold (LOS C)	LOS w/ Project	Project ADT > 800?	Project Traffic ≥ 5%?	Peak Hour Operations	Significant Impact?
Eastlake Parkway	Olympic Parkway to Hunte Parkway	6-Lane w/ RM	17,900	40,000	A	100	0.56%	—	No
Old Trail Drive	North Trail Court to Proctor Valley Road	2-Lane	2,900	7,500	A	100	3.45%	—	No
Lane Avenue	Proctor Valley Road to Otay Lakes Road	4-Lane w/ SM	11,400	22,000	A	600	5.26%	—	No
Hunte Parkway	Proctor Valley Road to Otay Lakes Road	4-Lane w/ RM	8,900	30,000	A	2,600	29.21%	—	No
	Otay Lakes Road to Olympic Parkway	4-Lane w/ RM	12,300	30,000	A	1,400	11.38%	—	No
	Olympic Parkway to Eastlake Parkway	6-Lane w/ RM	2,400	50,000	A	400	16.67%	—	No
Northwoods Drive	Proctor Valley Road to Blue Ridge Drive	2-Lane	1,900	7,500	A	500	26.32%	—	No

Source: Appendix 2.9-1.
CLTL = channelized left-turn lane; RM = raised median
Bold indicates threshold exceeded.

Table 2.9-14
Project Trip Generation – Year 2025 Cumulative Conditions

Land Use	Units	Trip Rate	ADT	AM Peak Hour					PM Peak Hour				
				%	*Trips*	*Split*	*In*	*Out*	*%*	*Trips*	*Split*	*In*	*Out*
Estate	21 Units	12/Units	252	8%	20	(3:7)	6	14	10%	25	(7:3)	18	8
Single-Family Detached Housing	788 Units	10/Units	7,880	8%	630	(3:7)	189	441	10%	788	(7:3)	552	236
Park (Undeveloped)	6.7 Acres	5/Acres	34	4%	2	(5:5)	1	1	8%	3	(5:5)	1	1
Community Facility	3.7 Acres	30/Acres	111	5%	5	(5:5)	3	2	8%	9	(5:5)	4	4
Mixed Use: Commercial	10 KSF	110/KSF	1,100	3%	33	(6:4)	20	13	9%	99	(5:5)	50	50
		Total	**9,377**		**690**		**219**	**471**		**924**		**625**	**299**

Table 2.9-15
Roadway Segment Level of Service Results – Year 2025 Cumulative Conditions – County of San Diego

Roadway	Segment	Cross-Section	ADT	LOS Threshold (LOS D)	LOS w/ Project	Project ADT	Significant Impact?
Proctor Valley Road	City of Chula Vista boundary to Project Driveway No. 1	2-Lane w/ RM	15,100	13,500	**E**	**8,700**	**Yes (Cumulative)**
	Project Driveway No. 1 to Project Driveway No. 2	2-Lane w/ RM	13,800	13,500	**E**	**7,400**	**Yes (Cumulative)**
	Project Driveway No. 2 to Project Driveway No. 3	2-Lane w/ RM	12,000	13,500	D	6,400	No
	Project Driveway No. 3 to Project Driveway No. 4	2-Lane w/ RM	11,900	13,500	D	6,400	No
	Project Driveway No. 4 to Project Driveway No. 5	2-Lane w/ RM	5,800	13,500	B	1,900	No
	Project Driveway No. 5 to Project Village 14 boundary	2-Lane w/ RM	4,800	13,500	B	1,200	No
	Village 14 boundary to Project Driveway No. 7	2-Lane	4,400	10,900	C	900	No
	Project Driveway No. 7 to Project Driveway No. 8	2-Lane	4,400	8,700	A	700	No
	Project Driveway No. 8 to Melody Road	2-Lane	6,700	8,700	A	500	No
	Melody Road to Schlee Canyon Road	2-Lane	5,000	8,700	A	200	No
	Schlee Canyon Road to Maxfield Road	2-Lane	4,300	8,700	A	100	No
	Maxfield Road to SR-94	2-Lane	4,100	8,700	A	100	No
Melody Rd	Lyons Valley Road to Jefferson Road	2-Lane	2,900	8,700	A	200	No
Jefferson Rd	Jefferson Road to Maxfield Road	2-Lane	7,900	8,700	D	100	No
Lyons Valley Rd	Maxfield Road to Melody Road	2-Lane	2,600	8,700	A	100	No

Source: Appendix 2.9-1.
RM = raised median
Bold indicates threshold exceeded

Table 2.9-16
Roadway Segment Level of Service Results – Year 2025 Cumulative Conditions – City of Chula Vista

Roadway	From	Cross-Section	ADT w/ Project	ADT Threshold (LOS C)	LOS w/ Project	Project ADT (< 800)	Project Contribution (≥ 5%)	Peak Hour Operations	Significant Impact?
San Miguel Ranch Road	Proctor Valley Road to SR-125 southbound ramp	4-Lane w/ RM	14,500	22,000	A	700	3.18%	—	No
	SR-125 southbound ramp to SR-125 northbound ramp	4-Lane w/ RM	12,400	22,000	A	700	3.186%	—	No
San Miguel Ranch / Mt. Miguel Road	SR-125 northbound ramp to Proctor Valley Road	4-Lane w/ RM	11,600	22,000	A	700	3.18%	—	No
Mt. Miguel Road	Proctor Valley Road to Mackenzie Creek Road	4-Lane w/ CLTL	8,800	22,000	A	100	0.45%	—	No
H Street	I-805 southbound ramps to I-805 northbound ramps	6-Lane w/ RM	48,100	50,000	C	500	1.00%	—	No
	I-805 northbound ramps to Terra Nova Drive	7-Lane w/ RM	66,800	70,000	C	800	1.14%	—	No
	Terra Nova Drive to Del Rey Boulevard	6-Lane w/ RM	54,200	50,000	**D**	**800**	**1.60%**	**Yes**	**No**
	Del Rey Boulevard to Paseo Del Rey	6-Lane w/ RM	54,600	50,000	**D**	**800**	**1.60%**	**Yes**	**No**
	Paseo Del Rey to Paseo Ranchero	6-Lane w/ RM	51,600	50,000	**D**	**900**	**1.80%**	**Yes**	**No**
	Paseo Ranchero to Otay Lakes Road	6-Lane w/ RM	43,400	50,000	B	1,000	2.00%	—	No
	Otay Lakes Road to SR-125 southbound ramps	4-Lane w/ RM	32,300	30,000	**D**	**1,200**	**4.00%**	**Yes**	**No**
Proctor Valley Road	SR-125 southbound ramps to SR-125 northbound ramps	6-Lane w/ RM	21,400	50,000	A	1,800	3.60%	—	No
	SR-125 northbound ramps to Mt. Miguel Road	6-Lane w/ RM	28,400	50,000	A	2,800	5.60%	—	No
	Mt. Miguel Road to Lane Avenue	6-Lane w/ RM	39,300	50,000	B	3,900	7.80%	—	No

Table 2.9-16
Roadway Segment Level of Service Results – Year 2025 Cumulative Conditions – City of Chula Vista

Roadway	From	Cross-Section	ADT w/ Project	ADT Threshold (LOS C)	LOS w/ Project	Project ADT (< 800)	Project Contribution (≥ 5%)	Peak Hour Operations	Significant Impact?
	Lane Avenue to Hunte Parkway	6-Lane w/ RM	27,600	50,000	A	4,700	9.40%	—	No
	Hunte Parkway to Northwood Drive	4-Lane w/ RM	21,600	30,000	A	6,100	20.33%	—	No
	Northwoods Drive to City of Chula Vista/County Boundary	2-Lane w/ RM	12,400	12,000	**D**	**6,400**	**53.33%**	**No**	**Yes (Direct)**
Telegraph Canyon Road	Paseo Ranchero to Otay Lakes Road	6-Lane w/ RM	52,200	50,000	**D**	**300**	**0.60%**	**Yes**	**No**
Otay Lakes Road	Ridgeback Road to East H Street	6-Lane w/ RM	31,200	50,000	A	100	0.20%	—	No
	East H Street to Otay Lakes Road	6-Lane w/ RM	33,300	50,000	A	300	0.60%	—	No
	Telegraph Canyon Road to SR-125 southbound ramps	6-Lane w/ RM	44,200	50,000	C	100	0.20%	—	No
	SR-125 southbound ramps to SR-125 northbound ramps	6-Lane w/ RM	48,200	50,000	C	300	0.60%	—	No
	SR-125 northbound ramps to Eastlake Parkway	6-Lane w/ RM	53,100	50,000	**D**	**300**	**0.60%**	**Yes**	**No**
	Eastlake Parkway to Lane Avenue	6-Lane w/ RM	32,700	50,000	A	300	0.60%	—	No
	Lane Avenue to Hunte Parkway	6-Lane w/ RM	26,900	50,000	A	500	1.00%	—	No
	Hunte Parkway to Woods Drive	6-Lane w/ RM	25,800	50,000	A	0	0.00%	—	No
Olympic Parkway	SR-125 northbound ramps to Eastlake Parkway	8-Lane w/ RM	57,400	70,000	B	100	0.14%	—	No
	Eastlake Parkway to Hunte Parkway	6-Lane w/ RM	36,900	50,000	A	200	0.40%	—	No

Table 2.9-16
Roadway Segment Level of Service Results – Year 2025 Cumulative Conditions – City of Chula Vista

Roadway	From	Cross-Section	ADT w/ Project	ADT Threshold (LOS C)	LOS w/ Project	Project ADT (< 800)	Project Contribution (≥ 5%)	Peak Hour Operations	Significant Impact?
	Hunte Parkway to Olympic Vista Road	4-Lane w/ RM	19,400	30,000	A	0	0.00%	—	No
Paseo Del Rey	East H Street to East J Street	4-Lane w/ CLTL	13,400	22,000	A	100	0.45%	—	No
Heritage Road	Telegraph Canyon Road to East Palomar Street	6-Lane w/ RM	26,500	50,000	A	100	0.20%	—	No
La Media Road	Otay Lakes Road to East Palomar Street	6-Lane w/ RM	33,500	50,000	A	100	0.20%	—	No
Eastlake Parkway	Miller Road to Otay Lakes Road	4-Lane w/ RM	24,900	30,000	B	200	0.67%	—	No
	Otay Lakes Road to Olympic Parkway	6-Lane w/ RM	22,600	50,000	A	0	0.00%	—	No
	Olympic Parkway to Hunte Parkway	6-Lane w/ RM	29,100	40,000	A	100	0.25%	—	No
Old Trail Drive	North Trail Court to Proctor Valley Road	2-Lane	5,300	7,500	A	100	1.33%	—	No
Lane Avenue	Proctor Valley Road to Otay Lakes Road	4-Lane w/ SM	18,300	22,000	B	700	3.18%	—	No
Hunte Parkway	Proctor Valley Road to Otay Lakes Road	4-Lane w/ RM	10,700	30,000	A	1,200	4.00%	—	No
	Otay Lakes Road to Olympic Parkway	4-Lane w/ RM	16,600	30,000	A	700	2.33%	—	No
	Olympic Parkway to Eastlake Parkway	6-Lane w/ RM	22,100	50,000	A	200	0.40%	—	No
Northwoods Drive	Proctor Valley Road to Blue Ridge Drive	2-Lane	1,000	7,500	A	400	5.33%	—	No

Source: Appendix 2.9-1.
RM = raised median; CLTL = channelized left-turn lane
Bold indicates threshold exceeded

Table 2.9-17
Roadway Segment Level of Service Results – Year 2030 Cumulative Conditions – County of San Diego

Roadway	Segment	Cross-Section	ADT	LOS Threshold (LOS D)	LOS w/ Project	Project ADT	Significant Impact?
Proctor Valley Road	City of Chula Vista boundary to Project Driveway No. 1	2-Lane w/ RM	17,900	13,500	**E**	11,900	**Yes (Cumulative)**
	Project Driveway No. 1 to Project Driveway No. 2	2-Lane w/ RM	16,200	13,500	**E**	10,200	**Yes (Cumulative)**
	Project Driveway No. 2 to Project Driveway No. 3	2-Lane w/ RM	14,800	13,500	**E**	8,800	**Yes (Cumulative)**
	Project Driveway No. 3 to Project Driveway No. 4	2-Lane w/ RM	14,700	13,500	**E**	8,700	**Yes (Cumulative)**
	Project Driveway No. 4 to Project Driveway No. 5	2-Lane w/ RM	8,600	13,500	C	2,600	No
	Project Driveway No. 5 to Project Village 14 boundary	2-Lane w/ RM	7,600	13,500	C	1,600	No
	Village 14 boundary to Project Driveway No. 7	2-Lane	7,200	7,100	D	1,200	No
	Project Driveway No. 7 to Project Driveway No. 8	2-Lane	7,000	7,800	C	1,000	No
	Project Driveway No. 8 to Melody Road	2-Lane	6,900	9,500	C	700	No
	Melody Road to Schlee Canyon Road	2-Lane	6,900	7,800	C	300	No
	Schlee Canyon Road to Maxfield Road	2-Lane	5,600	7,100	C	200	No
	Maxfield Road to SR-94	2-Lane	5,500	7,100	C	200	No
Melody Road	Lyons Valley Road to Jefferson Road	2-Lane	5,500	7,100	C	300	No
Jefferson Road	Jefferson Road to Maxfield Road	2-Lane	4,600	7,100	C	100	No
Lyons Valley Road	Maxfield Road to Melody Road	2-Lane	10,500	9,500	D	100	No

Source: Appendix 2.9-1.
RM = raised median
Bold indicates threshold exceeded

Table 2.9-18
Roadway Segment Level of Service Results – Year 2030 Cumulative Conditions – City of Chula Vista

Roadway	Segment	Classification	ADT w/ Project	ADT Threshold (LOS C)	LOS	Project ADT (< 800)	Project Contribution (≥ 5%)	Peak Hour Operations	Significant Impact?
San Miguel Ranch Road	Proctor Valley Road to SR-125 southbound ramp	Class I Collector (4-lane)	14,600	22,000	A	1,000	6.85%	—	No
	SR-125 southbound ramp to SR-125 northbound ramp	Class I Collector (4-lane)	12,100	22,000	A	1,000	8.26%	—	No
San Miguel Ranch / Mt. Miguel Road	SR-125 northbound ramp to Proctor Valley Road	Class I Collector (4-lane)	10,700	22,000	A	1,000	9.35%	—	No
Mt. Miguel Road	Proctor Valley Road to Mackenzie Creek Road	Class I Collector (4-lane)	9,100	22,000	A	300	3.30%	—	No
H Street	I-805 southbound ramps to I-805 northbound ramps	Prime Arterial (6-lane)	47,400	50,000	C	900	1.90%	—	No
	I-805 northbound ramps to Terra Nova Drive	Expressway (7-lane)	65,600	70,000	C	1,400	2.13%	—	No
	Terra Nova Drive to Del Rey Boulevard	Prime Arterial (6-lane)	52,400	50,000	**D**	1,400	2.67%	Yes	No
	Del Rey Boulevard to Paseo Del Rey	Prime Arterial (6-lane)	52,900	50,000	**D**	1,400	2.65%	Yes	No
	Paseo Del Rey to Paseo Ranchero	Prime Arterial (6-lane)	50,400	50,000	**D**	1,800	3.57%	Yes	No
	Paseo Ranchero to Otay Lakes Road	Prime Arterial (6-lane)	42,300	50,000	B	1,900	4.49%	—	No
	Otay Lakes Road to SR-125 southbound ramps	Major Street (4-lane)	31,800	30,000	**D**	2,300	7.23%	Yes	No
Proctor Valley Road	SR-125 southbound ramps to SR-125 northbound ramps	Prime Arterial (6-lane)	22,600	50,000	A	3,400	15.04%	—	No
	SR-125 northbound ramps to Mt. Miguel Road	Prime Arterial (6-lane)	30,800	50,000	A	5,100	16.56%	—	No

Table 2.9-18
Roadway Segment Level of Service Results – Year 2030 Cumulative Conditions – City of Chula Vista

Roadway	Segment	Classification	ADT w/ Project	ADT Threshold (LOS C)	LOS	Project ADT (< 800)	Project Contribution (≥ 5%)	Peak Hour Operations	Significant Impact?
	Mt. Miguel Road to Lane Avenue	Prime Arterial (6-lane)	40,400	50,000	B	6,400	15.84%	—	No
	Lane Avenue to Hunte Parkway	Prime Arterial (6-lane)	30,200	50,000	A	8,300	27.48%	—	No
Proctor Valley Road	Hunte Parkway to Northwood Drive	Major Street (4-lane)	25,500	30,000	B	10,700	41.96%	—	**No**
	Northwoods Drive to City of Chula Vista/County Boundary	Class II Collector (3-lane)	15,900	12,000	**F**	**11,900**	**74.84%**	**No**	**Yes (Direct)**
Telegraph Canyon Road	Paseo Ranchero to Otay Lakes Road	Prime Arterial (6-lane)	48,600	50,000	C	600	1.23%	—	No
Otay Lakes Road	Ridgeback Road to East H Street	Prime Arterial (6-lane)	30,700	50,000	A	300	0.98%	—	No
	East H Street to Otay Lakes Road	Prime Arterial (6-lane)	31,000	50,000	A	500	1.61%	—	No
	Telegraph Canyon to SR-125 southbound ramps	Prime Arterial (6-lane)	44,000	50,000	C	600	1.36%	—	No
	SR-125 southbound ramps to SR-125 northbound ramps	Prime Arterial (6-lane)	49,100	50,000	C	800	1.63%	—	No
	SR-125 northbound ramps to Eastlake Parkway	Prime Arterial (6-lane)	54,800	50,000	**D**	800	1.46%	Yes	No
	Eastlake Parkway to Lane Avenue	Prime Arterial (6-lane)	37,200	50,000	A	500	1.34%	—	No
	Lane Avenue to Hunte Parkway	Prime Arterial (6-lane)	27,800	50,000	A	800	2.88%	—	No
	Hunte Parkway to Woods Drive	Prime Arterial (6-lane)	27,900	50,000	A	100	0.36%	—	No

Table 2.9-18
Roadway Segment Level of Service Results – Year 2030 Cumulative Conditions – City of Chula Vista

Roadway	Segment	Classification	ADT w/ Project	ADT Threshold (LOS C)	LOS	Project ADT (< 800)	Project Contribution (≥ 5%)	Peak Hour Operations	Significant Impact?
	SR-125 northbound ramps to Eastlake Parkway	Expressway (7 or 8-lane)	51,900	70,000	A	300	0.58%	—	No
	Eastlake Parkway to Hunte Parkway	Prime Arterial (6-lane)	35,100	50,000	A	500	1.42%	—	No
	Hunte Parkway to Olympic Vista Road	Major Street (4-lane)	26,300	30,000	C	0	0.00%	—	No
Paseo Del Rey	East H Street to East J Street	Class I Collector (4-lane)	13,800	22,000	A	300	2.17%	—	No
Heritage Road	Telegraph Canyon Road to East Palomar Street	Prime Arterial (6-lane)	27,400	50,000	A	100	0.36%	—	No
La Media Road	Otay Lakes Road to East Palomar Street	Prime Arterial (6-lane)	31,200	50,000	A	100	0.32%	—	No
Eastlake Parkway	Miller Road to Otay Lakes Road	Major Street (4-lane)	26,200	30,000	B	600	2.29%	—	No
	Otay Lakes Road to Olympic Parkway	Prime Arterial (6-lane)	23,900	50,000	A	0	0.00%	—	No
	Olympic Parkway to Hunte Parkway	Major Street (6-lane)	28,800	40,000	A	400	1.39%	—	No
Old Trail Drive	North Trail Court to Proctor Valley Road	Class III Collector (2-lane)	5,300	7,500	A	100	1.89%	—	No
Lane Avenue	Proctor Valley Road to Otay Lakes Road	Class I Collector (4-lane)	14,400	22,000	A	1,700	11.81%	—	No
Hunte Parkway	Proctor Valley Road to Otay Lakes Road	Major Street (4-lane)	11,400	30,000	A	2,300	20.18%	—	No
	Otay Lakes Road to Olympic Parkway	Major Street (4-lane)	18,500	30,000	A	1,300	7.03%	—	No

Table 2.9-18
Roadway Segment Level of Service Results – Year 2030 Cumulative Conditions – City of Chula Vista

Roadway	Segment	Classification	ADT w/ Project	ADT Threshold (LOS C)	LOS	Project ADT (< 800)	Project Contribution (≥ 5%)	Peak Hour Operations	Significant Impact?
	Olympic Parkway to Eastlake Parkway	Prime Arterial (6-lane)	35,400	50,000	A	400	1.13%	—	No
Northwoods Drive	Proctor Valley Road to Blue Ridge Drive	Class III Collector (2-lane)	1,200	7,500	A	800	66.67%	—	No

Source: Appendix 2.9-1.
Bold indicates threshold exceeded

Table 2.9-19
Otay Ranch Cumulative Land Uses Trip Generation

Land Use	Units	Trip Rate	ADT	AM Peak Hour					PM Peak Hour				
				%	*Trips*	*Split*	*In*	*Out*	*%*	*Trips*	*Split*	*In*	*Out*
Single-Family Detached Housing	854 Units	10/Units	8,540	8%	683	(3:7)	205	478	10%	854	(7:3)	598	256
Community Facility	4.7 Acres	30/Acres	141	5%	8	(5:5)	4	4	8%	11	(5:5)	5	6
Mixed Use: Commercial/Residential	1.2 Acres	2,000/Acre	2,400	3%	72	(6:4)	43	29	9%	216	(5:5)	108	108
		Total	**11,081**		**763**		**252**	**511**		**1,081**		**711**	**370**

Source: SANDAG 2002; Appendix 2.9-1.

Table 2.9-20
Roadway Segment Level of Service Results – Year 2030 Conditions Plus Hypothetical Development of State Preserve Property – County of San Diego

Roadway	Segment	Cross-Section	ADT	LOS Threshold (LOS D)	LOS w/ Project	Project ADT	Significant Impact?
Proctor Valley Road	City of Chula Vista boundary to Project Driveway No. 1	2-Lane w/ RM	29,400	13,500	**F**	**11,900**	**Yes (Cumulative)**
	Project Driveway No. 1 to Project Driveway No. 2	2-Lane w/ RM	27,700	13,500	**F**	**10,200**	**Yes (Cumulative)**
	Project Driveway No. 2 to Project Driveway No. 3	2-Lane w/ RM	24,000	13,500	**F**	**8,800**	**Yes (Cumulative)**
	Project Driveway No. 3 to Project Driveway No. 4	2-Lane w/ RM	23,900	13,500	**F**	**8,700**	**Yes (Cumulative)**
	Project Driveway No. 4 to Project Driveway No. 5	2-Lane w/ RM	12,280	13,500	D	2,600	No
	Project Driveway No. 5 to Project Village 14 boundary	2-Lane w/ RM	9,072	13,500	C	1,600	No
	Village 14 boundary to Project Driveway No. 7	2-Lane	8,672	7,100	D	1,200	No
	Project Driveway No. 7 to Project Driveway No. 8	2-Lane	8,472	7,800	D	1,000	No
	Project Driveway No. 8 to Melody Road	2-Lane	8,372	9,500	C	700	No
	Melody Road to Schlee Canyon Road	2-Lane	7,800	7,800	D	300	No
	Schlee Canyon Road to Maxfield Road	2-Lane	6,000	7,100	C	200	No
	Maxfield Road to SR-94	2-Lane	5,700	7,100	C	200	No
Melody Road	Lyons Valley Road to Jefferson Road	2-Lane	5,700	7,100	C	300	No
Jefferson Road	Jefferson Road to Maxfield Road	2-Lane	4,700	7,100	C	100	No
Lyons Valley Road	Maxfield Road to Melody Road	2-Lane	10,600	9,500	D	100	No

Source: Appendix 2.9-1.
RM = raised median
Bold indicates threshold exceeded

Table 2.9-21
Roadway Segment Level of Service Results – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property – City of Chula Vista

Roadway	Segment	Classification	ADT w/ Project	ADT Threshold (LOS C)	LOS	Project ADT (< 800)	Project Contribution (≥ 5%)	Peak Hour Operations	Significant Impact?
San Miguel Ranch Road	Proctor Valley Road to SR-125 southbound ramp	Class I Collector (4-lane)	15,600	22,000	A	1,000	6.41%	—	No
	SR-125 southbound ramp to SR-125 northbound ramp	Class I Collector (4-lane)	13,100	22,000	A	1,000	7.63%	—	No
San Miguel Ranch / Mt. Miguel Road	SR-125 northbound ramp to Proctor Valley Road	Class I Collector (4-lane)	11,700	22,000	A	1,000	8.55%	—	No
Mt. Miguel Road	Proctor Valley Road to Mackenzie Creek Road	Class I Collector (4-lane)	9,300	22,000	A	300	3.23%	—	No
H Street	I-805 southbound ramps to I-805 northbound ramps	Prime Arterial (6-lane)	48,300	50,000	C	900	1.86%	—	No
	I-805 northbound ramps to Terra Nova Drive	Expressway (7-lane)	67,000	70,000	C	1,400	2.09%	—	No
	Terra Nova Drive to Del Rey Boulevard	Prime Arterial (6-lane)	53,800	50,000	**D**	**1,400**	**2.60%**	**Yes**	**No**
	Del Rey Boulevard to Paseo Del Rey	Prime Arterial (6-lane)	54,300	50,000	**D**	**1,400**	**2.58%**	**Yes**	**No**
	Paseo Del Rey to Paseo Ranchero	Prime Arterial (6-lane)	52,100	50,000	**D**	**1,800**	**3.45%**	**Yes**	**No**
	Paseo Ranchero to Otay Lakes Road	Prime Arterial (6-lane)	44,100	50,000	C	1,900	4.31%	—	No
	Otay Lakes Road to SR-125 southbound ramps	Major Street (4-lane)	34,000	30,000	**E**	**2,300**	**6.76%**	**Yes**	**No**

Table 2.9-21
Roadway Segment Level of Service Results – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property – City of Chula Vista

Roadway	Segment	Classification	ADT w/ Project	ADT Threshold (LOS C)	LOS	Project ADT (< 800)	Project Contribution (≥ 5%)	Peak Hour Operations	Significant Impact?
Proctor Valley Road	SR-125 southbound ramps to SR-125 northbound ramps	Prime Arterial (6-lane)	25,900	50,000	A	3,400	13.13%	—	No
	SR-125 northbound ramps to Mt. Miguel Road	Prime Arterial (6-lane)	35,700	50,000	A	5,100	14.29%	—	No
	Mt. Miguel Road to Lane Avenue	Prime Arterial (6-lane)	46,500	50,000	C	6,400	13.76%	—	No
	Lane Avenue to Hunte Parkway	Prime Arterial (6-lane)	38,200	50,000	B	8,300	21.73%	—	No
Proctor Valley Road	Hunte Parkway to Northwood Drive	Major Street (4-lane)	35,800	30,000	**E**	**10,700**	**29.89%**	**No**	**Yes (Direct)**
	Northwoods Drive to City of Chula Vista/County Boundary	Class II Collector (3-lane)	27,300	12,000	**F**	**11,900**	**43.59%**	**No**	**Yes (Direct)**
Telegraph Canyon Road	Paseo Ranchero to Otay Lakes Road	Prime Arterial (6-lane)	49,200	50,000	C	600	1.22%	—	No
Otay Lakes Road	Ridgeback Road to East H Street	Prime Arterial (6-lane)	30,900	50,000	A	300	0.97%	—	No
	East H Street to Otay Lakes Road	Prime Arterial (6-lane)	31,500	50,000	A	500	1.59%	—	No
	Telegraph Canyon Road to SR-125 southbound ramps	Prime Arterial (6-lane)	44,600	50,000	C	600	1.35%	—	No
	SR-125 southbound ramps to SR-125 northbound ramps	Prime Arterial (6-lane)	49,800	50,000	C	800	1.61%	—	No
	SR-125 northbound ramps to Eastlake Parkway	Prime Arterial (6-lane)	55,500	50,000	**D**	**800**	**1.44%**	**Yes**	**No**
	Eastlake Parkway to Lane Avenue	Prime Arterial (6-lane)	37,700	50,000	B	500	1.33%	—	No

Table 2.9-21
Roadway Segment Level of Service Results – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property – City of Chula Vista

Roadway	Segment	Classification	ADT w/ Project	ADT Threshold (LOS C)	LOS	Project ADT (< 800)	Project Contribution (≥ 5%)	Peak Hour Operations	Significant Impact?
	Lane Avenue to Hunte Parkway	Prime Arterial (6-lane)	28,500	50,000	A	800	2.81%	—	No
	Hunte Parkway to Woods Drive	Prime Arterial (6-lane)	28,000	50,000	A	100	0.36%	—	No
Olympic Parkway	SR-125 northbound ramps to Eastlake Parkway	Expressway (7 or 8-lane)	52,100	70,000	A	300	0.58%	—	No
	Eastlake Parkway to Hunte Parkway	Prime Arterial (6-lane)	35,600	50,000	A	500	1.40%	—	No
	Hunte Parkway to Olympic Vista Road	Major Street (4-lane)	26,300	30,000	C	0	0.00%	—	No
Paseo Del Rey	East H Street to East J Street	Class I Collector (4-lane)	14,000	22,000	A	300	2.14%	—	No
Heritage Road	Telegraph Canyon Road to East Palomar Street	Prime Arterial (6-lane)	27,500	50,000	A	100	0.36%	—	No
La Media Road	Otay Lakes Road to East Palomar Street	Prime Arterial (6-lane)	31,300	50,000	A	100	0.32%	—	No
Eastlake Parkway	Miller Road to Otay Lakes Road	Major Street (4-lane)	26,800	30,000	C	600	2.24%	—	No
	Otay Lakes Road to Olympic Parkway	Prime Arterial (6-lane)	23,900	50,000	A	0	0.00%	—	No
	Olympic Parkway to Hunte Parkway	Major Street (6-lane)	29,200	40,000	A	400	1.37%	—	No
Old Trail Drive	North Trail Court to Proctor Valley Road	Class III Collector (2-lane)	5,400	7,500	A	100	1.85%	—	No
Lane Avenue	Proctor Valley Road to Otay Lakes Road	Class I Collector (4-lane)	16,000	22,000	A	1,700	10.63%	—	No

Table 2.9-21
Roadway Segment Level of Service Results – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property – City of Chula Vista

Roadway	Segment	Classification	ADT w/ Project	ADT Threshold (LOS C)	LOS	Project ADT (< 800)	Project Contribution (≥ 5%)	Peak Hour Operations	Significant Impact?
Hunte Parkway	Proctor Valley Road to Otay Lakes Road	Major Street (4-lane)	13,600	30,000	A	2,300	16.91%	—	No
	Otay Lakes Road to Olympic Parkway	Major Street (4-lane)	19,700	30,000	A	1,300	6.60%	—	No
	Olympic Parkway to Eastlake Parkway	Prime Arterial (6-lane)	35,800	50,000	A	400	1.12%	—	No
Northwoods Drive	Proctor Valley Road to Blue Ridge Drive	Class III Collector (2-lane)	1,900	7,500	A	800	42.11%	—	No

Source: Appendix 2.9-1.
Bold indicates threshold exceeded

Table 2.9-22
Measures of Significant Project Impacts to Congestion at Intersections – Allowable Increases at Congested Intersections

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

Source: County of San Diego.

Table 2.9-23
Peak Hour Intersection Level of Service Results – Existing Plus Project Build-Out Conditions

No.	Intersection	Control	Year 2025				Impact Criteria by Jurisdiction			Significant Impact?
			AM Peak Hour		PM Peak Hour		*Caltrans / San Diego Change in Delay (seconds)*	*Chula Vista (Project % of Entering Volume)*	*County*	
			Avg. Delay (sec.)	*LOS*	*Avg. Delay (sec.)*	*LOS*	*AM / PM*	*AM / PM*	*AM / PM*	
1	SR-94 and Lyons Valley Road	SSSC	**>500**	**F**	**>500**	**F**	**—**			**Yes**
2	Proctor Valley Road/Jefferson Road and SR-94	Signal	29.1	C	37.3	D	N/A			No
3	Proctor Valley Road and Maxfield Road	SSSC	12.2	B	13.3	B	N/A			No
4	Proctor Valley Road and Melody Road	SSSC	8.7	A	9.1	A	N/A			No
5	SR-94 and Melody Road	Signal	13.6	B	18.1	C	N/A			No
6	San Miguel Ranch Road and SR-125 southbound ramps	Signal	22.1	C	19.3	B		8.9% / 8.1%		No
7	San Miguel Ranch Road and SR-125 northbound ramp	Signal	17.4	B	14.8	B		6.8% / 7.8%		No
8	I-805 southbound ramp and East H Street	Signal	9.7	A	13.1	B		0.6% / 0.5%		No
9	I-805 northbound ramp and East H Street	Signal	10.2	B	13.8	B		1.8% / 1.9%		No
10	Terra Nova Drive and East H Street	Signal	14.4	B	17.0	B		1.7% / 2.1%		No
11	East H Street and Del Rey Boulevard	Signal	13.2	B	9.3	A		1.9% / 2.2%		No
12	Paseo Del Rey and East H Street	Signal	20.9	C	29.5	C		2.0% / 2.3%		No
13	Paseo Ranchero and East H Street	Signal	52.1	D	49.0	D		2.1% / 2.8%		No
14	Otay Lakes Road and East H Street	Signal	38.4	D	41.6	D		2.7% / 3.4%		No
15	SR-125 southbound ramp and East H Street	Signal	6.2	A	7.4	A		8.6% / 11.6%		No
16	SR-125 northbound ramp and East H Street	Signal	3.8	A	5.3	A		9.9% / 13.6%		No
17	Mt. Miguel Road and East H Street	Signal	38.0	D	30.3	C		8.9% / 13.4%		No
18	Lane Avenue and East H Street	Signal	31.2	C	36.7	D		13.3% / 17.4%		No
19	Hunte Parkway and East H Street	Signal	26.8	C	21.9	C		16.1% / 24.3%		No

Table 2.9-23
Peak Hour Intersection Level of Service Results – Existing Plus Project Build-Out Conditions

No.	Intersection	Control	Year 2025				Impact Criteria by Jurisdiction			Significant Impact?
			AM Peak Hour		*PM Peak Hour*		*Caltrans / San Diego Change in Delay (seconds)*	*Chula Vista (Project % of Entering Volume)*	*County*	
			Avg. Delay (sec.)	*LOS*	*Avg. Delay (sec.)*	*LOS*	*AM / PM*	*AM / PM*	*AM / PM*	
20	Northwoods Drive / Agua Vista Drive and Proctor Valley Road	AWSC	**57.2**	**F**	**44.6**	**E**		**35.4% / 43.1%**		**Yes**
21	East Lake Parkway and Fenton Street	Signal	25.3	C	44.3	D		1.7% / 1.5%		No
22	Lane Avenue and Fenton Street	Signal	35.2	D	35.9	D		2.0% / 2.5%		No
23	Heritage Road/Paseo Ranchero and Telegraph Canyon Road	Signal	52.2	D	52.9	D		0.5% / 0.6%		No
24	La Media Road and Telegraph Canyon Road / Otay Lakes Road	Signal	47.0	D	53.6	D		0.3% / 0.4%		No
25	SR-125 southbound ramps and Otay Lakes Road	Signal	11.7	B	11.4	B		0.4% / 0.4%		No
26	SR-125 northbound ramps and Otay Lakes Road	Signal	9.2	A	12.5	B		0.3% / 0.4%		No
27	East Lake Parkway and Otay Lakes Road	Signal	41.9	D	49.5	D		1.0% / 1.1%		No
28	Lane Avenue and Otay Lakes Road	Signal	20.9	C	35.0	D		1.4% / 1.6%		No
29	Hunte Parkway and Otay Lakes Road	Signal	19.2	B	26.1	C		1.9% / 2.3%		No
30	Fenton Street and Otay Lakes Road	Signal	29.6	C	53.0	D		2.3% / 3.2%		No
31	East Lake Parkway and Olympic Parkway	Signal	27.3	C	33.4	C		0.1% / 0.1%		No
32	Hunte Parkway and Olympic Parkway	Signal	20.5	C	44.4	D		1.1% / 1.0%		No
33	East Lake Parkway and Hunte Parkway	Signal	29.8	C	30.1	C		0.8% / 1.1%		No
34	Proctor Valley Road and Project Driveway No. 1	RA	13.2	B	17.8	C			N/A	No
35	Proctor Valley Road and Project Driveway No. 2	SSSC	12	B	13.5	B			N/A	No
36	Proctor Valley Road and Project Driveway No. 3	RA	17.3	C	10.4	B			N/A	No
37	Proctor Valley Road and Project Driveway No. 4	RA	10.1	B	8.4	A			N/A	No

Table 2.9-23
Peak Hour Intersection Level of Service Results – Existing Plus Project Build-Out Conditions

No.	Intersection	Control	Year 2025				Impact Criteria by Jurisdiction			Significant Impact?
			AM Peak Hour		*PM Peak Hour*		*Caltrans / San Diego Change in Delay (seconds)*	*Chula Vista (Project % of Entering Volume)*	*County*	
			Avg. Delay (sec.)	*LOS*	*Avg. Delay (sec.)*	*LOS*	*AM / PM*	*AM / PM*	*AM / PM*	
38	Proctor Valley Road and Project Driveway No. 5	RA	7	A	6.9	A			N/A	No
39	Proctor Valley Road and Project Driveway No. 6	SSSC	12	B	10.5	B			N/A	No
40	Proctor Valley Road and Project Driveway No. 7	SSSC	13	B	11.1	B			N/A	No
41	Proctor Valley Road and Project Driveway No. 8	RA	3.8	A	6.3	A			N/A	No

Source: Appendix 2.9-1.
AWSC = all-way stop controlled intersection; SSSC: side street stop controlled intersection, the delay shown is the worst delay experienced by any of the approaches; RA: Roundabout
Notes:
Bold indicates Level of Service (LOS) E or F; N/A: Impact Criteria not applicable because intersection is projected to operate at an acceptable level; >500: More than 500 seconds of delay, meaning the traffic at the SSSC is too high for HCS 2010 to accurately calculate

Table 2.9-24
Peak Hour Intersection Level of Service Results – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property

No.	Intersection	Year 2030 Cumulative				Impact Criteria by Jurisdiction			Significant Impact?
		AM Peak Hour		*PM Peak Hour*		*Caltrans/ San Diego Change in Delay (seconds)*	*Chula Vista (Project % of Entering Volume)*	*County*	
		Avg. Delay (sec.)	*LOS*	*Avg. Delay (sec.)*	*LOS*	*AM / PM*	*AM / PM*	*AM / PM*	
1	SR-94 and Lyons Valley Road	**>500**	**F**	**>500**	**F**	**-**			**Yes**

Table 2.9-24
Peak Hour Intersection Level of Service Results – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property

No.	Intersection	Year 2030 Cumulative				Impact Criteria by Jurisdiction			Significant Impact?
		AM Peak Hour		*PM Peak Hour*		*Caltrans/ San Diego Change in Delay (seconds)*	*Chula Vista (Project % of Entering Volume)*	*County*	
		Avg. Delay (sec.)	*LOS*	*Avg. Delay (sec.)*	*LOS*	*AM / PM*	*AM / PM*	*AM / PM*	
2	Proctor Valley Road/Jefferson Road and SR-94	40.5	D	42.3	D	N/A			No
3	Proctor Valley Road and Maxfield Road	13.4	B	11.3	B	N/A			No
4	Proctor Valley Road and Melody Road	9.0	A	9.7	A	N/A			No
5	SR-94 and Melody Road	14.6	B	19.7	B	N/A			No
6	San Miguel Ranch Road and SR-125 southbound ramps	22.1	C	20.0	B		10.7% / 8.4%		No
7	San Miguel Ranch Road and SR-125 northbound ramp	16.7	B	14.6	B		8.3% / 8.1%		No
8	I-805 southbound ramp and East H Street	14.5	B	13.9	B		1.0% / 0.8%		No
9	I-805 northbound ramp and East H Street	12.3	B	16.9	B		1.2% / 1.2%		No
10	Terra Nova Drive and East H Street	20.0	C	25.1	C		1.2% / 1.3%		No
11	East H Street and Del Rey Boulevard	14.4	B	11.7	B		1.3% / 1.3%		No
12	Paseo Del Rey and East H Street	24.3	C	54.0	D		3.5% / 3.3%		No
13	Paseo Ranchero and East H Street	**61.6**	**E**	**57.6**	**E**		3.7% / 4.2%		**Yes**
14	Otay Lakes Road and East H Street	52.4	D	54.8	D		5.0% / 4.8%		No
15	SR-125 southbound ramp and East H Street	7.9	A	8.5	A		14.0% / 15.2%		No
16	SR-125 northbound ramp and East H Street	5.0	A	7.2	A		15.3% / 18.1%		No
17	Mt. Miguel Road and East H Street	**81.6**	**F**	**66.2**	**E**		13.7% / 17.3%		**Yes**
18	Lane Avenue and East H Street	**114.6**	**F**	**71.8**	**E**		21.4% / 21.6%		**Yes**

Table 2.9-24
Peak Hour Intersection Level of Service Results – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property

No.	Intersection	Year 2030 Cumulative				Impact Criteria by Jurisdiction			Significant Impact?
		AM Peak Hour		PM Peak Hour		*Caltrans/ San Diego Change in Delay (seconds)*	*Chula Vista (Project % of Entering Volume)*	*County*	
		Avg. Delay (sec.)	*LOS*	*Avg. Delay (sec.)*	*LOS*	*AM / PM*	*AM / PM*	*AM / PM*	
19	Hunte Parkway and East H Street	54.0	D	53.3	D		26.9% / 28.6%		No
20	Northwoods Drive / Agua Vista Drive and Proctor Valley Road	**70.8**	**F**	**72.0**	**F**		**49.2% / 50.8%**		**Yes**
21	East Lake Parkway and Fenton Street	26.9	C	54.6	D		3.3% / 2.5%		No
22	Lane Avenue and Fenton Street	38.1	D	52.8	D		2.5% / 2.0%		No
23	Heritage Road/Paseo Ranchero and Telegraph Canyon Road	54.8	D	53.7	D		1.0% / 1.3%		No
24	La Media Road and Telegraph Canyon Road / Otay Lakes Road	49.5	D	55.0	D		0.5% / 0.6%		No
25	SR-125 southbound ramps and Otay Lakes Road	12.6	B	13.2	B		1.1% / 0.9%		No
26	SR-125 northbound ramps and Otay Lakes Road	10.0	A	21.5	C		1.4% / 1.6%		No
27	East Lake Parkway and Otay Lakes Road	48.8	D	53.1	D		1.3% / 1.4%		No
28	Lane Avenue and Otay Lakes Road	23.4	C	43.9	D		1.3% / 1.8%		No
29	Fenton Street and Otay Lakes Road	26.9	C	31.4	C		2.2% / 2.3%		No
30	Hunte Parkway and Otay Lakes Road	48.6	D	44.4	D		3.4% / 4.2%		No
31	East Lake Parkway and Olympic Parkway	28.6	C	34.1	C		0.5% / 0.4%		No
32	Hunte Parkway and Olympic Parkway	38.7	D	50.6	D		1.8% / 1.5%		No
33	East Lake Parkway and Hunte Parkway	52.8	D	45.8	D		1.1% / 1.2%		No
34	Proctor Valley Road and Project Driveway No. 1	187.0	**F**	>500	**F**				**Yes**

Table 2.9-24
Peak Hour Intersection Level of Service Results – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property

No.	Intersection	Year 2030 Cumulative				Impact Criteria by Jurisdiction			Significant Impact?
		AM Peak Hour		PM Peak Hour		*Caltrans/ San Diego Change in Delay (seconds)*	*Chula Vista (Project % of Entering Volume)*	*County*	
		Avg. Delay (sec.)	*LOS*	*Avg. Delay (sec.)*	*LOS*	*AM / PM*	*AM / PM*	*AM / PM*	
35	Proctor Valley Road and Project Driveway No. 2	18.5	C	48.0	**E**				**Yes**
36	Proctor Valley Road and Project Driveway No. 3	93.2	**F**	177.2	**F**				**Yes**
37	Proctor Valley Road and Project Driveway No. 4	66.9	**F**	143.8	**F**				**Yes**
38	Proctor Valley Road and Project Driveway No. 5	41.1	**E**	34.0	D				**Yes**
39	Proctor Valley Road and Project Driveway No. 6	20.8	C	12.5	B				No
40	Proctor Valley Road and Project Driveway No. 7	21.6	C	13.3	B				No
41	Proctor Valley Road and Project Driveway No. 8	13.9	B	8.4	A				No

Source: Appendix 2.9-1.
Notes:
Bold indicates LOS E or F; >500: More than 500 seconds of delay, meaning the traffic at the SSSC is too high for HCS 2010 to accurately calculate.

Table 2.9-25
Measures of Significant Project Impacts to Congestion – Allowable Increases on Two-Lane Highways with Signalized Intersection Spacing Over 1 Mile

LOS	LOS Criteria	Impact Significance Level
LOS E	> 16,200 ADT	> 325 ADT
LOS F	> 22,900 ADT	> 225 ADT

Source: County of San Diego 2012.
Note: Where detailed data are available, the Director of Public Works may also accept a detailed Level of Service analysis based upon the two-lane highway analysis procedures provided in the Chapter 20 Highway Capacity Manual.
LOS = Level of Service.

Table 2.9-26
Measures of Significant Project Impacts to Congestion – Allowable Increases on Two-Lane Highways with Signalized Intersection Spacing Under 1 Mile

LOS	Impact Significance Level
LOS E	Intersection delay of 2 seconds
LOS F	Intersection delay of 1 second, or 5 peak hour trips on a critical movement

Source: County of San Diego 2012.
Notes: A critical movement is one that is experiencing excessive queues.
By adding Proposed Project trips to all other trips from a list of projects, this same table is used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes any trips must mitigate a share of the cumulative impacts.
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.

Table 2.9-27
San Diego Traffic Engineers' Council/Institute of Traffic Engineers Measure of Significant Project Traffic Impacts

	Allowable Change Due to Impact					
	Freeways		*Roadway Segments*		*Intersections*	*Ramp Metering*
LOS with Project	*V/C*	*Speed (mph)*	*V/C*	*Speed (mph)*	*Delay (seconds)*	*Delay (minutes)*
E and F (or ramp meter delays above 15 minutes)	0.01	1	0.02	1	2	2

Source: SANTEC/ITE 2000.
Notes: LOS = level of service; V/C = volume to capacity.

Table 2.9-28
Two-Lane Highway Segment Level of Service Results – Existing Plus Project Conditions

Highway	Segment	LOS Threshold (LOS D)	ADT	LOS w/ Project	LOS w/o Project	Project ADT	Significant Impact?
SR-94	Vista Sage Lane to Lyons Valley Road	16,200	17,200	**E**	**E**	100	No
	Lyons Valley Road to Jefferson Road		15,600	D or better	D or better	300	No
	Jefferson Road to Maxfield Road		9,000	D or better	D or better	0	No
	Maxfield Road to Melody Road		8,000	D or better	D or better	0	No
	Melody Road to Otay Lakes Road		7,000	D or better	D or better	100	No

Source: Appendix 2.9-1.

Table 2.9-29
Freeway/State Highway Segment Level of Service Results – Existing Plus Project Build-Out Conditions

Freeway	Segment	ADT	K	Peak Hour Volume	D	Lanes Per Direction	PHF	HVF	Volume (pc/h/ln)	V/C	LOS	Δ V/C	LOS w/o Project	Significant Impact?
I-805	Home Avenue to SR-94	220,100	7.86%	17,300	0.58	4M	0.95	6.00%	2,814	1.173	**F**	0.001	**F**	No
	SR-94 to Market Street	219,300	8.03%	17,610	0.60	4M	0.95	6.00%	2,947	1.228	**F**	0.002	**F**	No
	Market Street to Imperial Avenue	227,400	8.03%	18,260	0.60	4M + 1 HOV + 1 Aux	0.95	6.00%	2,444	1.018	**F**	0.002	**F**	No
	Imperial Avenue to E Division Street	209,500	8.03%	16,823	0.60	5M + 1 HOV	0.95	6.00%	2,047	0.853	D	0.002	D	No
	East Division Street to Plaza Boulevard	198,600	8.04%	15,967	0.60	5M + 1 HOV + 1 Aux	0.95	6.00%	1,799	0.749	D	0.002	D	No
	Plaza Boulevard to SR-54	206,800	8.04%	16,627	0.60	5M + 1 HOV	0.95	6.00%	2,043	0.851	D	0.003	D	No
	SR-54 to Bonita Road	262,900	8.01%	21,058	0.57	4M + 1 HOV + 1 Aux	0.95	7.32%	2,711	1.130	**F**	0.004	**F**	No
	Bonita Road to East H Street	208,000	8.01%	16,661	0.57	4M + 1 HOV + 1 Aux	0.95	7.32%	2,145	0.894	D	0.004	D	No

Table 2.9-29
Freeway/State Highway Segment Level of Service Results – Existing Plus Project Build-Out Conditions

Freeway	Segment	ADT	K	Peak Hour Volume	D	Lanes Per Direction	PHF	HVF	Volume (pc/h/ln)	V/C	LOS	Δ V/C	LOS w/o Project	Significant Impact?
	East H Street to Telegraph Canyon Road	192,100	8.01%	15,387	0.57	5M + 1 HOV	0.95	7.32%	1,801	0.750	D	0.000	D	No
SR-125	SR-94 Junction to Jamacha Road	113,300	8.76%	9,925	0.56	3M	0.95	4.40%	2,027	0.845	D	0.010	D	No
	Jamacha Road to Paradise Valley Road	94,400	8.76%	8,269	0.56	3M	0.95	4.40%	1,689	0.704	C	0.010	C	No
	Paradise Valley Road to SR-54 Junction	100,500	8.76%	8,804	0.56	3M + 1 HOV	0.95	4.40%	1,541	0.642	C	0.010	C	No
	SR-54 to Mt. Miguel Road	19,200	7.00%	1,344	0.59	2M	0.95	1.90%	425.43055	0.177	A	0.016	A	No
	Mt. Miguel Road to Proctor Valley Road	18,100	7.00%	1,267	0.59	2M	0.95	1.90%	401.05692	0.167	A	0.017	A	No
	Proctor Valley Road to Otay Lakes Road	14,500	7.00%	1,015	0.59	2M	0.95	1.90%	321.2887	0.134	A	0.018	A	No
	Otay Lakes Road to Olympic Parkway	6,700	7.00%	469	0.59	2M	0.95	1.90%	148.45754	0.062	A	0.018	A	No
	Olympic Parkway to Birch Road	6,500	7.00%	455	0.59	2M	0.95	1.90%	144.02597	0.060	A	0.020	A	No
	Birch Road to Main Street	6,900	7.00%	483	0.59	2M	0.95	1.90%	152.8891	0.064	A	0.021	A	No
	Main Street to Otay Valley Road	7,000	7.00%	490	0.59	2M	0.95	1.90%	155.10489	0.065	A	0.022	A	No
SR-125	Otay Valley Road to Lone Star Road	7,200	7.00%	504	0.59	2M	0.95	1.90%	159.53646	0.066	A	0.024	A	No
	Lone Star Road to Otay Mesa Road	7,300	7.00%	511	0.59	2M	0.95	1.90%	161.75224	0.067	A	0.025	A	No

Table 2.9-29
Freeway/State Highway Segment Level of Service Results – Existing Plus Project Build-Out Conditions

Freeway	Segment	ADT	K	Peak Hour Volume	D	Lanes Per Direction	PHF	HVF	Volume (pc/h/ln)	V/C	LOS	Δ V/C	LOS w/o Project	Significant Impact?
SR-54	I-805 to Reo Drive/Plaza Bonita Center Way	119,100	8.23%	9,802	0.58	3M	0.95	1.90%	2,024	0.843	D	0.008	D	No
	Reo Drive/Plaza Bonita Center Way to Woodman Street	119,100	8.32%	9,909	0.55	3M	0.95	1.90%	1,954	0.814	D	0.008	D	No
	Woodman Street to Briarwood Road	107,100	8.27%	8,857	0.55	3M	0.95	1.90%	1,746	0.728	C	0.007	C	No
	Briarwood Road to SR-125 Junction	98,500	8.45%	8,323	0.52	3M + 1 HOV	0.95	1.90%	1,320	0.550	C	0.003	C	No

Source: Appendix 2.9-1.
Notes
K = Percent of traffic during the peak hour; D = Directional split; HVF = Percent of heavy vehicles; PHF =Peak Hour Factor; M = Mainline lane; HOV = High-Occupancy Vehicle Lane; Aux = Auxiliary lane
Bold indicates Level of Service (LOS) E or F.

Table 2.9-30
Two-Lane Highway Segment Level of Service Results – Year 2025 Cumulative Conditions

Highway	Segment	LOS Threshold (LOS D)	ADT	LOS w/ Project	LOS w/o Project	Project ADT	Significant Impact?
SR-94	Vista Sage Lane to Lyons Valley Road	16,200	25,100	**F**	**F**	100	No
	Lyons Valley Road to Jefferson Road		26,100	**F**	**F**	100	No
	Melody Road to Otay Lakes Road		15,800	D or better	D or better	100	No

Source: Appendix 2.9-1.
Bold indicates Level of Service (LOS) E or F.

Table 2.9-31
Freeway/State Highway Segment Level of Service Results – Year 2025 Cumulative Conditions

Freeway	Segment	ADT	K	Peak Hour Volume	D	Lanes Per Direction	PHF	HVF	Volume (pc/h/ln)	V/C	LOS	Δ V/C	LOS w/o Project	Significant Impact?
I-805	Home Avenue to SR-94	285,700	7.86%	22,456	0.58	4M	0.95	6.00%	3,653	1.522	**F**	0.005	**F**	No
	SR-94 to Market Street	285,700	8.03%	22,942	0.60	4M	0.95	6.00%	3,839	1.600	**F**	0.005	**F**	No
	Market Street to Imperial Avenue	349,400	8.03%	28,057	0.60	4M + 1 HOV + 1 Aux	0.95	6.00%	3,756	1.565	**F**	0.005	**F**	No
	Imperial Avenue to East Division Street	348,100	8.03%	27,952	0.60	5M + 1 HOV	0.95	6.00%	3,402	1.418	**F**	0.004	**F**	No
	East Division Street to Plaza Boulevard	333,600	8.04%	26,821	0.60	5M + 1 HOV + 1 Aux	0.95	6.00%	3,022	1.259	**F**	0.004	**F**	No
	Plaza Boulevard to SR-54	323,900	8.04%	26,042	0.60	5M + 1 HOV	0.95	6.00%	3,200	1.333	**F**	0.005	**F**	No
	SR-54 to Bonita Road	354,600	8.01%	28,403	0.57	4M + 1 HOV + 1 Aux	0.95	7.30%	3,657	1.524	**F**	0.003	**F**	No
	Bonita Road to East H Street	310,000	8.01%	24,831	0.57	4M + 1 HOV + 1 Aux	0.95	7.30%	3,197	1.332	**F**	0.002	**F**	No
	East H Street to Telegraph Canyon Road	308,800	8.01%	24,735	0.57	5M + 1 HOV	0.95	7.30%	2,895	1.206	**F**	0.001	**F**	No
SR-125	SR-94 Junction to Jamacha Road	146,300	8.76%	12,816	0.56	3M	0.95	4.40%	2,618	1.091	**F**	0.005	**F**	No
	Jamacha Road to Paradise Valley Road	129,600	8.76%	11,353	0.56	3M	0.95	4.40%	2,319	0.966	**E**	0.005	**E**	No
	Paradise Valley Road to SR-54 Junction	130,200	8.76%	11,406	0.56	3M + 1 HOV	0.95	4.40%	1,997	0.832	D	0.004	D	No
	SR-54 to Mt. Miguel Road	26,700	7.00%	1,869	0.59	2M	0.95	1.90%	592	0.247	A	0.010	A	No
	Mt. Miguel Road to Proctor Valley Road	29,600	7.00%	2,072	0.59	2M	0.95	1.90%	656	0.273	A	0.009	A	No

Table 2.9-31
Freeway/State Highway Segment Level of Service Results – Year 2025 Cumulative Conditions

Freeway	Segment	ADT	K	Peak Hour Volume	D	Lanes Per Direction	PHF	HVF	Volume (pc/h/ln)	V/C	LOS	Δ V/C	LOS w/o Project	Significant Impact?
	Proctor Valley Road to Otay Lakes Road	22,300	7.00%	1,561	0.59	2M	0.95	1.90%	494	0.206	A	0.003	A	No
	Otay Lakes Road to Olympic Parkway	27,900	7.00%	1,953	0.59	2M	0.95	1.90%	618	0.258	A	0.005	A	No
	Olympic Parkway to Birch Road	27,100	7.00%	1,897	0.59	2M	0.95	1.90%	600	0.250	A	0.005	A	No
SR-125	Birch Road to Main Street	45,300	7.00%	3,171	0.59	2M	0.95	1.90%	1,004	0.418	B	0.006	B	No
	Main Street to Otay Valley Road	45,300	7.00%	3,171	0.59	2M	0.95	1.90%	1,004	0.418	B	0.006	B	No
	Otay Valley Road to Lone Star Road	45,700	7.00%	3,199	0.59	2M	0.95	1.90%	1,013	0.422	B	0.006	B	No
	Lone Star Road to Otay Mesa Road	45,700	7.00%	3,199	0.59	2M	0.95	1.90%	1,013	0.422	B	0.006	B	No
SR-54	I-805 to Reo Drive/Plaza Bonita Center Way	138,800	8.23%	11,423	0.58	3M	0.95	1.90%	2,359	0.983	**E**	0.008	**E**	No
	Reo Drive/Plaza Bonita Center Way to Woodman Street	127,200	8.32%	10,583	0.55	3M	0.95	1.90%	2,086	0.869	D	0.007	D	No
	Woodman Street to Briarwood Road	114,100	8.27%	9,436	0.55	3M	0.95	1.90%	1,860	0.775	D	0.008	D	No
	Briarwood Road to SR-125 Junction	106,700	8.45%	9,016	0.52	3M + 1 HOV	0.95	1.90%	1,430	0.596	C	0.003	C	No

Source: Appendix 2.9-1.
Notes: K = Percent of Traffic during the peak hour; D = Directional split; HVF = Percent of heavy vehicles; PHF = Peak Hour Factor; M = Mainline lane; HOV = High-Occupancy Vehicle lane; Aux = Auxiliary lane
Bold indicates Level of Service (LOS) E or F.

Table 2.9-32
Two-Lane Highway Segment Level of Service Results – Year 2030 Cumulative Conditions

Highway	Segment	LOS Threshold (LOS D)	ADT	LOS w/ Project	LOS w/o Project	Project ADT	Significant Impact?
SR-94	Vista Sage Lane to Lyons Valley Road	16,200	26,600	**F**	**F**	100	No
	Lyons Valley Road to Jefferson Road		27,700	**F**	**F**	100	No
	Melody Road to Otay Lakes Road		13,700	D or better	D or better	100	No

Source: Appendix 2.9-1.
Bold indicates Level of Service (LOS) E or F.

Table 2.9-33
Freeway/State Highway Segment Level of Service Results – Year 2030 Cumulative Conditions

Freeway	Segment	ADT	Peak Hour Percent	Peak Hour Volume	Directional Split	Lanes Per Direction	PHF	HVF	Volume (pc/h/ln)	V/C	LOS	Δ V/C	LOS w/o Project	Significant Impact?
I-805	Home Avenue to SR-94	297,500	7.86%	23,384	0.58	4M	0.95	6.00%	3,804	1.585	**F**	0.005	**F**	No
	SR-94 to Market Street	297,500	8.03%	23,889	0.60	4M	0.95	6.00%	3,997	1.665	**F**	0.005	**F**	No
	Market Street to Imperial Avenue	354,200	8.03%	28,442	0.60	4M + 1 HOV + 1 Aux	0.95	6.00%	3,807	1.586	**F**	0.004	**F**	No
	Imperial Avenue to East Division Street	352,300	8.03%	28,290	0.60	5M + 1 HOV	0.95	6.00%	3,443	1.435	**F**	0.004	**F**	No
	East Division Street to Plaza Boulevard	339,600	8.04%	27,304	0.60	5M + 1 HOV + 1 Aux	0.95	6.00%	3,076	1.282	**F**	0.004	**F**	No
	Plaza Boulevard to SR-54	330,700	8.04%	26,588	0.60	5M + 1 HOV	0.95	6.00%	3,268	1.362	**F**	0.006	**F**	No

Table 2.9-33
Freeway/State Highway Segment Level of Service Results – Year 2030 Cumulative Conditions

Freeway	Segment	ADT	Peak Hour Percent	Peak Hour Volume	Directional Split	Lanes Per Direction	PHF	HVF	Volume (pc/h/ln)	V/C	LOS	Δ V/C	LOS w/o Project	Significant Impact?
	SR-54 to Bonita Road	373,000	8.01%	29,877	0.57	4M + 1 HOV + 1 Aux	0.95	7.32%	3,847	1.603	**F**	0.004	**F**	No
	Bonita Road to East H Street	329,800	8.01%	26,417	0.57	4M + 1 HOV + 1 Aux	0.95	7.32%	3,401	1.417	**F**	0.002	**F**	No
	East H Street to Telegraph Canyon Road	328,000	8.01%	26,273	0.57	5M + 1 HOV	0.95	7.32%	3,075	1.281	**F**	0.001	**F**	No
SR-125	SR-94 Junction to Jamacha Road	148,000	8.76%	12,965	0.56	3M	0.95	4.40%	2,648	1.103	**F**	0.006	**F**	No
	Jamacha Road to Paradise Valley Road	133,700	8.76%	11,712	0.56	3M	0.95	4.40%	2,392	0.997	**E**	0.006	**E**	No
	Paradise Valley Road to SR-54 Junction	137,400	8.76%	12,036	0.56	3M + 1 HOV	0.95	4.40%	2,107	0.878	D	0.005	D	No
	SR-54 to Mt. Miguel Road	31,700	7.00%	2,219	0.59	2M	0.95	1.90%	702	0.293	A	0.012	A	No
	Mt. Miguel Road to Proctor Valley Road	35,600	7.00%	2,492	0.59	2M	0.95	1.90%	789	0.329	B	0.012	A	No
	Proctor Valley Road to Otay Lakes Road	30,500	7.00%	2,135	0.59	2M	0.95	1.90%	676	0.282	A	0.006	A	No
SR-125	Otay Lakes Road to Olympic Parkway	38,600	7.00%	2,702	0.59	2M	0.95	1.90%	855	0.356	B	0.010	B	No
	Olympic Parkway to Birch Road	33,700	7.00%	2,359	0.59	2M	0.95	1.90%	747	0.311	A	0.010	A	No

Table 2.9-33
Freeway/State Highway Segment Level of Service Results – Year 2030 Cumulative Conditions

Freeway	Segment	ADT	Peak Hour Percent	Peak Hour Volume	Directional Split	Lanes Per Direction	PHF	HVF	Volume (pc/h/ln)	V/C	LOS	Δ V/C	LOS w/o Project	Significant Impact?
	Birch Road to Main Street	38,500	7.00%	2,695	0.59	2M	0.95	1.90%	853	0.355	B	0.010	B	No
	Main Street to Otay Valley Road	51,600	7.00%	3,612	0.59	2M	0.95	1.90%	1,143	0.476	B	0.010	B	No
	Otay Valley Road to Lone Star Road	90,500	7.00%	6,335	0.59	2M	0.95	1.90%	2,005	0.835	D	0.010	D	No
	Lone Star Road to Otay Mesa Road	80,200	7.00%	5,614	0.59	2M	0.95	1.90%	1,777	0.740	D	0.007	C	No
SR-54	I-805 to Reo Drive/Plaza Bonita Center Way	143,900	8.23%	11,843	0.58	3M	0.95	1.90%	2,445	1.019	**F**	0.006	**F**	No
	Reo Drive/Plaza Bonita Center Way to Woodman Street	130,500	8.32%	10,858	0.55	3M	0.95	1.90%	2,141	0.892	D	0.006	D	No
	Woodman Street to Briarwood Road	117,000	8.27%	9,676	0.55	3M	0.95	1.90%	1,908	0.795	D	0.006	D	No
	Briarwood Road to SR-125 Junction	108,300	8.45%	9,151	0.52	3M + 1 HOV	0.95	1.90%	1,451	0.605	C	0.003	C	No

Source: Appendix 2.9-1.
Notes: K = Percent of Traffic during the peak hour; D = Directional split; HVF = Percent of heavy vehicles; PHF =Peak Hour Factor; M = Mainline lane; HOV = High-Occupancy Vehicle lane; Aux = Auxiliary lane; Bold indicates Level of Service (LOS) E or F.

Table 2.9-34
Two-Lane Highway Segment Level of Service Results – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property

Highway	Segment	LOS Threshold (LOS D)	ADT	LOS w/ Project	LOS w/o Project	Project ADT	Significant Impact?
SR-94	Vista Sage Lane to Lyons Valley Road	16,200	26,700	**F**	**F**	100	No
	Lyons Valley Road to Jefferson Road		27,900	**F**	**F**	100	No
	Melody Road to Otay Lakes Road		18,400	D or better	D or better	100	No

Source: Appendix 2.9-1.
Bold indicates Level of Service (LOS) E or F.

Table 2.9-35
Freeway/State Highway Segment Level of Service Results – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property

Freeway	Segment	ADT	Peak Hour Percent	Peak Hour Volume	Directional Split	Lanes Per Direction	PHF	HVF	Volume (pc/h/ln)	V/C	LOS	Δ V/C	LOS w/o Project	Significant Impact?
I-805	Home Avenue to SR-94	298,500	7.86%	23,462	0.58	4M	0.95	6.00%	3,817	1.590	**F**	0.005	**F**	No
	SR-94 to Market Street	298,500	8.03%	23,970	0.60	4M	0.95	6.00%	4,011	1.671	**F**	0.006	**F**	No
	Market Street to Imperial Avenue	355,200	8.03%	28,523	0.60	4M + 1 HOV + 1 Aux	0.95	6.00%	3,818	1.591	**F**	0.004	**F**	No
	Imperial Avenue to E Division Street	353,300	8.03%	28,370	0.60	5M + 1 HOV	0.95	6.00%	3,452	1.438	**F**	0.004	**F**	No
	E Division Street to Plaza Boulevard	340,700	8.04%	27,392	0.60	5M + 1 HOV + 1 Aux	0.95	6.00%	3,086	1.286	**F**	0.004	**F**	No

Table 2.9-35
Freeway/State Highway Segment Level of Service Results – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property

Freeway	Segment	ADT	Peak Hour Percent	Peak Hour Volume	Directional Split	Lanes Per Direction	PHF	HVF	Volume (pc/h/ln)	V/C	LOS	Δ V/C	LOS w/o Project	Significant Impact?
	Plaza Boulevard to SR-54	331,900	8.04%	26,685	0.60	5M + 1 HOV	0.95	6.00%	3,279	1.366	**F**	0.005	**F**	No
	SR-54 to Bonita Road	373,900	8.01%	29,949	0.57	4M + 1 HOV + 1 Aux	0.95	7.30%	3,856	1.607	**F**	0.004	**F**	No
	Bonita Road to East H Street	330,400	8.01%	26,465	0.57	4M + 1 HOV + 1 Aux	0.95	7.30%	3,407	1.420	**F**	0.002	**F**	No
	East H Street to Telegraph Canyon Road	328,200	8.01%	26,289	0.57	5M + 1 HOV	0.95	7.30%	3,077	1.282	**F**	0.001	**F**	No
SR-125	SR-94 Junction to Jamacha Road	148,700	8.76%	13,026	0.56	3M	0.95	4.40%	2,661	1.109	**F**	0.006	**F**	No
	Jamacha Road to Paradise Valley Road	134,400	8.76%	11,773	0.56	3M	0.95	4.40%	2,405	1.002	**F**	0.006	**E**	No
	Paradise Valley Road to SR-54 Junction	138,100	8.76%	12,098	0.56	3M + 1 HOV	0.95	4.40%	2,118	0.883	D	0.005	D	No
	SR-54 to Mt. Miguel Road	32,900	7.00%	2,303	0.59	2M	0.95	1.90%	729	0.304	A	0.012	A	No
	Mt. Miguel Road to Proctor Valley Road	36,800	7.00%	2,576	0.59	2M	0.95	1.90%	815	0.340	B	0.012	A	No
	Proctor Valley Road to Otay Lakes Road	31,100	7.00%	2,177	0.59	2M	0.95	1.90%	689	0.287	A	0.005	A	No

Table 2.9-35
Freeway/State Highway Segment Level of Service Results – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property

Freeway	Segment	ADT	Peak Hour Percent	Peak Hour Volume	Directional Split	Lanes Per Direction	PHF	HVF	Volume (pc/h/ln)	V/C	LOS	Δ V/C	LOS w/o Project	Significant Impact?
SR-125	Otay Lakes Road to Olympic Parkway	39,700	7.00%	2,779	0.59	2M	0.95	1.90%	880	0.367	B	0.010	B	No
	Olympic Parkway to Birch Road	34,800	7.00%	2,436	0.59	2M	0.95	1.90%	771	0.321	B	0.010	A	No
	Birch Road to Main Street	39,600	7.00%	2,772	0.59	2M	0.95	1.90%	877	0.365	B	0.010	B	No
	Main Street to Otay Valley Road	52,700	7.00%	3,689	0.59	2M	0.95	1.90%	1,168	0.487	B	0.010	B	No
	Otay Valley Road to Lone Star Road	91,600	7.00%	6,412	0.59	2M	0.95	1.90%	2,030	0.846	D	0.010	D	No
	Lone Star Road to Otay Mesa Road	80,900	7.00%	5,663	0.59	2M	0.95	1.90%	1,793	0.747	D	0.008	C	No
SR-54	I-805 to Reo Drive/Plaza Bonita Center Way	144,800	8.23%	11,917	0.58	3M	0.95	1.90%	2,461	1.025	**F**	0.007	**F**	No
	Reo Drive/Plaza Bonita Center Way to Woodman Street	131,400	8.32%	10,932	0.55	3M	0.95	1.90%	2,155	0.898	D	0.006	D	No
	Woodman Street to Briarwood Road	117,900	8.27%	9,750	0.55	3M	0.95	1.90%	1,922	0.801	D	0.006	D	No

Table 2.9-35
Freeway/State Highway Segment Level of Service Results – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property

Freeway	Segment	ADT	Peak Hour Percent	Peak Hour Volume	Directional Split	Lanes Per Direction	PHF	HVF	Volume (pc/h/ln)	V/C	LOS	Δ V/C	LOS w/o Project	Significant Impact?
	Briarwood Road to SR-125 Junction	108,800	8.45%	9,194	0.52	3M + 1 HOV	0.95	1.90%	1,458	0.608	C	0.003	C	No

Source: Appendix 2.9-1.
Notes: K = Percent of Traffic during the peak hour; D = Directional split; HVF = Percent of heavy vehicles; PHF =Peak Hour Factor; M = Mainline lane; HOV = High-Occupancy Vehicle lane; Aux = Auxiliary lane; Bold indicates Level of Service (LOS) E or F.

Table 2.9-36
Ramp Intersection Capacity Analysis – Existing Plus Project Build-Out Conditions

Intersection	Peak Hour	ILV/hour	Capacity
SR-125 southbound / Mt. Miguel Road	AM	232	Under Capacity
	PM	455	Under Capacity
SR-125 northbound / Mt. Miguel Road	AM	330	Under Capacity
	PM	355	Under Capacity
I-805 southbound / H Street	AM	892	Under Capacity
	PM	1,035	Under Capacity
I-805 northbound / H Street	AM	885	Under Capacity
	PM	806	Under Capacity
SR-125 southbound / H Street	AM	558	Under Capacity
	PM	571	Under Capacity
SR-125 northbound / H Street	AM	391	Under Capacity
	PM	313	Under Capacity
SR-125 southbound / Mt. Miguel Road	AM	598	Under Capacity
	PM	795	Under Capacity
SR-125 northbound / Otay Lakes Road	AM	538	Under Capacity
	PM	758	Under Capacity

Source: Appendix 2.9-1.
ILV/hour = intersecting lane volume per hour

Table 2.9-37
Ramp Metering Analysis – Existing Plus Project Build-Out Conditions

Location	Peak Hour	Peak Hour Volume	Meter Rate[a]	Excess Demand[b]	Delay[c] (min)	Queue[d] (feet)	Existing Delay/ Queue	S?
I-805 northbound on-ramp at westbound H Street	AM	685	934	0	0	0	0	No
I-805 northbound on-ramp at eastbound H Street	AM	330	369	0	0	0	0	No

Source: Appendix 2.9-1.
a. Meter Rate is the peak hour capacity expected to be processed through the ramp meter (veh/hr). This value was obtained from Caltrans.
b. Excess Demand = (Demand) – (Meter Rate) or zero, whichever is greater (veh/hr).
c. Delay = (Excess Demand / Meter Rate) × 60 min/hr.
d. Queue = (Excess Demand) × 29 ft/veh.
S = significant

Table 2.9-38
Ramp Intersection Capacity Analysis – Year 2025 Cumulative Conditions

Intersection	Peak Hour	ILV/hour	Capacity
SR-125 southbound / Mt. Miguel Road	AM	262	Under Capacity
	PM	509	Under Capacity
SR-125 northbound / Mt. Miguel Road	AM	380	Under Capacity
	PM	376	Under Capacity
I-805 southbound / H Street	AM	975	Under Capacity
	PM	1,150	Under Capacity
I-805 northbound / H Street	AM	1,040	Under Capacity
	PM	925	Under Capacity
SR-125 southbound / H Street	AM	653	Under Capacity
	PM	688	Under Capacity
SR-125 northbound / H Street	AM	429	Under Capacity
	PM	409	Under Capacity
SR-125 southbound / Mt. Miguel Road	AM	641	Under Capacity
	PM	956	Under Capacity
SR-125 northbound / Otay Lakes Road	AM	695	Under Capacity
	PM	914	Under Capacity

Source: Appendix 2.9-1.
ILV/hour = intersecting lane volume per hour

Table 2.9-39
Ramp Metering Analysis – Year 2025 Cumulative Conditions

		With Project					Without Project				
Location	Peak Hour	*Peak Hour Volume*	*Meter Rate*[a]	*Excess Demand*[b]	*Delay*[c] *(min)*	*Queue*[d] *(feet)*	*Peak Hour Volume*	*Excess Demand*[b]	*Delay*[c] *(min)*	*Queue*[d] *(feet)*	S?
I-805 northbound on-ramp at westbound H Street	AM	811	934	0	0	0	795	0	0	0	No
I-805 northbound on-ramp at eastbound H Street	AM	472	369	103	16.75	2,987	472	103	16.75	2,987	No

Source: Appendix 2.9-1.
a. Meter Rate is the peak hour capacity expected to be processed through the ramp meter (veh/hr). This value was obtained from Caltrans.
b. Excess Demand = (Demand) – (Meter Rate) or zero, whichever is greater (veh/hr).
c. Delay = (Excess Demand / Meter Rate) × 60 min/hr.
d. Queue = (Excess Demand) × 29 ft/veh.
S = significant

Table 2.9-40
Ramp Intersection Capacity Analysis – Year 2030 Cumulative Conditions

Intersection	Peak Hour	ILV/hour	Capacity
SR-125 southbound / Mt. Miguel Road	AM	261	Under Capacity
	PM	524	Under Capacity
SR-125 northbound / Mt. Miguel Road	AM	392	Under Capacity
	PM	379	Under Capacity
I-805 southbound / H Street	AM	1,009	Under Capacity
	PM	1,152	Under Capacity
I-805 northbound / H Street	AM	1,074	Under Capacity
	PM	981	Under Capacity
SR-125 southbound / H Street	AM	650	Under Capacity
	PM	749	Under Capacity
SR-125 northbound / H Street	AM	436	Under Capacity
	PM	482	Under Capacity
SR-125 southbound / Mt. Miguel Road	AM	632	Under Capacity
	PM	1,064	Under Capacity
SR-125 northbound / Otay Lakes Road	AM	644	Under Capacity
	PM	1,027	Under Capacity

Source: Appendix 2.9-1.
ILV/hour = intersecting lane volume per hour

Table 2.9-41
Ramp Metering Analysis – Year 2030 Cumulative Conditions

		With Project					Without Project				
Location	Peak Hour	*Peak Hour Volume*	*Meter Rate*[a]	*Excess Demand*[b]	*Delay*[c] *(min)*	*Queue*[d] *(feet)*	*Peak Hour Volume*	*Excess Demand*[b]	*Delay*[c] *(min)*	*Queue*[d] *(feet)*	S?
I-805 Northbound On-Ramp at Westbound H Street	AM	823	934	0	0	0	800	0	0	0	No
I-805 Northbound On-Ramp at Eastbound H Street	AM	480	369	111	18.05	3,219	480	111	18.05	3,219	No

Source: Appendix 2.9-1.
S = significant
a. Meter Rate is the peak hour capacity expected to be processed through the ramp meter (vehicles per hour). This value was obtained from Caltrans.
b. Excess Demand = (Demand) – (Meter Rate) or zero, whichever is greater (veh/hr).
c. Delay = (Excess Demand / Meter Rate) X 60 min/hr.
d. Queue = (Excess Demand) X 29 feet per vehicle

Table 2.9-42
Ramp Intersection Capacity Analysis – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property

Intersection	Peak Hour	ILV/hour	Capacity
SR-125 southbound / Mt. Miguel Road	AM	272	Under Capacity
	PM	525	Under Capacity
SR-125 northbound / Mt. Miguel Road	AM	392	Under Capacity
	PM	380	Under Capacity
I-805 southbound / H Street	AM	1,014	Under Capacity
	PM	1,154	Under Capacity
I-805 northbound / H Street	AM	1,070	Under Capacity
	PM	981	Under Capacity
SR-125 southbound / H Street	AM	701	Under Capacity
	PM	748	Under Capacity
SR-125 northbound / H Street	AM	487	Under Capacity
	PM	482	Under Capacity
SR-125 southbound / Mt. Miguel Road	AM	634	Under Capacity
	PM	1064	Under Capacity
SR-125 northbound / Otay Lakes Road	AM	648	Under Capacity
	PM	1027	Under Capacity

Source: Appendix 2.9-1.
ILV/hour = intersecting lane volume per hour

Table 2.9-43
Ramp Intersection Capacity Analysis – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property

Intersection	Peak Hour	ILV/hour	Capacity
SR-125 southbound / Mt. Miguel Road	AM	272	Under Capacity
	PM	525	Under Capacity
SR-125 northbound / Mt. Miguel Road	AM	392	Under Capacity
	PM	380	Under Capacity
I-805 southbound / H Street	AM	1,014	Under Capacity
	PM	1,154	Under Capacity
I-805 northbound / H Street	AM	1,070	Under Capacity
	PM	981	Under Capacity
SR-125 southbound / H Street	AM	701	Under Capacity
	PM	748	Under Capacity
SR-125 northbound / H Street	AM	487	Under Capacity
	PM	482	Under Capacity
SR-125 southbound / Mt. Miguel	AM	634	Under Capacity
	PM	1064	Under Capacity

Table 2.9-43
Ramp Intersection Capacity Analysis – Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property

Intersection	Peak Hour	ILV/hour	Capacity
SR-125 northbound / Otay Lakes Road	AM	648	Under Capacity
	PM	1027	Under Capacity

Source: Appendix 2.9-1.
ILV/hour = intersecting lane volume per hour

Table 2.9-44
Year 2024 Construction Trip Generation

Type	Daily Trips	Passenger Car Equivalent	Daily Vehicle Trips
Truck	380	2.5	950
Construction Worker	1,436	1.0	1,436
Total	**—**	**—**	**2,386**

Source: Appendix 2.9-1.

Table 2.9-45
Worst-Case Trip Generation During Construction – Year 2024

Scenario	Daily Trips
Year 2024 – Project Activities	6,565
Construction	2,386
Total	**8,951**

Source: Appendix 2.9-1.

Table 2.9-46
Project Year 2024 Trip Generation

Area	Land Use	Units	Trip Rate	ADT
South	Single Family	352 DU	10 / DU	3,520
South	Neighborhood Park	2.9 AC	5 / AC	15
South	Community Facility	1.0 AC	30 / AC	30
Central	Estate	4 DU	12 / DU	48
Central	Single Family	188 DU	10 / DU	1,880
Central	Mixed-Use Commercial	5 KSF	110 / KSF	550
Central	Community Facility	1.2 AC	30 / AC	36
North	Single Family	33 DU	10 / DU	330
Planning Areas 16/19	Estate	13 DU	12 / DU	156
			Total Project Trips	**6,565**

Source: Appendix 2.9-1.
DU = dwelling unit; AC = acre; KSF = thousand square feet

Table 2.9-47
Residential Home-Based Automobile VMT Per Capita Baseline and Threshold Values

Study area	Vehicle Miles Trips per Resident	Significance Threshold per Capita (15% below existing VMT)
San Diego Region	17.60	14.96
Unincorporated San Diego County Southwestern Region	21.71	18.45

Note: VMT threshold based on 85% of the San Diego Region VMT Year 2012. Data was obtained from SANDAG's RTP.

Table 2.9-48
Project Residential Home-Based Automobile VMT Per Capita

Study area	Significance Threshold per Capita	Proposed Project VMT per Capita	Proposed Project TDM Reduction %	Proposed Project VMT Per Capita with TDM Program
San Diego Region	14.96*	21.71	4.338%	20.77
Unincorporated San Diego County Southwestern Region	18.45	21.71	4.338%	20.77

Source: SANDAG Series 13 Regional Model, January 2018

Table 2.9-49
Summary of Significant Impacts and Mitigation Measures

Location	Existing Plus Project Build-Out	Year 2025	Year 2030	Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property
Intersection				
SR-94 and Lyons Valley Road	**Direct** Signalization by the 741st EDU – Caltrans Facility – Significant and Unavoidable Impact **(Impact TR-9) (M-TR-2)**	**Cumulative** Signalization by the 741st EDU – Caltrans Facility – Significant and Unavoidable Impact **(Impact TR-11) (M-TR-2)**	**Cumulative** Signalization by the 741st EDU – Caltrans Facility – Significant and Unavoidable Impact **(Impact TR-13) (M-TR-2)**	**Cumulative** Signalization by the 741st EDU – Caltrans Facility – Significant and Unavoidable Impact **(Impact TR-15) (M-TR-2)**
Paseo Ranchero and East H Street	None	None	None	**Cumulative** Implement an exclusive right-turn lane – Impact occurs with the development of the Rancho Jamul Preserve – City of CV Facility – Significant and Unavoidable Impact **(Impact TR-16) (M-TR-15)**
Mt. Miguel Road and East H Street	None	None	None	**Project Specific** Implement right-turn lane by the 638th EDU – City of CV Facility – Significant and Unavoidable Impact **(Impact TR-22) (M-TR-16)**
Lane Avenue and East H Street	None	None	None	**Project Specific** Implement Second westbound second left-turn lane – Impact occurs with the development of the Rancho Jamul Preserve City of CV Facility – Significant and Unavoidable Impact **(Impact TR-23) (M-TR-17)**

Table 2.9-49
Summary of Significant Impacts and Mitigation Measures

Location	Existing Plus Project Build-Out	Year 2025	Year 2030	Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property
Northwoods Drive / Agua Vista Drive and Proctor Valley Road	**Project Specific** Signalization by the 660th EDU City of CV Facility – Significant and Unavoidable Impact **(Impact TR-10) (M-TR-3)**	**Project Specific** Signalization by the 287th EDU City of CV Facility – Significant and Unavoidable Impact **(Impact TR-12) (M-TR-3)**	**Project Specific** Signalization by the 287th EDU City of CV Facility – Significant and Unavoidable Impact **(Impact TR-14) (M-TR-3)**	**Project Specific** Signalization by the 287th EDU City of CV Facility – Significant and Unavoidable Impact **(Impact TR-24) (M-TR-3)**
Proctor Valley Road and Project Driveway No. 1	None	None	None	**Cumulative** Signalization - Impact occurs with the development of the Rancho Jamul Preserve Significant and Unavoidable Impact **(Impact TR-17) (M-TR-10)**
Proctor Valley Road and Project Driveway No. 2	None	None	None	**Cumulative** Widen Proctor Valley Road to Four-Lanes - Impact occurs with the development of the Rancho Jamul Preserve Significant and Unavoidable Impact **(Impact TR-18) (M-TR-11)**
Proctor Valley Road and Project Driveway No. 3	None	None	None	**Cumulative** Signalization - Impact occurs with the development of the Rancho Jamul Preserve Significant and Unavoidable Impact **(Impact TR-19) (M-TR-12)**
Proctor Valley Road and Project Driveway No. 4	None	None	None	**Cumulative** Signalization - Impact occurs with the development of the Rancho Jamul Preserve Significant and Unavoidable Impact **(Impact TR-20) (M-TR-13)**

Table 2.9-49
Summary of Significant Impacts and Mitigation Measures

Location	Existing Plus Project Build-Out	Year 2025	Year 2030	Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property
Proctor Valley Road and Project Driveway No. 5	None	None	None	**Cumulative** Signalization - Impact occurs with the development of the Rancho Jamul Preserve Significant and Unavoidable Impact **(Impact TR-21) (M-TR-14)**
Roadway Segment				
Proctor Valley Road between Hunte Parkway and Northwoods Drive	None	None	None	**Project Specific** Widen to a Six-Lane Major by the 487th EDU, after the development of the Rancho Jamul Preserve. City of CV Facility – Significant and Unavoidable Impact **(Impact TR-7) (M-TR-9)**
Proctor Valley Road between Northwoods Drive to County of San Diego Boundary	**Project Specific** Improve to a Class I Collector, by the 1,229th EDU – City of CV Facility – Significant and Unavoidable Impact **(Impact TR-1) (M-TR-1)**	**Project Specific** Improve to a Class I Collector, by the 563rd EDU – City of CV Facility – Significant and Unavoidable Impact **(Impact TR-3) (M-TR-1)**	**Project Specific** Improve to a Class I Collector, by the 563rd EDU – City of CV Facility – Significant and Unavoidable Impact **(Impact TR-5) (M-TR-1)**	**Project Specific** Improve to a Class I Collector, by the 563rd EDU – City of CV Facility – Significant and Unavoidable Impact **(Impact TR-8) (M-TR-1)**
Proctor Valley Road between City of Chula Vista boundary to Project Driveway No. 1	None	**Cumulative** Improve to a Four-Lane Boulevard with Intermittent Turn Lane (4.2B), by the 761st EDU – Significant and Unavoidable Impact **(Impact TR-2a) (M-TR-4)**	**Cumulative** Improve to a Four-Lane Boulevard with Intermittent Turn Lane (4.2B), by the 761st EDU – Significant and Unavoidable Impact **(Impact TR-4a) (M-TR-4)**	**Cumulative** Widen Proctor Valley Road to a Four-Lane Major (4.1A after the development of the Rancho Jamul Preserve -) **(Impact TR-6a) (M-TR-4, M-TR-5)**

Table 2.9-49
Summary of Significant Impacts and Mitigation Measures

Location	Existing Plus Project Build-Out	Year 2025	Year 2030	Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property
Proctor Valley Road between Project Driveway No. 1 to Project Driveway No. 2	None	**Cumulative** Improve to a Four-Lane Boulevard with Intermittent Turn Lane (4.2B), by the 901st EDU – Significant and Unavoidable Impact **(Impact TR-2b) (M-TR-4)**	**Cumulative** Improve to a Four-Lane Boulevard with Intermittent Turn Lane (4.2B), by the 901st EDU – Significant and Unavoidable Impact **(Impact TR-4b) (M-TR-4)**	**Cumulative** Widen Proctor Valley Road to a Four-Lane Major (4.1A) after the development of the Rancho Jamul Preserve **(Impact TR-6b) (M-TR-4, M-TR-6)**
Proctor Valley Road between Project Driveway No. 2 to Project Driveway No. 3	None	None	**Cumulative** Improve to a Four-Lane Boulevard with Intermittent Turn Lane (4.2B), by the 1,136th EDU Significant and Unavoidable Impact **(Impact TR-4c) (M-TR-4)**	**Cumulative** Wide Proctor Valley Road to a Four-Lane Major (4.1A) after the development of the Rancho Jamul Preserve **(Impact TR-6c) (M-TR-4, M-TR-7)**
Proctor Valley Road between Project Driveway No. 3 to Project Driveway No. 4	None	None	**Cumulative** Improve to a Four-Lane Boulevard with Intermittent Turn Lane (4.2B), by the 1136th EDU Significant and Unavoidable Impact **(Impact TR-4d) (M-TR-4)**	**Cumulative** Wide Proctor Valley Road to a Four-Lane Major (4.1A) after the development of the Rancho Jamul Preserve **(Impact TR-6d) (M-TR-4, M-TR-8)**
2-Lane Highway Segment				
None				
Freeway Segment				
None				

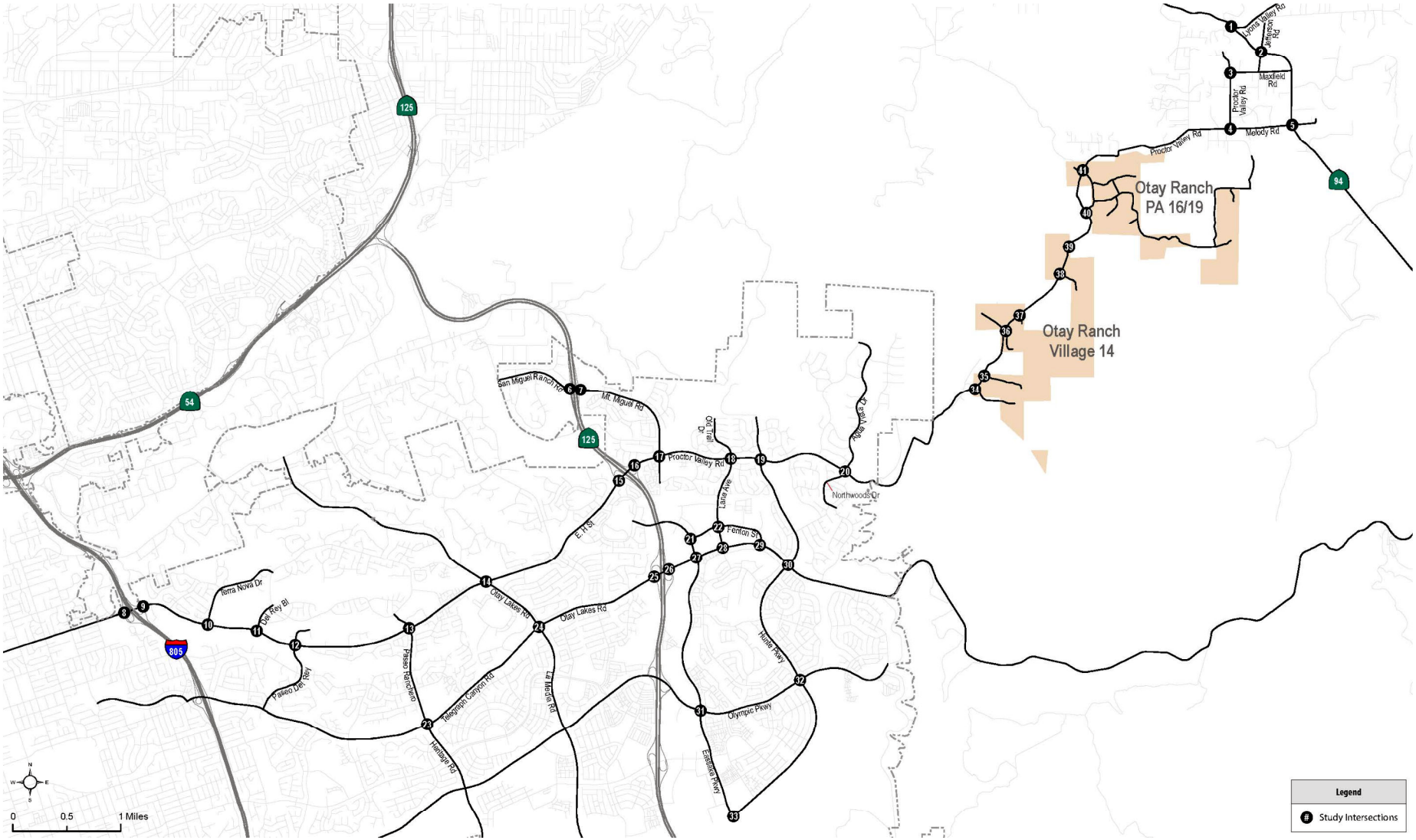
Table 2.9-49
Summary of Significant Impacts and Mitigation Measures

Location	Existing Plus Project Build-Out	Year 2025	Year 2030	Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property
Ramp Meter				
None				

Table 2.9-50
Project Public Roadway Improvement Features

Public Roadway Improvement Feature	Timing of Implementation
Construction of Proctor Valley Road: A Light Collector with a Raised Median (2.2A) between the City of Chula Vista to Project Driveway 5; Light Collector between Project Driveway 5 and the Village 14 Boundary Two-lane interim roadway (28 feet paved on a 40-foot right-of-way) between the Village 14 Boundary and its current western terminus point located in the community of Jamul.	The Proposed Project would improve a portion of Proctor Valley Road, connecting between the project site and the City of Chula Vista or the community of Jamul, to adequate public roadway standards prior to the occupancy of the first dwelling unit, or such later date as may be approved by the County Director of Planning and Development Services. All of Proctor Valley Road would be improved prior to build out of the Proposed Project, as per the Tentative Map Conditions.
Project Driveway No. 1 – Roundabout	Prior to the occupancy of the Southern Village
Project Driveway No. 2 – Side Street Stop Controlled	Prior to the occupancy of the Southern Village
Project Driveway No. 3 – Roundabout	Prior to the occupancy of the Central Village
Project Driveway No. 4 – Roundabout	Prior to the occupancy of the Central Village
Project Driveway No. 5 – Roundabout	Prior to the occupancy of the Northern Village
Project Driveway No. 6 – Side Street Stop Controlled	Prior to the occupancy of the Northern Village
Project Driveway No. 7 – Side Street Stop Controlled	Prior to the occupancy of Planning Areas 16/19
Project Driveway No. 8 – Roundabout	Prior to the occupancy of Planning Areas 16/19

Source: Appendix 2.9-1.



DUDEK

SOURCE: Chen, Ryan 2017

FIGURE 2.9-1A

Study Area Intersection Locations

Otay Ranch Village 14 and Planning Areas 16/19

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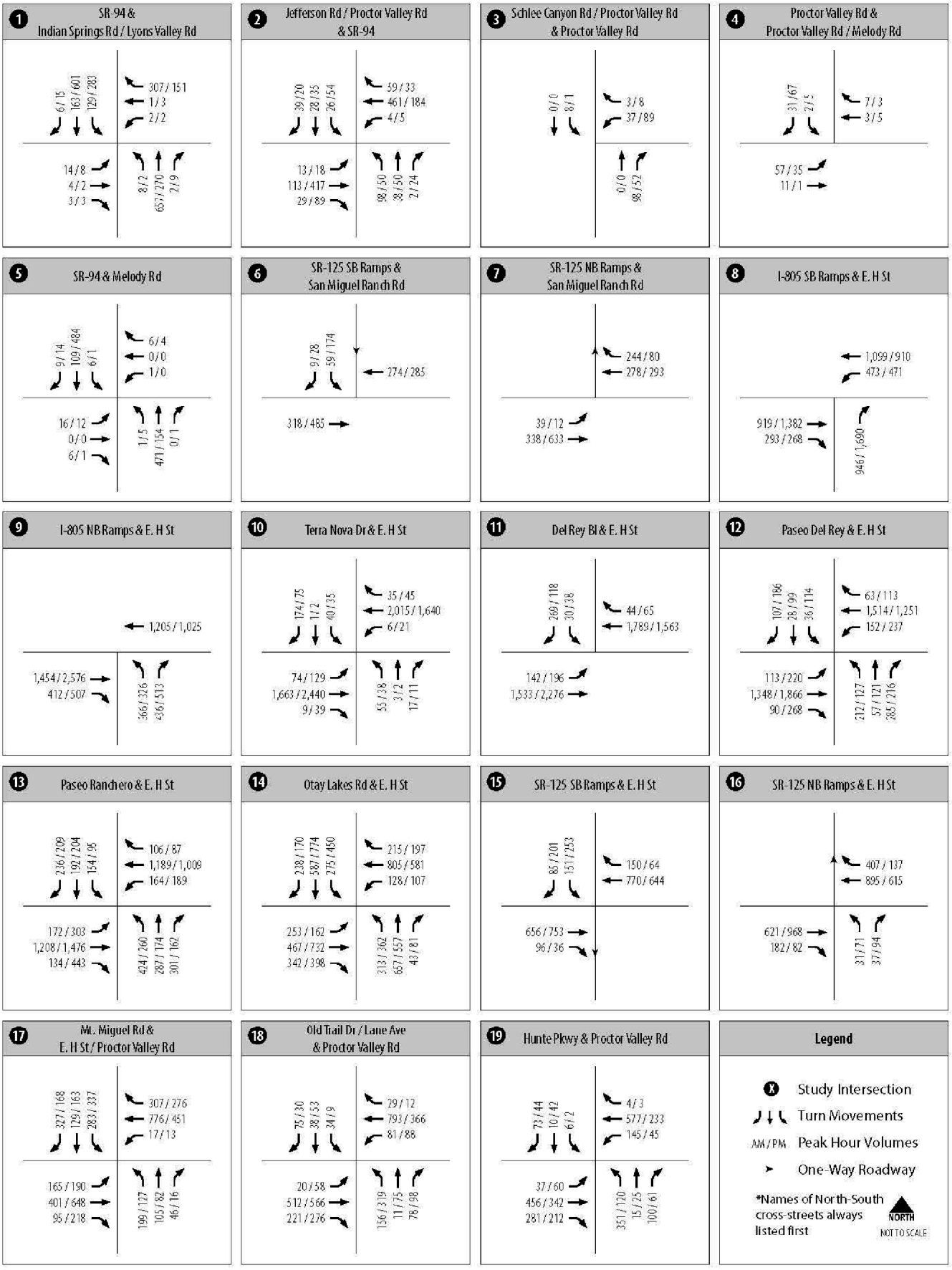

SOURCE: Chen, Ryan 2017

FIGURE 2.9-1b

Existing Conditions Peak Hour Intersection Volumes (1-19)

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Otay Ranch Village 14 and Planning Areas 16/19

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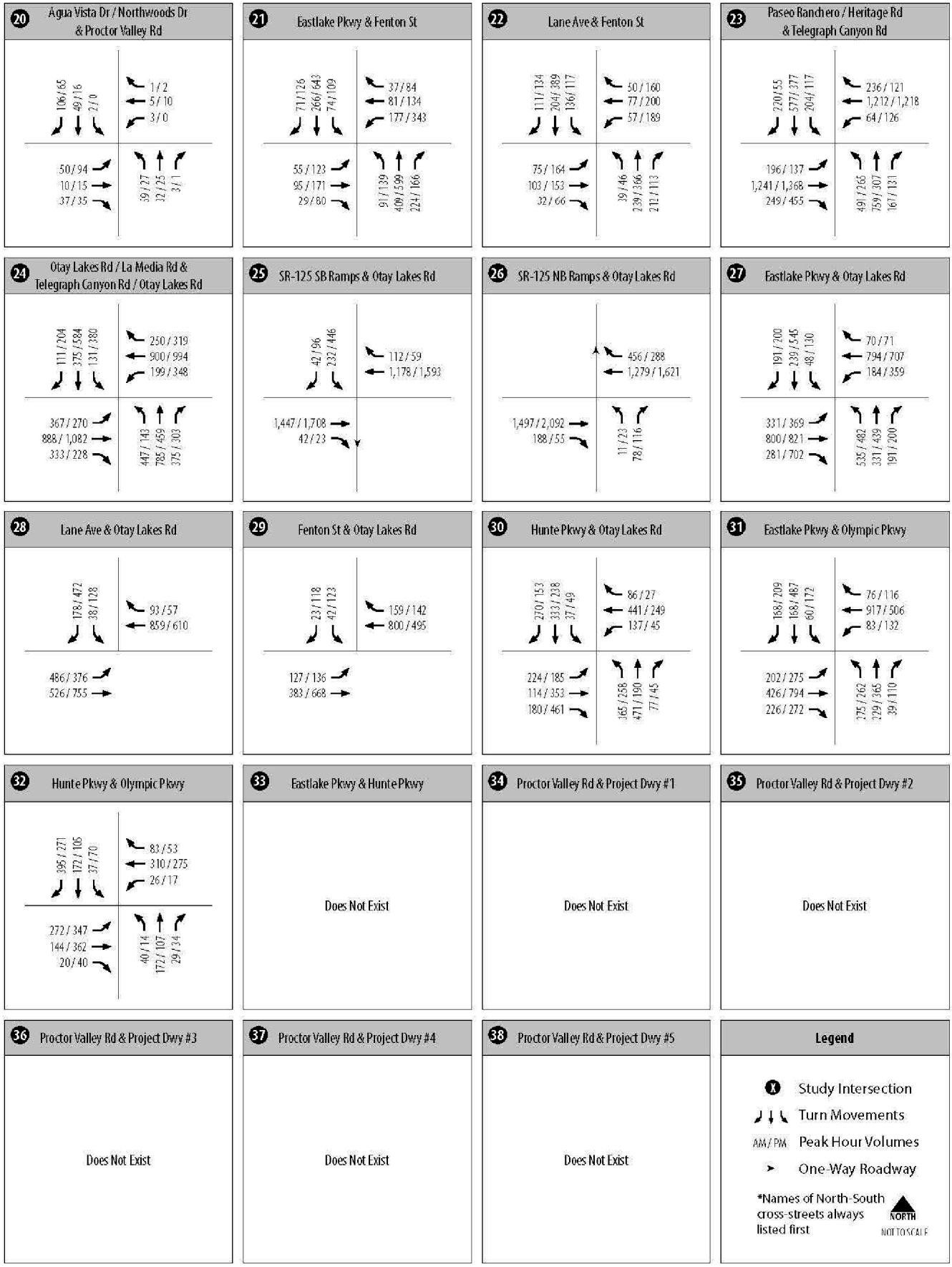

SOURCE: Chen, Ryan 2017

FIGURE 2.9-1c

Existing Conditions Peak Hour Intersection Volumes (20-38)

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Otay Ranch Village 14 and Planning Areas 16/19

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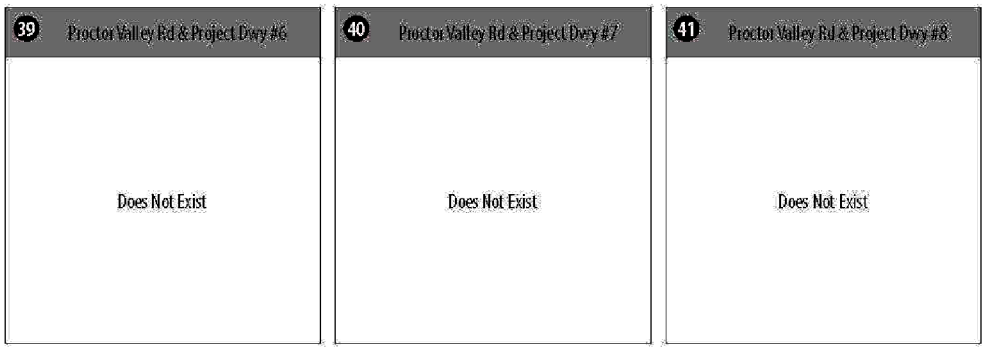

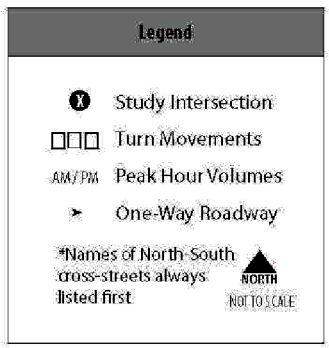

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SOURCE: Chen, Ryan 2017

FIGURE 2.9-1d

Existing Conditions Peak Hour Intersection Volumes (39-41)

Otay Ranch Village 14 and Planning Areas 16/19

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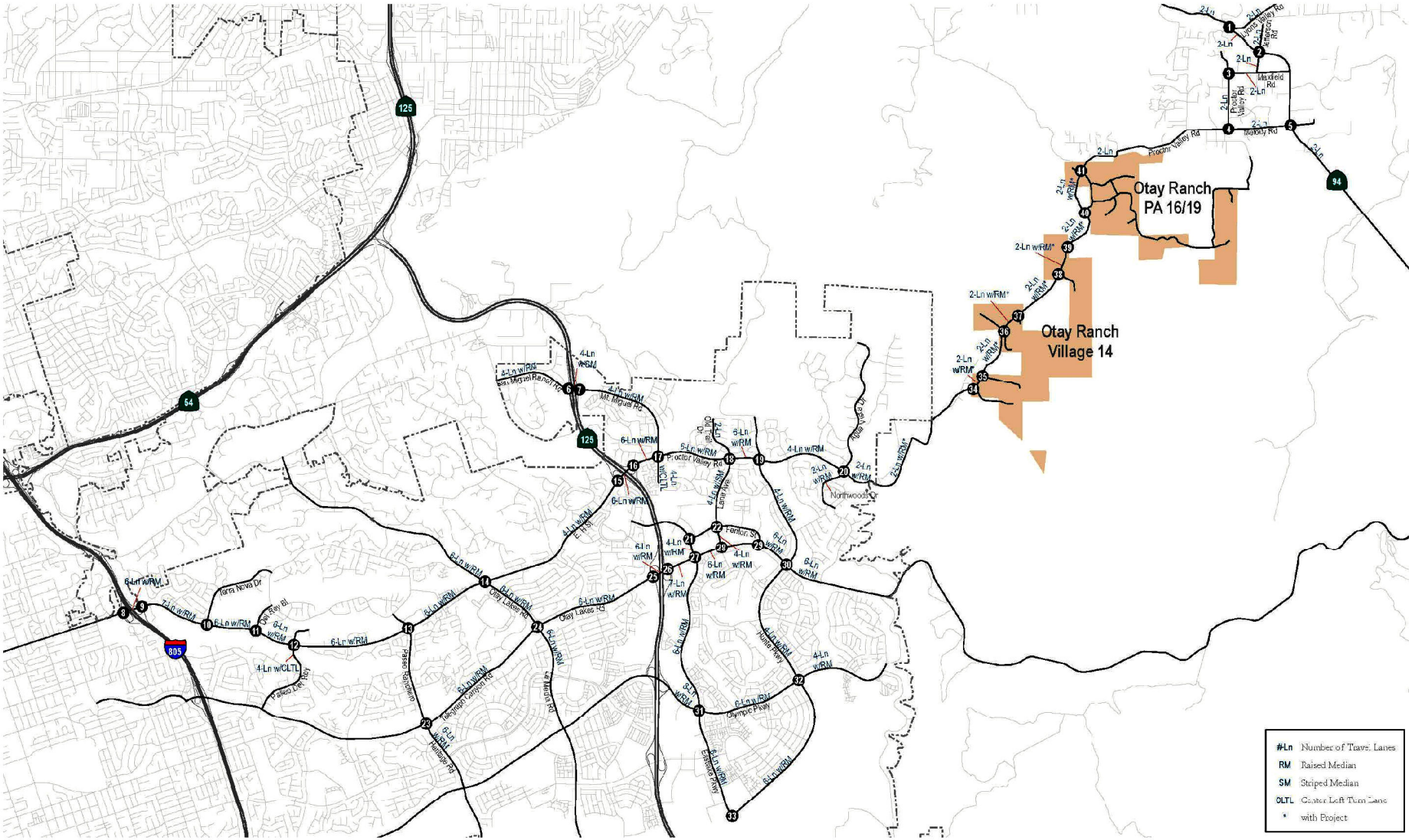

SOURCE: Chen Ryan 2017

FIGURE 2.9-2A

Existing Conditions Roadway Geometry

DUDEK

Otay Ranch Village 14 and Planning Areas 16/19

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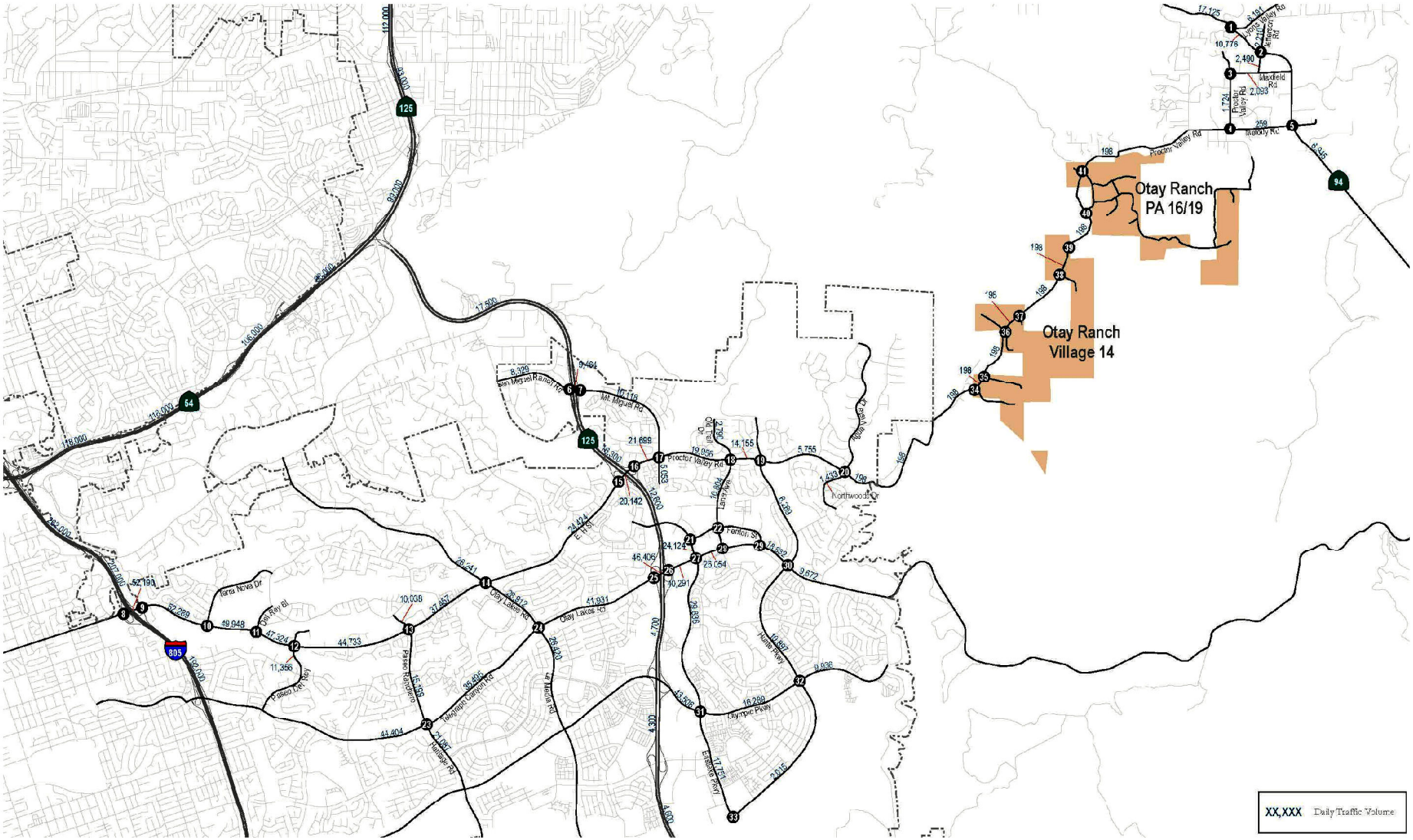

SOURCE: Chen Ryan 2017

FIGURE 2.9-2B

Existing Conditions Roadway Volumes

DUDEK

Otay Ranch Village 14 and Planning Areas 16/19

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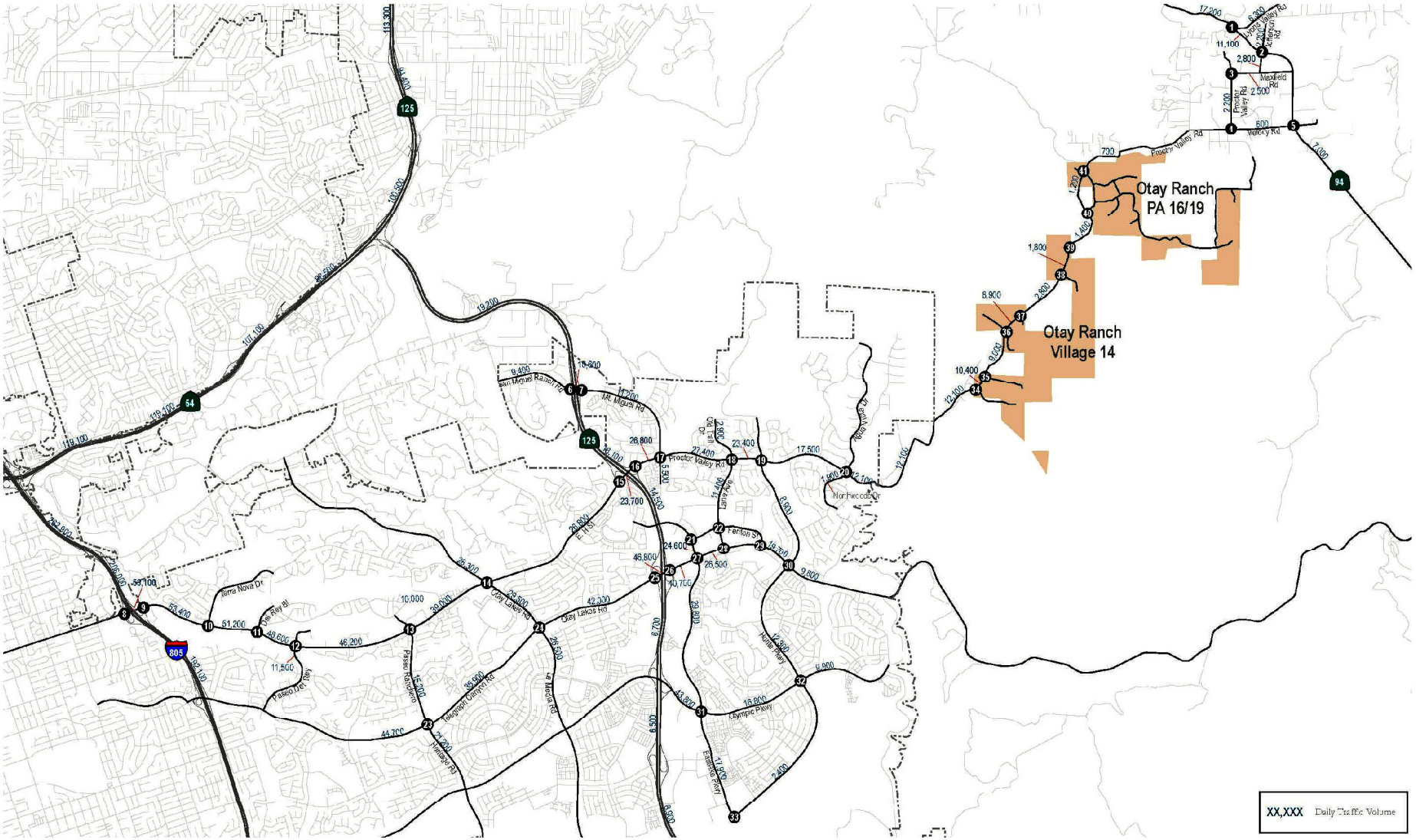

SOURCE: Chen Ryan 2017

FIGURE 2.9-3

Daily Roadway Segment Traffic Volumes □ Existing Plus Project Build Out Conditions

DUDEK

Otay Ranch Village 14 and Planning Areas 16/19

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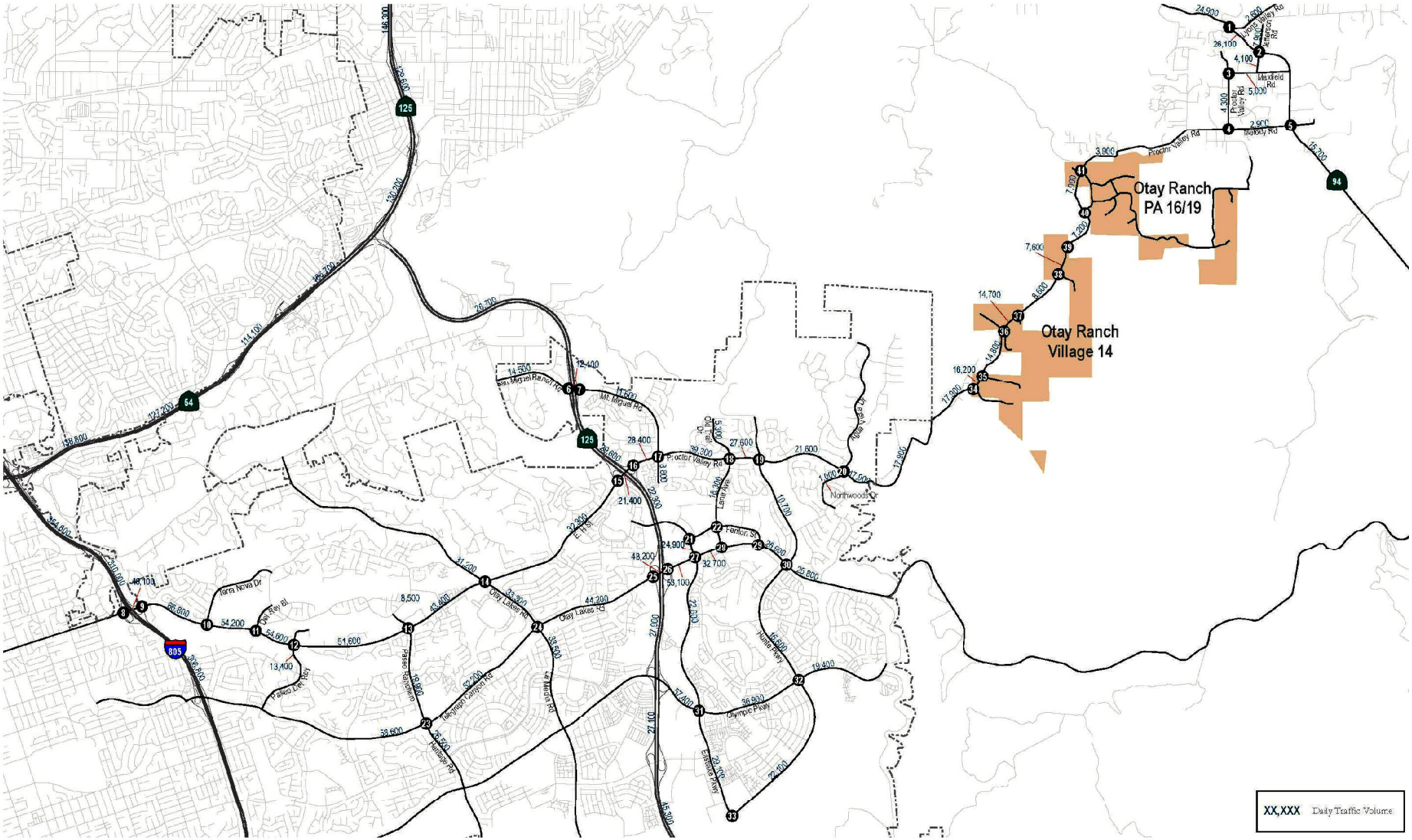

SOURCE: Chen Ryan 2017

FIGURE 2.9-4

Daily Roadway Segment Traffic Volumes □ Year 2025 Cumulative Conditions

DUDEK

Otay Ranch Village 14 and Planning Areas 16/19

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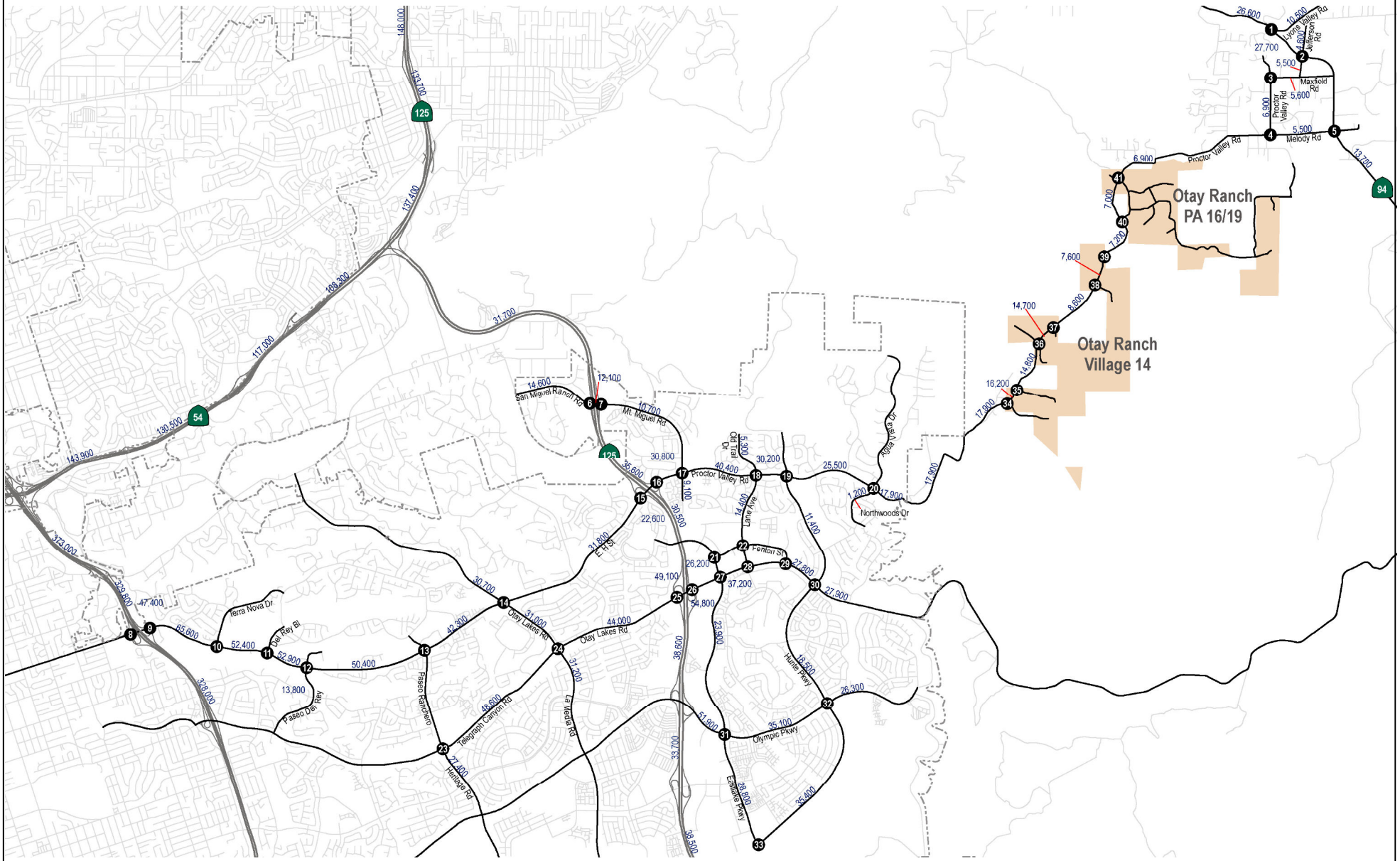

SOURCE: Chen, Ryan 2017

FIGURE 2.9-5

Daily Roadway Segment Traffic Volumes- Year 2030 Conditons

DUDEK

Otay Ranch Village 14 and Planning Areas 16/19

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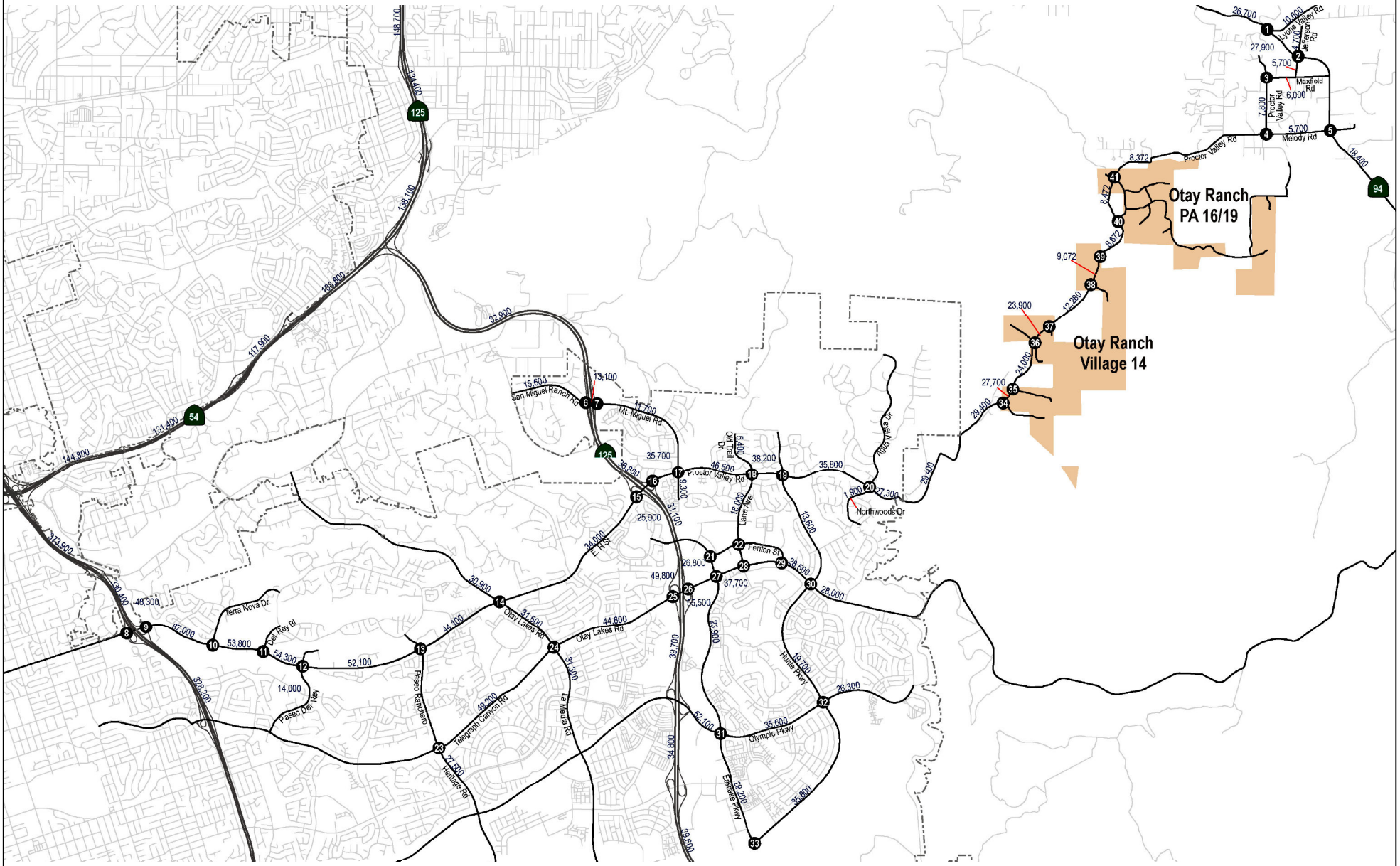

SOURCE: Chen, Ryan 2017

FIGURE 2.9-6

Daily Roadway Segment Traffic Volumes- Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property

Otay Ranch Village 14 and Planning Areas 16/19

DUDEK

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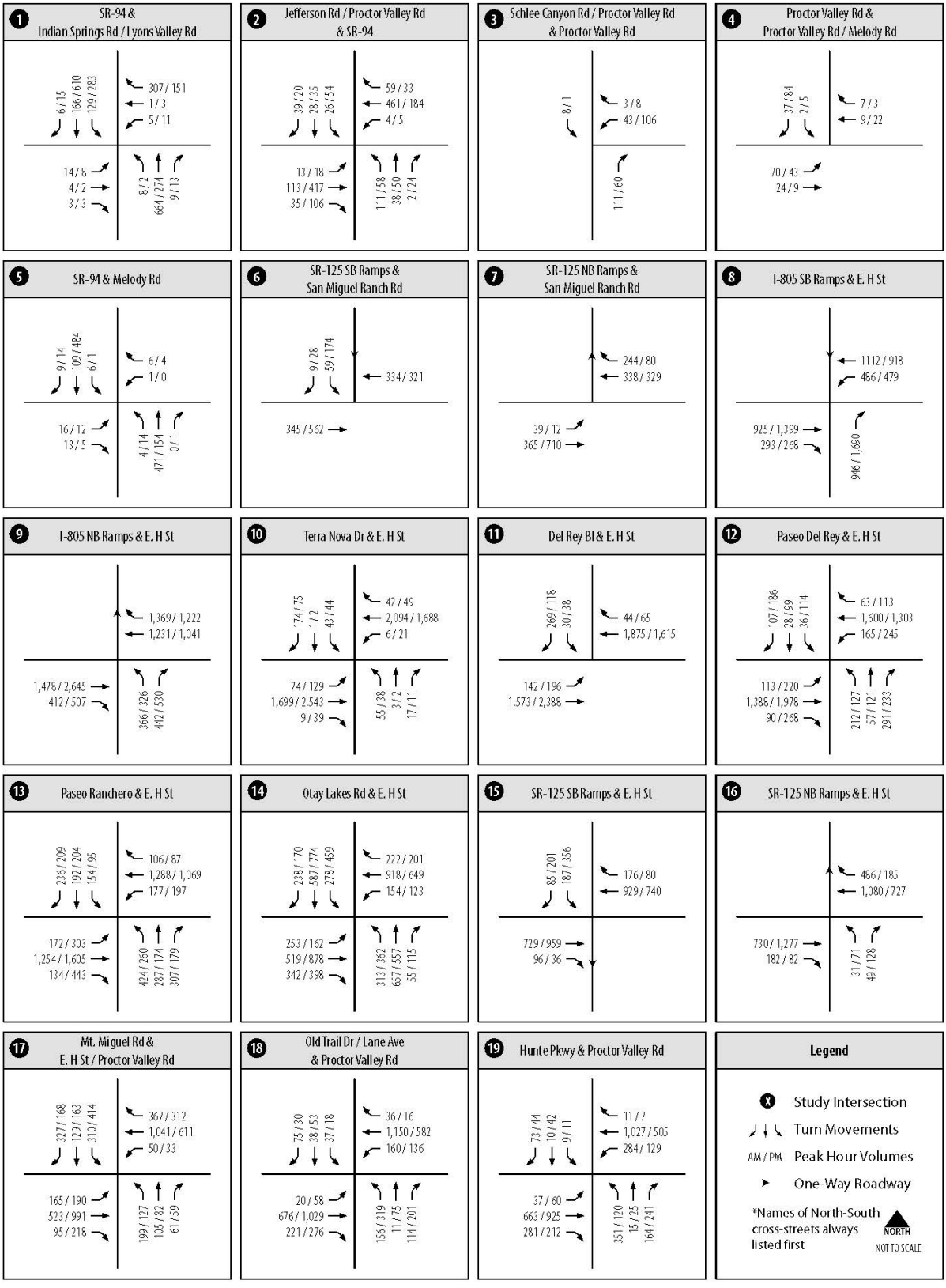

DUDEK

SOURCE: Chen Ryan 2017

FIGURE 2.9-7a

Peak Hour Intersection Traffic Volumes – Existing Plus Project Build Out Conditions

Otay Ranch Village 14 and Planning Areas 16/19

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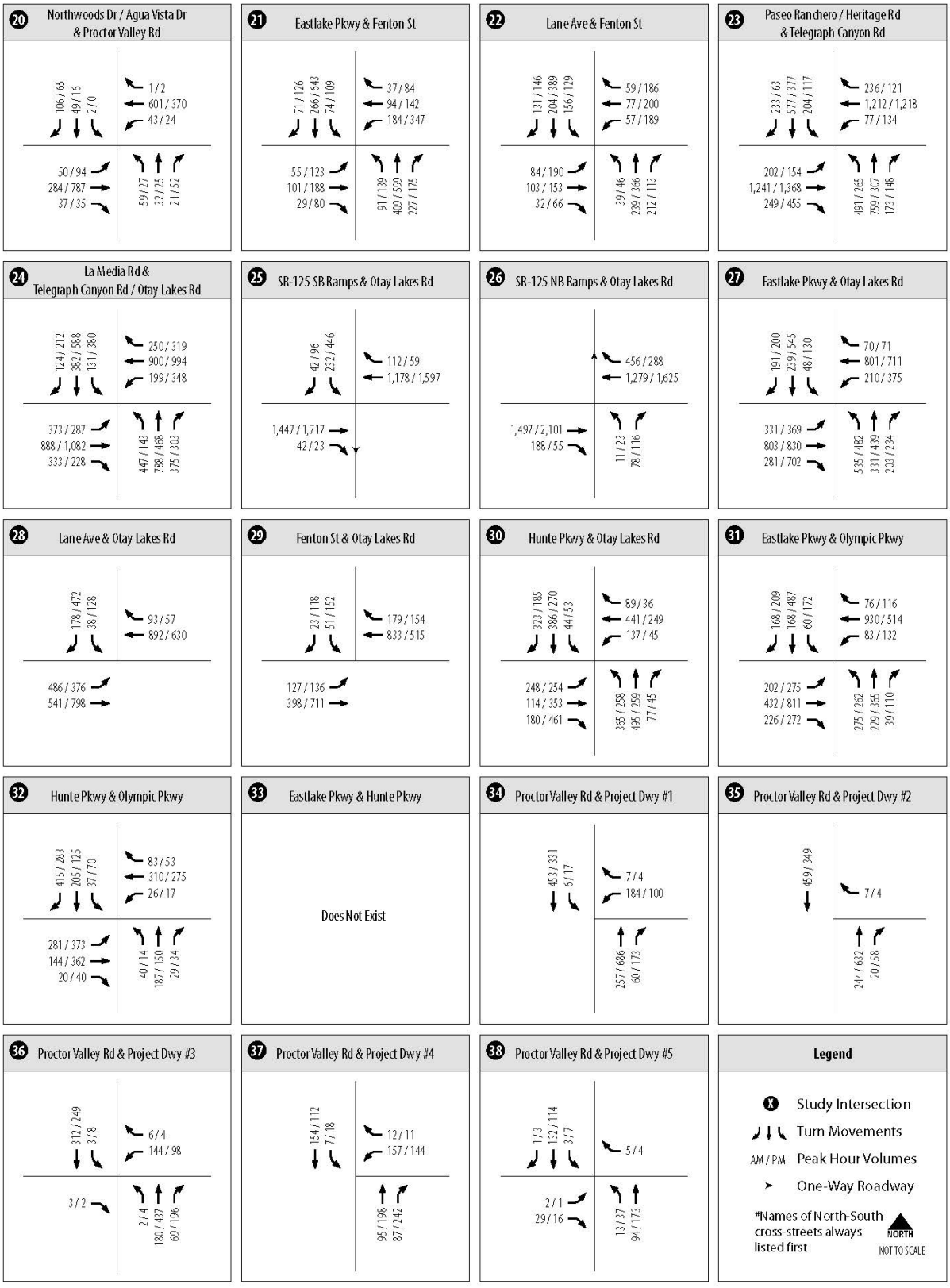

DUDEK

SOURCE: Chen Ryan 2017

FIGURE 2.9-7b

Peak Hour Intersection Traffic Volumes – Existing Plus Project Build Out Conditions

Otay Ranch Village 14 and Planning Areas 16/19

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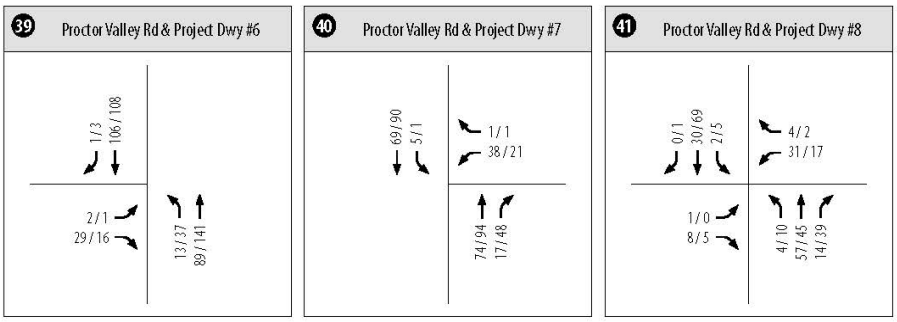

Legend

- X — Study Intersection
- Turn Movements
- AM / PM — Peak Hour Volumes
- One-Way Roadway

*Names of North-South cross-streets always listed first

NORTH

NOT TO SCALE

DUDEK

SOURCE: Chen Ryan 2017

FIGURE 2.9-7c

Peak Hour Intersection Traffic Volumes – Existing Plus Project Build Out Conditions

Otay Ranch Village 14 and Planning Areas 16/19

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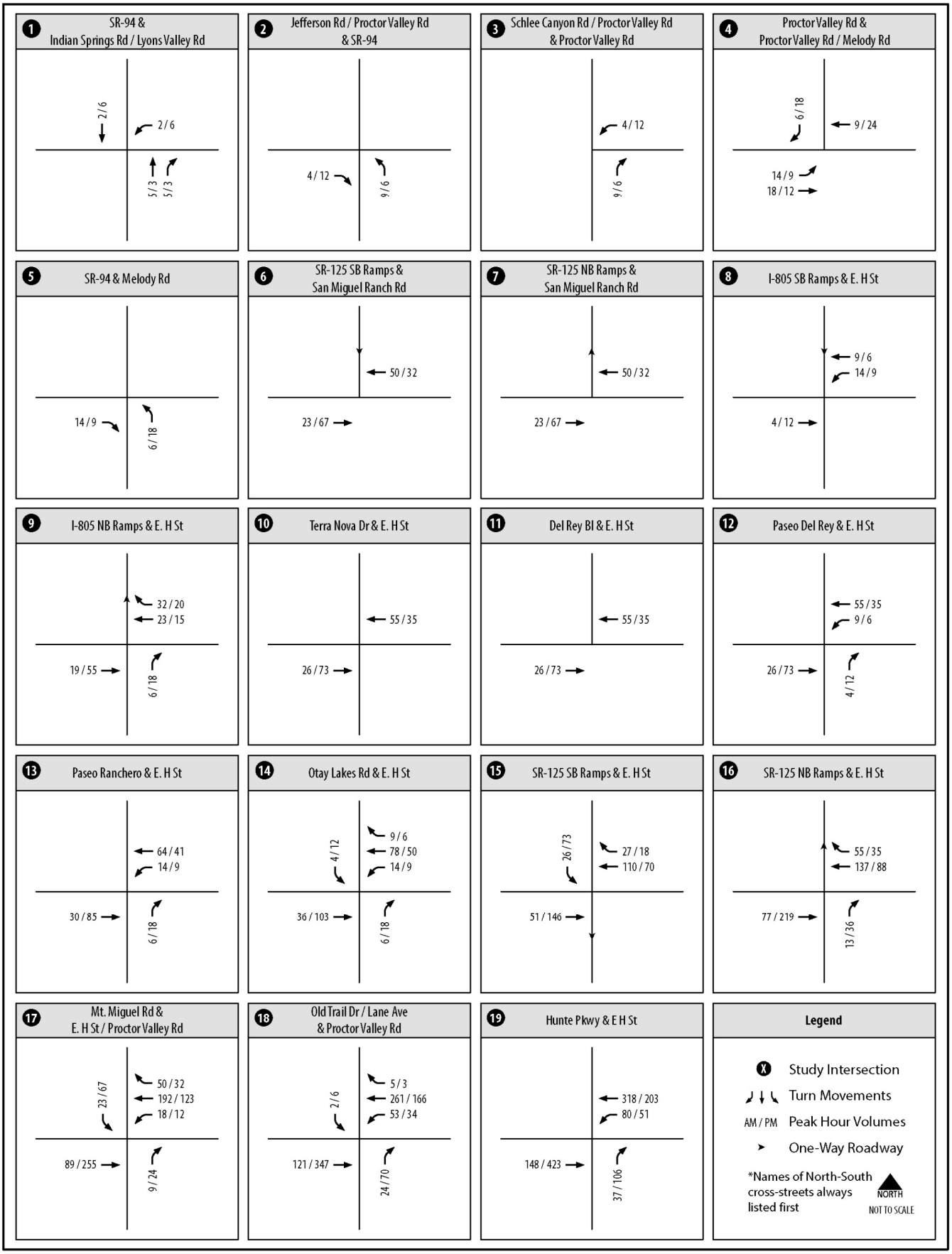

SOURCE: Chen, Ryan 2017

FIGURE 2.9-8a

DUDEK

Proposed Project Peak Hours Intersection Trip Assignment - Year 2025 Conditions

Otay Ranch Village 14 and Planning Areas 16/19

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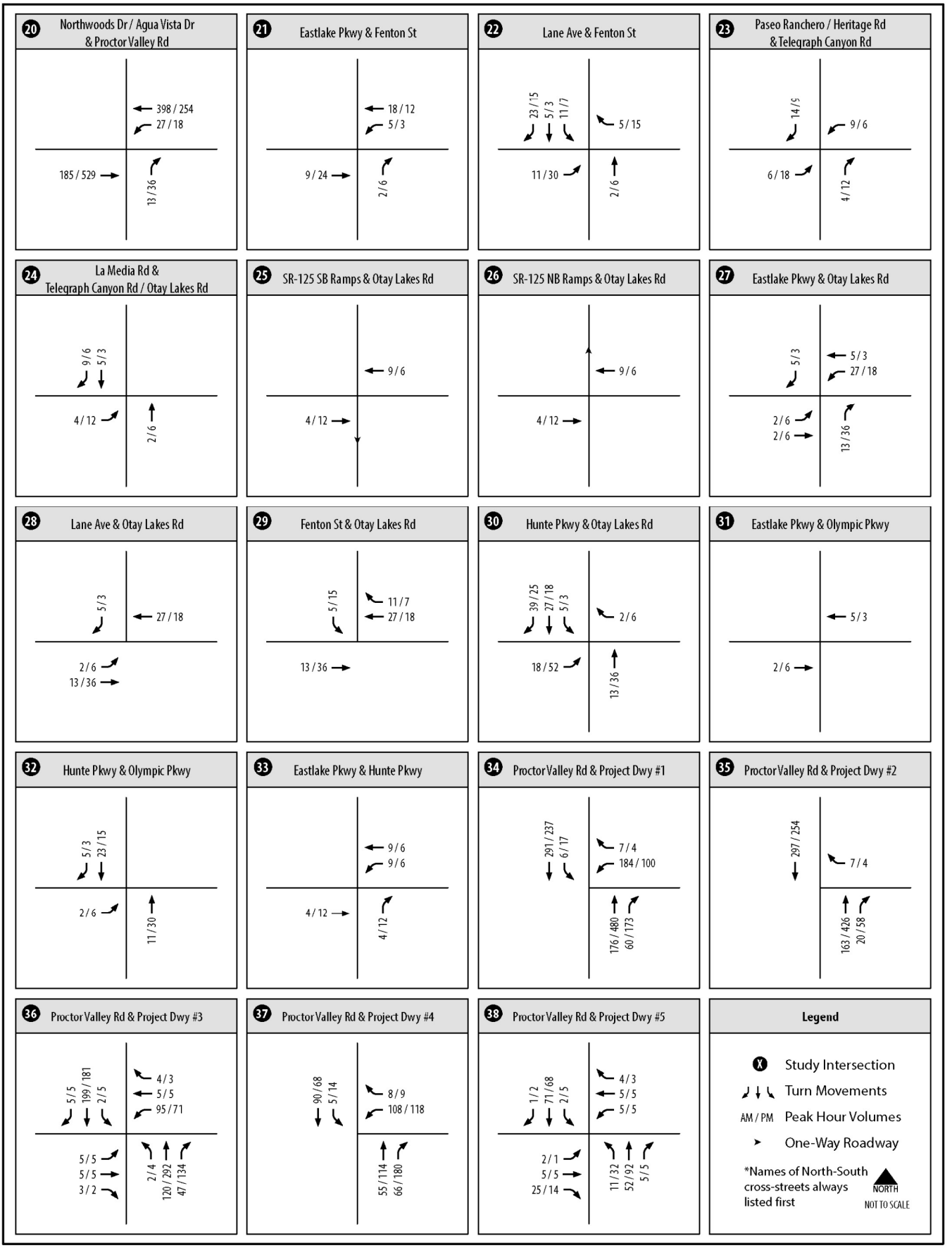

SOURCE: Chen, Ryan 2017

FIGURE 2.9-8b

DUDEK

Proposed Project Peak Hours Intersection Trip Assignment - Year 2025 Conditions

Otay Ranch Village 14 and Planning Areas 16/19

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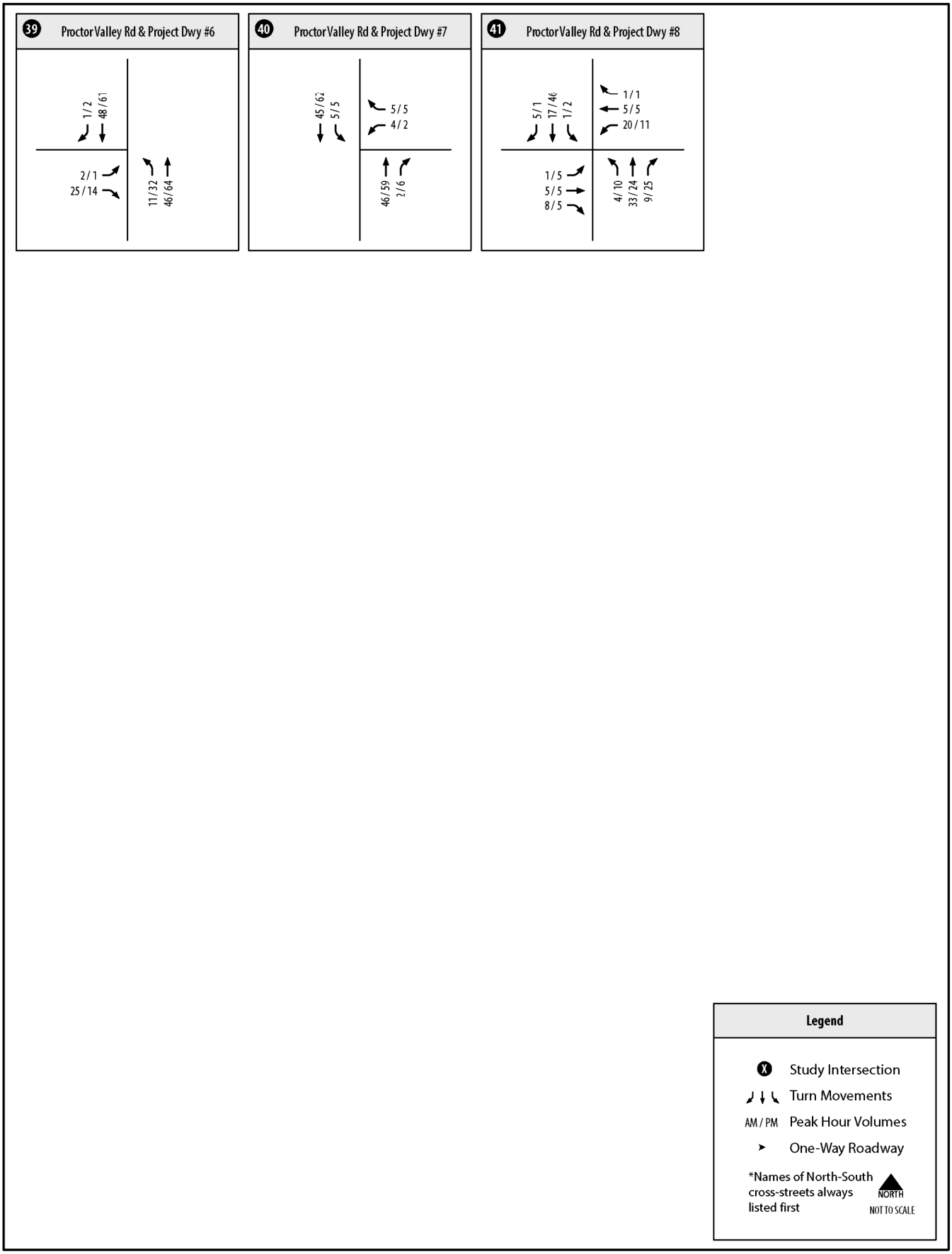

SOURCE: Chen, Ryan 2017

FIGURE 2.9-8c

DUDEK

Proposed Project Peak Hours Intersection Trip Assignment - Year 2025 Conditions

Otay Ranch Village 14 and Planning Areas 16/19

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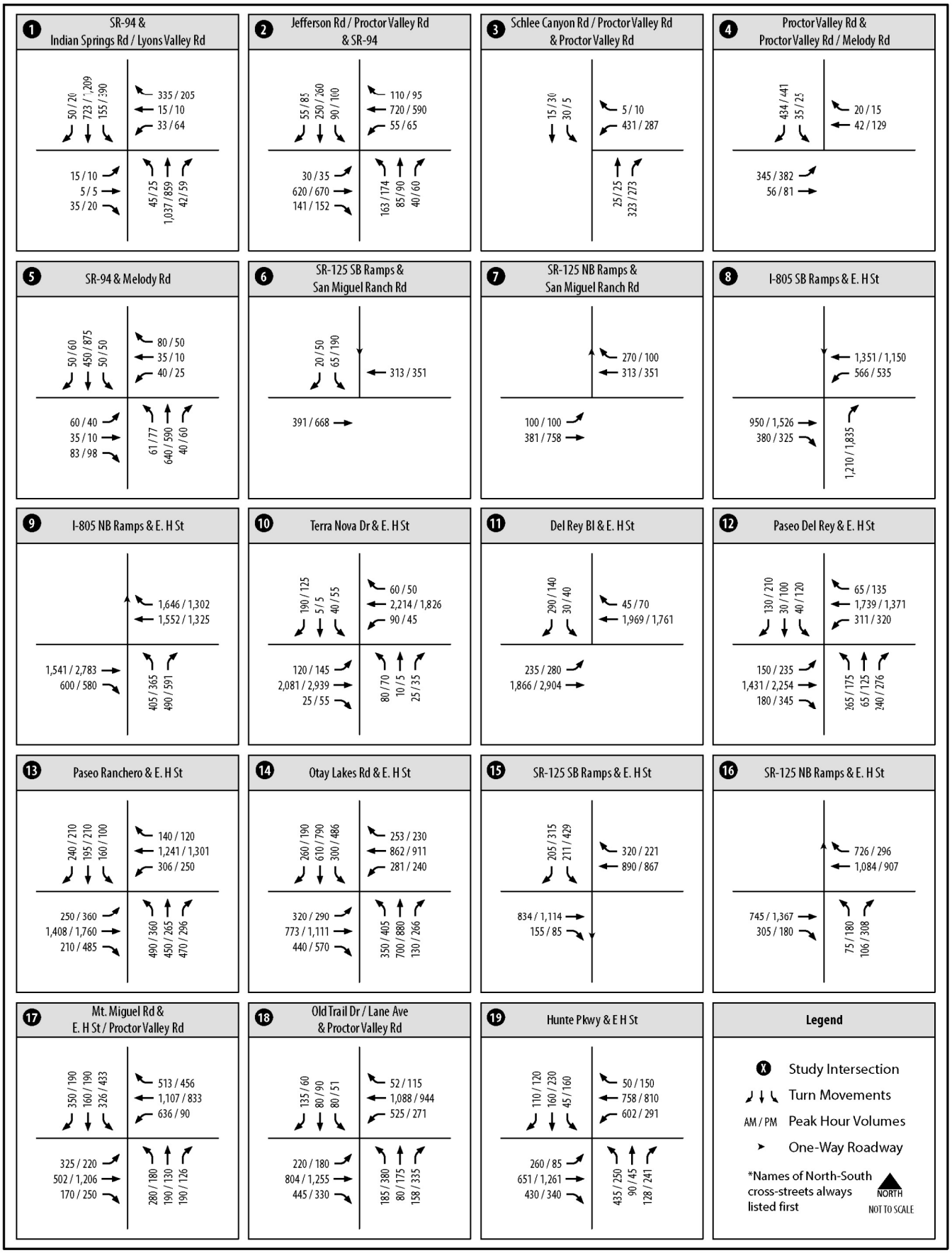

SOURCE: Chen, Ryan 2017

FIGURE 2.9-9a

Peak Hour Intersection Traffic Volumes - Year 2030 Conditions

Otay Ranch Village 14 and Planning Areas 16/19

DUDEK

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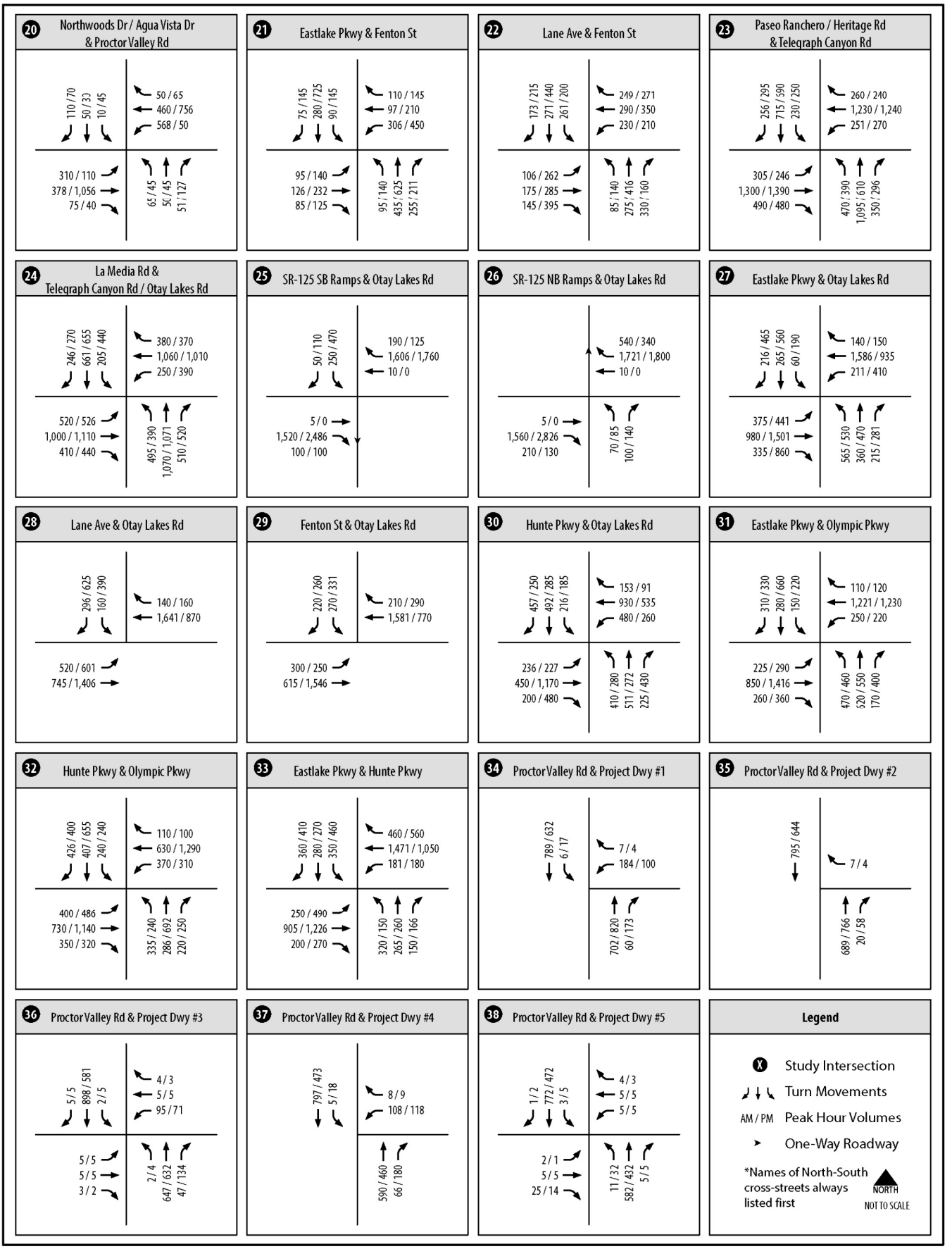

SOURCE: Chen, Ryan 2017

FIGURE 2.9-9b

Peak Hour Intersection Traffic Volumes - Year 2030 Conditions

DUDEK

Otay Ranch Village 14 and Planning Areas 16/19

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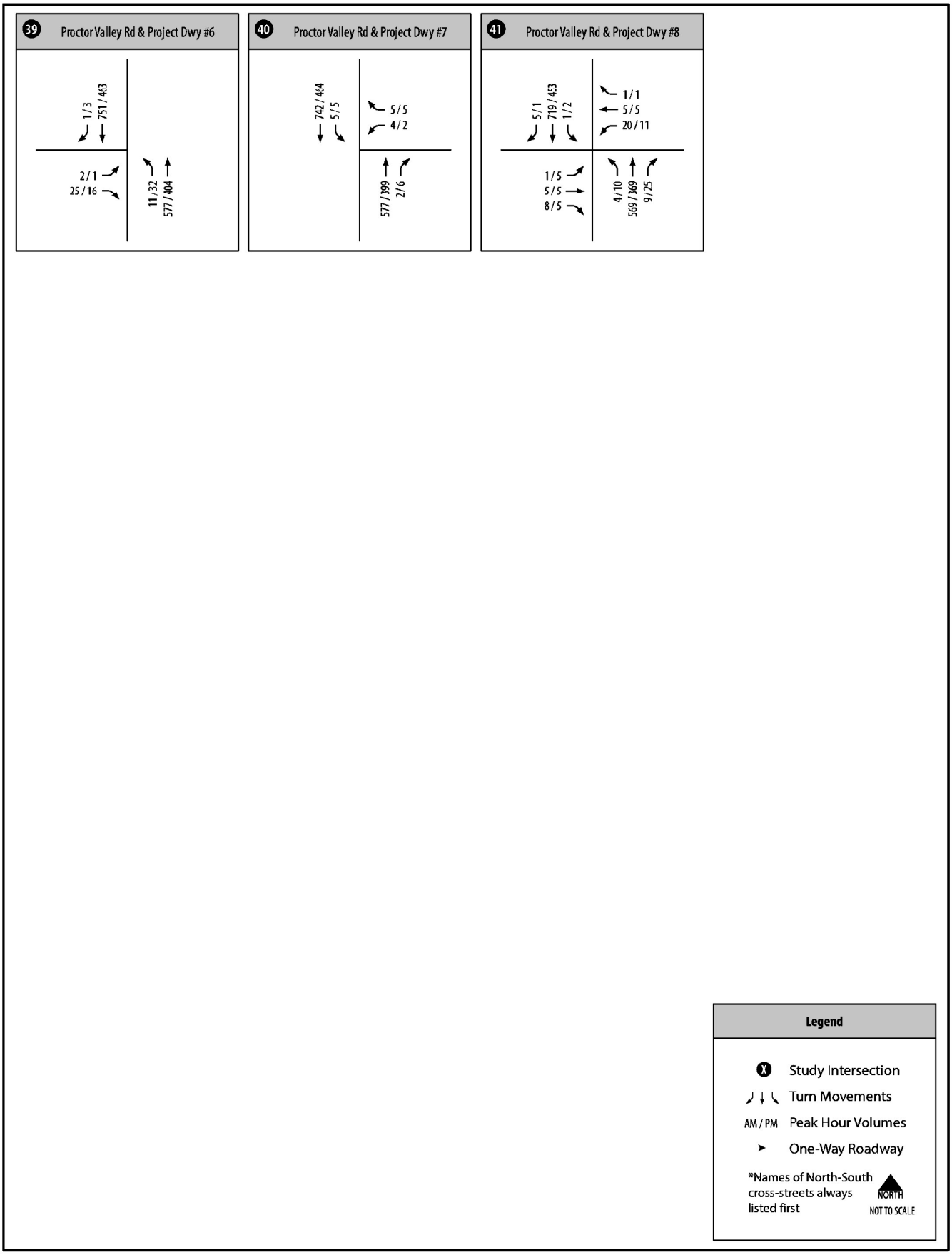

SOURCE: Chen, Ryan 2017

FIGURE 2.9-9c

Peak Hour Intersection Traffic Volumes - Year 2030 Conditions

DUDEK

Otay Ranch Village 14 and Planning Areas 16/19

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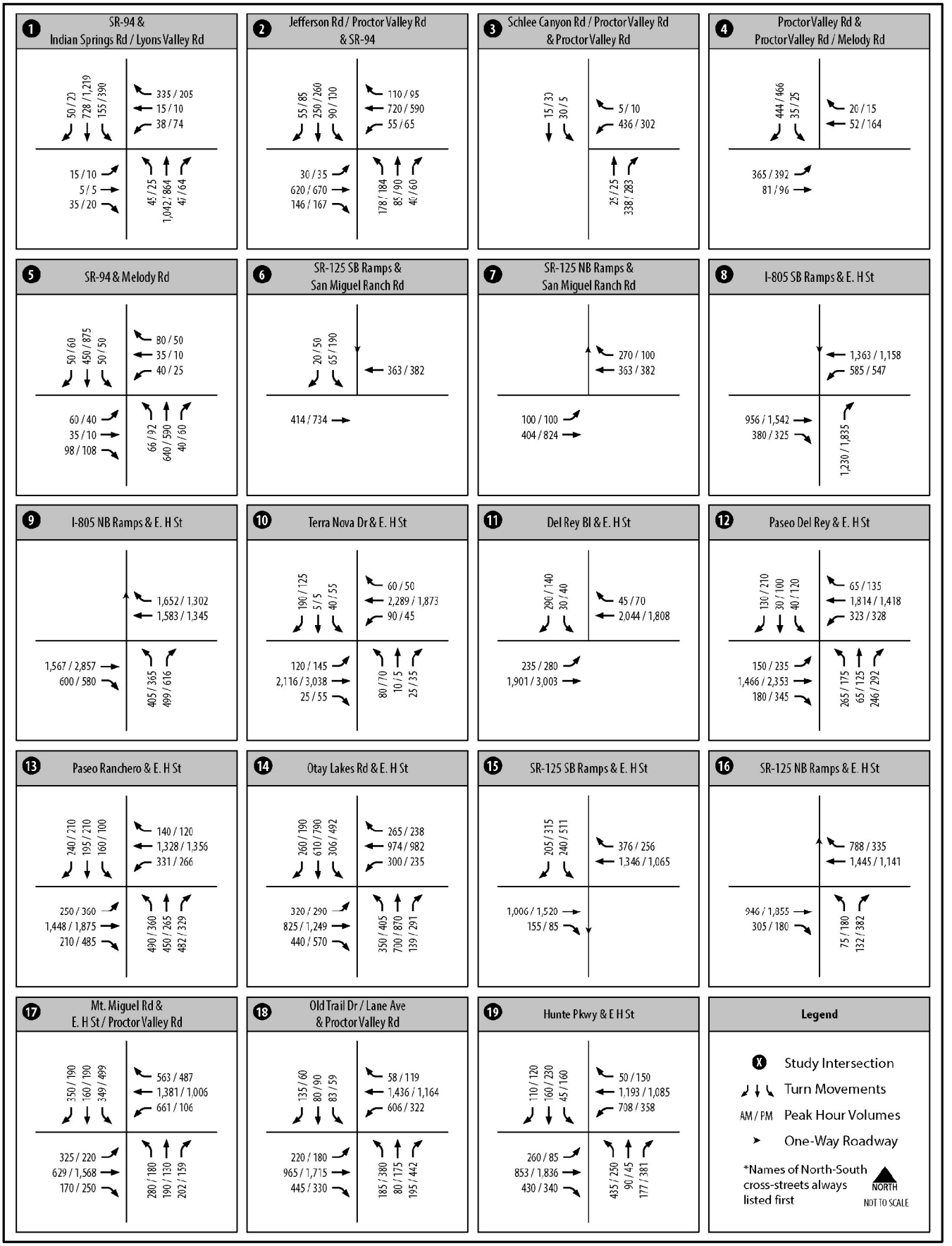

SOURCE: Chen, Ryan 2017

FIGURE 2.9-10a

DUDEK

Peak Hour Intersection Traffic Volumes - Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property

Otay Ranch Village 14 and Planning Areas 16/19

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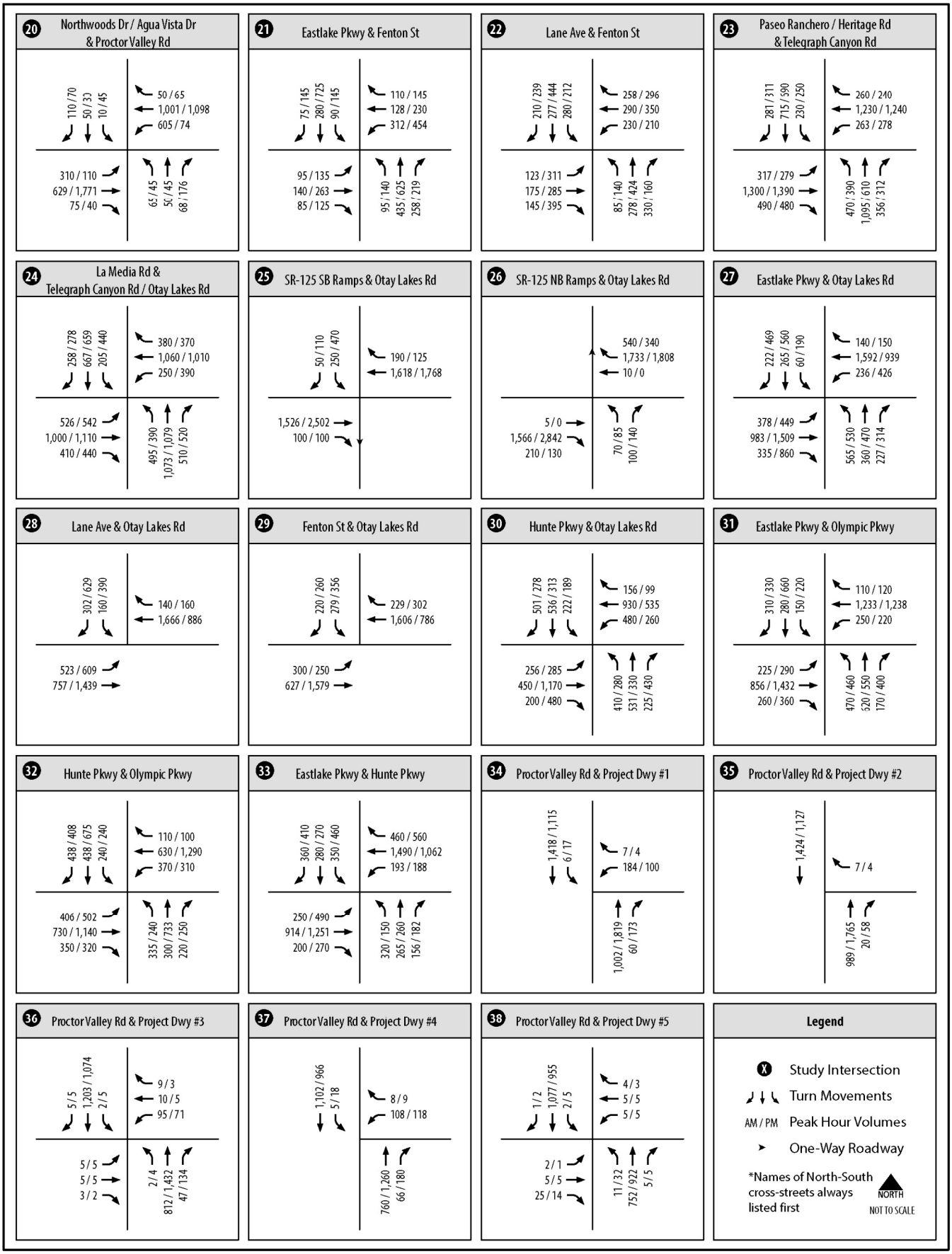

SOURCE: Chen, Ryan 2017

FIGURE 2.9-10b

DUDEK

Peak Hour Intersection Traffic Volumes - Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property

Otay Ranch Village 14 and Planning Areas 16/19

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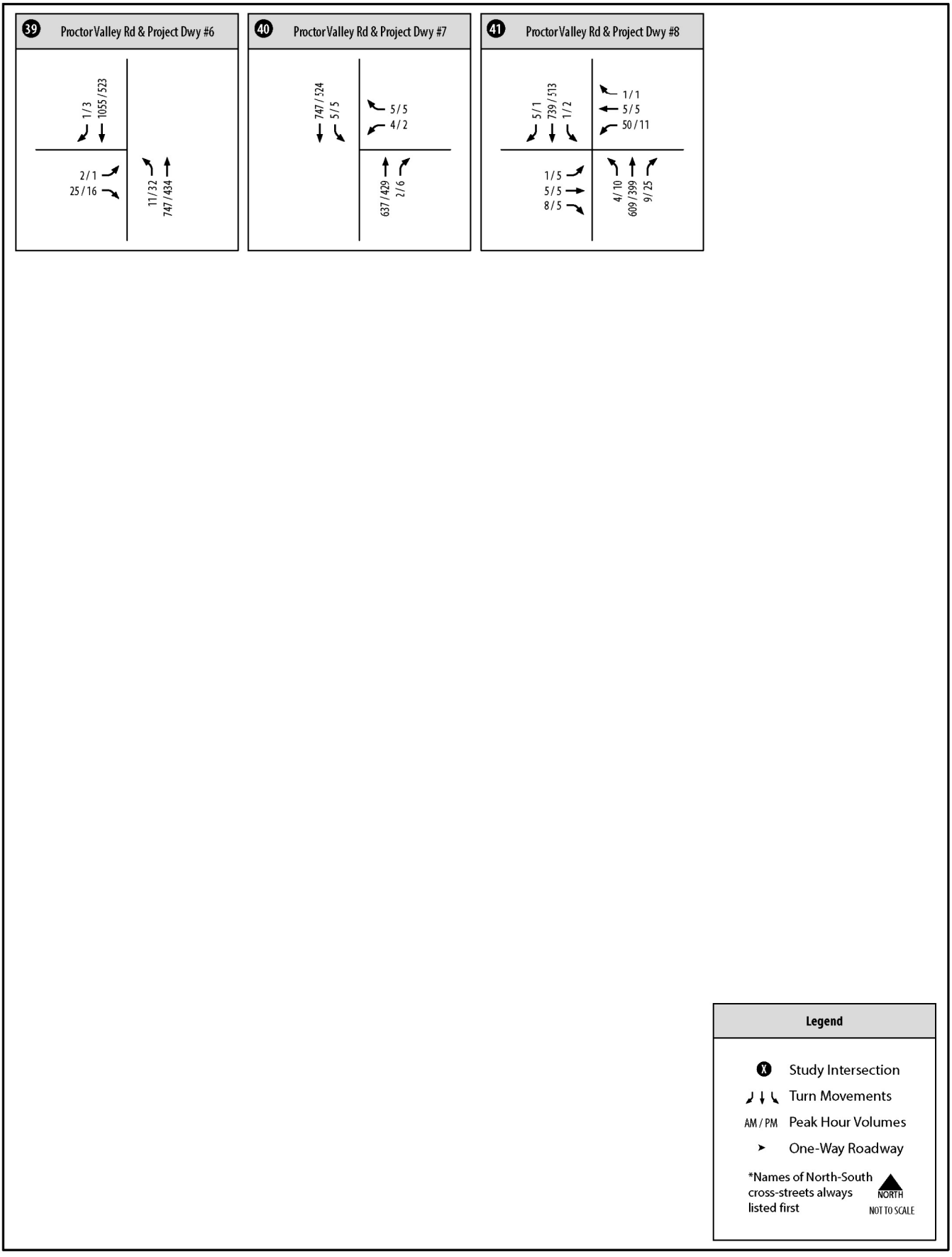

SOURCE: Chen, Ryan 2017

FIGURE 2.9-10c

DUDEK

Peak Hour Intersection Traffic Volumes - Year 2030 Cumulative Conditions Plus Hypothetical Development of State Preserve Property

Otay Ranch Village 14 and Planning Areas 16/19

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