

## **2.7 Transportation and Traffic**

This section addresses the potential transportation- and traffic-related impacts associated with implementation of The Villages – Escondido Country Club Project (Project). The analysis is based on the *Transportation Impact Analysis: The Villages (TIA)*, *Specific Alignment Plan (SAP)*, and the *Villages VMT Evaluation (VMT Evaluation)*, all prepared by Linscott Law and Greenspan, traffic engineers. A copy of the TIA, which includes the SAP, is included as Appendix 2.7-1 and a copy of the VMT Evaluation is included as Appendix 2.7-2 to this Environmental Impact Report (EIR).

### **2.7.1 Existing Conditions**

#### **2.7.1.1 Environmental Setting**

##### Project Access

As described in EIR Chapter 1, Project Description, the Project would be composed of three villages with a total of 392 dwelling units. Access to Village 1 would be provided via the existing intersection of Country Club Lane and Golden Circle Drive, which is the access point for the existing golf course land use. Village 1 would be developed with approximately 155 homes, as well as community amenities.

Village 2 is bounded by Gary Lane, Calle Redonda Lane, Wren Glen, Nutmeg Street, and Country Club Lane. This village proposes 91 homes in two non-contiguous neighborhoods. Access to these neighborhoods is provided via one driveway to Country Club Lane (aligned opposite of Brea Street, west neighborhood), and one to Gary Lane (east neighborhood).

Village 3 is bounded by Firestone Drive, Cortez Avenue, La Brea Street, La Mirada Avenue, and Nutmeg Street. Village 3 also proposes two non-contiguous neighborhoods with a total of 146 homes. Access to the western neighborhood is provided via a driveway to Country Club Lane approximately midway between Firestone Drive and La Brea Street. The eastern neighborhood is accessed via a driveway to La Brea Street. As part of the Project, a SAP is proposed for the segment of Country Club Lane fronting the Project site, from Golden Circle Drive in the west to Nutmeg Street in the east (see Figures 2.7-1a and 2.7-1b, Specific Alignment Plan, and Appendix 2.7-1). The SAP would provide a series of intersection improvements designed to calm traffic speeds and enhance pedestrian and bicycle circulation. The SAP has the following goals (see Appendix 2.7-1 for more details):

- **Traffic Calming** – the intent of the SAP features is to reduce speeds on the roadway. Volumes are well within the existing capacity of the roadway, and while some cut through traffic from I-15 to SR-78 may be occurring, the existing traffic counts indicate the

majority of traffic is from Escondido. Therefore, reductions in volume may occur with the calming features, but that is not the express goal.

- ***Multi-Modal Encouragement*** – the Project envisions that its public amenities including the bar/grill and event space, as well as its HOA facilities will be seen as amenities to both its non-contiguous villages as well as the broader community along the Country Club Lane corridor. Separate from the SAP, the Project is providing a comprehensive trails network to encourage multi-modal (non-automobile) circulation throughout the vicinity. To augment this vision, and to complete the roadway’s bicycle circulation classification, the SAP focuses strongly on improving the pedestrian and bicycle users’ experience by providing enhanced crosswalks and large, buffered bike lanes to encourage bicycle circulation.
- ***Enhanced Aesthetics*** – The existing community had previously enjoyed an identity strongly connected to the previous golf course use. The Project intends to maintain this sense of community, and to integrate its residences with not only the proposed land uses, but with design features throughout the SAP that will provide community character as well as traffic calming benefits. Noteworthy and attractive features such as the roundabouts will provide a unique, identifying characteristic, and will capitalize on the already attractive mature landscaping and medians along the corridor.

### Existing Circulation

The Project site is located north of El Norte Parkway and west of Interstate 15 (I-15) along Country Club Lane in the City of Escondido. The site is the current Escondido Country Club, which is no longer in operation. Figure 2.7-2, Existing Conditions, depicts the area’s existing roadway conditions, including signalized/unsignalized intersections and lane configurations.

The study area includes 17 existing intersections, 19 street segments, 1 freeway ramp meter, and 1 freeway segment, which, as listed below, are located within the jurisdiction of the City of Escondido, City of San Marcos, County of San Diego, or California Department of Transportation (Caltrans).

### Intersections

1. Centre City Parkway/Nutmeg Street (*City of Escondido*)
2. Country Club Lane/Golden Circle Drive (*City of Escondido*)
3. Country Club Lane/Gary Lane (*City of Escondido*)
4. Country Club Lane/Firestone Drive (*City of Escondido*)
5. Country Club Lane/La Brea Street (*City of Escondido*)

6. Country Club Lane/Nutmeg Street (*City of Escondido*)
7. Country Club Lane/Centre City Parkway (*City of Escondido*)
8. El Norte Parkway/Woodland Parkway (*City of Escondido/City of San Marcos*)
9. El Norte Parkway/Country Club Lane (*City of Escondido*)
10. El Norte Parkway/Bennett Avenue (*City of Escondido*)
11. El Norte Parkway/Rees Road (*City of Escondido*)
12. El Norte Parkway/Nutmeg Street/Nordahl Road (*City of Escondido*)
13. El Norte Parkway/I-15 SB Ramps (*Caltrans*)
14. El Norte Parkway/I-15 NB Ramps (*Caltrans*)
15. El Norte Parkway/Seven Oaks Road (*City of Escondido*)
16. El Norte Parkway/Centre City Parkway (*City of Escondido*)
17. El Norte Parkway/Broadway (*City of Escondido*)

### Street Segments

#### *Country Club Lane*

1. El Norte Parkway to Country Club Lane/Golden Circle Drive (*City of Escondido*)
2. Country Club Lane to Gary Lane (*City of Escondido*)
3. Gary Lane to La Brea Street (*City of Escondido*)
4. La Brea Street to Nutmeg Street (*City of Escondido*)
5. Nutmeg Street to Centre City Parkway (*City of Escondido*)

#### *El Norte Parkway*

6. Woodland Parkway to Country Club Lane (*City of Escondido*)
7. Country Club Lane to Bennett Avenue (*City of Escondido*)
8. Bennett Avenue to Rees Road (*City of Escondido*)
9. Rees Road to Nutmeg Street (*County of San Diego*)
10. Nutmeg Street/Nordahl Road to I-15 Ramps (*City of Escondido*)
11. I-15 Ramps to Morning View Drive (*City of Escondido*)
12. Morning View Drive to Centre City Parkway (*City of Escondido*)
13. Centre City Parkway to Broadway (*City of Escondido*)

*Nutmeg Street*

14. North of Country Club Lane (*City of Escondido*)
15. Country Club Lane to Via Alexandra (*City of Escondido*)
16. Via Alexandra to El Norte Parkway (*City of Escondido*)

*Bennett Avenue*

17. El Norte Parkway to Toyon Glen (*City of Escondido*)

*La Brea Street*

18. Country Club Drive to Cortez Avenue (*City of Escondido*)

*Firestone Drive*

19. Country Club Lane to Woodbridge Road (*City of Escondido*)

## Freeway Ramp Meter Locations

*I-15*

1. El Norte Parkway – Southbound On-Ramp (AM peak hour) (*Caltrans*)

## Freeway Mainline Segments

*I-15*

1. El Norte Parkway to SR-78 (*Caltrans*)<sup>1</sup>

Existing Transportation Conditions

The following is a brief description of the roadways located within the Project study area.

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<sup>1</sup> The Project's maximum peak hour contribution to the I-15 southbound mainline segment between El Norte Parkway and State Route (SR) 78 would be 44 trips during the AM peak hour. This is less than the 50 peak hour trip threshold required for analysis of a freeway mainline segment, based on the SANTEC/ITE Guidelines for Traffic Impacts Studies [TIS] in the San Diego Region. Nonetheless, the segment between El Norte Parkway and SR-78 was included within the analysis study area to provide the public and decision-maker with additional information regarding the Project's potential traffic-related impacts.

**I-15** is a north/south facility that extends as a freeway from the San Diego area to the California–Nevada border and beyond. In the Project study area, it provides four lanes in each direction. The posted speed limit is 65 mph. A diamond interchange is located at El Norte Parkway.

**El Norte Parkway** is an east/west facility, with the study area segment located primarily within the City of Escondido jurisdiction. The road is classified as a Major Road on the City of Escondido Mobility Element. It is currently constructed as a four-lane divided roadway from Woodland Parkway to Rees Road. From Rees Road to Nutmeg Street/Nordahl Road it is within County of San Diego jurisdiction, where it is classified as a 4.1A Major Road and built as a four lane undivided roadway with two-way left-turn lane median. East of Nutmeg Street/Nordahl Road, El Norte Parkway returns to Escondido jurisdiction and is built as a four-lane divided roadway to Morning View Drive. Between Morning View Drive and Centre City Parkway, it is a seven-lane divided roadway with three eastbound lanes and four westbound lanes. East of Centre City Parkway, the roadway returns to four lanes. Bike lanes are provided along both sides of the street. The posted speed limit is 45 mph.

**Country Club Lane** is an east/west facility constructed as a two-lane divided roadway from El Norte Parkway to Golden Circle Drive, and as a two-lane undivided roadway from Golden Circle Drive to Gary Lane. Country Club Lane is currently built as a four-lane divided roadway from Gary Lane to Center City Parkway. According to the *City of Escondido General Plan* (General Plan; City of Escondido 2012a) Mobility Element, Country Club Lane is classified as a Collector in the vicinity of the Project. The posted speed limit is 25 mph for the majority of Country Club Lane in the Project area, transitioning to 35 mph east of Nutmeg Street (Appendix 2.7-1).

**Centre City Parkway** is a north/south facility constructed as a four lane divided roadway. Bike lanes are provided along both sides of the street. According to the City’s General Plan Mobility Element, Centre City Parkway is classified as a Collector north of Country Club Lane and a Major Road south of Country Club Lane within the vicinity of the Project.

**Nutmeg Street** is a north/south facility constructed as a two-lane undivided roadway. According to the City’s General Plan Mobility Element, Nutmeg Street is classified as a Local Collector from Centre City Parkway to Yuma Glen and as Collector south of Yuma Glen within the vicinity of the Project. The posted speed limit is 25 mph.

**Gary Lane** is an unclassified residential roadway, currently built as a two-lane undivided roadway. Gary Lane generally runs east–west, connecting Nutmeg Street and Country Club Lane. From Country Club Lane to Calle Redonda, it is built with street parking and sidewalks on both sides of the roadway. From Calle Redonda to Nutmeg Street, there is a striped center median, no on-street parking, a sidewalk on one side of the street only, and few fronting properties along this portion of Gary Lane. The posted speed limit is 25 mph.

**La Brea Street** is an unclassified, north–south, two-lane residential roadway. Sidewalks and street parking are provided on both sides of the roadway.

**Firestone Drive** is an unclassified residential roadway, generally running north–south between El Norte Parkway and Country Club Lane. On-street parking and sidewalks are provided on both sides of the roadway.

### Existing Traffic Volumes

Table 2.7-1, Existing Traffic Volumes, provides a summary of the average daily traffic volumes (ADTs) on the study area roadways based on traffic counts taken when schools were in session, primarily in May 2016, with one segment counted in September 2016.

### Alternative Transportation Facilities

#### Bus Service

North County Transit District and Metropolitan Transit System provide bus service to the City of Escondido. Service is generally provided along major circulation corridors with a heavier concentration of bus routes in Downtown Escondido. North County Transit District provides three types of bus services in the City, including local bus service, County transit service, and express bus service. Local bus service is generally provided at 30- to 60-minute intervals and provides local access within the City and surrounding communities. County transit service provides bus service along rural routes connecting Escondido to the unincorporated Valley Center community. The Metropolitan Transit System provides express bus service from the City’s downtown area to the City of San Diego and local bus service from the Del Lago Transit Station to the City of San Diego. With bus stops adjacent to the Project (at most intersections along Country Club Lane), Metropolitan Transit System Bus Route 358 and 359 would provide residents bus services to and from the Escondido Transit Center from which connects to routes that provide service to the rest of the County (NCTD 2016).

#### Rail Service

North County Transit District operates a light rail transit system, the SPRINTER, which stops at the Escondido Transit Center. The SPRINTER extends 22 miles along the SR-78 corridor, and serves 15 stations between Oceanside and Escondido, with a total traveling time of 53 minutes from end to end. Each light rail vehicle has a maximum capacity of 226 passengers and travels at a maximum speed of 55 mph. The SPRINTER offers easy connections to the COASTER, BREEZE, Amtrak, and Metrolink rail lines, Greyhound bus service, and Rapid bus service in Escondido. The SPRINTER runs every 30 minutes in each direction Monday through Friday, from approximately

4:00 a.m. to 9:00 p.m. Saturday, Sunday, and holiday trains operate every 30 minutes between 10:00 a.m. and 6:00 p.m. and hourly before 10:00 a.m. and after 6:00 p.m. (NCTD 2011).

### Bicycle and Pedestrian Facilities

Within the Project Area, North Centre City Parkway is designated as a Class II Bicycle Lane and El Norte Parkway is designated as a Class II Lane. The Mobility and Infrastructure Element of the General Plan proposes that Country Club Lane be designated as a Class II Bicycle Lane and Nutmeg Street/Nordahl Road be designated as a Class III Bicycle Route. The City's planned pedestrian circulation system consists of connecting sidewalks along roadways as well as recreational trails. These designated pedestrian walkways would provide separation from vehicular traffic.

#### **2.7.1.2 Regulatory Setting**

##### Federal

##### Highway Capacity Manual

The 2010 Highway Capacity Manual, 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 Highway Capacity Manual 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.

##### 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 right-of-way 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.

##### California Environmental Quality Act

Primary environmental legislation in California is found in the California Environmental Quality Act (CEQA) and its implementing guidelines (CEQA Guidelines), which require that projects

with potential adverse effects (or impacts) on the environment undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

### Senate Bill 375

Senate Bill (SB) 375 (Steinberg, Statutes of 2008), targets regional greenhouse gas (GHG) emissions reductions from passenger vehicles and light-duty trucks through changes in land use and transportation development patterns. Integrating transportation and residential land use activity is one of the most impactful strategies for reducing GHG emissions, as well as other forms of air pollution. Governmental actions supporting the location, variety and availability of housing are critical to implementing GHG emissions reduction policies. This can support the integration of transportation and housing development, offering more varied and efficient consumer choices. Infill development patterns that emphasizes proximity and connectivity to public transit, walkable areas, employment and service centers and amenities can increase the effectiveness of these relationships.

### Senate Bill 743

On September 27, 2013, Governor Jerry Brown signed SB 743 into law, starting a process that is expected to change the way transportation impact analysis is conducted under CEQA. Within the state's CEQA Guidelines, these changes will include elimination of auto delay, level of service (LOS), and similar measurements of vehicular roadway capacity and traffic congestion as the basis for determining significant impacts.

SB 743 created a process to change the way projects analyze transportation impacts pursuant to CEQA. Currently, environmental review of transportation impacts focuses on the delay that vehicles experience at intersections and on roadway segments. That delay is often measured using a metric known as "level of service," or LOS. Under SB 743, the focus of transportation analysis will shift from driver delay to reduction of GHG emissions, creation of multimodal networks and promotion of a mix of land uses. SB 743 requires the Governor's Office of Planning and Research (OPR) to amend the CEQA Guidelines to provide an alternative to LOS for evaluating transportation impacts. The alternative criteria must promote the reduction of GHG emissions, the development of multimodal transportation networks, and a diversity of land uses (OPR 2014). The *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA* (Draft Guidelines; OPR 2016) provided recommendations for updating the state's CEQA Guidelines in response to SB 743 and contained recommendations for VMT analysis methodology in an accompanying *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory). The Draft Guidelines, including the Technical Advisory, recommended use

of automobile VMT per capita as the preferred CEQA transportation metric, along with the elimination of auto delay/LOS for CEQA purposes statewide.

VMT is defined as a measurement of miles traveled by vehicles within a specified region for a specified time period and is a measure of network use or efficiency. There are multiple ways to express VMT, although generally VMT are calculated by multiplying all vehicle trips generated by a project times their associated trip lengths, or by multiplying traffic volumes on roadway links by the associated trip distance of each link. VMT is often estimated for a typical weekday.

According to the legislative intent contained in SB 743, these changes to current practice were necessary to 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 GHG emissions.

### Assembly Bill 1358

The Complete Streets Act of 2008 AB 1358 (Leno, 2008) requires, beginning January 1, 2011, cities and counties, upon any substantive revision to their circulation elements, to plan for a balanced multi-modal transportation network that meets the needs of all users of streets, roads, and highways, including motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation.

### Local

#### 2050 Regional Transportation Plan and Sustainable Communities Strategy

The 2050 RTP provides 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 SB 375, the 2050 RTP also includes the Sustainable Communities Strategy (SCS), which details how the region will reduce GHG 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 San Diego Association of Governments (SANDAG) Board of Directors on October 9, 2015 (SANDAG 2015).

RTPs are developed to provide a clear vision of the regional transportation goals, objectives, and strategies. In addition, RTPs must reflect Senate Bill (SB) 375 (Steinberg, Statutes of 2008),

which targets regional GHG 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.

### Regional Transportation Improvement Program

The Regional Transportation Improvement Program (RTIP) is a multi-billion 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 (SOV) analysis, land use impact analysis, the provision of congestion management tools, and integration with the RTIP process.

### Local

#### County of San Diego General Plan Mobility Element

The *County of San Diego General Plan* Mobility Element provides a framework for a balanced, multi-modal transportation system for the movement of people and goods within the unincorporated areas of the County of San Diego. The Mobility Element strives to maximize traffic movement and enhance connectivity by creating multiple connections between existing and planned retail or employment centers and residential communities and between different areas within communities (County of San Diego 2008). Relevant goals and policies of the County of San Diego Mobility Plan include the following:

**Goal 1:** Balanced Road Network

**Goal 2:** Responding to Physical Constraints and Preservation Goals

**Policy M-2.1:** Require development projects to provide associated road improvements necessary to achieve a level of service (LOS) of “D” or higher on all Mobility Element roads except for those where a failing LOS has been accepted by the County.

**Goal 3:** Transportation Facility Development

**Policy M-3.1:** Require development to dedicate right-of-way for public roads and other transportation routes identified in the Mobility Element roadway network, Community Plans, or Road Master Plans. Require the provision of sufficient right-of-way width, as specified in the County Public Road Standards and Community Trails Master Plan, to adequately accommodate all users, including transit riders, pedestrians, bicyclists, and equestrians.

**Goal 4:** Safe and Compatible Roads (County of San Diego 2008)

#### City of San Marcos General Plan Mobility Element

The *City of San Marcos General Plan* Mobility Element address the multi-modal system for the entire City of San Marcos, with a special emphasis on connectivity to the City’s “Focus Areas” (City of San Marcos 2013). The goals and relevant policies of the City of San Marcos Mobility Plan include the following:

**Goal 1:** Provide a comprehensive multimodal circulation system that serves the City land uses and provides for the safe and effective movement of people and goods.

**Policy M-1.2:** Require new development to finance and construct internal adjacent roadway circulation and City-wide improvements as necessary to mitigate project impacts, including roadway, transit, pedestrian and bicycle facilities.

**Policy M-1.3:** Require new developments to prepare and implement Transportation Demand Management (TDM) programs to minimize vehicle trip generation and promote alternative modes of travel within the City.

**Goal 2:** Protect neighborhoods by improving safety for all modes of travel and calming traffic where appropriate.

**Policy M-2.1:** Work with new development to design roadways that minimize traffic volumes and/or speed, as appropriate within residential neighborhoods; while maintaining the City's desire to provide connectivity on the roadway network.

**Goal 3:** Promote and encourage use of alternative transportation modes, including transit, bicycles, neighborhood electric vehicles (NEVs), and walking, within the City.

**Policy M-3.1:** Develop an integrated, multimodal circulation system that accommodates transit, bicycles, pedestrians, and vehicles; provides opportunities to reduce air pollution and GHG emissions; and reinforces the role of the street as a public space that unites the City.

**Goal 4:** Provide efficient parking within the City.

**Goal 5:** Provide for the safe and efficient movement of goods throughout the City (City of San Marcos 2013).

### City of Escondido General Plan Mobility and Infrastructure Element

The General Plan's Mobility and Infrastructure Element introduces planning tools essential for achieving the community's transportation and utility goals and policies with the intent of providing a sustainable system to serve residents and businesses. Relevant goals and policies of the Mobility and Infrastructure Element include the following:

#### *Mobility and Infrastructure Element*

#### **1. Regional Transportation Planning**

**Goal 1:** An accessible, safe, convenient, and integrated multimodal network that connects all users and moves goods and people within the community and region efficiently (City of Escondido 2012a).

## City of Escondido Bicycle Master Plan

The *City of Escondido Bicycle Master Plan* (Bicycle Master Plan; City of Escondido 2012b) identifies existing circulation patterns for bicyclists, problem areas and safety concerns, and develops a master system to further the implementation of bikeways throughout Escondido. The Bicycle Master Plan includes Caltrans bikeway standards, conceptual designs for bicycle paths and trails, maps of existing and proposed bicycle facilities, a phasing plan for improvements, funding sources, and an implementation plan. The plan identifies a bicycle facility network, both on the road (Class II and III) and off road (Class I). Upon full implementation, the plan will create a comprehensive network of bicycle lanes, routes, and paths. The Bicycle Master Plan is an update to the City's 1993 Bicycle Facilities Master Plan; it was adopted by the City Council in 2012. As part of the City of Escondido Bicycle Facilities Master Plan Class II bicycle lanes are proposed to be placed on a 2.61-mile stretch of Country Club Lane/Rincon Avenue from El Norte Parkway to Conway Drive. The width of the existing lanes, center median/turn lane, presence of on-street parking, and/or physical condition of the outside lane/shoulder (such as Second Avenue, Country Club Lane, and Washington Avenue) may preclude the striping of bike lanes. Installation of Class II bike lanes on these roadways would require restriping, possible reduction of lane widths and removal of on-street parking (City of Escondido 2012b).

## Chapter 23 City of Escondido Municipal Code

Chapter 23 of the Municipal Code establishes street and sidewalk standards for areas within the City. This chapter defines standards for public dedication of rights-of-way; arrangement for relocation of public utility facilities within sidewalks or streets; and issuance of building permits for construction in setback areas and rights-of-way. Additionally, this chapter identifies standards for locating pumps, tanks, and fire hydrants within sidewalks, streets, or rights-of-way.

## Significance Criteria of Agencies with Jurisdiction over the Project

Roadway segment volumes and intersection turning movements were determined based on traffic counts taken on Tuesday, May 17, 2016. To determine the current operations of roadway segments, intersections, freeway segments, freeway intersection capacity, and ramp meter conditions, the standards and thresholds of the overseeing jurisdiction were used, as discussed below. (Standards for ascertaining roadway LOS vary by jurisdiction.)

Intersection operations are evaluated based on an LOS analysis. The concept of LOS is defined as a qualitative measure describing operational conditions within a traffic stream, and the motorist's perception of operations. LOS designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions.

The segment LOS is based on the average daily traffic (ADT), the functional classification of the roadway, maximum capacity, and roadway geometrics. Standards for ascertaining roadway LOS vary by jurisdiction.

#### *City of Escondido Criteria*

The following is a summary of the City of Escondido's published significance criteria.

In accordance with the SANTEC/ITE Guidelines for Traffic Impact Studies in the San Diego Region, the following thresholds shall be used to identify if a project is of significant traffic impact under any scenario. Based on SANTEC/ITE guidelines, if now or in the future, the project's traffic impact causes the values in Table 2.7-2, Proposed Thresholds to Identify a Project's Significant Traffic Impact – City of Escondido, to be exceeded in a roadway segment or intersection that is operating at LOS D or worse, it is determined to be a significant impact and the project shall identify mitigation measures (Appendix 2.7-1).

Furthermore, according to the City's General Plan, Mobility Element streets and intersections shall be planned and developed to achieve a minimum LOS C as defined by the Highway Capacity Manual as amended or updated, or such other national standard deemed appropriate by the City. LOS C may not be feasible in all areas at all times and LOS D shall be considered the threshold for determining significant impacts and appropriate mitigation. Per the certified General Plan EIR, a significant impact would result from a General Plan (Year 2035) analysis when a project would "cause the LOS of a General Plan Mobility and Infrastructure Element roadway to fall below LOS D and/or add more than 200 ADT to a Mobility and Infrastructure Element roadway with an LOS E or F" (City of Escondido 2012c).

#### *San Diego County Criteria*

The following criteria are used to evaluate potential significant impacts within San Diego County jurisdiction, based on the County's document, *Guidelines for Determining Significance*, updated August 24, 2011 (County of San Diego 2011):

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

- a. Reduction in LOS below "C" for on-site Mobility Element roads;
- b. Reduction in LOS below "D" for off-site and on-site abutting Mobility Element roads; and

- c. “Significantly impacting congestion” on roads that operate at LOS “E” or “F”. If impacts cannot be mitigated, the project cannot be approved unless a statement of overriding considerations is made pursuant to State CEQA Guidelines. However, the General Plan Mobility Element does not include specific guidelines for determining the amount of additional traffic that would “significantly impact congestion” on such roads.

The County has created guidelines to evaluate likely traffic impacts of a proposed project for road segments and intersections serving that project site, for the purposes of determining whether the development would “significantly impact congestion” on the referenced LOS E and F roads. The guidelines are summarized in Table 2.7-3, Measures of Significant Project Impacts to Mobility Element Road Segments. The thresholds in Table 2.7-3 are based upon average operating conditions on County roadways. It should be noted that these thresholds only establish general guidelines, and that the specific project location must be taken into account in conducting an analysis of traffic impact from new development.

#### *City of San Marcos Criteria*

Within the City of San Marcos, a project is considered to have a significant impact if the new project traffic has decreased the operations of surrounding roadways by a defined threshold. The defined thresholds, which are shown in Table 2.7-4, Traffic Impact Significant Thresholds (LOS D accepted), are based on published SANTEC guidelines and the *City of San Marcos General Plan* (City of San Marcos 2013). If the project exceeds the thresholds in Table 2.7-4, then the project may be considered to have a significant project impact. A feasible mitigation measure will need to be identified to return the impact within the thresholds (pre-project + allowable increase) or the impact will be considered significant and unmitigated.

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

If the project exceeds the thresholds in Table 2.7-4, then the project may be considered to have a significant “direct” or “cumulative” project impact. A significant impact can also occur if a project causes the LOS to degrade from D to E, even if the allowable increases in Table 2.7-4 are not exceeded. A feasible mitigation measure will need to be identified to return the impact within the City thresholds, or the impact will be considered significant and unmitigated.

#### *Caltrans Criteria*

The SANTEC guidelines shown in Table 2.7-2 are also used for Caltrans freeway segments and ramp meters, although Caltrans accepts LOS D operations for urban locations; Escondido is considered an urban location for purposes of Caltrans’ facilities analysis. Caltrans utilizes ramp

meters to control the volume of traffic entering the freeway. Similar to intersection analysis, the analysis is based on the delay per vehicle at the ramp meter. However, the delay per vehicle is measured in minutes. Ramp metering delay represents how long the peak hour (ramp metering) would need to be extended in order to accommodate the excess vehicles. A delay above 15 minutes at a ramp is considered unacceptable.

## **2.7.2 Analysis of Project Effects and Determination as to Significance**

### **2.7.2.1 Project Trip Generation and Distribution**

#### Trip Generation

The Project traffic generation calculations were conducted using the trip generation rates published in SANDAG's "Not so Brief Guide of Vehicular Traffic Generation Rates for San Diego Region" (SANDAG 2002). Based on the most conservative type and density of homes proposed by the Project (single-family residential), SANDAG specifies a residential trip rate of 10 ADT/unit.

Several amenities are proposed for both the homeowner's association (HOA) members and the nearby community. A 1,500-square-foot restaurant space is proposed that would primarily serve the HOA and nearby community, but could potentially draw some small amount of trips from greater Escondido area and beyond. As seen in Table 2.7-5, Project Trip Generation, the proposed restaurant is estimated to generate approximately 150 daily trips on average. Also proposed is a small (1,000-square-foot) market that would serve the local neighborhood. A trip rate of 40 trips/1,000 square feet for the "specialty retail" land use was applied to this specialty market.

In addition to the restaurant and retail uses, the Project will develop ancillary uses for the primary use of the local residents, including a Clubhouse lobby, a swimming pool, and a 1,600-square-foot gymnasium. The HOA will also have office and meeting space and banquet facilities. While it is proposed to sell memberships to the broader public to have access to these amenities, the weekday trip associated with them would be very modest and the trip generation volumes associated with those ancillary uses reflects this. As seen in Table 2.7-5, these various amenities are estimated to generate approximately 170 daily trips on average. It is also important to note that the traffic analysis did not take trip reductions for mixed-use/internal capture of residential and restaurant/amenity trips. Therefore, the estimates provided in Table 2.7-5 are provided in order to assess the worst case scenario for purposes of CEQA.

Table 2.7-5 shows a summary of the Project's traffic generation. As tabulated, the Project is calculated to generate 4,280 daily trips with 319 total AM peak hour trips (97 inbound/222 outbound) and 420 total PM peak hour trips (293 inbound/127 outbound).

### Trip Distribution

Trip distribution is the process of determining traffic percentage splits on the regional and local roadway network. Trip distribution is determined based on the characteristics of the Project and upon the general location of other land uses to which Project trips would originate or terminate, such as employment, housing, schools, recreation and shopping. The traffic analysis utilized the SANDAG regional traffic model to establish the regional cordons and distribution. The results of the Select Zone Assignment were reviewed by City staff, who provided additional comment and direction. LLG used local traffic patterns as well as commercial GIS software to determine the local traffic distribution of each village's driveway individually. All local driveway distributions ultimately conform to the broader regional distribution described above. The percentage of overall Project traffic assigned to each driveway is based on the relative percentage of overall units in each village. The public and HOA-related uses were only assigned to the Village 1 driveway (Driveway 1), because it is the closest to these uses. Figure 2.7-3, Project Traffic Distribution, depicts the Project trip distribution throughout the Project site.

#### **2.7.2.2 Guidelines for the Determination of Significance**

For purposes of this EIR, Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) will apply to the direct, indirect, and cumulative impact analyses. A significant impact to transportation and traffic-related facilities would result if the Project would:

- A. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.
- B. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
- C. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- D. Substantially increase hazards due to a design feature (e.g., sharp curves, or dangerous intersections) or incompatible uses (e.g., farm equipment).
- E. Result in inadequate emergency access.
- F. Conflict with adopted policies, plans, or programs regarding public transit, bicycles, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

### 2.7.2.3 Analysis

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

The traffic analysis was prepared using existing and 2035 conditions in accordance with the City's General Plan. Analysis of the Project's potential impacts under Existing plus Project conditions is presented in this section; analysis of the Project's impacts under cumulative conditions, including both near- and long-term (2035) conditions, is presented in Section 2.7.3.

According to the General Plan's Mobility Element, streets and intersections shall be planned and developed to achieve a minimum LOS C defined by the Highway Capacity Manual as amended or updated, or such other national standard deemed appropriate by the City (City of Escondido 2012a). The City of Escondido considers LOS D the threshold for unacceptable operations, while the County, City of San Marcos, and Caltrans criteria provide that locations operating at LOS E or worse are unacceptable operations (County of San Diego 2011; City of San Marcos 2013; San Diego Regional Traffic Standards Task Force 2000). Where jurisdiction is shared, the City of Escondido's criteria was used.

#### Existing + Project Conditions

Operational analyses for the Existing + Project scenario assume the implementation of the proposed SAP along Country Club Lane between Golden Circle Drive and Nutmeg Street. Study area intersections and street segments affected by implementation of the SAP are noted in the analysis tables below.

#### Intersections

Table 2.7-6, Near-Term Intersection Operations, summarizes the AM and PM peak hour intersection operations for Existing + Project conditions. With the addition of Project traffic, the following intersections would operate at unacceptable LOS, per the respective jurisdiction criteria:

- Intersection #8.** El Norte Parkway/Woodland Parkway – LOS D in the AM peak hour (*Escondido/San Marcos*)
- Intersection #9.** El Norte Parkway/Country Club Lane – LOS E/D in the AM/PM peak hours (*Escondido*)

**Intersection #16.** El Norte Parkway/Centre City Parkway – LOS D in the AM/PM peak hours (*Escondido*)

**Intersection #17.** El Norte Parkway/Broadway – LOS F/E in the AM/PM peak hours (*Escondido*)

Based on the City of Escondido’s significance criteria, the Project would result in **significant direct impacts** at Intersections #8 (**Impact TR-1**) and #9 (**Impact TR-2**), because the Project contribution to the delay would exceed the allowable 2.0 second threshold. The Project would improve operations at five intersections along Country Club Lane (Intersections #2–#6) with the provision of the SAP and the associated capacity enhancements with the proposed roundabouts, signals, and all-way stop control. The Project contribution at the remaining intersections would be less than the allowable threshold; therefore, impacts would be less than significant at these intersections.

### Segments

Table 2.7-7, Near-Term Street Segment Operations, summarizes the street segment operations with the addition of Project traffic. Under this scenario, all of the study area street segments would operate at acceptable LOS per respective jurisdiction criteria, except for the following two segments:

**Segment #10.** El Norte Parkway from Nutmeg Street/Nordahl Road to I-15 Ramps – LOS E (*Escondido*)

**Segment #15.** Nutmeg Street from Country Club Lane to Via Alexandra – LOS D (*Escondido*)

Based on the City of Escondido’s significance criteria, the Project would result in a **significant direct impact** to Segment #10 and Segment #15 because the Project contribution would exceed the allowable increase of 0.02 in volume to capacity ratio (**Impact TR-3** and **Impact TR-4**).

### Freeway Ramp Meter Operations

Table 2.7-8, Near-Term Ramp Meter Analysis – Fixed Rate, summarizes the peak hour ramp meter operations for Existing + Project conditions. With the addition of Project traffic, the calculated delay at the El Norte Parkway to I-15 southbound on-ramp during the AM peak hour would remain at greater than 15.0 minutes, with a calculated increase in excess of the allowable 2.0 minutes over Existing conditions (**Impact TR-5**). Therefore, a **potentially significant** impact associated with freeway ramp operations would occur because the increase in delay would exceed the allowable 2.0 minutes established by the significance criteria.

### Freeway Mainline Operations

Table 2.7-9, Freeway Mainline Analysis – Existing + Project, summarizes the peak hour freeway mainline operations on I-15 between El Norte Parkway and SR-78 for Existing + Project conditions. As shown on the table, during the AM and PM peak hour, this segment would operate at LOS F (0) in the peak direction and LOS B or better in the off-peak direction. Because the Project's contribution to V/C would be less than the allowable 0.01, impacts would be **less than significant**.

### VMT Analysis

The information below is based on Appendix 2.7-2, and is not required under CEQA. As such, the following information is provided for informational purposes only.

The Project's proposed land uses and density are consistent with the surrounding land uses. The location, density, and intensity of suburban-style development within the surrounding communities have been mainly developed through planned residential development, and are generally characterized by low density single-family neighborhoods with pockets of medium density single-family development (duplex units, townhomes, and detached homes on smaller lots). Given that the Project's land use type (i.e., primarily residential) and size are similar to the surrounding community, it is expected that the driving characteristics of Project residents would be similar as well. The type, amount, length and frequency of vehicle trips to work, school, shopping, and recreation generally would be similar to the surrounding community, which would result in a comparable residential Project VMT for the residential uses absent the Project's diversity of land uses and SAP.

However, because the Project adds community serving retail and recreational opportunities, along with substantial enhancements to the bicycle and pedestrian circulation network, this combination of mixed-uses, along with the multi-modal enhancements, would ultimately reduce the Project's overall VMT as compared to other residential developments in the vicinity without these features.

The Project's community-serving commercial and recreational facilities would not just reduce the Project's VMT, but are also expected to reduce existing community-wide VMT. This is because local residents would have restaurant and retail uses available in their community, not previously available, that would be accessible via non-vehicular modes of transportation, encouraged by the Project's proposed pedestrian and bicycle enhancements.

While the residential component of the Project are similar in density and scale to the surrounding residential land uses (3.6 dwelling units/acre vs. 4.6 dwelling units/acre, respectively), the Project's residential VMT is expected to be lower than the surrounding communities. Moreover, the Project amenities also are expected to result in a lower community-wide VMT due to the community-serving amenities and multi-modal enhancements, which would serve to reduce both

Project VMT and community-wide VMT. The enhancements proposed by the Project would result in a reduction of 575,369.4 annual vehicle miles traveled. This represents a reduction of approximately 5% compared to the VMT that would be generated without the proposed VMT reduction strategies incorporated into the Project. As to the Project's effect on surrounding VMT, the City of Escondido recognizes that "smart growth land use patterns and instituting complete streets plays a direct role in the rate and growth of vehicle miles traveled" (City of Escondido 2012a). The Project proposes both of these strategies.

The Project's land use mix of retail and residential uses is considered a smart-growth pattern, and the California Air Pollution Control Officers Association's *Quantifying Greenhouse Gas Mitigation Measures* document states that an "increase in diversity of urban and suburban developments (mixed use)" and the provision of "traffic calming measures" for existing and proposed development, could result in a potential reduction in VMT in the range of 9%–31% (CAPCOA 2010). Therefore, the Project's land use diversity and traffic-calming measures are expected to result in reduced VMT for both the Project and the adjacent existing community.

***B. Would the Project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?***

The analysis presented under Threshold A considers the applicable congestion management program and the standards established for designated roads and highways as part of the analysis. With implementation of the Project, there would be two potential conflicts with the County CMP's LOS standards (**Impact TR-1** and **Impact TR-2**). These impacts are a result of the Project's contribution to the delay at Intersections #8 and #9, which exceeds the allowable 2.0-second threshold. Additionally, implementation of the Project would result in an exceedance of the County CMP's maximum ramp meter delay of 15 minutes, as the calculated delay at the El Norte Parkway to I-15 southbound on-ramp during the AM peak hour would remain greater than 15 minutes with an increase in excess of the allowable 2.0 minutes over Existing conditions (**Impact TR-5**). Therefore, a **potentially significant impact** associated with a conflict with the applicable congestion management program would occur (see **Impact TR-1**, **Impact TR-2**, and **Impact TR-5**).

***C. Would the Project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?***

The Project is not located within an airport land use plan, and the closest airport to the Project site is Palomar Airport, which is approximately 8.75 miles southwest of the Project site. The Project is located within the Airport Influence Area of Palomar Airport. However, due to the

nature of the Project, structures would not disrupt existing air traffic patterns (County of San Diego 2010, Exhibit III-5). At their highest point, the Project structures would be approximately 20–25 feet above ground level, which would be less than the 200 feet above ground level threshold that triggers mandatory notification of the Federal Aviation Administration (FAA). Therefore, because the Project does not include components that would trigger notification of the FAA or result in a potential obstruction or hazard to air navigation, impacts would be **less than significant**.

***D. Would the Project substantially increase hazards due to a design feature (e.g., sharp curves, or dangerous intersections) or incompatible uses (e.g., farm equipment)?***

The Project would link the private and public streets that provide vehicle access to new residences with the existing circulation system. The primary point of access to the existing circulation system is Country Club Lane, which is classified as a Major Road. As part of the Project via the proposed SAP, traffic calming measures would be implemented both at the primary intersections along Country Club Lane, as well as on the tangent street segment between intersections, to more safely accommodate pedestrian and vehicular circulation. Roundabouts would also be installed, which would be designed to reduce speeds and enhance the existing circulation system. Additionally, the Project would install adaptive signalization along El Norte Parkway to improve traffic flow and improve the southbound I-15 on-ramp. With the Project's proposed improvements and traffic-calming measures, the Project would not substantially increase hazards due to a design feature or incompatible use, and impacts would be **less than significant**.

***E. Would the Project result in inadequate emergency access?***

Each Village will have its own primary access routes as well as emergency access routes where needed for public safety. This will allow for emergency egress for residents in an emergency event as well as alternative ingress and egress for emergency responders. These alternative access routes may also provide emergency access for existing development, depending on the type and location of an emergency event (New Urban West Inc. 2017).

In total, five driveways are proposed to serve these three villages. Two of these driveways will serve as the fourth leg to an existing intersection that is evaluated in the report (Intersection No. 2: Country Club Lane/Golden Circle Drive and Intersection No. 5: Country Club Lane/La Brea Street). Three additional intersections will be new to the roadway system. All intersections are located within the jurisdiction of the City of Escondido. These intersections will offer emergency access, along with Driveways A, B, C, D, and E. Within Village 3, a secondary emergency/pedestrian access will be provided to Nutmeg Street. A roundabout is proposed at the Country Club Lane/Golden Circle Drive intersection which would also serve Driveway A, the main driveway to Village 1. Vertical deflection would be added on the

approach and departure sides of the roundabout to reduce entering speeds and align vehicles into the roundabout. Ramp transitions may be provided on the approach and departure deflections at the roundabout to allow cyclists to leave the roadway and dismount to the sidewalk if they do not desire to take the lane through the roundabout. The second roundabout in the corridor is proposed at La Brea Street. This would serve the existing street system as well as serve Driveway D. This is a single-lane roundabout which requires that a four-lane roadway transition to two lanes (one each direction) in advance of the roundabout. The roundabouts would be designed to be mounted by oversized vehicles (fire apparatus, buses, trucks), and thus would facilitate adequate emergency access.

Existing access to the Project area for emergency service providers would be maintained during construction and operation. Also, it is important to note that emergency vehicles have the right-of-way and therefore are able to bypass traffic when driving to their destination when responding to a call for emergency services. Specifically, nonemergency vehicle drivers are required to pull to the right side of the road and stop to allow emergency vehicles to pass, and there is sufficient space provided to do so. If required, drivers of emergency vehicles are trained to travel in opposing through lanes to pass through crowded intersections. Additionally, each village would have its own primary access routes, as well as emergency access routes where needed for public safety. Additionally, it should be noted that the traffic control plan required by the City for construction activities would outline all requirements to ensure that emergency access is maintained at all times and that Project construction would not impact acceptable response times. The traffic control plan would require coordination and notification of emergency service providers. Additionally, emergency access would be provided to all of the villages in the Project. This would allow emergency egress for residents in an emergency event as well as alternative ingress and egress for emergency responders. These alternative access routes may also provide emergency access for existing development, depending on the type and location of an emergency event. Thus, impacts on emergency access would be considered **less than significant**.

***F. Would the Project conflict with adopted policies, plans, or programs regarding public transit, bicycles, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?***

Alternative transportation (transit use, cycling, and walking) is addressed in the City's General Plan Mobility and Infrastructure Element. An analysis of the Project's compliance with the City's General Plan Mobility and Infrastructure Element goals, objectives, and policies is included in Appendix 3.1.5-1, City of Escondido General Plan Consistency Table, of this EIR. The Project would also be compliant with the Bicycle Master Plan's goals, objectives, and policies listed below:

**Goal 1:** Expand and enhance Escondido’s bikeway network and eliminate barriers to bicycling.

Objectives and Actions

1. Continue to plan for and recommend funding to support a local and regionally linked onstreet and off-street public bicycle network, and coordinate these efforts with SANDAG and other cities within the County of San Diego to ensure a regional connected system of bicycle facilities.
2. Develop the existing and proposed bikeway network as an appropriately designed, continuous network that serves all user groups and skill levels. Maximize links between trails and major activity centers, residential neighborhoods, schools, shopping centers and employment centers.
3. Accommodate cyclists on all major roadways as funding becomes available or when roadway improvements are made.
4. Actively pursue regional, state, and federal grant funds to implement bikeway projects.
5. Update the City’s Bikeway Plan on a regular basis to reflect new policies and/or requirements for bicycle and pedestrian funding.
6. Identify and seek to eliminate hazards to safe, efficient bicycle movement citywide. Monitor bicycle-related accidents, and review the data and review the data on a regular basis to determine if facility improvements are needed to improve safety.
7. Prioritize and implement bikeway improvements based on considerations of safety, commuting needs, and route connectivity.
8. Routinely repair and maintain bikeway network facilities, including regular sweeping of bikeways and shared use pathways.

**Goal 2:** Plan for the needs of bicyclists.

Objectives and Actions

1. Evaluate the needs of bicycle traffic in the planning, design, construction and operation of all roadway projects.
2. Coordinate roadway improvements to ensure that existing bicycle facilities are integrated and constructed with Capital Improvement Projects (CIP) and other development projects to maximize construction and cost efficiencies.
3. Coordinate roadway improvements to ensure that bicycle facilities are temporarily accommodated by identifying alternate routes during roadway construction projects.

4. Accommodate a wide range of user ages and abilities with a Class I bicycle facilities along public easements, railways, and utilities to further enhance the bicycle network.
5. Continue to improve Class I bikeways along Escondido Creek and the Sprinter railway and identify opportunities for other Class I bikeways along public utility easements and linkages to the San Dieguito River Park's Coast to Crest Trail.
6. Evaluate the ability to enhance accessibility, aesthetics, lighting and safety along the Escondido Creek Trail as part of requests to develop or upgrade properties and business along the bike path. Review all projects along the Escondido Creek Trail to determine conformance with the goals and objectives detailed in the Escondido Creek Trail Master Plan.
7. Develop and implement a destination-based signing system for the bikeway network.
8. Coordinate with the public schools to conduct bicycle safety and education programs to encourage safe cycling as an alternative to motorized transportation.
9. Support adult and youth bicycling events and education and safety programs that promote bicycling.
10. Employ effective traffic control devices such as loop detectors, call buttons, and signage along Class I, Class II and Class III bicycle facilities, where appropriate, to increase bicycle safety and ease of cycling.
11. Improve safety for bicyclists and other non-motorized users by encouraging traffic calming, intersection improvements or other similar actions where appropriate.

The SAP will show all improvement within the public right-of-way designed to enhance pedestrian and bicycle use, such as traffic calming and roundabouts, thus while increasing public safety. The Project would incorporate a 48-acre Open Space System including a 29-acre greenbelt with a series of pocket parks located along approximately 4 miles of walking trails available to existing residents. As previously noted, the Project proposes a SAP for Country Club Lane from Golden Circle Drive to Nutmeg Street. The SAP would provide a series of intersection improvements designed to calm traffic speeds and enhance pedestrian and bicycle circulation. Traffic calming would be introduced along West Country Club Lane to reduce traffic speeds, encourage pedestrian and bicycle use and improve public safety (New Urban West Inc. 2017). Additionally, implementation of the SAP for Country Club Lane would reduce speeds, improving both the pedestrian and bicycle experience. The proposed Class II bike lanes also would provide a high level of comfort for cyclists, and the intersection improvements (stop/signal control, crosswalks, bulbouts) proposed at Gary Lane, Firestone Drive, and Nutmeg Street would work in conjunction with the proposed trails to encourage and facilitate pedestrian circulation along the corridor.

As shown in Table 2.6-2, Proposed Thresholds to Identify a Project's Significant Traffic Impact – City of Escondido, the Project would be consistent with the City's Mobility and Infrastructure Element goals and policies pertaining to alternative transportation. Therefore, impacts would be **less than significant**.

### 2.7.3 Cumulative Impact Analysis

#### Existing + Cumulative Projects + Project Conditions

The cumulative impact analysis considers the effects of the Project in combination with other projects in the study area that will add traffic to the local circulation system in the near future. Projects located within the City of Escondido, as well as the nearby jurisdictions of the City of San Marcos and County of San Diego, were considered as part of the cumulative analysis.

In analyzing the Project's cumulative impacts, the growth rate was calculated by comparing Year 2035 forecast volumes from the Escondido General Plan to existing (Year 2016) volumes at several locations within the Project study area. Based on the calculations, an average (median) growth rate of 1.9% annually was determined. This growth rate, in addition to the growth attributable to one additional project within the City of San Marcos and one additional project within the County of San Diego that may add traffic to study area locations in the near-term, was then applied to existing volumes for a period of 5 years to reach near-term (Existing + Cumulative) volumes.

#### Intersections

Operational analyses for the Existing + Cumulative Projects + Project scenario assume the implementation of the proposed SAP along Country Club Lane between Golden Circle Drive and Nutmeg Street. Study area intersections and street segments affected by implementation of the SAP are noted in the analysis tables below. Table 2.7-6 summarizes the peak hour intersection operations for Existing + Cumulative Project + Project conditions. With the addition of the Project and cumulative Project traffic, the following intersections would operate at unacceptable LOS per the respective jurisdictional standards:

**Intersection #1.** Nutmeg Street/Centre City Parkway – LOS D in the AM peak hour (*Escondido*)

**Intersection #8.** El Norte Parkway/Woodland Parkway – LOS D in the AM peak hour (*Escondido/San Marcos*)

**Intersection #9.** El Norte Parkway/Country Club Lane – LOS E/D in the AM/PM peak hours (*Escondido*)

- Intersection #12.** El Norte Parkway/Nordahl Road/Nutmeg Street – LOS D in the PM peak hour (*Escondido*)
- Intersection #16.** El Norte Parkway/Centre City Parkway – LOS E/D in the AM/PM peak hours (*Escondido*)
- Intersection #17.** El Norte Parkway/Broadway – LOS F in the AM and PM peak hours (*Escondido*)

Based on the City of Escondido’s significance criteria, the Project would result in **significant cumulative impacts** at Intersections #8 (**Impact TR-1**), #12 (**Impact TR-6**), and #9 (**Impact TR-2**). Cumulative impacts would occur because the Project-related delay would exceed the allowable 2.0-second threshold. No significant cumulative impacts are calculated at the remaining locations, as the Project-related delay is within the allowable threshold.

### Segments

Table 2.7-7 summarizes the street segment operations for Existing + Project + Cumulative Project conditions. As shown on the table, with the addition of Project traffic, and cumulative Project traffic, the following segments would operate at unacceptable LOS:

- Segment #10.** El Norte Parkway from Nutmeg Street/Nordahl Road to I-15 Ramps – LOS E (*Escondido*)
- Segment #11.** El Norte Parkway from I-15 Ramps to Morning View Drive – LOS D (*Escondido*)
- Segment #13.** El Norte Parkway from Centre City Parkway to Broadway – LOS D (*Escondido*)
- Segment #15.** Nutmeg Street from Country Club Lane to Via Alexandra – LOS D (*Escondido*)
- Segment #17.** Bennett Avenue from El Norte Parkway to Toyon Glen – LOS D (*Escondido*)

Based on the City of Escondido’s significance criteria, the Project would result in a **significant cumulative impact** at three segments, Segment #10 (**Impact TR-3**), Segment #15 (**Impact TR-4**), and Segment #17 (**Impact TR-7**), because the Project would exceed the allowable increase of 0.02 in peak hour volume/hourly capacity (V/C) ratio; see Table 2.7-7. No significant cumulative impacts are identified on the remaining segments because the Project contribution is within the allowable threshold. **PDF-TR-1** shall require the Project include appropriate work

zone traffic control plans to ensure efficient ingress/egress of vehicles, and to maintain access to the degree possible to Country Club Lane during construction.

### Freeway Ramp

Table 2.7-8 summarizes the peak hour ramp meter operations at the I-15/El Norte Parkway southbound on-ramp for Existing + Cumulative Projects + Project conditions. As shown on the table, with the addition of Project traffic, the calculated delay at this on-ramp during the AM peak hour continues to be in excess of 15.0 minutes, with a calculated increase in excess of the allowable 2.0 minutes over Existing + Cumulative Projects conditions. Thus, the Project would result in a **significant cumulative impact** as the increase in delay exceeds the allowable 2.0 minutes established by the significance criteria.

### Freeway Mainline Operations (Caltrans)

Table 2.7-9 summarizes the peak hour freeway mainline operations on I-15 between El Norte Parkway and SR-78 for Existing + Cumulative Projects + Project conditions. As shown in Table 2.7-9, during the AM and PM peak hour, this segment would operate at LOS F in the peak direction and LOS B or better in the off-peak direction. Because the Project's contribution to the volume to capacity ratio would be under the allowable 0.01% threshold, the Project's cumulative impacts would not be cumulatively considerable at this location.

**Year 2035 + Project Conditions.** Under the Year 2035 + Project scenario, Project impacts are assessed in combination with forecasted future cumulative Project traffic volumes. The 2035 background traffic volumes are forecast based on the Escondido General Plan Mobility Element Year 2035 traffic model, a long-range planning tool that forecasts future background traffic volumes based on build-out of the of the City of Escondido's approved General Plan (see Appendix 2.7-1).

Operational analyses for the Year 2035 + Project scenario assume the implementation of the proposed SAP along Country Club Lane between Golden Circle Drive and Nutmeg Street. Study area intersections and street segments affected by implementation of the SAP are noted in the analysis tables below. Table 2.7-10 summarizes the Year 2035 With Project intersection operations. It should be noted that the City of Escondido allows LOS D or better operations at build-out. As seen in Table 2.7-10, the following study area intersections would operate at LOS E or F conditions with the addition of Project traffic:

### Intersections

**Intersection #1.** Centre City Parkway/Nutmeg Street – LOS F in the AM and PM peak hours (*Escondido*)

- Intersection #8.** El Norte Parkway/Woodland Parkway – LOS F/E in the AM/PM peak hours (*Escondido/San Marcos*)
- Intersection #9.** El Norte Parkway/Country Club Lane – LOS F in the AM and PM peak hours (*Escondido*)
- Intersection #12.** El Norte Parkway/Nordahl Road/Nutmeg Street – LOS E in the PM peak hour (*Escondido*)
- Intersection #16.** El Norte Parkway/Centre City Parkway – LOS E in the AM and PM peak hours (*Escondido*)
- Intersection #17.** El Norte Parkway/Broadway – LOS F in the AM and PM peak hours (*Escondido*)

Based on the applicable significance criteria, the Project would result in a **significant long-term cumulative impact** at the following intersections: Intersection #8 (**Impact TR-8**), and Intersection #9 (**Impact TR-9**). Impacts would be potentially significant at these intersections because they would operate at LOS E or F at Project build-out, which exceeds the City of Escondido Threshold and the City of San Marcos Threshold of LOS D or better. No long-term significant cumulative impacts would result at the remaining intersections as the Project-related increase in delay is under the allowable 2.0 seconds threshold.

### Segments

Table 2.7-11 summarizes the Year 2035 With Project street segment operations. As shown in Table 2.7-11, study area street segments would continue to operate at acceptable LOS D or better, except the following:

- Segment #2.** Country Club Lane from Golden Circle Drive to Gary Lane – LOS F (*Escondido*)

Based on the established significance criteria, the Project would result in a **significant long-term cumulative impact** at Segment #2 (**Impact TR-11**) because the Project-induced change in volume to capacity ratio would exceed the 0.02 threshold.

### Freeway Ramp

Table 2.7-12 summarizes the peak hour ramp meter operations for the I-15/El Norte Parkway southbound on-ramp for Year 2035 with Project conditions. With the addition of Project traffic, the calculated delay at the El Norte Parkway to I-15 Southbound On-Ramp is greater than 15.0 minutes during the AM peak hour, which exceeds the allowable 2.0 minutes established by the

significance criteria (**Impact TR-12**). Therefore, the Project would result in a **significant long-term cumulative impact** at this freeway ramp.

#### Freeway Mainline Operations (Caltrans)

Table 2.7-13 summarizes the freeway mainline operations for I-15 from El Norte Parkway to SR-78 under Year 2035 With Project conditions. As shown in Table 2.7-13, during AM and PM peak hours, this freeway segment would operate at LOS F (0) in the peak direction and LOS B or better in the off-peak direction. Because the Project's contribution to the volume to capacity ratio would be under the allowable 0.01% threshold, impacts would be **less than significant**.

#### 2.7.4 Significance of Impacts Prior to Mitigation

As analyzed above, the Project would result in **significant** near-term direct and cumulative impacts and long-term cumulative impacts to the following locations under the respective analysis scenario:

##### Existing Plus Project

##### Intersections

**Impact TR-1** Intersection #8. El Norte Parkway/Woodland Parkway (*Escondido/San Marcos*)

**Impact TR-2** Intersection #9. El Norte Parkway/Country Club Lane (*Escondido*)

##### Street Segments

**Impact TR-3** Segment #10. El Norte Parkway from Nutmeg Street/Nordahl Road to I-15 Ramps (*Escondido*)

**Impact TR-4** Segment #15. Nutmeg Street from Country Club Lane to Via Alexandra (*Escondido*)

##### Ramp Meters

**Impact TR-5** El Norte Parkway to I-15 Southbound On-Ramp (*Caltrans*)

##### Existing + Cumulative Projects + Project

In addition to the four direct and cumulative impacts listed above, the Project would result in **significant** cumulative-only impacts to the following locations in the near term:

## Intersections

**Impact TR-6** Intersection #12. El Norte Parkway/Nordahl Road Nutmeg Street (*Escondido*)

## Street Segments

**Impact TR-7** Segment #17. Bennett Avenue from El Norte Parkway to Toyon Glen (*Escondido*)

Year 2035 + Project

The Project would result in **significant** long-term cumulative impacts to the following locations:

## Intersections

**Impact TR-8** Intersection #8. El Norte Parkway/Woodland Parkway (*Escondido/San Marcos*)

**Impact TR-9** Intersection #9. El Norte Parkway/Country Club Lane (*Escondido*)

**Impact TR-10** Intersection #12. El Norte Parkway/Nutmeg Street/Nordahl Road (*Escondido*)

## Ramp Meters

**Impact TR-11** El Norte Parkway to I-15 Southbound On-Ramp (*Caltrans*)

**2.7.5 Mitigation**

For a complete summary of the Project's impacts and associated mitigation measures, Table 2.7-14 summarizes intersection impacts and mitigation measures, Table 2.7-15 summarizes street segment impacts and mitigation measures, and Table 2.7-16 summarizes the ramp meter impacts and mitigation measures.

Existing + Project

The following mitigation measures would mitigate the significant near-term direct and cumulative impacts identified under the Existing + Project scenario to less than significant levels:

**M-TR-1** **Intersection #8. El Norte Parkway/Woodland Parkway.** Prior to issuance of a building permit for the 158th dwelling unit, the Project applicant, or its designee, shall restripe the westbound approach of El Norte Parkway at Woodland Parkway

to provide one left-turn lane, two through lanes, one right-turn lane, and a bike lane. The westbound leg (west of Woodland Parkway, now Borden Road) shall be restriped with two receiving lanes and a bike lane. The striped median and eastbound left-turn lane will be restriped to correct the offset. The westbound right-turn lane striping on Borden Road to the church driveway will be removed. The two westbound lanes shall continue westbound to Amber Drive, where a lane drop shall be striped to transition to a single westbound through lane. Traffic signal equipment at the El Norte Parkway/Woodland Parkway intersection shall also be modified to serve the revised geometry. No widening of El Norte Parkway or Borden Road will be required.

**M-TR-2 Intersection #9. El Norte Parkway/Country Club Lane.** Prior to issuance of a building permit for the 60th dwelling unit, the Project applicant, or its designee, shall restripe the eastbound approach of El Norte Parkway to provide a second eastbound left-turn lane, and shall also restripe northbound Country Club Lane (north of El Norte Parkway) to accept the two left-turn lanes and to taper to one lane south of the Country Club Lane/Golden Circle Driveway. The existing raised median on El Norte Parkway would be removed and reconstructed to accommodate the second eastbound left-turn lane. The eastbound through lanes shall also be restriped to accommodate the improvement. Traffic signal equipment at the El Norte Parkway/Country Club Lane intersection shall also be modified to serve the revised geometry. No widening of El Norte Parkway or Country Club Lane will be required. These improvements were included in the modeling and are thus accounted for in the LOS findings.

**M-TR-3 Segment #10. El Norte Parkway from Nutmeg Street/Nordahl Road to I-15 SB Ramps.** Prior to issuance of a building permit for the 272nd dwelling unit, the Project applicant, or its designee, shall revise and enhance the right-turn/right edgeline striping serving the commercial uses between Bourbon Road and the I-15 southbound ramps, commensurate with the striping improvements recently installed by the City of Escondido between Nutmeg Street/Nordahl Road and Bourbon Road to improve ingress and reduce driver confusion with respect to the commercial driveways right-turn movement to Nutmeg Street. The Project shall also restrict the northbound left-turns from Bourbon Road to westbound El Norte Parkway with striping and signage, consistent with left-turn restrictions for the commercial driveway located directly across the intersection. The eastbound U-turn restriction at the El Norte Parkway/I-15 northbound ramps intersection should be removed to serve the displaced left-turns that will become downstream U-turns. There is sufficient distance in the intersection to serve the displaced left-

turns from Bourbon Road, and the modest volume would not affect efficiency of the intersection. If Caltrans will not allow the U-turn at this intersection, the movement is allowed at the signalized El Norte Parkway/7 Oaks intersection located approximately 350 feet farther east. Removal of left-turns from Bourbon Road to El Norte Parkway will eliminate a conflicting midblock movement and enhance operations on El Norte Parkway. Construction of **M-TR-6** (dual southbound lefts on Nutmeg Street at El Norte Parkway) will also increase efficiency on El Norte Parkway by processing twice as many southbound left-turning vehicles per cycle, allowing for more green time to serve El Norte Parkway. **M-TR-5** (additional ramp storage on the I-15 southbound on-ramp) will further improve operations on this segment by reducing the eastbound queuing that occurs on El Norte Parkway during the AM peak hour and queuing those vehicles on the ramp instead of the segment. Although it is not a mitigation measure, the proposed adaptive signal control proposed for the El Norte Parkway corridor within the study area will also improve capacity along this segment.

**M-TR-4**      **Segment #15. Nutmeg Street from Country Club Lane to Via Alexandra.** Prior to issuance of a building permit for the 145th dwelling unit, the Project applicant, or its designee, shall construct interim improvements in the existing right-of-way on southbound Nutmeg Street between La Paloma Avenue and Via Alexandra to provide a wider travel lane, and curb, gutter, and sidewalk improvements to the satisfaction of the City engineer. These improvements will enhance vehicular, pedestrian, and bicycle circulation and will increase capacity to mitigate the Project's impact. Furthermore, **M-TR-6** (dual southbound left-turns from Nutmeg Street to El Norte Parkway) will serve to enhance the overall Nutmeg Street corridor operations by increasing traffic flow from Nutmeg Street to El Norte Parkway.

**M-TR-5**      **El Norte Parkway to I-15 Southbound On-Ramp.** Prior to issuance of a building permit for the 170th dwelling unit, the Project applicant, or its designee, shall provide an additional Single Occupancy Vehicle (SOV) lane to the southbound on ramp. However, because the improvement would be located within the jurisdiction and control of the State of California (Caltrans), and neither the applicant nor the City of Escondido can assure that Caltrans will permit the improvement to be made, for the purposes of this analysis, the long-term significant cumulative impact at this location is considered significant and unavoidable.

### Existing + Cumulative Projects + Project

The following mitigation measures would mitigate the significant near-term cumulative impacts identified under the Existing + Cumulative Projects + Project scenario to less than significant levels:

**M-TR-6 Intersection #12. El Norte Parkway/Nutmeg Street/Nordahl Road.** Prior to issuance of a building permit for the 300th dwelling unit, the Project applicant, or its designee, shall restripe the south leg of Nutmeg Street to provide two southbound left-turn lanes, one shared through-right-turn lane, and a bike lane. The median on the north leg will need to be restriped. Traffic signal equipment at the subject intersection shall also be modified to serve the revised geometry. No widening of El Norte Parkway, Nutmeg Street or Nordahl Road will be required. This improvement will primarily improve the efficiency of the intersection by serving the dominant movement with two lanes instead of one. The secondary effect will be more green time per cycle to be allocated to El Norte Parkway. Another benefit will be to address the existing offset issue affecting north-south drivers through the intersection. Moving the through lane to the east will better align it with the receiving lane on the side (Nordahl Road) of the intersection.

**M-TR-7 Segment #17. Bennett Avenue from El Norte Parkway to Toyon Glen.** Prior to issuance of a building permit for the 162nd dwelling unit, the Project applicant, or its designee, shall restripe a two-way left-turn lane between El Norte Parkway and Toyon Glen. There are currently left-turn pockets striped at intervals along this segment. As such, there is sufficient room in the existing curb-to-curb width to stripe in the two-way left-turn lane. While the existing pockets serve to allow turning vehicles from Bennett Avenue to queue outside of the through lanes, they do not provide refuge for vehicles turning from the minor streets along the segment to Bennett Avenue.

#### **2.7.6 Significance of Impacts After Mitigation**

The following discussion provides the significance conclusion reached after implementation of the recommended mitigation measures to the identified significant impacts.

**M-TR-1** through **M-TR-5** would reduce the identified near-term significant direct and cumulative impacts (**Impact TR-1** through **Impact TR-4**) to less than significant levels. **M-TR-1** would reduce **Impact TR-1** by restriping the westbound approach of El Norte Parkway at Woodland Parkway to provide one left-turn lane, two through lanes, one right-turn lane, and a bike lane, thus reducing congestion at the intersection. With implementation of this improvement, the near-term significant direct impact at this intersection would be reduced to less

than significant. **M-TR-2** would reduce **Impact TR-2** and **Impact TR-9** by providing a second eastbound lane at El Norte Parkway and modifying Country Club Lane, resulting in less congestion at the intersection of El Norte Parkway and Country Club Lane, thus the near-term significant direct would be reduced to less than significant. **M-TR-3** would reduce **Impact TR-3** by improving ingress and reducing driver confusion with respect to the right-turn movement to Nutmeg Street, thus the near-term significant direct would be reduced to less than significant. **M-TR-4** would reduce **Impact TR-4**. Additionally, per the Project's SAP, the applicant will improve the adjacent intersection of Country Club Lane/Nutmeg Street with a traffic signal, which will improve circulation at the intersection and on the adjacent segments of Country Club Lane and the subject segment of Nutmeg Street. With implementation of these improvements, the near-term significant direct and cumulative impacts would be reduced to less than significant. **M-TR-5** would reduce **Impact TR-5** by providing an additional SOV lane to the southbound on-ramp, which would reduce congestion.

Two cumulative-only impacts were identified at Intersection #12 (**Impact TR-6**) and Segment #17 (**Impact TR-7**). **M-TR-6** would reduce **Impact TR-6** and **Impact TR-10** by restriping the south leg of Nutmeg Street to provide two southbound left-turn lanes, one shared through-right turn lane, a bike lane, as well as restriping the north leg. Traffic signal equipment at this intersection would also be modified to serve the revised intersection. With implementation of these improvements, this near-term significant cumulative impact would be reduced to less than significant. **M-TR-7** would reduce **Impact TR-7** by restriping a two-way left-turn lane between El Norte Parkway and Toyon Glen. The additional roadway capacity provided by this improvement would mitigate this significant near-term cumulative-only impact to less than significant. Therefore, with implementation of **M-TR-6** and **M-TR-7**, **Impact TR-6** and **Impact TR-7** would be reduced to less than significant levels.

Five long-term cumulative impacts were identified, three of which were at intersections surrounding the Project (**Impact TR-8** through **Impact TR-10**). One long-term cumulative impact was identified at a segment (**Impact TR-11**), and one long-term cumulative impact was identified at a nearby ramp meter (**Impact TR-12**). **M-TR-1** would reduce **Impact TR-8** by restriping the westbound approach of El Norte Parkway at Woodland Parkway to provide one left-turn lane, two through lanes, one right-turn lane, and a bike lane, thus reducing congestion at the intersection and reducing the long-term cumulative impact to less than significant. **M-TR-2** would reduce **Impact TR-2** and **Impact TR-9** by providing a second eastbound lane at El Norte Parkway and modifying Country Club Lane, resulting in less congestion at the intersection of El Norte Parkway and Country Club Lane. Thus, the long-term cumulative impact would be reduced to less than significant. **M-TR-6** would reduce **Impact TR-10** restriping the south leg of Nutmeg Street to provide two southbound left-turn lanes, one shared through-right turn lane, and a bike lane, as well as restriping the north leg. Additionally, traffic signal equipment at this intersection would be

modified to serve the revised intersection. Thus, with implementation of these measures, the long-term cumulative impact would be reduced to less than significant. **M-TR-5** would reduce **Impact TR-11** by providing an additional SOV lane to the southbound on ramp which would reduce congestion. However, because the improvement would be located within the jurisdiction and control of the State of California (Caltrans), and neither the applicant nor the City of Escondido can assure that Caltrans will permit the improvement to be made, for the purposes of this analysis, the long-term significant cumulative impact at this location is considered significant and unavoidable.

As previously noted, with implementation of the mitigation measures in Section 2.7.5, all impacts associated with transportation and traffic would be reduced to less than significant, with the exception of **Impact TR-11**, because the improvement would be located within the jurisdiction and control of the State of California (Caltrans), and neither the applicant nor the City of Escondido can ensure that Caltrans will permit the improvement to be made.

**Table 2.7-1**  
**Existing Traffic Volumes**

Street Segment	Jurisdiction	ADT
<i>Country Club Ln</i>		
1. El Norte Pkwy to Country Club Ln/Golden Circle Dr	Escondido	6,290
2. Country Club Ln/Golden Circle Dr to Gary Ln	Escondido	4,440
3. Gary Ln to La Brea St	Escondido	5,210
4. La Brea St to Nutmeg St	Escondido	5,330
5. Nutmeg St to Centre City Pkwy	Escondido	9,530
<i>El Norte Pkwy</i>		
6. Woodland Pkwy to Country Club Ln	Escondido	20,320
7. Country Club Ln to Bennett Ave	Escondido	16,190
8. Bennett Aven to Rees Rd	Escondido	17,880
9. Rees Rd to Nutmeg St/Nordahl Rd	County	17,880
10. Nutmeg St/Nordahl Rd to I-15 Ramps	Escondido	31,950
11. I-15 Ramps to Morning View Dr	Escondido	25,680
12. Morning View Dr to Centre City Pkwy	Escondido	25,680
13. Centre City Pkwyto Broadway	Escondido	25,680
<i>Nutmeg St</i>		
14. North of Country Club Ln	Escondido	3,120
15. Country Club Ln to Via Alexandra	Escondido	7,550
16. Via Alexandra to El Norte Pkwy	Escondido	7,550
<i>Bennett Ave</i>		
17. El Norte Pkwy to Toyon Glen	Escondido	6,460
<i>La Brea St</i>		
18. Country Club Ln to Cortez Ave	Escondido	350

**Table 2.7-1  
Existing Traffic Volumes**

Street Segment	Jurisdiction	ADT
<i>Firestone Dr</i>		
19. Country Club Ln to Woodbridge Rd	Escondido	1,010

**Source:** See Appendix 2.7-1.

**Notes:** ADT= average daily traffic;

ADT counts conducted on Tuesday, May 17, 2016, except Segment #17, which was counted Thursday, September 15, 2016.

**Table 2.7-2  
Proposed Thresholds to Identify a Project's  
Significant Traffic Impact –City of Escondido**

Level of Service with Project	Allowable Change due to Project Impact		
	Roadway Segments		Intersections Delay (sec.)
	V/C	Speed (mph)	
D, E, or F	0.02	1	2

**Source:** See Appendix 2.7-1.

**Notes:** V/C = volume to capacity ratio (use LOS E for capacity).

No Significant Impact occurs at areas in GP Downtown Specific Area that operate at LOS "D" or better.

Mitigation measures should also be considered for any segment or intersection operating at LOS "F" subject to less than significant impact.

**Table 2.7-3  
Measures of Significant Project Impacts to Mobility Element Road Segments**

Allowable Increases on Congested Road Segments			
Level of Service	Two-Lane Road	Four-Lane Road	Six-Lane Road
LOS E	200 ADT	400 ADT	600 ADT
LOS F	100 ADT	200 ADT	300 ADT

**Source:** See Appendix 2.7-1.

**Notes:**

By adding Project trips to all other trips from a list of projects, this same table must be used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes additional trips must mitigate a share of the cumulative impacts.

The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable LOS, when such traffic uses a significant amount of remaining road capacity.

**Table 2.7-4  
Traffic Impact Significant Thresholds**

Level of Service with Project <sup>a</sup>	Allowable Increase Due to Project Impacts <sup>b</sup>					
	Freeways		Roadway Segments		Intersections	Ramp Metering
	V/C	Speed (mph) <sup>c</sup>	V/C	Speed (mph) <sup>c</sup>	Delay (sec.) <sup>d</sup>	Delay (min.) <sup>d</sup>
E & F (or ramp meter delays above 15 minutes)	0.01	1	0.02	1	2	2 <sup>c</sup>

**Source:** See Appendix 2.7-1.

**Notes:** V/C = volume to capacity ratio; mph = miles per hour; sec. = seconds; min. = minutes.

The impact is only considered significant if the total delay exceeds 15 minutes.

- <sup>a</sup> All LOS measurements are based upon Highway Capacity Manual procedures for peak-hour conditions. However, V/C ratios for Roadway Segments may be estimated on an ADT/24-hour traffic volume basis (using Table 2 or a similar LOS chart for each jurisdiction). The acceptable LOS for freeways, roadways, and intersections is generally "D" ("C" for undeveloped or not densely developed locations per jurisdiction definitions). For metered freeway ramps, LOS does not apply. However, ramp meter delays above 15 minutes are considered excessive.
- <sup>b</sup> If a proposed project's traffic causes the values shown in the table to be exceeded, the impacts are deemed to be significant. These impact changes may be measured from appropriate computer programs or expanded manual spreadsheets. The project applicant shall then identify feasible mitigations (within the Traffic Impact Analysis [TIA] report) that will maintain the traffic facility at an acceptable LOS. If the LOS with the proposed project becomes unacceptable (see note a above), or if the project adds a significant amount of peak hour trips to cause any traffic queues to exceed on- or off-ramp storage capacities, the project applicant shall be responsible for mitigating significant impact changes.
- <sup>c</sup> Speed = Arterial speed measured in miles per hour.
- <sup>d</sup> Delay = Average stopped delay per vehicle measured in seconds for intersections, or minutes for ramp meters.

**Table 2.7-5  
Project Trip Generation**

Land Use	Size	Daily Trip Ends (ADTs)		AM Peak Hour					PM Peak Hour						
		Rate <sup>a</sup>	Volume	% of ADT	In:Out		Volume			% of ADT	In:Out		Volume		
					Split	In	Out	Total	Split		In	Out	Total		
<i>Village 1</i>															
Residential (SFDU)	155 DU	10/DU <sup>a</sup>	1,550	8%	30:70	37	87	124	10%	70:30	109	46	155		
<i>Village 2</i>															
Residential (SFDU)	91 DU	10/DU <sup>a</sup>	910	8%	30:70	22	51	75	10%	70:30	64	27	91		
<i>Village 3</i>															
Residential (SFDU)	146 DU	10/DU <sup>a</sup>	1,460	8%	30:70	35	82	117	10%	70:30	102	44	146		
<i>Subtotal: Residential</i>	<i>392 DU</i>	—	<i>3,920</i>	—	—	<i>94</i>	<i>220</i>	<i>314</i>	—	—	<i>275</i>	<i>117</i>	<i>392</i>		
<i>Local Retail</i>															
Restaurant	1,500 SF	100/KSF <sup>a</sup>	150	1%	60:40	1	1	2	8%	70:30	8	4	12		
Market	1,000 SF	40/KSF <sup>a</sup>	40	3%	60:40	1	0	1	9%	50:50	2	2	4		
<i>Subtotal: Local Retail</i>	<i>2,500 SF</i>	—	<i>190</i>	—	—	<i>2</i>	<i>1</i>	<i>3</i>	—	—	<i>10</i>	<i>6</i>	<i>16</i>		
<i>Local HOA Amenities</i>															
Various Amenities	—	<sup>b</sup>	170	1%	50:50	1	1	2	7%	75:25	9	3	12		
<b>Total</b>	—	—	<b>4,280</b>	—	—	<b>97</b>	<b>222</b>	<b>319</b>	—	—	<b>294</b>	<b>126</b>	<b>420</b>		

**Source:** See Appendix 2.7-1.

**Notes:** ADT = average daily traffic; SFDU = single-family dwelling unit; DU = dwelling unit; SF = square feet; KSF = thousand square feet; HOA = homeowners' association.

<sup>a</sup> Rate is based on SANDAG's (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002.

<sup>b</sup> "Local HOA Amenities" are assigned a nominal number of daily and peak hour trips.

**Table 2.7-6  
Near-Term Intersection Operations**

Intersection	Jurisdiction	Control Type	Peak Hour	Existing		Existing + Project			Existing+ Cumulative		Existing + Cumulative + Project			Impact?
				Delay <sup>a</sup>	LOS	Delay	LOS	$\Delta^b$	Delay	LOS	Delay	LOS	$\Delta$	
a. Centre City Pkwy/Nutmeg St	Escondido	MSSC <sup>c</sup>	AM	23.8	C	23.8	C	0.0	33.1	D	33.1	D	0.0	No
			PM	16.1	C	16.1	C	0.0	21.3	C	21.3	C	0.0	
b. Country Club Ln/Golden Circle Dr	Escondido	MSSC	AM	35.3	E	7.7	A	27.6	42.6	E	8.4	A	34.2	No
			PM	15.6	C	6.9	A	8.7	18.2	C	7.3	A	10.9	
c. Country Club Ln/Gary Ln	Escondido	AWSC	AM	12.0	B	6.6	B	0.9	13.3	B	14.4	B	1.1	No
			PM	9.3	A	5.0	A	0.5	9.7	A	10.3	B	0.6	
d. Country Club Ln/Firestone Dr	Escondido	MSSC	AM	9.4	A	10.0	A	0.4	9.5	A	9.9	A	0.4	No
			PM	10.2	B	11.6	B	0.6	10.5	B	11.1	B	0.6	
e. Country Club Ln/La Brea St	Escondido	AWSC	AM	8.7	A	6.5	B	2.2	9.0	A	11.6	B	2.6	No
			PM	8.8	A	6.5	A	1.0	9.2	A	10.2	B	1.0	
f. Country Club Ln/Nutmeg St	Escondido	AWSC	AM	17.9	C	15.3	C	2.6	22.1	C	17.4	B	4.7	No
			PM	34.3	D	21.6	C	22.9	69.0	F	25.9	C	43.1	
g. Country Club Ln/Centre City Pkwy	Escondido	Signal	AM	25.8	C	26.9	C	1.1	30.1	C	31.6	C	1.5	No
			PM	20.9	C	21.3	C	0.4	23.3	C	23.8	C	0.5	
h. El Norte Pkwy/Woodland Pkwy	San Marcos	Signal	AM	37.3	D	<b>40.2</b>	<b>D</b>	<b>2.9</b>	47.6	D	<b>51.1</b>	<b>D</b>	<b>3.5</b>	<b>Yes</b>
			PM	23.9	C	26.2	C	2.3	29.7	C	33.2	C	3.5	
i. El Norte Pkwy/Country Club Ln	Escondido	Signal	AM	48.4	D	<b>61.7</b>	<b>E</b>	<b>13.3</b>	61.4	E	<b>77.4</b>	<b>E</b>	<b>16.0</b>	<b>Yes</b>
			PM	32.3	C	<b>42.9</b>	<b>D</b>	<b>10.6</b>	39.3	D	<b>53.8</b>	<b>D</b>	<b>14.5</b>	
j. El Norte Pkwy/Bennett Ave	Escondido	Signal	AM	22.8	C	24.6	C	1.8	27.3	C	30.6	C	3.3	No
			PM	25.0	C	28.0	C	3.0	28.0	C	29.9	C	1.9	
k. El Norte Pkwy/Rees Rd	County	Signal	AM	9.4	A	9.7	A	0.3	10.6	B	11.0	B	0.4	No
			PM	9.5	A	10.1	A	0.6	11.1	B	11.8	B	0.7	
l. El Norte Pkwy/Nutmeg St/Nordahl Rd	Escondido	Signal	AM	23.4	C	25.8	C	2.4	27.5	C	29.4	C	3.1	<b>Yes</b>
			PM	30.6	C	33.6	C	<b>3.0</b>	40.7	D	<b>42.8</b>	<b>D</b>	<b>2.1</b>	

**Table 2.7-6  
Near-Term Intersection Operations**

Intersection	Jurisdiction	Control Type	Peak Hour	Existing		Existing + Project			Existing+ Cumulative		Existing + Cumulative + Project			Impact?
				Delay <sup>a</sup>	LOS	Delay	LOS	$\Delta^b$	Delay	LOS	Delay	LOS	$\Delta$	
m. El Norte Pkwy/I-15 SB Ramps	Caltrans	Signal	AM	23.7	C	24.0	C	0.3	25.8	C	26.5	C	0.7	No
			PM	10.3	B	10.3	B	0.0	10.6	B	10.6	B	0.0	
n. El Norte Pkwy/I-15 NB Ramps	Caltrans	Signal	AM	19.5	B	19.8	B	0.3	20.4	C	20.8	C	0.4	No
			PM	32.2	C	36.7	D	4.5	40.7	D	47.3	D	6.6	
o. El Norte Pkwy/7 Oaks Rd	Escondido	Signal	AM	16.7	B	16.8	B	0.1	19.5	B	19.7	B	0.2	No
			PM	25.1	C	25.2	C	0.1	30.4	C	30.6	C	0.2	
p. El Norte Pkwy/Centre City Pkwy	Escondido	Signal	AM	52.9	D	53.4	D	0.5	55.9	E	57.0	E	1.1	No
			PM	50.8	D	50.8	D	0.0	51.2	D	51.4	D	0.2	
q. El Norte Pkwy/Broadway	Escondido	Signal	AM	>100.0	F	>100.0	F	0.4	>100.0	F	>100.0	F	0.4	No
			PM	72.6	E	73.2	E	0.6	97.9	F	98.9	F	1.0	

**Source:** See Appendix 2.7-1.

**Notes:** LOS = level of service; MSSC = minor street stop controlled intersection; AWSC = all-way stop controlled intersection.

<sup>a</sup> Average delay expressed in seconds per vehicle.

<sup>b</sup>  $\Delta$  denotes an increase in delay due to Project.

<sup>c</sup> Minor street left-turn delay is reported.

**Bold** typeface indicates a potentially significant impact.

SIGNALIZED		UNSIGNALIZED	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 45.0	D	25.1 to 35.0	D
45.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

**Table 2.7-7  
Near-Term Street Segment Operations**

Street Segment	Capacity <sup>a</sup>	Existing			Existing + Project				Existing + Cumulative Projects			Existing + Cumulative Projects + Project				Impact?
		ADT	LOS	V/C	ADT	LOS	V/C	$\Delta b$	ADT	LOS	V/C	ADT	LOS	V/C	$\Delta$	
<i>Country Club Lane</i>																
1. El Norte Pkwy to Country Club Ln	15,000	6,290	B	0.419	8,090	B	0.539	0.120	6,890	B	0.459	8,690	C	0.579	0.120	No
2. Country Club Ln to Gary Ln	10,000	4,440	B	0.444	5,490	B	0.366	0.078	4,860	B	0.486	5,910	B	0.394	0.092	No
3. Gary Ln to La Brea St	20,000/ (15,000) <sup>c</sup>	5,210	A	0.261	6,470	B	0.431	0.170	5,700	A	0.285	6,890	B	0.459	0.174	No
4. La Brea St to Nutmeg St	20,000/ (15,000) <sup>c</sup>	5,330	A	0.267	6,500	B	0.433	0.166	5,840	A	0.292	6,940	B	0.463	0.171	No
5. Nutmeg St to Centre City Pkwy	34,200	9,530	A	0.279	10,560	A	0.309	0.030	10,794	A	0.316	11,824	B	0.346	0.030	No
<i>El Norte Parkway</i>																
6. Woodland Pkwy to Country Club Ln	37,000	20,320	C	0.549	21,280	C	0.575	0.026	22,327	C	0.603	23,287	C	0.629	00.026	No
7. Country Club Ln to Bennett Ave	37,000	16,190	B	0.438	17,030	B	0.463	0.025	17,807	B	0.481	18,747	B	0.507	0.026	No
8. Bennett Ave to Rees Rd	37,000	17,880	B	0.483	18,470	B	0.501	0.018	19,657	B	0.531	20,297	C	0.549	00.018	No

**Table 2.7-7  
Near-Term Street Segment Operations**

Street Segment	Capacity <sup>a</sup>	Existing			Existing + Project				Existing + Cumulative Projects			Existing + Cumulative Projects + Project				Impact?
		ADT	LOS	V/C	ADT	LOS	V/C	$\Delta b$	ADT	LOS	V/C	ADT	LOS	V/C	$\Delta$	
9. Rees Rd to Nutmeg St/Nordahl Rd	37,000	17,880	B	0.483	18,740	B	0.506	860	19,657	B	0.531	20,517	B	0.555	860	No
10. Nutmeg St/Nordahl Rd to I-15 SB Ramps	37,000	31,950	D	0.864	<b>33,020</b>	<b>E</b>	<b>0.892</b>	<b>0.028</b>	35,057	E	0.947	<b>36,127</b>	<b>E</b>	<b>0.976</b>	<b>0.029</b>	<b>Yes</b>
11. I-15 Ramps to Morning View Dr	37,000	25,680	C	0.694	25,890	C	0.700	0.006	28,120	D	0.760	28,330	D	0.766	0.006	No
12. Morning View Dr to Centre City Pkwy	55,000 <sup>d</sup>	25,680	B	0.467	25,890	B	0.471	0.004	28,120	B	0.511	28,330	B	0.515	0.004	No
13. Centre City Pkwy to Broadway	37,000	25,680	C	0.694	25,890	C	0.700	0.006	28,120	D	0.760	28,330	D	0.766	0.006	No
<i>Nutmeg Street</i>																
14. North of Country Club Ln	10,000	3,120	A	0.312	3,250	A	0.325	0.013	3,420	B	0.342	3,550	B	0.355	0.013	No
15. Country Club Ln to Via Alexandra	10,000	7,550	D	0.755	<b>8,490</b>	<b>D</b>	<b>0.849</b>	<b>0.094</b>	8,270	D	0.827	<b>9,280</b>	<b>E</b>	<b>0.928</b>	<b>0.101</b>	<b>Yes</b>

**Table 2.7-7  
Near-Term Street Segment Operations**

Street Segment	Capacity <sup>a</sup>	Existing			Existing + Project				Existing + Cumulative Projects			Existing + Cumulative Projects + Project				Impact?
		ADT	LOS	V/C	ADT	LOS	V/C	$\Delta$ <sup>b</sup>	ADT	LOS	V/C	ADT	LOS	V/C	$\Delta$	
16. Via Alexandra to El Norte Pkwy	15,000	7,550	B	0.503	8,490	C	00.566	00.063	8,270	C	0.551	9,280	C	00.619	00.068	No
<i>Bennett Ave</i>																
17. El Norte Pkwy to Toyon Glen	10,000	6,460	C	0.646	77,300	C	00.730	00.084	7,070	C	0.707	<b>77,910</b>	<b>D</b>	<b>00.791</b>	<b>00.084</b>	<b>Yes</b>
<i>La Brea Street<sup>e</sup></i>																
18. Country Club Ln to Cortez Ave	4,500	350	C+	—	840	C+	—	—	380	C+	—	870	C+	—	—	No
<i>Firestone Drive<sup>e</sup></i>																
19. Country Club Ln to Woodbridge Rd	4,500	1,010	C+	—	1,270	C+	—	—	1,110	C+	—	1,340	A	—	—	No

**Source:** See Appendix 2.7-1.

**Notes:** ADT = average daily traffic; LOS = level of service; V/C = volume to capacity ratio.

<sup>a</sup> Capacities based on the City of Escondido Roadway Classification Table (see Table 4-3). Capacity changes associated with SAP indicated in italics. Implementation of SAP assumed for with Project scenarios.

<sup>b</sup> Project attributable increase in V/C.

<sup>c</sup> Roadway capacity changes associated with SAP indicated in italics. "+ Project" scenarios assume implementation of the SAP.

<sup>d</sup> 7-lane divided roadway. Daily capacity assumed at 5,000 ADT above 6-Lane Major Road.

<sup>e</sup> LOS is not reported for residential streets since their primary purpose is to serve abutting lots, not carry through traffic. Level of service normally applies to roads carrying through traffic between major traffic generators and attractors. 4,500 is County of San Diego LOS C capacity for a residential collector. LOS is reported as better/worse than LOS C.

All study area street segments are located within City of Escondido jurisdiction, except Segment #9, located in unincorporated San Diego County.

**Table 2.7-8  
Near-Term Ramp Meter Analysis – Fixed Rate**

Location	Peak Hour <sup>a</sup>	Near-Term						
		Volume		Peak Hour Demand (D) <sup>b</sup>	Meter Rate (R) <sup>c</sup>	Excess Demand (E) (veh)	Delay (min)	Queue (ft) <sup>d</sup>
		SOV	HOV					
<i>El Norte Parkway to I-15 SB (1 SOV+1 HOV)</i>								
Existing	AM	917	162	917	492	425	> 15.0	> 5,000
Existing + Project	AM	955	168	955	492	463	> 15.0	> 5,000
<i>Project Increase</i>	<i>AM</i>	<i>38</i>	<i>4</i>	<i>38</i>	<i>—</i>	<i>38</i>	<b>&gt; 2.0</b>	<i>—</i>
Existing + Cumulative	AM	1,009	178	1,009	492	517	> 15.0	> 5,000
Existing + Cumulative + Project	AM	1,046	185	1,046	492	554	> 15.0	> 5,000
<i>Project Increase</i>	<i>AM</i>	<i>37</i>	<i>5</i>	<i>37</i>	<i>—</i>	<i>37</i>	<b>&gt; 2.0</b>	<i>—</i>

**Source:** See Appendix 2.7-1.

**Notes:** SOV = Single Occupancy Vehicle, HOV = High Occupancy Vehicle

Lane utilization factor accounted for in peak hour demand calculation. (Assumed 15% for HOV).

<sup>a</sup> Selected peak hour based on period when ramp meter is operating.

<sup>b</sup> Peak hour demand in vehicles/hour/lane for SOV and HOV lanes.

<sup>c</sup> Meter rate "R" is the most restrictive rate at which the ramp meter (signal) discharges traffic onto the freeway (obtained from Caltrans). The discharge rate ranges from 492 to 996 vehicles per hour depending on the mainline volumes.

<sup>d</sup> Queue calculated assuming vehicle length of 25 feet.

**Table 2.7-9  
Freeway Mainline Analysis – Existing + Project**

Freeway Segment	Dir.	# of Lanes	Hourly Capacity <sup>a</sup>	Existing <sup>b</sup>				Project Volumes		Existing + Project						Δ V/C <sup>c</sup>	
				Peak Hour Volume		V/C				Peak Hour Volume		V/C		LOS			
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Interstate 15 El Norte Pkwy to SR-78	NB	4	8,000	2,149	8,044	0.269	1.005	20	60	2,169	8,104	0.271	1.013	A	F(0)	0.003	0.008
	SB	4	8,000	8,062	4,059	1.008	0.507	44	25	8,106	4,084	1.013	0.511	F(0)	B	0.005	0.003
														LOS	v/c		
														A	<0.41		
														B	0.62		
														C	0.8		
														D	0.92		
														E	1		
														F(0)	1.25		
														F(1)	1.35		
														F(2)	1.45		
														F(3)	>1.46		

Source: See Appendix 2.7-1.

Notes: V/C = peak hour volume/hourly capacity

<sup>a</sup> Capacity calculated at 2,000 vehicles per hour (vph) per lane and 1,200 vph per auxiliary lane.

<sup>b</sup> Peak hour volume from Existing Conditions (Appendix 2.7-1, Table 6-4).

<sup>c</sup> Change in V/C ratio due to the Project.

**Table 2.7-10  
Year 2035 Intersection Operations**

Intersection	Jurisdiction	Control Type <sup>a</sup>	Peak Hour	Year 2035		Year 2035 + Project			Impact?
				Delay <sup>b</sup>	LOS <sup>c</sup>	Delay	LOS	Δ <sup>d</sup>	
1. Centre City Pkwy / Nutmeg St	Escondido	MSSC <sup>e</sup>	AM	>100.0	F	>100.0	F	0.0	No
			PM	>100.0	F	>100.0	F	0.0	
2. Country Club Ln / Golden Circle Dr	Escondido	MSSC/ (Round.)	AM	>100.0	F	12.9	B	—	No
			PM	>100.0	F	10.1	B	—	
3. Country Club Ln / Gary Ln	Escondido	AWSC/ (Signal)	AM	69.3	F	7.7	A	(61.6)	No
			PM	18.6	C	5.3	A	(13.3)	

**Table 2.7-10  
Year 2035 Intersection Operations**

Intersection	Jurisdiction	Control Type <sup>a</sup>	Peak Hour	Year 2035		Year 2035 + Project			Impact?
				Delay <sup>b</sup>	LOS <sup>c</sup>	Delay	LOS	$\Delta^d$	
4. Country Club Ln / Firestone Dr	Escondido	MSSC <sup>g</sup>	AM	10.3	B	11.2	B	0.9	No
			PM	16.0	C	15.9	C	(0.1)	
5. Country Club Ln / La Brea St	Escondido	AWSC/ (Round.)	AM	12.2	B	9.4	A	(2.8)	No
			PM	12.3	B	8.2	A	(4.1)	
6. Country Club Ln / Nutmeg St	Escondido	AWSC/ (Signal)	AM	>100.0	F	45.5	D	—	No
			PM	>100.0	F	51.5	D	—	
7. Country Club Ln / Centre City Pkwy	Escondido	Signal	AM	45.3	D	46.5	D	1.2	No
			PM	32.0	C	34.7	C	2.7	
8. El Norte Pkwy / Woodland Pkwy	Escondido / San Marcos	Signal	AM	95.3	F	>100.0	F	>2.0	Yes
			PM	60.8	E	65.7	E	4.9	
9. El Norte Pkwy / Country Club Ln	Escondido	Signal	AM	>100.0	F	>100.0	F	>2.0	Yes
			PM	>100.0	F	>100.0	F	>2.0	
10. El Norte Pkwy / Bennett Ave	Escondido	Signal	AM	31.6	C	33.6	C	2.0	No
			PM	33.7	C	35.2	D	1.5	
11. El Norte Pkwy / Rees Road	Escondido	Signal	AM	23.2	C	24.1	C	0.9	No
			PM	33.9	C	34.4	C	0.5	
12. El Norte Pkwy / Nutmeg Street / Nordahl Rd	Escondido	Signal	AM	44.3	D	48.4	D	4.1	Yes
			PM	72.7	E	77.0	E	4.3	
13. El Norte Pkwy / I-15 SB Ramps	Caltrans	Signal	AM	44.4	D	50.3	5.9	6.1	No
			PM	11.3	B	11.3	B	0.0	
14. El Norte Pkwy / I-15 NB Ramps	Caltrans	Signal	AM	17.3	B	17.6	B	0.3	No
			PM	44.2	D	52.1	D	7.9	
15. El Norte Pkwy / 7 Oaks Rd	Escondido	Signal	AM	24.8	C	25.1	C	0.3	No
			PM	48.5	D	49.0	D	0.5	

**Table 2.7-10  
Year 2035 Intersection Operations**

Intersection	Jurisdiction	Control Type <sup>a</sup>	Peak Hour	Year 2035		Year 2035 + Project			Impact?
				Delay <sup>b</sup>	LOS <sup>c</sup>	Delay	LOS	$\Delta^d$	
16. El Norte Pkwy / Centre City Pkwy	Escondido	Signal	AM	69.3	E	70.6	E	1.3	No
			PM	63.1	E	63.5	E	0.4	
17. El Norte Pkwy / Broadway	Escondido	Signal	AM	194.9	F	195.3	F	0.4	No
			PM	124.7	F	125.9	F	1.2	

Source: Appendix 2.7-1.

**Notes:**

- a. Control type changes associated with SAP shown in italics. "+ Project" scenario assumes implementation of SAP.  
b. Average delay expressed in seconds per vehicle.  
c. Level of Service  
d.  $\Delta$  denotes an increase in delay due to project.  
e. MSSC –minor-street stop-controlled intersection. Minor street left turn delay is reported.  
f. AWSC – all-way stop-controlled intersection.  
g. Left turns restricted with implementation of SAP.  
h. (XX) – Reduction in delay with SAP improvements.

SIGNALIZED		UNSIGNALIZED	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 45.0	D	25.1 to 35.0	D
45.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

**Table 2.7-11  
Year 2035 Street Segment Operations**

Street Segment	Proposed Classification	LOS E <sup>a</sup> Capacity	Year 2035			Year 2035 + Project				Impact?
			ADT	LOS	V/C	ADT	LOS	V/C	$\Delta^b$	
<i>Country Club Ln</i>										
1. El Norte Pkwy to Country Club Ln	2-Ln Local Collector	15,000 <sup>c</sup>	11,300	D	0.753	13,100	D	0.873	0.120	No
2. Country Club Ln to Gary Ln	2-Ln Local Collector	10,000	9,600	E	0.960	10,650	C	0.710	0.250	No
3. Gary Ln to La Brea St	4-Ln Collector	20,000/ (15,000)	9,600	B	0.480	10,660	C	0.711	0.231	No
4. La Brea St to Nutmeg St	4-Ln Collector	20,000/ (15,000)	10,600	B	0.530	11,570	D	0.771	0.279	No
5. Nutmeg St to Centre City Pkwy	4-Ln Collector	34,200	11,800	A	0.345	12,830	B	0.375	0.030	No

**Table 2.7-11  
Year 2035 Street Segment Operations**

Street Segment	Proposed Classification	LOS E <sup>a</sup> Capacity	Year 2035			Year 2035 + Project				Impact?
			ADT	LOS	V/C	ADT	LOS	V/C	Δ <sup>b</sup>	
<i>El Norte Pkwy</i>										
6. Woodland Pkwy to Country Club Ln	4-Ln Major Road	37,000	20,400	C	0.551	21,360	C	00.577	0.026	No
7. Country Club Ln to Bennett Ave	4-Ln Major Road	37,000	17,900	B	0.484	18,840	B	00.509	0.025	No
8. Bennett Ave to Rees Rd	4-Ln Major Road	37,000	25,800	C	0.697	26,440	C	00.715	0.018	No
9. Rees Rd to Nutmeg St/Nordahl Rd <sup>e</sup>	4.1A Major Road	37,000	28,000	C	-	28,860	C	-	860	No
10. Nutmeg St/Nordahl Rd to I-15 Ramps	<i>6-Ln Major Road</i>	<i>50,000</i>	40,800	D	0.816	41,870	D	0.837	0.021	No
11. I-15 Ramps to Morning View Dr	4-Ln Major Road	37,000	31,200	D	0.843	31,410	D	0.849	0.006	No
12. Morning View Dr to Centre City Pkwy	7-Ln Major Road <sup>f</sup>	55,000	35,700	C	0.649	35,910	C	0.653	0.004	No
13. Centre City Pkwy to Broadway	6-Ln Major Road	50,000	31,400	C	0.628	31,610	C	0.632	0.004	No
<i>Nutmeg St</i>										
14. North of Country Club Ln	<i>2-Ln Local Collector</i>	<i>15,000</i>	9,300	C	0.620	9,430	C	0.629	0.009	No
15. Country Club Ln to Via Alexandra	<i>2-Ln Local Collector</i>	<i>15,000</i>	9,200	C	0.613	99,790	C	00.689	00.079	No
16. Via Alexandra to El Norte Pkwy	<i>4-Ln Collector</i>	<i>34,200</i>	10,100	A	0.295	110,690	A	00.329	00.034	No
<i>Bennett Ave</i>										
17. El Norte Pkwy to Toyon Glen	2-Ln Local Collector	15,000	11,800	D	0.787	12,640	D	0.843	0.056	No
<i>La Brea St</i>										
18. Country Club Ln to Cortez Ave	Local Road	4,500	500	C+	—	990	C+	—	—	No
<i>Firestone Dr</i>										
19. Country Club Ln to Woodbridge Rd	Local Road	4,500	1,500	C+	—	1,670	C+	—	—	No

**Notes:** ADT = average daily traffic volumes; LOS = level of service; V/C = volume to capacity ratio.

<sup>a</sup> All study area street segments are located in the City of Escondido, except where noted. Capacities based on City of Escondido Roadway Classification Table (see Appendix C to Appendix 2.7-1).

<sup>b</sup> Δ = increase in V/C ratio for City of Escondido segments, or increase in ADT on County of San Diego segment.

<sup>c</sup> Segment has raised median increasing capacity.

<sup>d</sup> Roadway capacity changes associated with SAP shown in italics. "+ Project" scenario assumes implementation of SAP.

<sup>e</sup> Street segment lies within County of San Diego jurisdiction.

<sup>f</sup> Street segment currently built as 7-lane divided (3 eastbound, 4 westbound). Daily capacity assumed at 5,000 ADT above 6-Lane Major Road.

<sup>g</sup> Level of Service is not reported for residential streets since their primary purpose is to serve abutting lots, not carry through traffic. Level of service normally applies to roads carrying through traffic between major traffic generators and attractors. 4,500 is County of San Diego LOS C capacity for a residential collector. LOS is reported as better/worse than LOS C.

*Italics* in "Proposed Capacity" column indicates capacity increase over existing to build-out conditions per the City's Circulation Element classification.

**Table 2.7-12  
Year 2035 Ramp Meter Analysis – Fixed Rate**

Location	Peak Hour <sup>a</sup>	Existing						
		Volume		Peak Hour Demand (D) <sup>b</sup>	Meter Rate (R) <sup>c</sup>	Excess Demand (E) (veh)	Delay (min)	Queue (ft) <sup>d</sup>
		SOV	HOV					
<i>El Norte Parkway to I-15 Southbound (1 SOV+1 HOV)</i>								
Year 2035 Without Project	AM	1,216	215	1,216	492	724	> 15.0	> 5,000
Existing + Cumulative + Project	AM	1,254	221	1,254	492	762	> 15.0	> 5,000
<i>Project Increase</i>	AM	38	6	38	—	38	<b>&gt; 2.0</b>	—

**Source:** See Appendix 2.7-1.

**Notes:** SOV = Single Occupancy Vehicle; HOV = High Occupancy Vehicle.

<sup>a</sup> Selected peak hour based on period when ramp meter is operating.

<sup>b</sup> Peak hour demand in vehicles/hour/lane for SOV and HOV lanes.

<sup>c</sup> Meter rate “R” is the most restrictive rate at which the ramp meter (signal) discharges traffic onto the freeway (obtained from Caltrans). The discharge rate ranges from 492 to 996 vehicles per hour depending on the mainline volumes.

<sup>d</sup> Queue calculated assuming vehicle length of 25 feet.

Lane utilization factor accounted for in peak hour demand calculation. (Assumed 15% for HOV).

**Table 2.7-13  
Year 2035 Freeway Mainline Analysis**

Freeway Segment	Dir.	# of Lanes	Hourly Capacity <sup>a</sup>	Year 2035						Year 2035 + Project							
				Peak Hour Volume		V/C		LOS		Peak Hour Volume		V/C		LOS		Δ V/C <sup>b</sup>	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Interstate 15 El Norte Pkwy to SR-78	NB	4	8,000	2,519	9,426	0.315	1.178	A	F(0)	2,539	9,486	0.317	1.186	A	F(0)	0.003	0.008
	SB	4	8,000	9,447	4,757	1.181	0.595	F(0)	B	9,491	4,782	1.186	0.598	F(0)	B	0.006	0.003

**Source:** See Appendix 2.7-1.

**Notes:** V/C = volume to capacity ratio; LOS = level of service; NB = northbound; SB = southbound.

Year 2035 volumes calculated based on SANDAG Series 13 model, using latest available (Year 2015) peak hour splits.

<sup>a</sup> Capacity calculated at 2000 vph per lane and 1200 vph per auxiliary lane.

<sup>b</sup> Change in V/C ratio due to the Project.

**Table 2.7-14  
Impact/Mitigation Measures Summary – Intersections**

Jurisdiction	MM#	Intersection	Peak Hour	With (+) Project Operations				Impact Type	Mitigation Measure	Mitigated to Below a Level of Significance
				Without Mitigation		With Mitigation				
				Delay	LOS	Delay	LOS			
Escondido/ San Marcos	TR-1	#8. El Norte Pkwy/ Woodland Pkwy	AM	51.1	D	28.1	C	Near-Term Direct & Cumulative/ Long-Term Cumulative	Restripe the WB approach to provide the following geometry: 1 left-turn lane, 2 through lanes, 1 right-turn lane & bike lane. Restripe eastbound departure lanes. Modify signal equipment.	Yes
			PM	33.2	C	30.7	C			
Escondido	TR-2	#9. El Norte Pkwy/ Country Club Ln	AM	77.4	E	54.4	D	Near-Term Direct & Cumulative/ Long-Term Cumulative	Restripe a second EB left-turn lane and modify EB through-lane striping. Restripe eastbound departure lanes. Modify signal equipment. Provide corresponding receiving lanes on north leg of intersection.	Yes
			PM	53.8	D	32.0	C			
Escondido	TR-6	#12. El Norte Pkwy/ Nutmeg St/Nordahl Rd	AM	30.6	C	29.0	C	Near-Term Cumulative/ Long-Term Cumulative	Restripe the SB approach to provide the following geometry: 1 shared through/right-turn lane, 2 left-turn lanes & bike lane. Modify median striping and signal equipment.	Yes
			PM	42.8	D	32.5	C			

**Notes:** MM# = mitigation measure number.

Pre-mitigation and post-mitigation analysis shown for Direct and Near-term Cumulative significant impacts is for the “Existing + Cumulative Projects” and “Existing + Cumulative Projects + Project” conditions. For Long-Term Cumulative significant impacts, the Year 2035 (Buildout) analyses are shown.

**Table 2.6-15  
Impact/Mitigation Measures Summary – Street Segments**

Jurisdiction	MM#	Street Segment	Capacity	With Project Operations				Impact Type	Mitigation Measure	Mitigated to Below a Level of Significance
				Without Mitigation		With Mitigation				
				LOS	V/C	LOS	V/C			
Escondido	TR-3	10. El Norte Pkwy: Nutmeg St to I-15 SB Ramps	37,000	E	0.976	—	—	Near-Term Direct & Cumulative	Revise and enhance the right-turn/right edgeline/turn-lane striping serving the commercial uses between Bourbon Road and the I-15 southbound ramps to improve ingress and reduce driver confusion. Restrict NB left-turns from Bourbon Road with striping and signage. Permit EB to WB U-turns at the El Norte Parkway/I-15 NB ramps intersection. Additionally, construction of <b>M-TR-6</b> and <b>M-TR-5</b> would improve operations on this segment.	Yes
Escondido	TR-4	15. Nutmeg St: Country Club Ln to Via Alexandra	10,000	E	0.928	—	—	Near-Term Direct & Cumulative	SAP improvements (signal) to the Nutmeg Street/Country Club Lane intersection as well as to the El Norte Parkway/Nutmeg Street/Nordahl Road intersection ( <b>M-TR-6</b> , dual SB lefts) will enhance the local segment and overall Nutmeg Street corridor operations.	Yes
Escondido	TR-7	17. Bennett Ave: El Norte Pkwy to Toyon Glen <sup>a</sup>	10,000	D	0.791	—	—	Near-term Cumulative Only	Remove intermittent left-turn pockets and restripe with a two-way left-turn lane between El Norte Parkway and Toyon Glen.	Yes

**Notes:** MM# = mitigation measure number.

<sup>a</sup> The adjacent intersection (#10. El Norte Parkway/Bennett Ave) operates at acceptable LOS C during AM and PM peak hours, indicating street segment operations that are likely better than those shown with V/C analysis.

**Table 2.7-16  
Impact/Mitigation Measures Summary – Ramp Meter Locations**

Jurisdiction	MM#	Ramp Meter Location	Capacity	With Project Operations				Impact Type	Mitigation Measure	Mitigated to Below a Level of Significance	Fair Share %
				Without Mitigation		With Mitigation					
				Delay (min)	Queue (ft)	Delay (min)	Queue (ft)				
Caltrans	TR-5	El Norte Pkwy to I-15 SB on-ramp	1 HOV/1 SOV	>15.0	>10,000	>15.0	<10,000	Direct & Near-Term Cumulative/Long-Term Cumulative	Provide an additional SOV lane to the southbound on ramp	No <sup>a</sup>	—

**Source:** See Appendix 2.7-1.

**Notes:** MM# = mitigation measure number; SB = southbound.

<sup>a</sup> This mitigation relies on Caltrans allowing the proposed mitigation measure to be completed, which is not assured. In this case, the impact is not considered mitigated to below a level of significance.

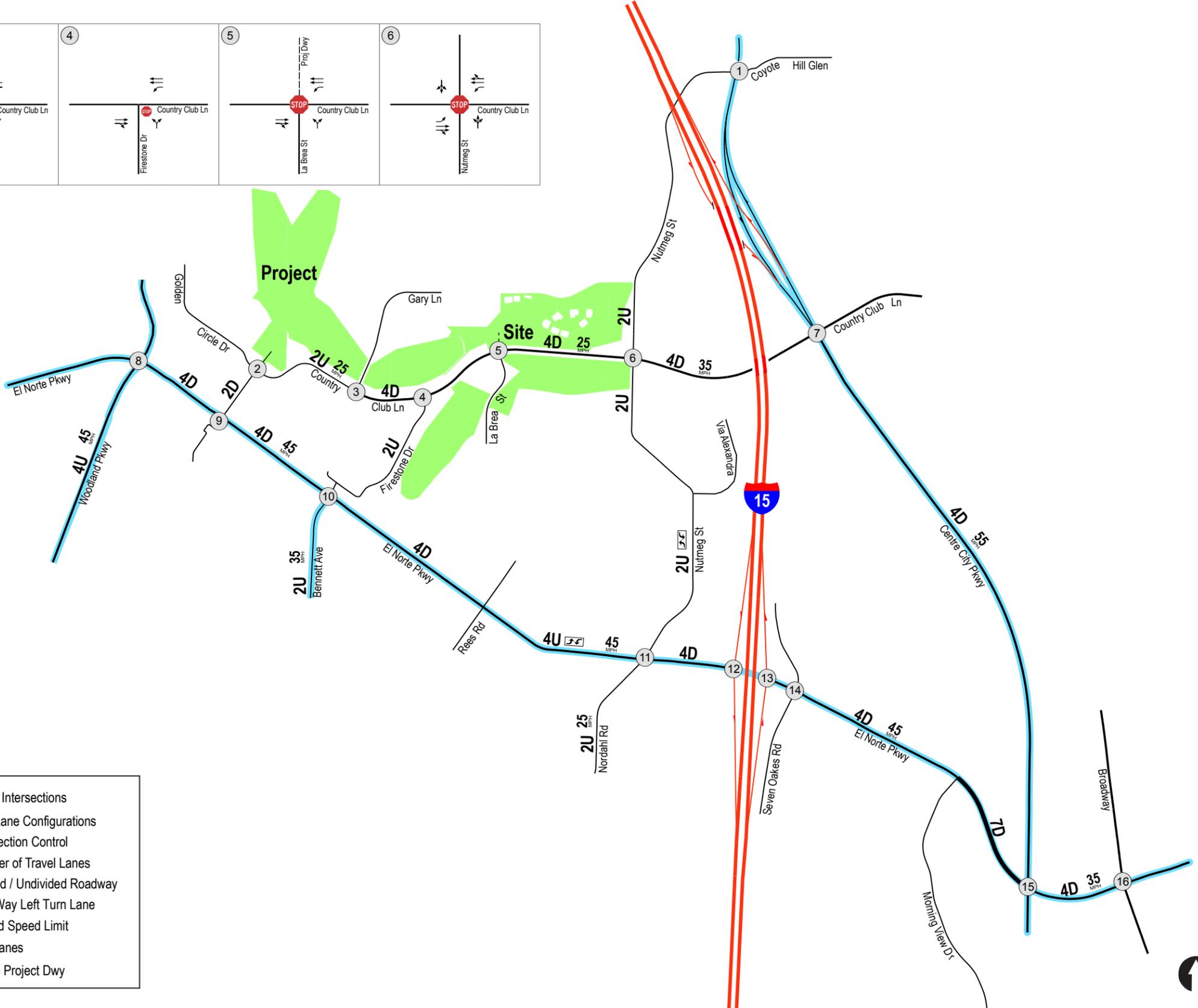
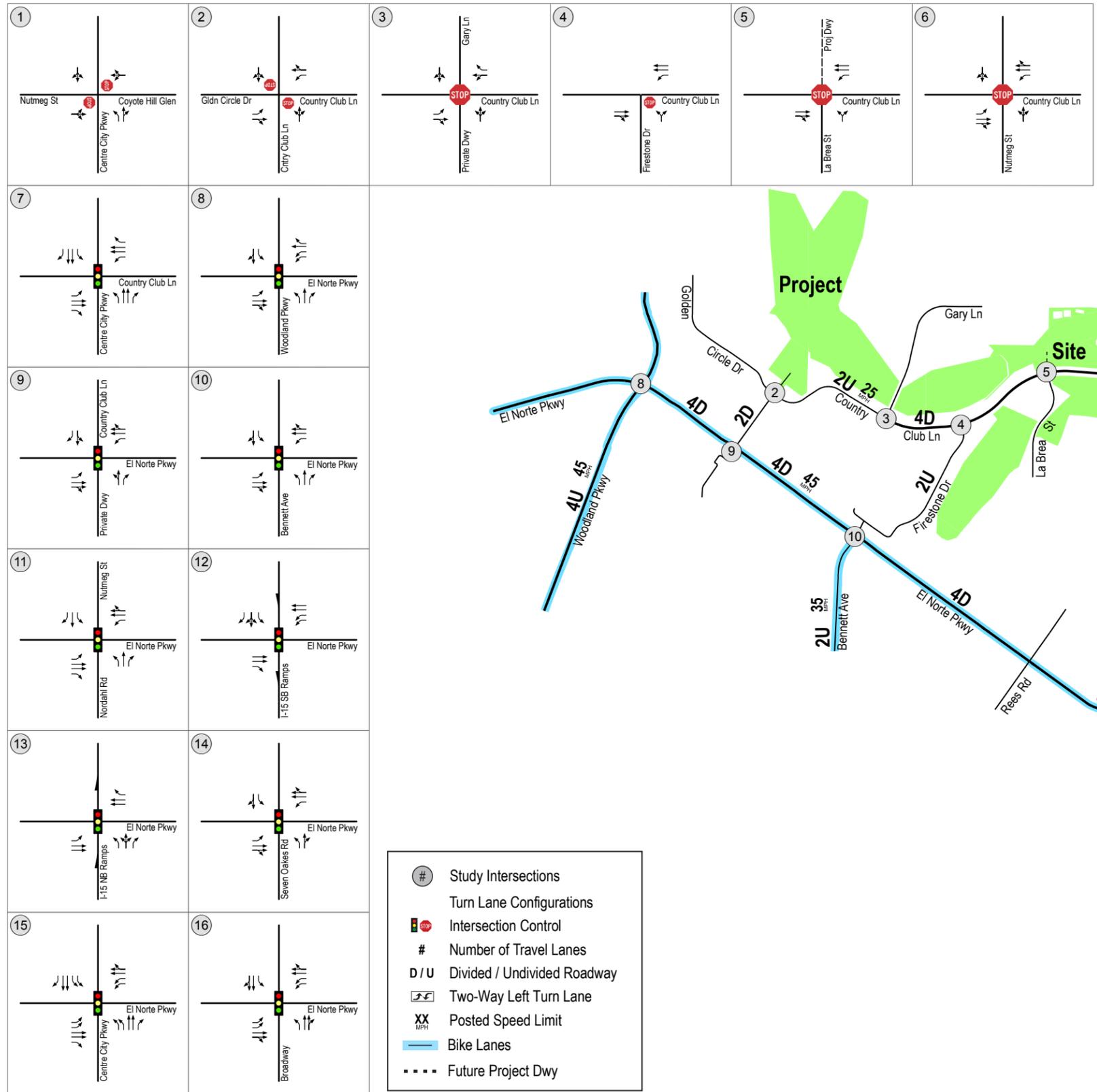
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- ① Study Intersections
- Turn Lane Configurations
- Intersection Control
- # Number of Travel Lanes
- D / U Divided / Undivided Roadway
- Two-Way Left Turn Lane
- XX MPH Posted Speed Limit
- Bike Lanes
- Future Project Dwy

**FIGURE 2.7-2**  
**Existing Conditions**

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# Study Intersections  
 XX% Regional Trip Distribution  
 XX% Local Trip Distribution



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