

TRAFFIC IMPACT STUDY REPORT

SUNRISE POWERLINK PROJECT

August 9, 2010



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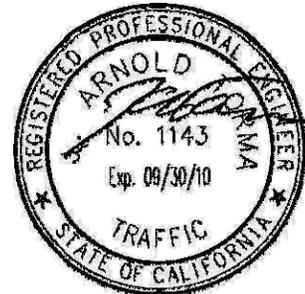
SUNRISE POWERLINK PROJECT

August 9, 2010

Prepared for:
San Diego Gas and Electric Company (SDG&E)

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In association with:
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KOA Job No.: JB04026

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EXECUTIVE SUMMARY

San Diego Gas & Electric Company's (SDG&E) Sunrise Powerlink Project (Project) will construct, operate and maintain a new 500 kilovolt (kV) and 230 kV transmission line in San Diego and Imperial counties, California. The transmission line will extend for approximately 117 miles between SDG&E's existing substation south of El Centro in Imperial County to another existing SDG&E substation on the northeast edge of Miramar Marine Air Station in San Diego County. A new substation will be constructed in central San Diego County where the transmission line converts from 500kV to 230kV, on property owned by SDG&E. SDG&E will also upgrade three of its existing 69kV transmission lines and their associated substations. The Project right-of-way (ROW) and related facilities are consistent with the Final Environmentally Superior Southern Route (FESSR or Route), as identified in the Final Environmental Impact Report/Environmental Impact Statement (FEIR/EIS) issued on October 2008 by the California Public Utilities Commission (CPUC) as the lead State agency under the California Environmental Quality Act (CEQA), and the U.S. Department of the Interior: Bureau of Land Management (BLM) as the lead Federal agency under the National Environmental Policy Act (NEPA). The Route has been assigned mileposts (MP), which range from the Imperial Valley Substation (MP 0) to the Sycamore Canyon Substation (MP 118). The Project consists of 5 portions, designated as Links. These Links differentiate between voltage and construction type (overhead, underground, and substation construction).

Associated with the FEIR/EIS is the Project Mitigation Monitoring, Compliance, and Reporting Program (MMCRP) that was developed to provide guidelines and standard procedures for environmental compliance for the project. SDG&E is fully committed to compliance with, and implementation of all mitigation measures outlined in the MMCRP. In accordance with Mitigation Measure T-9a, this traffic impact study was commissioned by SDG&E to identify locations where a Construction Transportation Management Plan (CTMP) is required. Mitigation Measure T-9a states, "SDG&E shall prepare a Construction Transportation Management Plan (CTMP) to address traffic and transportation issues related to project construction. The CTMP shall describe alternate traffic routes, timing of worker commutes and material deliveries, the need for lane and road closures, the use of helicopters, plans for construction worker parking and transportation to work sites, methods for keeping roadways clean, and other methods for reducing adverse construction-related traffic impacts on regional and local roadways. The plan must comply with the requirements of the respective county and must be submitted to the respective counties and Caltrans for approval prior to commencing construction activities." Further, the FEIR/EIS lists thresholds of significance for traffic related impacts in section D.9.4.1. Those significance criteria are referenced in Chapter 2 of this document.

This study shows that the Project will result in a temporary increase in traffic volumes on regional and local roadways due to tower construction activities and preconstruction activities. Also, the study analyzes reductions in capacity along Alpine Boulevard due to the undergrounding construction activities. Project related traffic evaluated in this report is comprised of construction worker commuter trips, equipment deliveries, water deliveries, and material hauling. Project construction is expected to take place over approximately 18 months with a six-day, 60-hour work week construction schedule. This study also evaluates reductions in roadway capacity as a result of undergrounding construction activities. This study presents analyses of operating conditions for morning and evening peak hours for the impacted intersections and roadway segments during the project construction and pre-construction phases. Individual intersection and roadway segment Level-of-Service (LOS) are calculated to evaluate temporary project related traffic impacts. Traffic impacts are identified if the Project will result in a significant change in traffic conditions on a roadway or intersection that result in deterioration of LOS. Where significant impacts are identified in this study, recommendations for mitigation are provided, including submittal of additional traffic studies or traffic control plans for approval by local agencies prior to commencing construction activities. Table E-1 summarizes project impacts and mitigation recommendations for the Project.

**Table E-1
Summary of Project Impacts and Mitigation/Recommendation**

NTP Title	Significant Impact	Location	Recommendation¹
Alpine Facility	No	N/A	N/A
Rough Acres Facility	No	See CH 4	Place signage.
San Luis Rey Sub. Upgrade	N/A	N/A	N/A
South Bay Sub. Upgrade	N/A	N/A	N/A
Imperial Valley Sub. Upgrade	No	N/A	N/A
Encina Sub. Upgrade	No	N/A	N/A
Sycamore Canyon Sub. Upgrade	No	N/A	N/A
69kV Reconductoring	N/A	N/A	N/A
Link 1	No	See CH 4	Place signage.
Link 2	No	See CH 4	Place signage.
Link 3 (Suncrest Sub.)	No	N/A	N/A
Link 4 (Undergrounding.)	Yes	Alpine Blvd	Prepare Traffic Control Plan for submittal to the County of San Diego.
Link 5	Yes	Sycamore Park Dr & SR-67 (110)*	Traffic control with turn restrictions during peak hours; or traffic control, with an employee shuttle or other reduction of employee trips; or transport all materials/employees via helicopter.
Link 5	Yes	Tower Access & SR-67 (111)*	Transport all materials/employees via helicopter.
Link 5	No	Tower Access & SR-67 (112)*	Transport all materials/employees via helicopter.
Link 5	Yes	Willow Road & SR-67 (114)	Restrict or reroute peak delivery traffic or other project traffic reduction measure.
Link 5	No	Tower Access & Wildcat Canyon (118)	Traffic control, with an employee shuttle or other reduction of employee trips; or transport all materials/employees via helicopter.
Link 5	Yes	Willow Rd & Wildcat Canyon (119)	Restrict or reroute peak delivery traffic or other project traffic reduction measure.

*One traffic control plan set could be prepared to mitigate impacts for all four intersections

¹ See Chapter 4 for further discussion.

CHAPTER 1 INTRODUCTION

PROJECT DESCRIPTION

SDG&E's new major electric transmission line will consist of an overhead single-circuit 500 kV transmission line on the eastern two-thirds of the alignment and double-circuit 230 kV transmission lines for the western third. The transmission line consists of both overhead and underground segments; underground in the Community of Alpine, and overhead elsewhere. A total of approximately 443 structures will be installed on the overhead portion of the Project.

Other components of the Project are the modification of existing substations, the construction of one new substation, and the reconductoring of three 69kV lines exiting SDG&E's existing Sycamore Canyon Substation. The modifications and construction of substations are described as follows:

- Modification of SDG&E's existing Imperial Valley Substation to accommodate the termination of one new 500 kV transmission line;
- Construction of the new Suncrest Substation capable of accommodating the termination of one 500 kV transmission line from the Imperial Valley Substation and two 230 kV transmission lines that extend to the Sycamore Canyon Substation; and
- Modification of the existing Sycamore Canyon Substation to accommodate the termination of two new 230 kV transmission lines.
- Modification of the SDG&E's existing San Luis Rey Substation, Encina Substation, and South Bay Substation in order to support increased capacity from the new SRPL transmission line.

The Project study area is shown in Figure 1-1.

BACKGROUND

Since selection of the FESSR and certification of the Project's FEIR/EIS by the California Public Utilities Commission (CPUC), SDG&E has conducted additional surveys of resources in the Project area, notified affected property owners and responded to their requests to adjust the location of structures and transmission lines, and initiated changes in design and construction to further reduce the Project's impacts. SDG&E is committed to implementing the mitigation measures as outlined in the FEIR/EIS in order to reduce the potential direct and indirect impacts that could result from the Project construction. (Section D.9.4.2 and Table D.9.10 of the FEIR/EIS) These activities are part of the final planning and design and include implementation of pre-construction measures specified in the approved MMRP for the Project. SDG&E has submitted a final alignment proposal to the CPUC for review and approval.

This report evaluates the potential for traffic impacts in accordance with the FEIR/EIS significance criteria Section D.9.4.1 as they relate to the final alignment. Traffic operations, reported in terms of Level-of-Service (LOS), of the proposed access points to all structures (including wire-stringing operations, construction yards, substations, and underground construction activities) have been evaluated. This effort of analysis identifies potential significant impacts that project construction traffic may cause at access point locations within the study area.

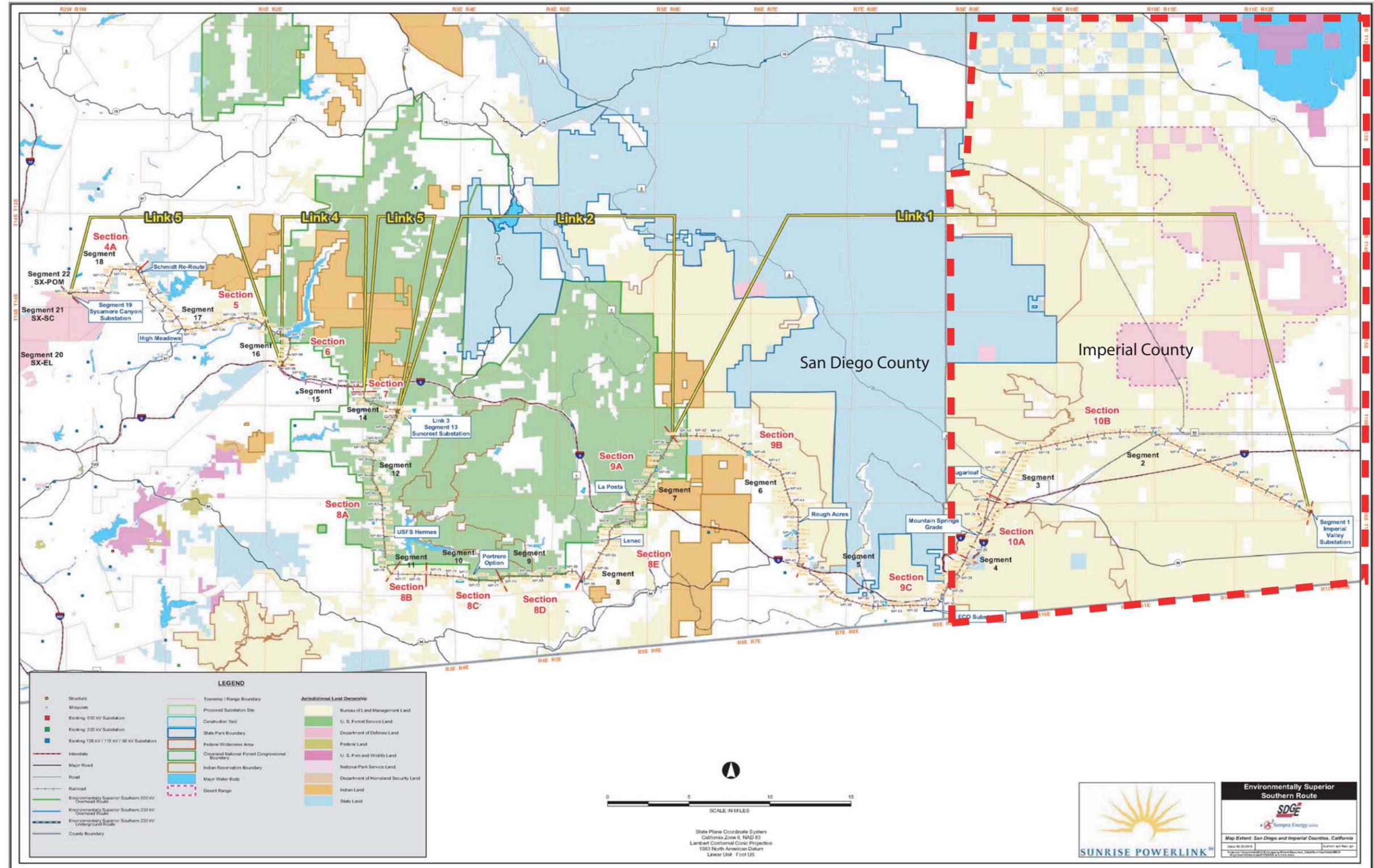


Figure 1-1
Project Study Area

CHAPTER 2 METHODOLOGIES

This chapter documents the methodologies and assumptions used to conduct the traffic impact analysis for the Project. The study methodology and analysis was conducted in accordance with the Project FEIR/EIS significance criteria listed in section D.9.4.1, and City of San Diego (City) and County of San Diego (County) guidelines. These guidelines are used to determine potential significant impacts of the Project. This section contains the following background information:

- Study scenarios
- Study area descriptions
- Analysis methodology

STUDY SCENARIOS

This report presents an analysis of the intersection and roadway segment operating conditions during the morning and evening peak hours for the following anticipated timeframes:

- Existing Conditions
- Existing Plus Project Conditions

STUDY AREA DESCRIPTION

The study area was determined based on a detailed review of the Project area. A total of 132 intersections potentially impacted by 60 access points were identified and analyzed as they relate to the existing and proposed substations, proposed construction yards, and proposed tower sites. Traffic data and other transportation system information were obtained from daily and peak-hour counts, site visits, maps, aerial photos, and communication with SDG&E staff.

ANALYSIS METHODOLOGY

Street system operating conditions are typically described in terms of LOS. LOS is a report-card scale used to indicate the quality of traffic flow on roadway segments and at intersections. LOS ranges from A (free flow, little congestion) to F (forced flow, extreme congestion). LOS A through D are identified as acceptable service levels during peak hours at signalized intersections. A more detailed description of the concepts described in this section is provided in **Appendix A** of this document. The following methods are used in this study.

Roadway Segment Capacity Analysis

The County guidelines have published daily traffic volume standards for roadways within its jurisdiction. To determine service levels on study area roadway segments, the volume-to-capacity (V/C) ratio was first determined for each segment based on existing and projected future traffic volumes and roadway capacity. Roadway capacity is directly related to roadway classification (the number of lanes, etc.). LOS for roadway segments is assigned based on defined V/C ratio thresholds. These thresholds are summarized in **Appendix A, Table A-1**.

Intersection Capacity Analysis

The analysis of peak-hour intersection performance was conducted using the Traffix analysis software program, which uses methodologies defined in the 2000 Highway Capacity Manual (HCM) to calculate results. LOS for intersections is determined by control delay. Control delay is defined as the total elapsed time from when a vehicle stops at the end of a queue to the time the vehicle departs

from the stop line. The total elapsed time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position, including deceleration of vehicles from free-flow speed to the speed of vehicles in the queue. **Appendix A, Tables A-3 and A-4** list the HCM delay/LOS criteria for both signalized and unsignalized intersections. The following peak hours were selected for analysis:

- Weekday AM (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM (peak hour between 4:00 PM and 6:00 PM)

Signalized Intersections

The HCM analysis methodology for evaluating signalized intersections is based on the “operational analysis” procedure. This technique uses 1,900 passenger cars per hour of green per lane (pchgpl) as the maximum saturation flow of a single lane at an intersection. This saturation flow rate is adjusted to account for lane width, on-street parking, conflicting pedestrian flow, traffic composition (e.g., the percentage of vehicles that are trucks), and shared lane movements (e.g., through and right-turn movements from the same lane). Average control delay is calculated by taking a volume-weighted average of delay for all vehicles entering the intersection.

All-Way Stop-Controlled (AWSC) Intersections

The HCM analysis methodology for evaluating all-way stop-controlled intersections is based on the degree of conflict for each independent approach created by the opposing approach and each conflicting approach. LOS for AWSC intersections is also based on average control delay. However, AWSC intersections have different threshold values than those applied to signalized intersections. This is based on the rationale that drivers expect AWSC intersections to carry lower traffic volumes than signalized intersections. Therefore, a higher level of delay is acceptable at a signalized intersection for the same LOS.

Two-Way Stop-Controlled (TWSC) Intersections

The HCM analysis methodology for evaluating two-way stop-controlled (TWSC) intersections is based on gap acceptance and conflicting traffic for vehicles stopped on the minor street approaches. The critical gap (or minimum gap that would be acceptable) is defined as the minimum time interval in the major street traffic stream that allows intersection entry for one minor street vehicle. Average control delay and LOS for the “worst approach” are reported. LOS is not defined for the intersection as a whole.

Analysis of Significance

To determine direct project impacts, City guidelines have developed a series of thresholds based on allowable increases in delay that become more stringent as LOS worsens. County guidelines have published daily traffic volume standards for roadways within its jurisdiction. **Appendix A, Tables A-2 and A-5** summarize these thresholds. In addition to the City and County significance criteria guidelines, the construction significance criteria outlined in the Project’s FEIR section D.9.4.1 were also evaluated. Construction transportation or traffic impacts would be significant if:

- The Project would require the temporary closure of a roadway, resulting in a temporary but substantial disruption to traffic flow and/or increased traffic congestion;
- Construction activities associated with the Project would restrict the movements of emergency vehicles (police cars, fire trucks, ambulances, and paramedic units) and there are no reasonable alternative access routes available;
- Increase in vehicle trips associated with construction worker commutes or equipment transportation associated with the Project would result in unstable flow, fluctuations in volumes of traffic which temporarily restrict flow or cause substantial drops in operating

- speeds that lead to an unacceptable reduction in level of service on any roadways along the project route, or as defined by each affected jurisdiction;
- Construction activities associated with the Project would substantially disrupt bus or rail transit service and there would be no suitable alternative routes or stops;
 - Construction activities associated with the Project would result in a temporary but substantial disruption of rail traffic;
 - Construction activities associated with the Project would impede pedestrian movements or bike trails and there are no suitable alternative pedestrian/bicycle access routes;
 - Construction or staging activities associated with the Project would increase the demand for and/or reduce the supply of parking spaces and there would be no provisions for accommodating the resulting parking deficiencies;
 - Construction activities associated with the Project would conflict with planned transportation projects in the project area;
 - A noticeable increase in deterioration of roadway surfaces used for the Project's construction zone would occur as a result of heavy truck or construction equipment movements; and
 - A project structure, crane, or wires were to be positioned such that it could adversely affect aviation activities.

TRIP GENERATION

Project Trip Generation Development Process

Construction of the project would result in a temporary increase in traffic volumes on the regional and local roadways due to tower construction activities. Traffic that would be generated by construction worker commuter trips, equipment deliveries, water deliveries and the hauling of materials such as support towers, concrete, conductor, and excavation import or export soils, would temporarily increase the existing traffic volumes in the study area. Project construction is expected to take place over approximately 18 months with a six-day, 60-hour work week construction schedule.

For the purposes of estimating the project's trip generation, additional assumptions were considered. These assumptions were coordinated with SDG&E staff in an effort to provide the expected number of trips generated by the construction of this project. The AM project peak hour is expected to occur with the arrival of construction personnel to the job sites at or before 6:00AM. This does not coincide with the AM peak hour of the adjacent street system, which generally occurs between 7:00 AM and 9:00 AM. However, the AM project peak hour for traffic associated with project headquarters employees at Construction Yards 8 and 18-A will coincide with the AM peak hour of the adjacent street system, given that it is expected to occur between the hours of 7:00 AM and 9:00 AM. The PM project peak hour is expected to occur with the departure of all personnel between the hours of 4:00 PM and 6:00PM.

During the AM peak hour of adjacent street traffic, the project is also expected to generate trips related to the delivery of supplies, water, and equipment. The delivery of supplies, water, and equipment will be transported via multi-axle trucks to the individual project sites between the hours of 8:00 AM and 3:00 PM. The traffic impacts of multi-axle trucks at street intersections are normally addressed by converting heavy vehicles into "passenger car equivalents" (PCEs). For the purposes of this study, it is assumed that all multi-axle truck traffic is best represented by a PCE factor of 2.0 which is applied to the projected truck trips.

Detailed information related to the development and calculation of the project trip generation as it relates to the substations, construction yards and tower sites is provided in **Appendix B**.

Table 2-1 presents a summary of traffic generation expected by project component.

**Table 2-1
Project Component Trip Generation**

Feature	Daily	AM In	AM Out	PM In	PM Out
Headquarters	471	59	7	12	49
Dyke	316	75	19	22	74
Rough Acre	497	98	22	27	92
Conventional Yard	240	90	30	30	90
Fly Yard	420	180	30	30	180
500 kV Tower	388	76	40	22	52
230 kV Tower	356	76	40	22	52
Suncrest Substation	324	52	17	17	52
Upgrade Substation	100	40	5	5	40
Wire Pull	90	25	2	0	23

PROJECT TRIP DISTRIBUTION

Trip distribution is the process of identifying the probable destinations, directions, or traffic routes that will be utilized by project traffic. The potential interaction between the proposed land use and surrounding regional access routes are considered to identify the routes along which the project traffic will distribute. For the purpose of developing project trip distribution patterns, construction crews have been assumed to live in temporary accommodations within a local area no more than 25 miles or 40 minutes away from the construction site. Also, locations of concrete plants, water sources and other delivery sources were taken into consideration in developing project trip distribution pattern.

Project Access

Access to the project construction sites will be provided via the following:

- Existing access points;
- Newly constructed access points off existing and improved public right-of-way (ROW); and
- Newly constructed access points off existing private roads.

CHAPTER 3 TRAFFIC CONDITIONS

TRAFFIC VOLUMES

Intersection turning movement counts were performed during the weekday morning peak period from 7:00 AM to 9:00 AM and during the weekday evening peak period from 4:00 PM to 6:00 PM in February 2010. The two-way average daily traffic (ADT) volumes were also obtained through daily machine traffic counts conducted in February 2010. Existing peak-hour and daily volume counts are included in **Appendix C**.

The intersection geometries, weekday peak hour intersection volumes and daily segment volumes for Existing and Existing Plus Project conditions are included in **Appendix D**.

Project study intersections are shown in Figures 3.1-3.13.

Intersections

As shown in Table 3-1, no significant project impacts are identified on any of the study area intersection with the addition of the project traffic except for the following intersections:

- Sycamore Park Drive and SR-67 (**110**)
- Tower Access and SR-67 (**111**)
- Willow Road and SR-67 (**114**)
- Willow Road and Wildcat Canyon (**119**)

Appendix E and **Appendix F** contain the analysis worksheets for Existing and Existing plus Project intersection conditions, respectively.

Roadway Segments

As shown in Table 3-2, no significant project impacts are identified on any of the study area roadway segments.

Alpine Undergrounding

The intersection and roadway segment analysis in this chapter addresses temporary increases in traffic due to tower construction activities associated with the project; it does not address reductions in capacity along Alpine Boulevard due to the undergrounding construction activities. A detailed analysis of traffic conditions associated with the undergrounding construction activities is documented in **Appendix G**.

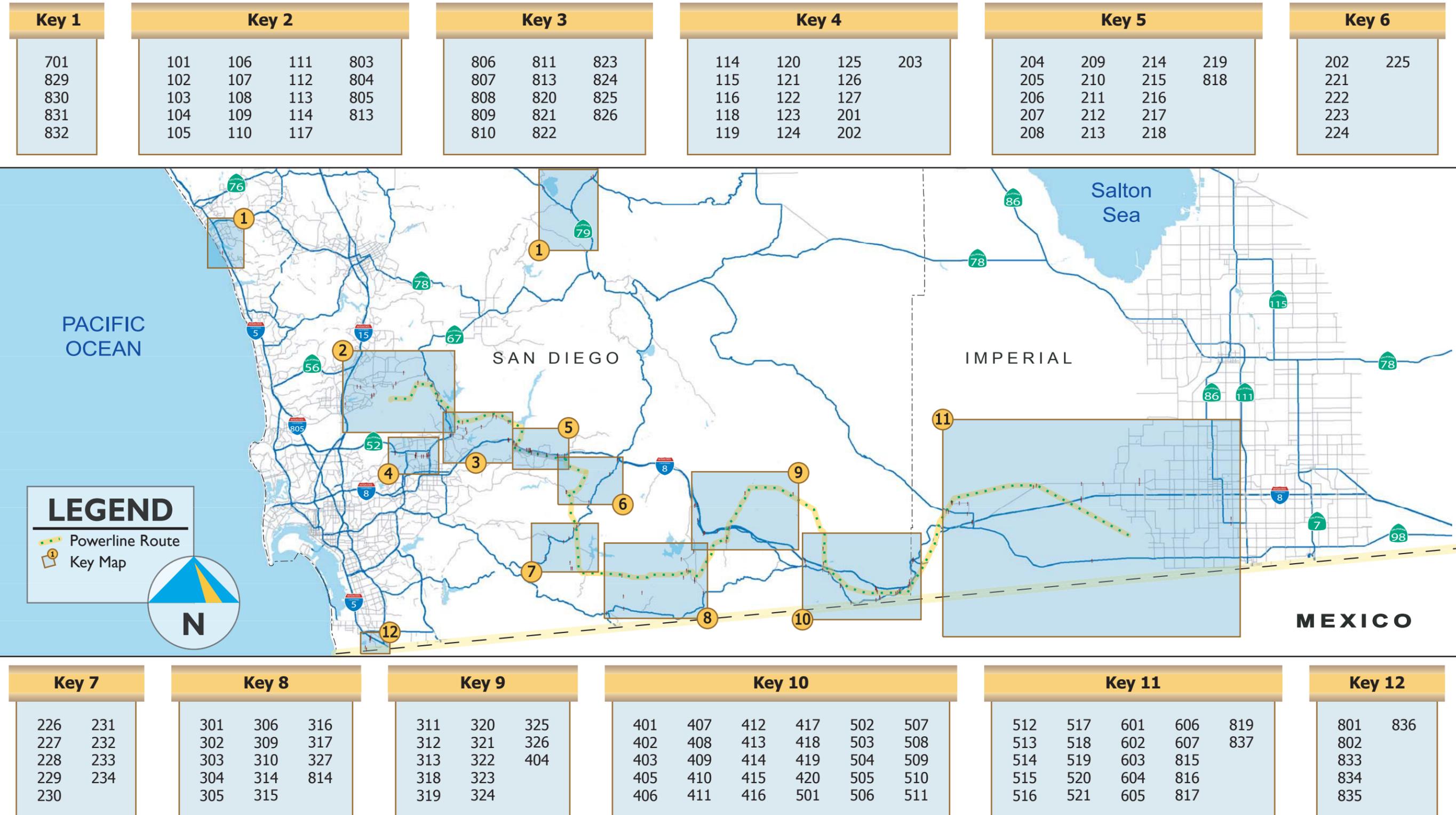


Figure 3-1
Project Study Intersection Master Key

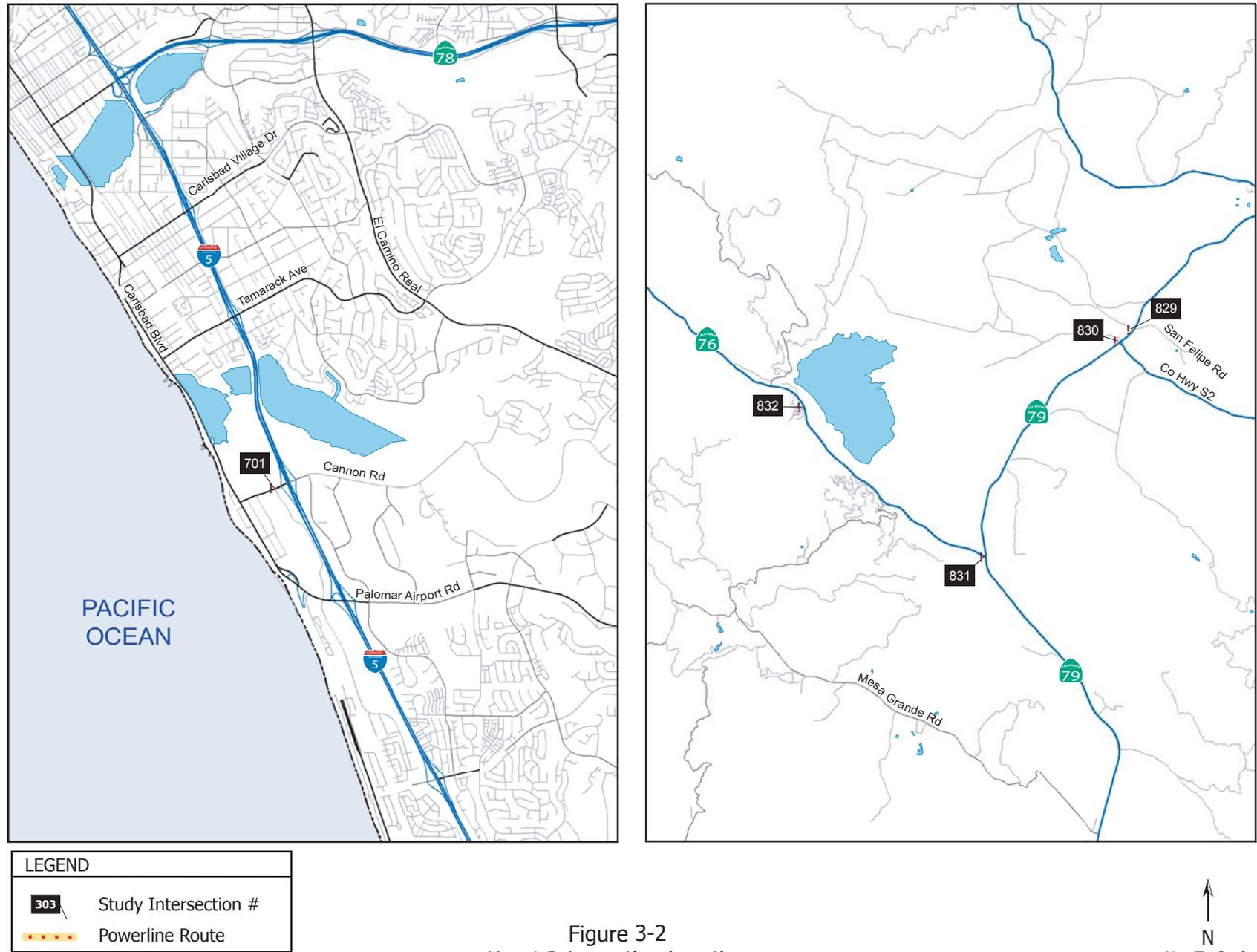
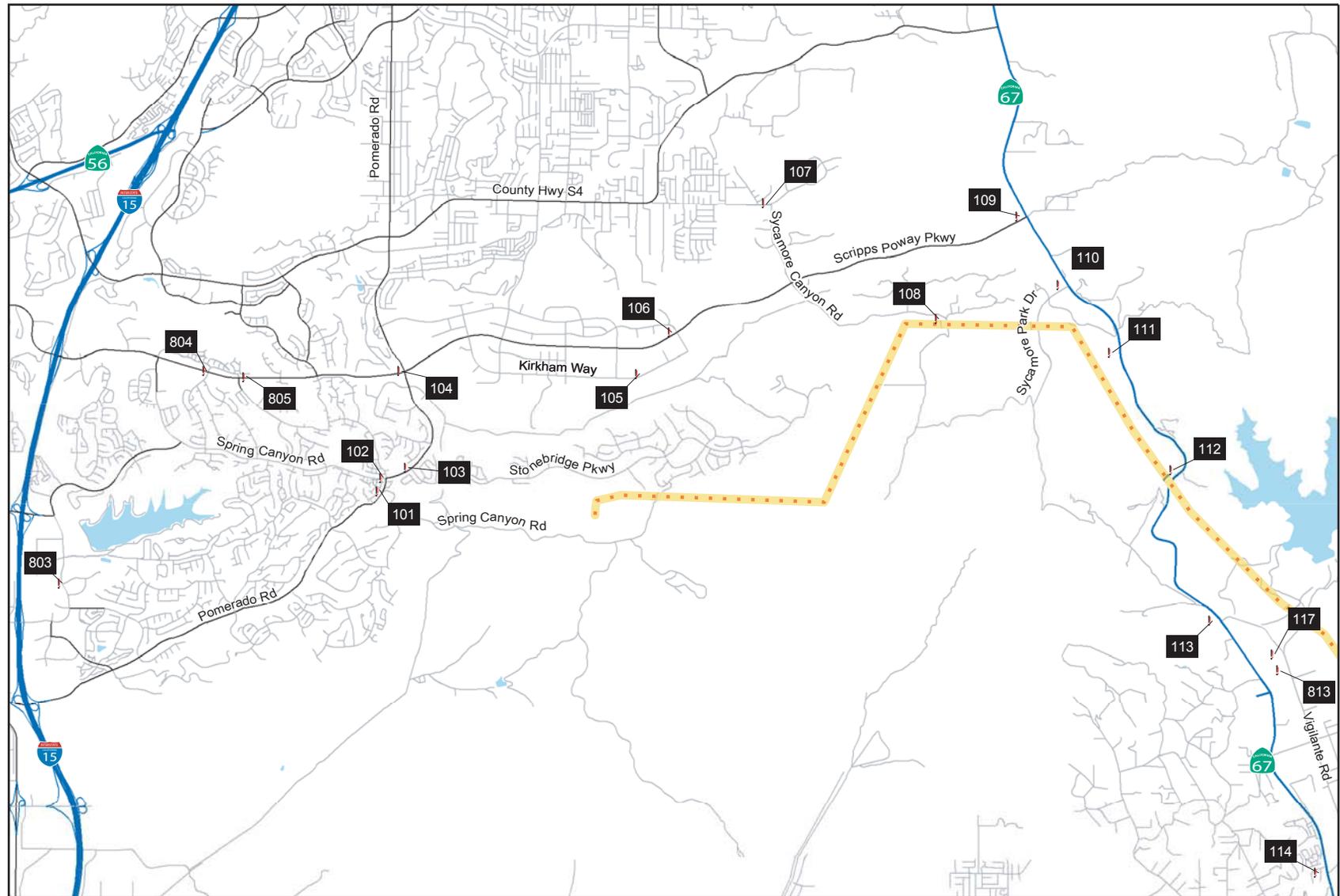


Figure 3-2
Key 1 Intersection Location

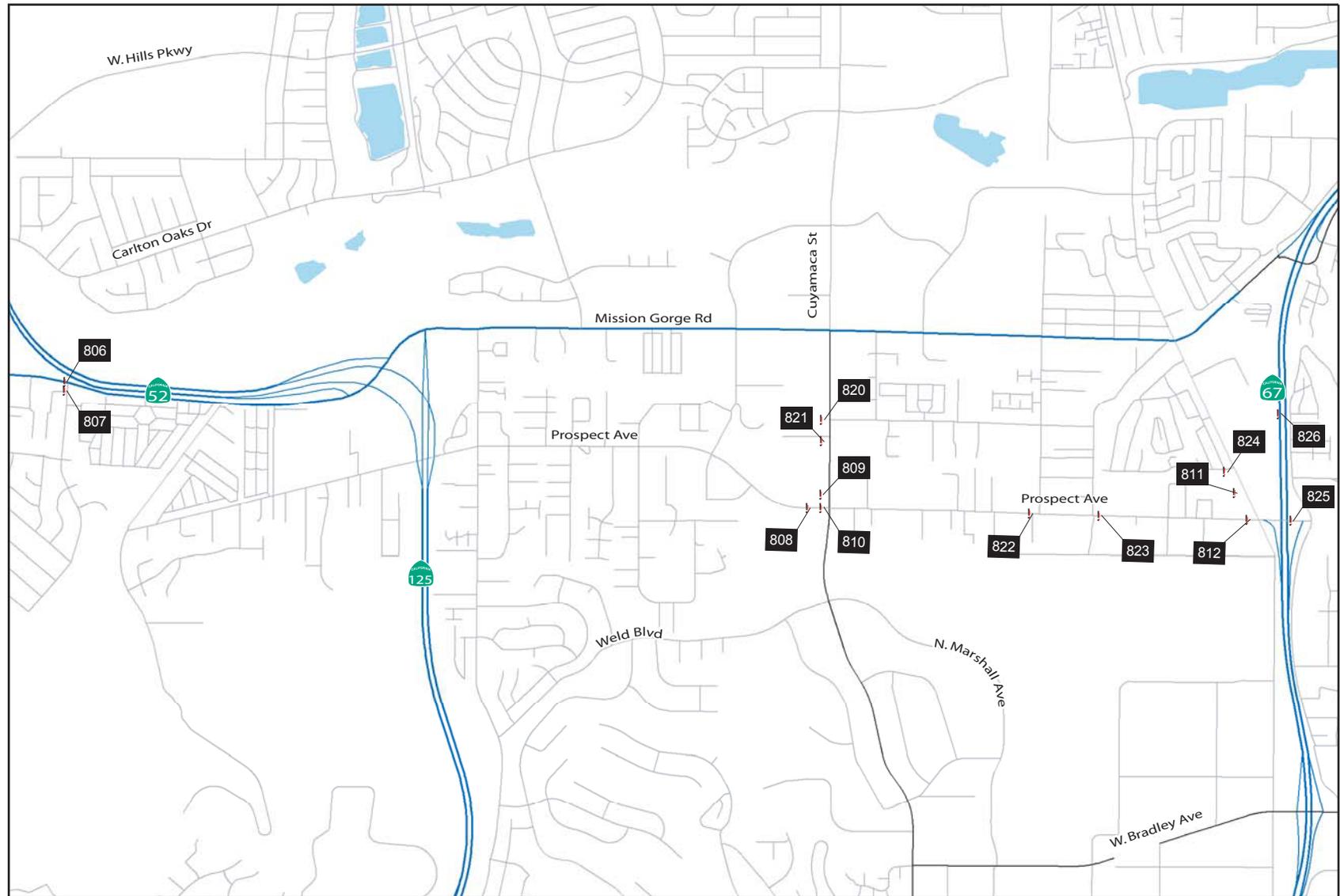


LEGEND

	Study Intersection #
	Powerline Route

Figure 3-3
Key 2 Intersection Location


N
Not To Scale

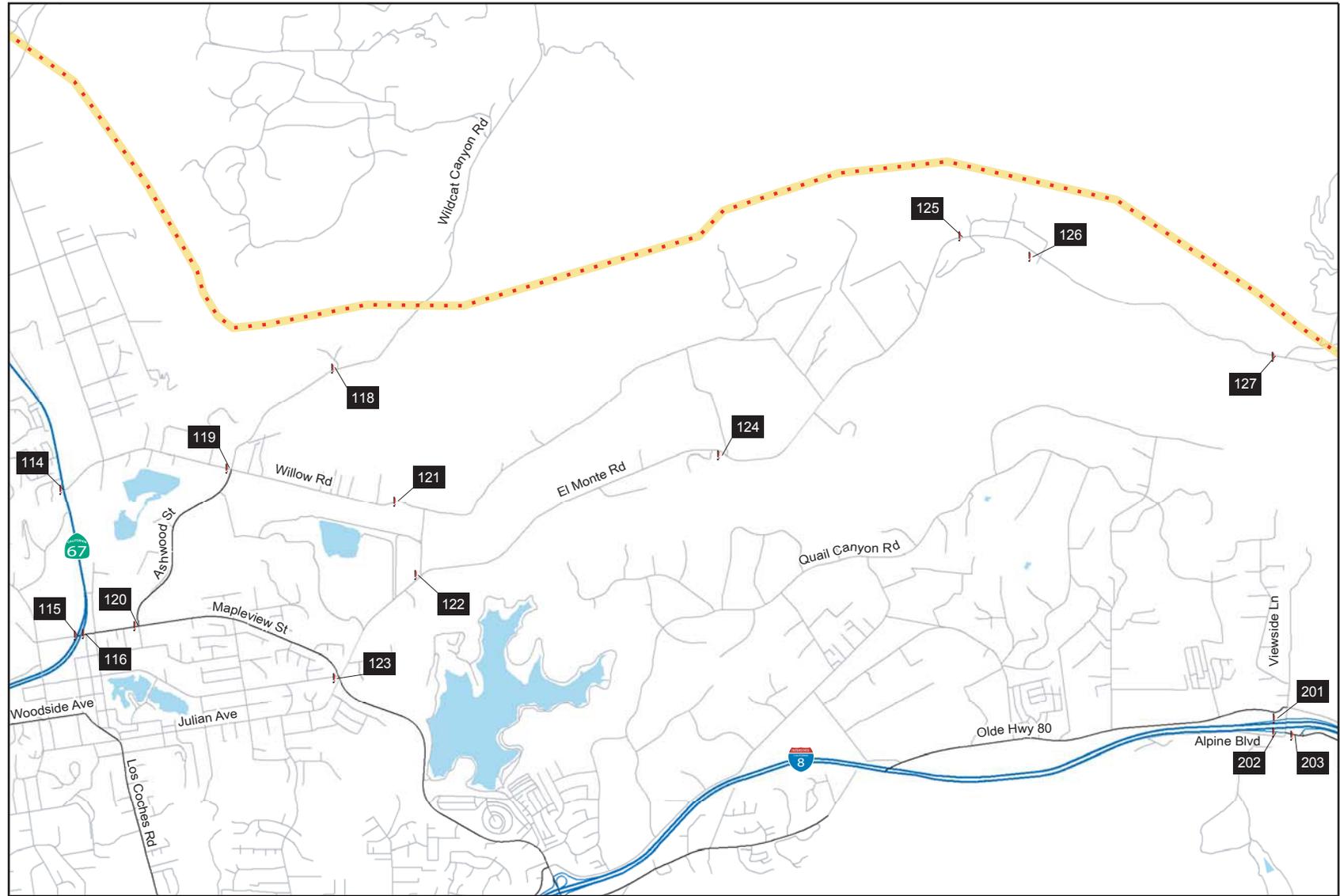


LEGEND

	Study Intersection #
	Powerline Route

Figure 3-4
Key 3 Intersection Location

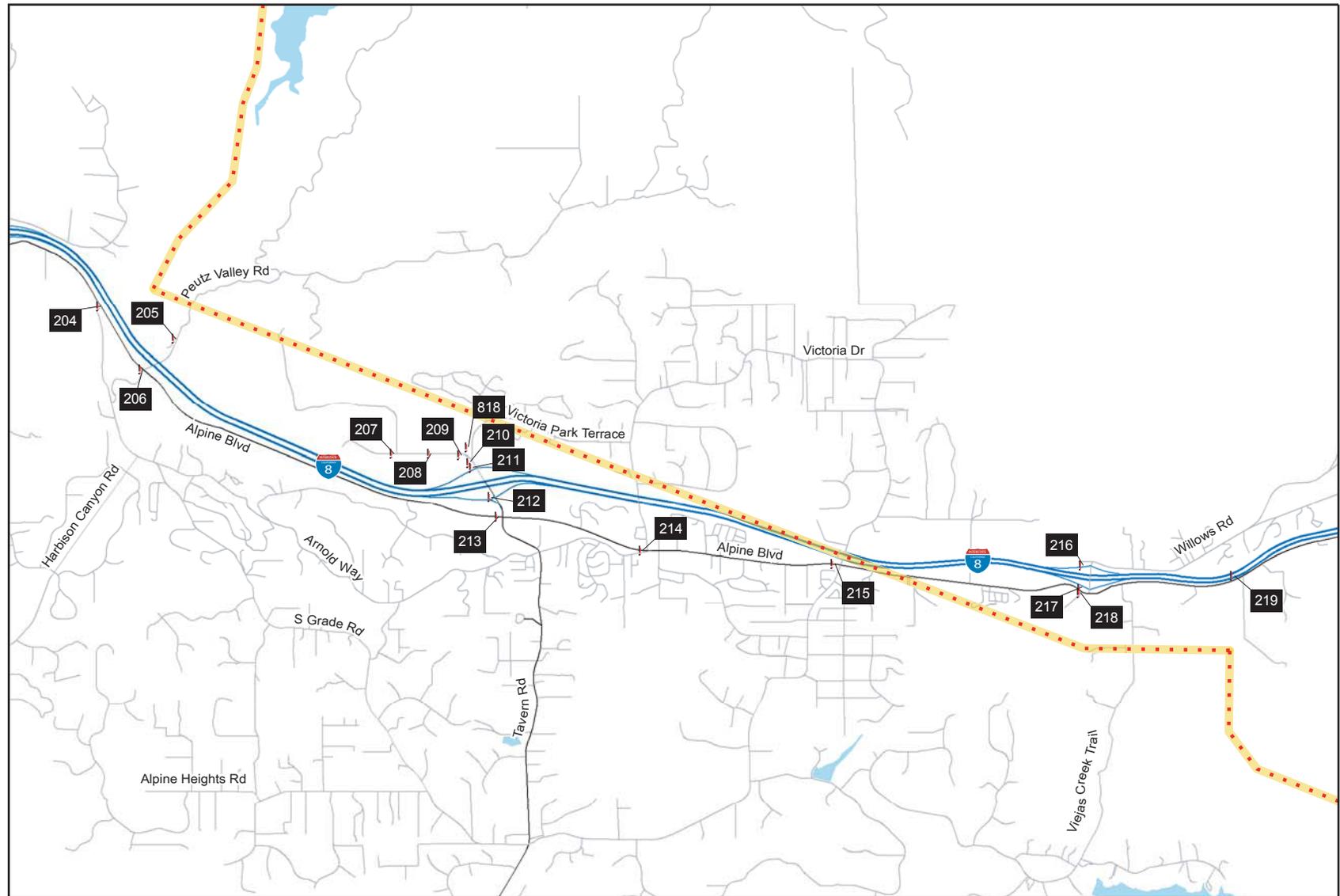

N
Not To Scale



LEGEND	
	Study Intersection #
	Powerline Route

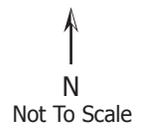
Figure 3-5
Key 4 Intersection Location

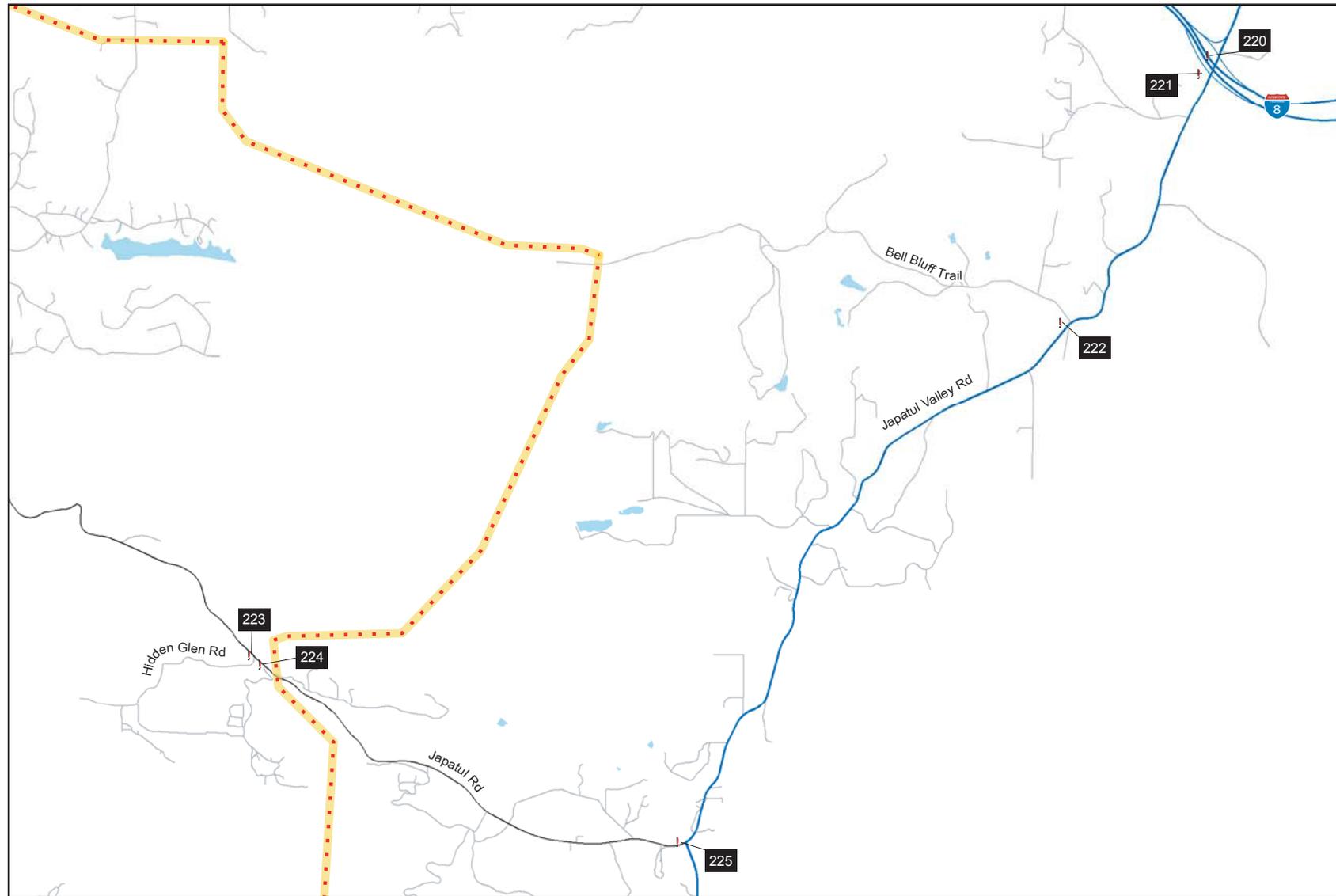
↑
N
Not To Scale



LEGEND	
	Study Intersection #
	Powerline Route

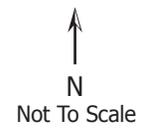
Figure 3-6
Key 5 Intersection Location

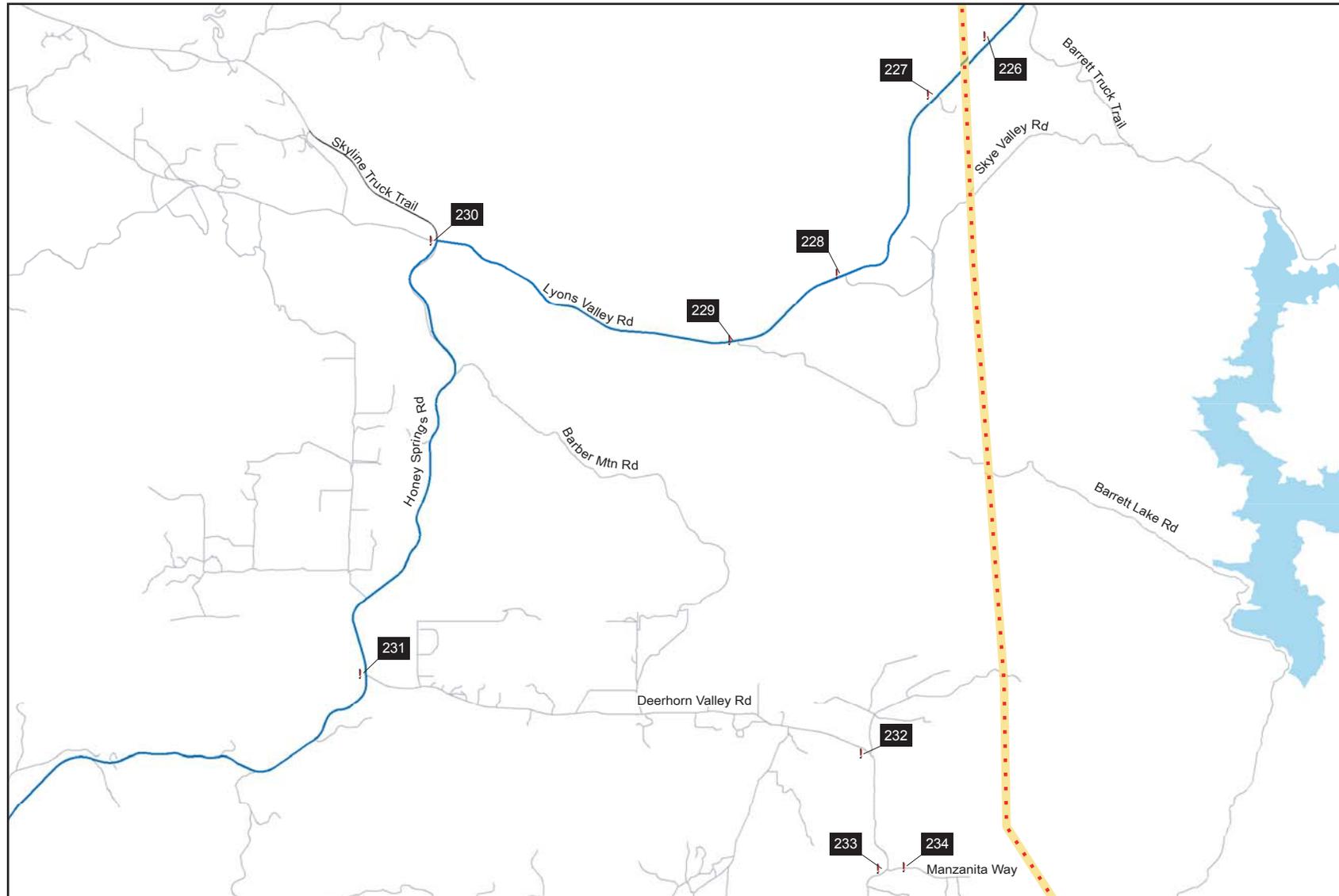




LEGEND	
	Study Intersection #
	Powerline Route

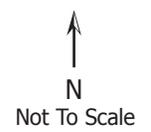
Figure 3-7
Key 6 Intersection Location

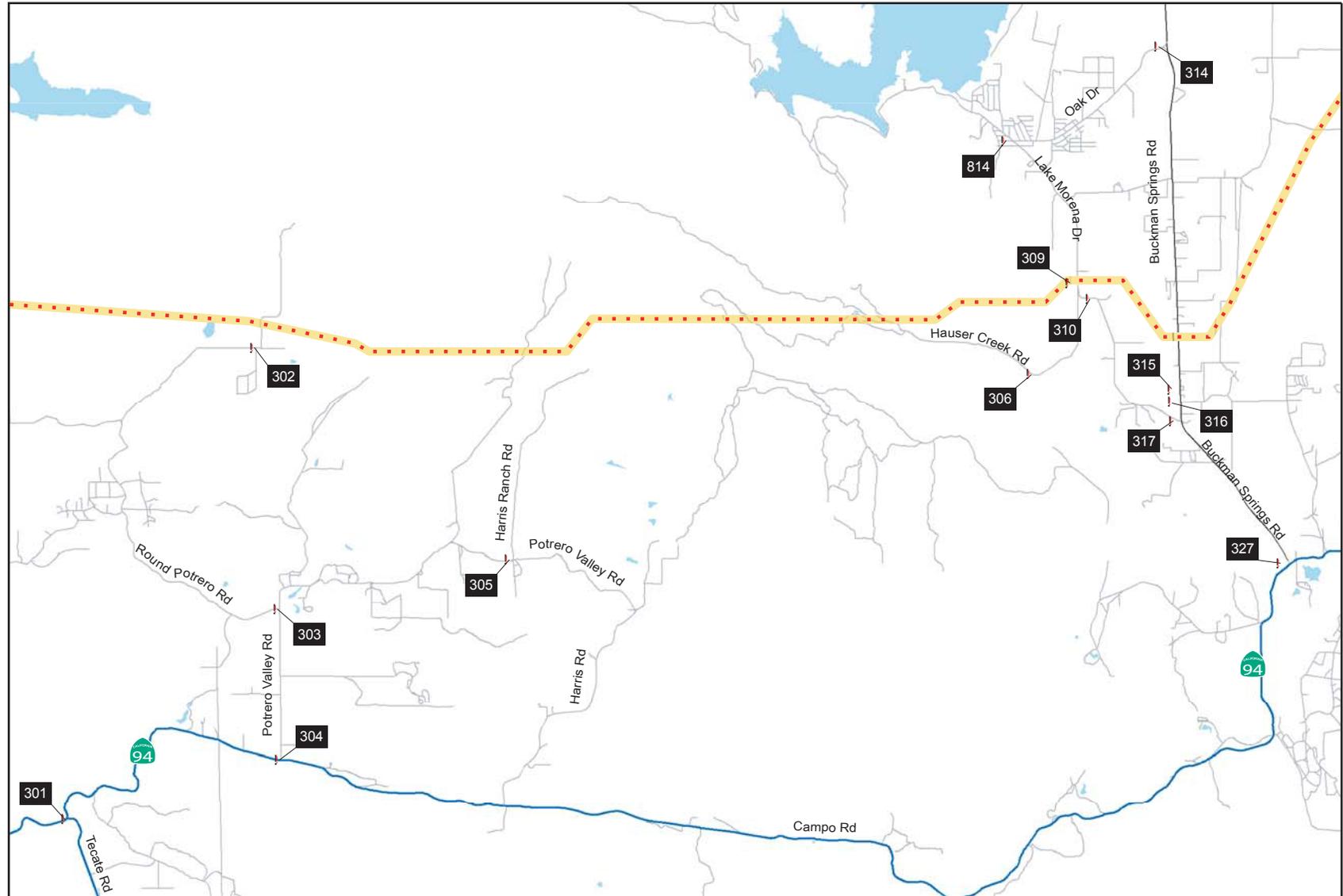




LEGEND	
	Study Intersection #
	Powerline Route

Figure 3-8
Key 7 Intersection Location



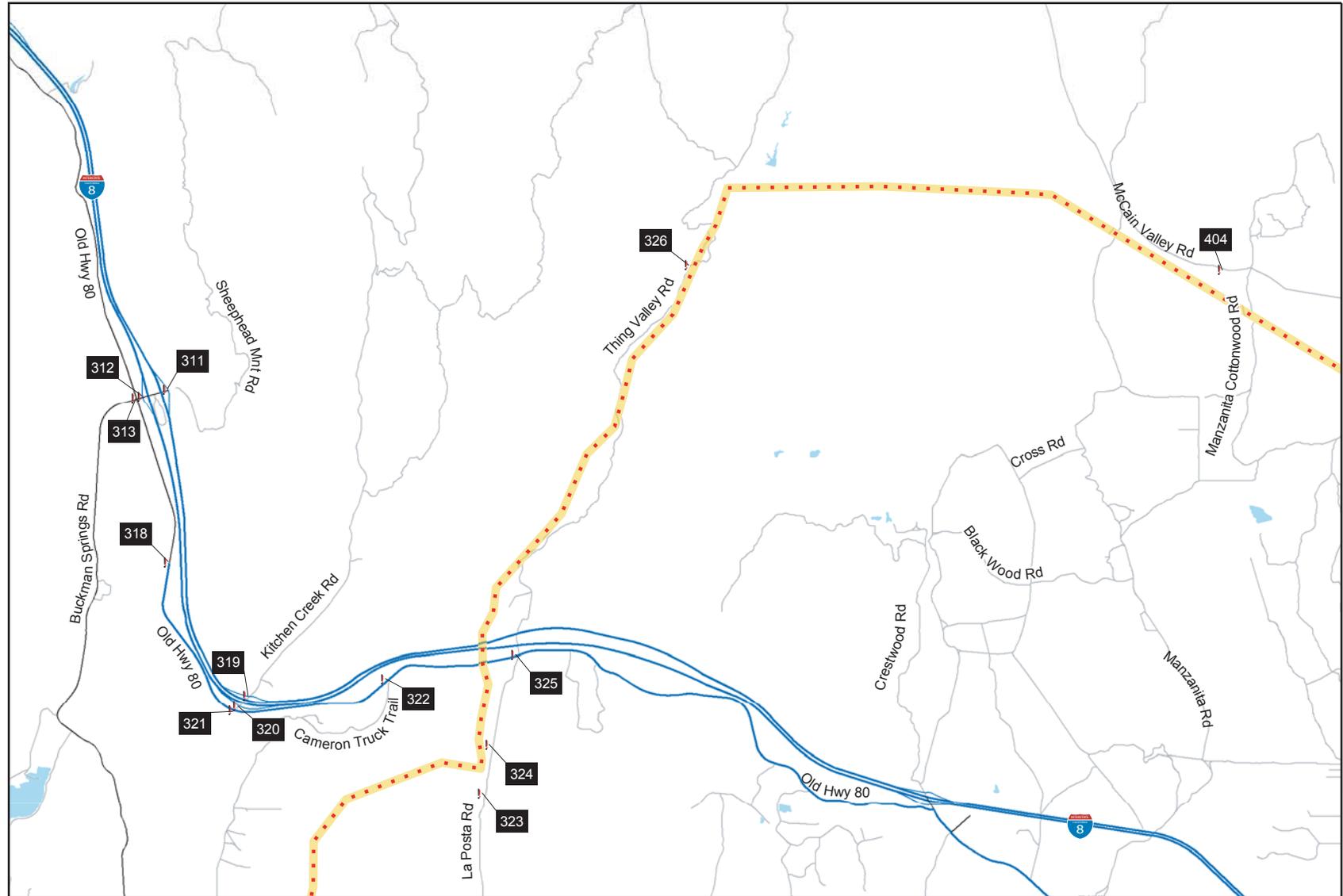


LEGEND

	Study Intersection #
	Powerline Route

Figure 3-9
Key 8 Intersection Location

↑
N
Not To Scale



LEGEND

-  Study Intersection #
-  Powerline Route

Figure 3-10
Key 9 Intersection Location

↑
N
Not To Scale

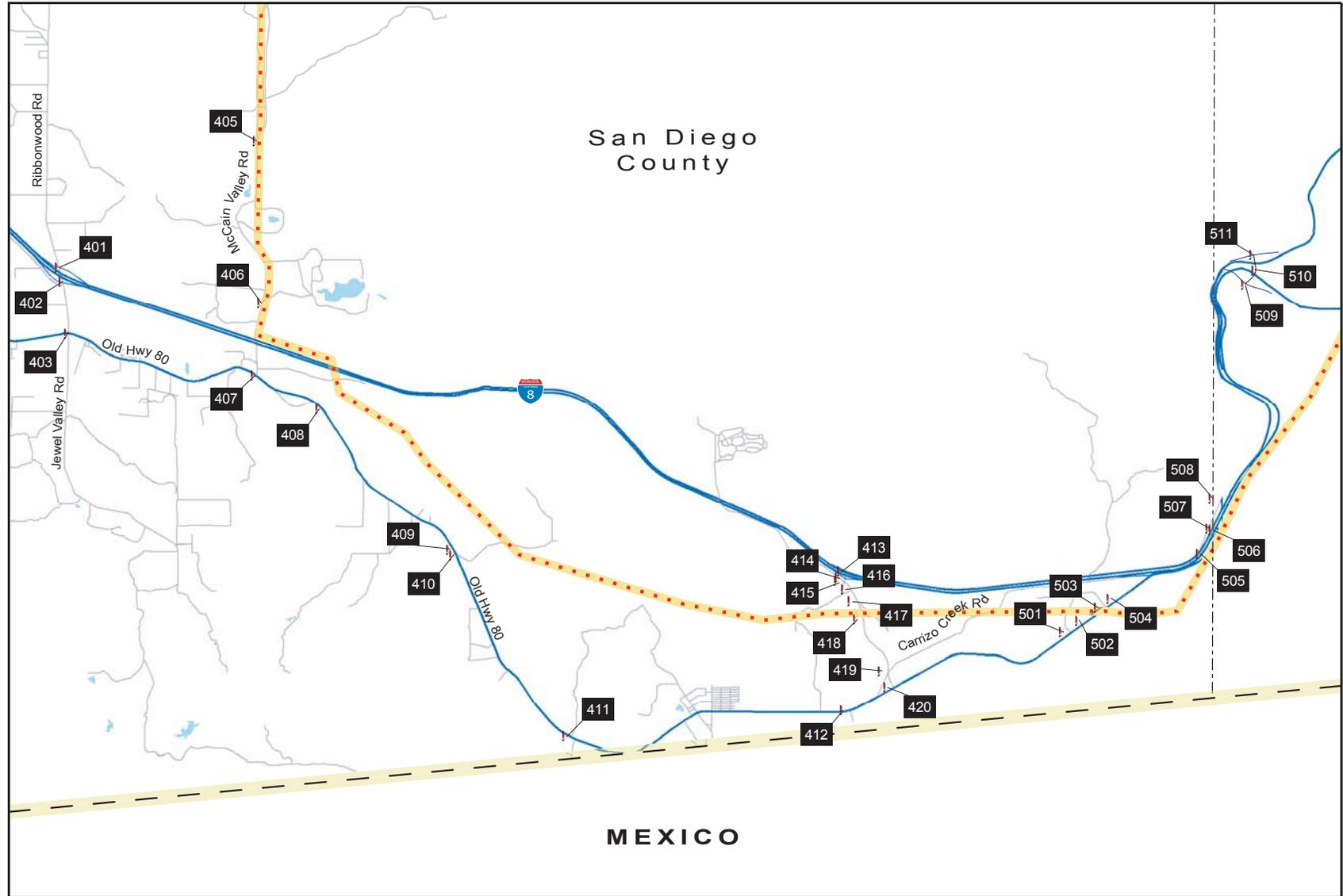


Figure 3-11
Key 10 Intersection Location

↑
N
Not To Scale

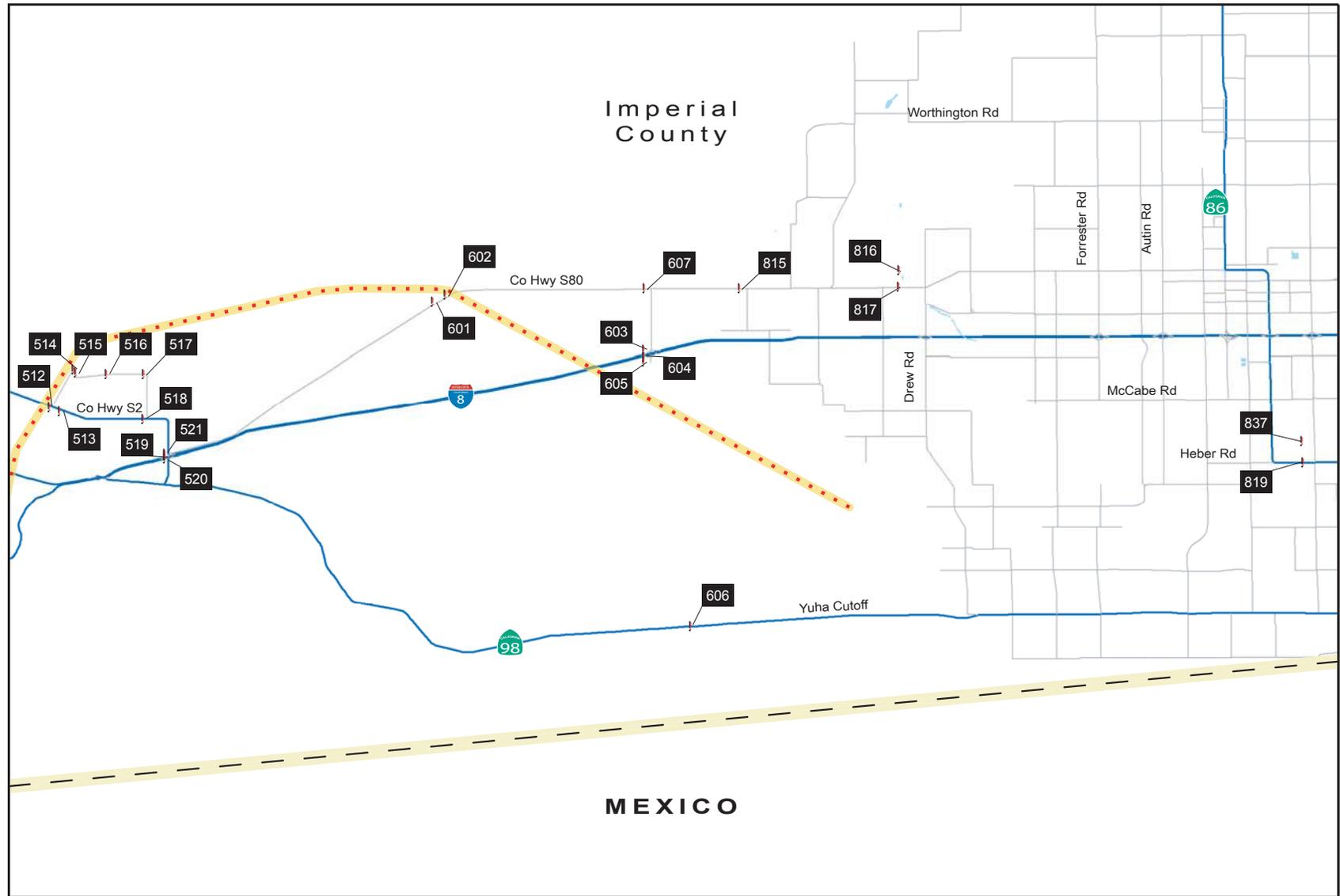
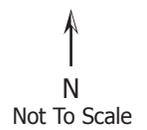
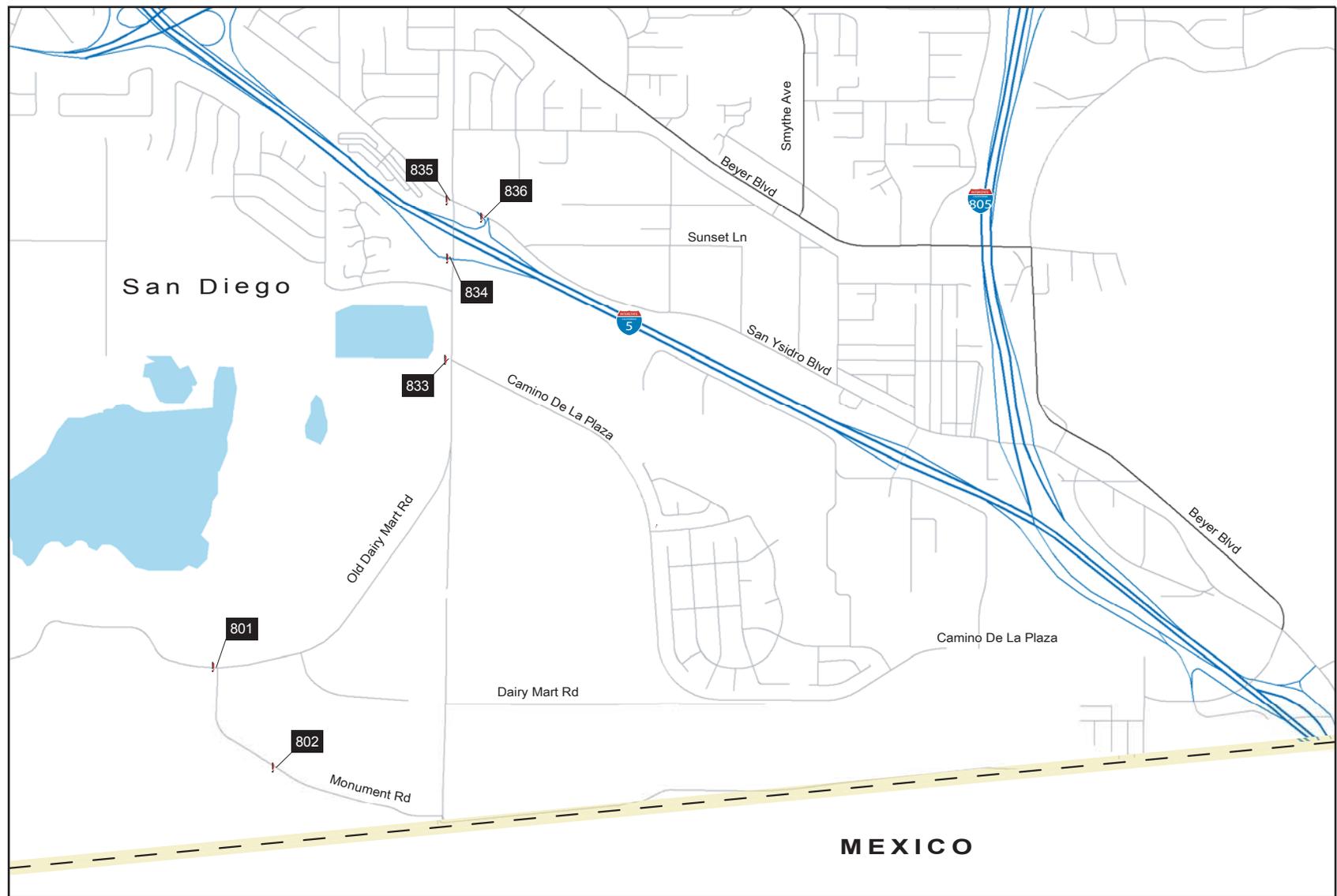


Figure 3-12
Key 11 Intersection Location





LEGEND

-  Study Intersection #
-  Powerline Route

Figure 3-13
Key 12 Intersection Location


N
Not To Scale

**Table 3-1
Intersection Conditions**

Intersection	Existing Conditions	Construction Conditions	Δ Delay	Significant?	NTP
<i>Peak Hour</i>	<i>AM Delay/LOS PM Delay/LOS</i>	<i>AM Delay/LOS PM Delay/LOS</i>	<i>AM Delay PM Delay</i>	<i>AM PM</i>	<i>Area</i>
101. Sycamore Canyon Rd & Pomerado Rd	0.0/A 0.0/A	11.6/B 15.5/C	11.6 15.5	No No	IV Sub Upgrade
102. Spring Canyon Rd & Pomerado Rd*	24.8/C 31.8/C	24.7/C 32.0/C	-0.1 0.2	No No	IV Sub Upgrade
103. Spring Canyon Rd & Stone Bridge Pkwy*	11.8/B 7.4/A	13.6/B 9.9/A	1.8 2.5	No No	IV Sub Upgrade Link 5 Segment 14-18
104. Scripps Poway Pkwy & Spring Canyon Rd*	25.7/C 31.6/C	28.4/C 33.8/C	2.7 2.2	No No	IV Sub Upgrade Link 5 Segment 14-18
106. Scripps Poway Pkwy & Danielson St*	5.6/A 24.7/C	5.8/A 23.2/C	0.2 -1.5	No No	IV Sub Upgrade Link 5 Segment 14-18
107. Garden Rd & Sycamore Canyon Rd	9.4/A 9.5/A	9.3/A 9.5/A	-0.1 0.0	No No	Link 5 Segment 14-18
108. Tower Access & Sycamore Canyon Rd	0.0/A 0.0/A	8.4/A 8.6/A	8.4 8.6	No No	Link 5 Segment 14-18
109. Scripps Poway Pkwy & CA 67*	64.6/E 32.5/C	64.9/E 51.8/D	0.3 19.3	No No	Link 5 Segment 14-18
110. Sycamore Park Dr & CA 67	0.0/A 0.0/A	17.3/C 126.1/F	17.3 126.1	No Yes	Link 5 Segment 14-18
111. Tower Access & CA 67	0.0/A 0.0/A	0.0/A 61.5/F	0.0 61.5	No Yes	Link 5 Segment 14-18
112. Tower Access & CA 67	0.0/A 0.0/A	10.9/B 14.9/B	10.9 14.9	No No	Link 5 Segment 14-18
113. Vigilante Rd & CA 67	17.1/C 20.1/C	19.1/C 32.0/D	2.0 11.9	No No	Link 5 Segment 14-18
114. Willow Rd & CA 67*	50.2/D 30.8/C	64.8/E 43.3/D	14.6 12.5	Yes No	Link 5 Segment 14-18
115. Mapleview St & CA 67*	30.7/C 39.1/D	30.2/C 39.7/D	-0.5 0.6	No No	Link 5 Segment 14-18
116. Mapleview St & Maine Ave*	28.0/C 21.3/C	28.0/C 20.7/C	0.0 -0.6	No No	Link 5 Segment 14-18
117. Moreno Ave & Vigilante Rd	0.0/A 0.0/A	8.5/A 8.5/A	8.5 8.5	No No	Link 5 Segment 14-18
118. Tower Access & Wild Canyon Rd	0.0/A 0.0/A	0.2/A 12.0/B	0.2 12.0	No No	Link 5 Segment 14-18
119. Willow Rd & Wild Canyon Rd	11.1/B 25.1/D	23.8/C 95.2/F	12.7 70.1	No Yes	Link 5 Segment 14-18

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<i>Peak Hour</i>	<i>AM Delay/LOS PM Delay/LOS</i>	<i>AM Delay/LOS PM Delay/LOS</i>	<i>AM Delay PM Delay</i>	<i>AM PM</i>	<i>Area</i>
120. Mapleview St & Ashwood St*	25.1/C 25.9/C	25.5/C 29.3/C	0.4 3.4	No No	Link 5 Segment 14-18
121. Willow Rd & Tower Access	0.0/A 0.0/A	0.9/A 8.4/A	0.9 8.4	No No	Link 5 Segment 14-18
122. El Monte Rd & Yard #20	0.0/A 0.0/A	9.3/A 9.5/A	9.3 9.5	No No	Link 5 Segment 14-18
123. Mapleview St & El Monte Rd*	---/--- ---/---	---/--- ---/---	N/A N/A	No No	Link 5 Segment 14-18
124. El Monte Rd & Tower Access	0.0/A 0.0/A	0.5/A 9.1/A	0.5 9.1	No No	Link 5 Segment 14-18
125. El Monte Rd & Tower Access	0.0/A 0.0/A	0.0/A 0.0/A	0.0 0.0	No No	Link 5 Segment 14-18
126. El Monte Rd & Yard #19	0.0/A 0.0/A	9.1/A 8.9/A	9.1 8.9	No No	Link 5 Segment 14-18
127. El Monte Rd & Forrest Route 13S10	0.0/A 0.0/A	8.4/A 8.5/A	8.4 8.5	No No	Link 5 Segment 14-18
201. I-8 WB Ramps & Viewside Ln	13.2/B 10.9/B	13.6/B 10.9/B	0.4 0.0	No No	Link 5 Segment 14-18
202. Alpine Blvd & Viewside Ln	8.6/A 8.4/A	11.0/B 11.6/B	2.4 3.2	No No	Link 5 Segment 14-18
203. Alpine Blvd & I-8 EB Ramp	1.0/A 0.6/A	1.0/A 0.6/A	0.0 0.0	No No	Link 5 Segment 14-18
204. Alpine Blvd & Arnold Way	16.9/C 15.1/C	18.1/C 15.2/C	1.2 0.1	No No	Link 5 Segment 14-18
205. Tower Access & Peutz Valley Rd	0.0/A 0.0/A	8.5/A 8.5/A	8.5 8.5	No No	Link 5 Segment 14-18
206. Alpine Blvd & Peutz Valley Rd	9.2/A 9.3/A	9.3/A 10.4/B	0.1 1.1	No No	Link 5 Segment 14-18
207. Tavern Rd & Taberna Vista Wy	8.6/A 8.7/A	9.0/A 9.2/A	0.4 0.5	No No	Alpine Facilities
208. Tavern Rd & Yard #18A	0.0/A 0.0/A	8.6/A 9.2/A	8.6 9.2	No No	Alpine Facilities
209. Tavern Rd & Yard #18B E Drwy	8.6/A 8.8/A	9.6/A 10.0/A	1.0 1.2	No No	Alpine Facilities
210. Tavern Rd & Victoria Park Terrace	9.9/A 9.7/A	11.0/B 11.7/B	1.1 2.0	No No	Alpine Facilities
211. I-8 WB Ramp & Tavern Rd*	15.5/B 27.7/C	19.2/B 27.2/C	3.7 -0.5	No No	Alpine Facilities
212. I-8 EB Ramp & Tavern Rd*	25.0/C 22.3/C	26.0/C 25.3/C	1.0 3.0	No No	Alpine Facilities

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213. Alpine Blvd & Tavern Rd*	29.1/C 31.7/C	31.1/C 31.6/C	2.0 -0.1	No No	Link 5 Segment 14-18
214. Alpine Blvd & W Victoria Dr	25.4/C 39.1/D	25.5/C 39.5/D	0.1 0.4	No No	Link 5 Segment 14-18
215. Alpine Blvd & E Victoria Dr	31.5/C 42.5/D	29.3/C 42.1/D	-2.2 -0.4	No No	Link 5 Segment 14-18
216. I-8 WB Ramp & Willows Rd	9.0/A 8.8/A	9.1/A 11.4/B	0.1 2.6	No No	Link 5 Segment 14-18
217. I-8 EB Ramp & Willows Rd	9.4/A 9.6/A	9.2/A 10.5/B	-0.2 0.9	No No	Link 5 Segment 14-18
218. Alpine Blvd & Willows Rd	7.7/A 8.3/A	8.9/A 11.5/B	1.2 3.2	No No	Link 5 Segment 14-18
219. Alpine Blvd & Star Valley Rd	0.0/A 0.0/A	9.3/A 9.6/A	9.3 9.6	No No	Link 5 Segment 14-18
220. I-8 WB Ramp & Japatul Valley Rd	10.6/B 10.6/B	15.7/C 17.7/C	5.1 7.1	No No	Link 2 Segment 7-12 Link 3 - Suncrest Substation
221. I-8 EB Ramp & Japatul Valley Rd	9.6/A 10.3/B	9.8/A 11.8/B	0.2 1.5	No No	Link 2 Segment 7-12 Link 3 - Suncrest Substation
222. Bell Bluff Trail & Japatul Valley Rd	0.0/A 0.0/A	9.8/A 10.9/B	9.8 10.9	No No	Link 2 Segment 7-12 Link 3 - Suncrest Substation
223. Japatul Rd & Hidden Glen Rd	0.0/A 0.0/A	8.4/A 8.5/A	8.4 8.5	No No	Link 2 Segment 7-12
224. Japatul Rd & High Glen Rd	0.0/A 0.0/A	8.5/A 8.6/A	8.5 8.6	No No	Link 2 Segment 7-12
225. Japatul Rd & Lyons Valley Rd	8.7/A 8.7/A	8.9/A 9.3/A	0.2 0.6	No No	Link 2 Segment 7-12
226. Tower Access & Lyons Valley Rd	0.0/A 0.0/A	9.8/A 8.7/A	9.8 8.7	No No	Link 2 Segment 7-12
227. Yard #16 & Lyons Valley Rd	0.0/A 0.0/A	9.2/A 9.2/A	9.2 9.2	No No	Link 2 Segment 7-12
228. Lyons Valley Rd & Yard #15	0.0/A 0.0/A	8.7/A 9.1/A	8.7 9.1	No No	Link 2 Segment 7-12
229. Lyons Valley Rd & Tower Access	9.6/A 9.2/A	10.7/B 9.8/A	1.1 0.6	No No	Link 2 Segment 7-12
230. Lyons Valley Rd & Honey Springs Rd	9.0/A 8.9/A	9.5/A 9.4/A	0.5 0.5	No No	Link 2 Segment 7-12
231. Deerhorn Valley Rd & Honey Springs Rd	0.0/A 0.0/A	8.6/A 8.9/A	8.6 8.9	No No	Link 2 Segment 7-12
232. Deerhorn Valley Rd & Cinnamon Dr	29.1/C 31.7/C	31.1/C 31.6/C	2.0 -0.1	No No	Link 2 Segment 7-12

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<i>Peak Hour</i>	<i>AM Delay/LOS PM Delay/LOS</i>	<i>AM Delay/LOS PM Delay/LOS</i>	<i>AM Delay PM Delay</i>	<i>AM PM</i>	<i>Area</i>
233. Manzanita Way & Deerhorn Valley Rd	3.6/A 8.3/A	8.6/A 8.7/A	5.0 0.4	No No	Link 2 Segment 7-12
234. Manzanita Way & Yard #14	0.0/A 0.0/A	8.4/A 8.7/A	8.4 8.7	No No	Link 2 Segment 7-12
301. SR-94 (Campo Rd) & SR-188 (Tecate Rd)	11.5/B 11.9/B	11.5/B 12.1/B	0.0 0.2	No No	Link 2 Segment 7-12
302. Round Potrero Rd & Yard #13	0.0/A 0.0/A	9.3/A 9.6/A	9.3 9.6	No No	Link 2 Segment 7-12
303. Round Potrero Rd & Potero Valley Rd	8.7/A 8.5/A	8.9/A 9.1/A	0.2 0.6	No No	Link 2 Segment 7-12
304. SR-94 (Campo Rd) & Potrero Valley Rd	9.1/A 9.1/A	10.0/A 10.7/B	0.9 1.6	No No	Link 2 Segment 7-12
305. Potrero Valley Rd & Harris Ranch Rd	0.0/A 0.0/A	8.4/A 0.0/A	8.4 0.0	No No	Link 2 Segment 7-12
306. Hauser Creek Rd & Yard #12	0.0/A 0.0/A	8.8/A 8.8/A	8.8 8.8	No No	Link 2 Segment 7-12
309. Lake Morena Dr & Hauser Creek Rd	0.0/A 0.6/A	8.8/A 9.0/A	8.8 8.4	No No	Link 2 Segment 7-12
310. Tower Access & Lake Morena Dr	0.0/A 0.0/A	8.9/A 8.9/A	8.9 8.9	No No	Link 2 Segment 7-12
311. Buckman Springs Rd & I-8 WB Ramps	9.6/A 9.3/A	10.8/B 12.3/B	1.2 3.0	No No	Link 2 Segment 7-12
312. Buckman Springs Rd & I-8 EB Ramps	8.8/A 9.0/A	9.1/A 9.3/A	0.3 0.3	No No	Link 2 Segment 7-12
313. Buckman Springs Rd & Old Hwy 80	7.4/A 7.6/A	8.2/A 8.5/A	0.8 0.9	No No	Link 2 Segment 7-12
314. Oak Dr & Buckman Springs Rd	10.2/B 9.7/A	11.3/B 11.0/B	1.1 1.3	No No	Link 2 Segment 7-12
315. Tower Access & Buckman Springs Rd	0.0/A 0.0/A	9.8/A 10.7/B	9.8 10.7	No No	Link 2 Segment 7-12
316. Tower Access & Buckman Springs Rd	0.0/A 0.0/A	10.7/B 9.2/A	10.7 9.2	No No	Link 2 Segment 7-12
317. Lake Morena Dr & Buckman Springs Rd	9.1/A 9.0/A	10.6/B 10.9/B	1.5 1.9	No No	Link 2 Segment 7-12
319. I-8 WB Ramps & Kitchen Creek Rd	8.9/A 8.7/A	9.3/A 10.0/B	0.4 1.3	No No	Link 2 Segment 7-12
320. I-8 EB Ramps & Kitchen Creek Rd	8.5/A 8.4/A	8.6/A 8.5/A	0.1 0.1	No No	Link 2 Segment 7-12

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<i>Peak Hour</i>	<i>AM Delay/LOS PM Delay/LOS</i>	<i>AM Delay/LOS PM Delay/LOS</i>	<i>AM Delay PM Delay</i>	<i>AM PM</i>	<i>Area</i>
321. Old Hwy 80 & Kitchen Creek Rd	8.8/A 8.9/A	9.2/A 9.3/A	0.4 0.4	No No	Link 2 Segment 7-12
322. Old Hwy 80 & Cameron Truck Trail	0.0/A 0.0/A	9.7/A 8.7/A	9.7 8.7	No No	Link 2 Segment 7-12
323. Tower Access & La Posta Rd	0.0/A 0.0/A	8.8/A 8.7/A	8.8 8.7	No No	Link 2 Segment 7-12
324. Tower Access & La Posta Rd	0.0/A 0.0/A	0.0/A 8.8/A	0.0 8.8	No No	Link 2 Segment 7-12
325. Old Hwy 80 & La Posta Rd	8.9/A 8.7/A	10.4/B 10.0/A	1.5 1.3	No No	Link 2 Segment 7-12
326. Yard #10 & Thing Valley Rd	0.0/A 0.0/A	9.2/A 9.9/A	9.2 9.9	No No	Link 2 Segment 7-12
327. SR-94 (Campo Rd) Buckman Springs Rd	9.7/A 10.3/B	10.5/B 12.2/B	0.8 1.9	No No	Link 2 Segment 7-12
401. I-8 WB Ramp & SR-94 (Ribbonwood Rd)	9.2/A 9.0/A	10.2/B 11.8/B	1.0 2.8	No No	Rough Acres
402. I-8 EB Ramp & SR-94 (Ribbonwood Rd)	8.5/A 8.6/A	9.1/A 9.0/A	0.6 0.4	No No	Rough Acres
403. Old Hwy 80 & SR-94 (Ribbonwood Rd)	9.4/A 9.8/A	10.5/B 11.4/B	1.1 1.6	No No	Rough Acres
404. McCain Valley Rd & Yard #9	0.0/A 0.0/A	9.0/A 8.9/A	9.0 8.9	No No	Rough Acres
405. Yard #8 & McCain Valley Rd	0.0/A 0.0/A	9.3/A 9.4/A	9.3 9.4	No No	Rough Acres
406. Tower Access & McCain Valley Rd	0.0/A 0.0/A	10.0/B 8.8/A	10.0 8.8	No No	Rough Acres
407. Old Hwy 80 & McCain Valley Rd	8.6/A 8.5/A	9.7/A 9.6/A	1.1 1.1	No No	Rough Acres
408. Old Hwy 80 & Tower Access	0.0/A 0.0/A	1.3/A 8.7/A	1.3 8.7	No No	Link 1 Segment 1-5
409. Old Hwy 80 & Tower Access	0.0/A 0.0/A	1.2/A 8.7/A	1.2 8.7	No No	Link 1 Segment 1-6
410. Old Hwy 80 & Tower Access	0.0/A 0.0/A	1.9/A 8.7/A	1.9 8.7	No No	Link 1 Segment 1-7
411. Old Hwy 80 & Tower Access	0.0/A 0.0/A	0.0/A 9.2/A	0.0 9.2	No No	Link 1 Segment 1-8
412. Old Hwy 80 & Yard #6	0.0/A 0.0/A	9.0/A 9.1/A	9.0 9.1	No No	Link 1 Segment 1-9
413. I-8 WB Ramp & Jacumba	8.9/A 9.1/A	9.1/A 11.3/B	0.2 2.2	No No	Link 1 Segment 1-10

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<i>Peak Hour</i>	<i>AM Delay/LOS PM Delay/LOS</i>	<i>AM Delay/LOS PM Delay/LOS</i>	<i>AM Delay PM Delay</i>	<i>AM PM</i>	<i>Area</i>
414. I-8 EB Ramp & Jacumba	8.5/A 8.6/A	8.7/A 8.7/A	0.2 0.1	No No	Link 1 Segment 1-11
415. Carrizo Gorge Rd & Jacumba	9.2/A 9.3/A	10.4/B 11.1/B	1.2 1.8	No No	Link 1 Segment 1-12
416. Yard #7 & Carrizo Gorge Rd	0.0/A 0.0/A	8.8/A 9.6/A	8.8 9.6	No No	Link 1 Segment 1-13
417. Tower Access & Carrizo Gorge Rd	0.0/A 0.0/A	8.6/A 8.6/A	8.6 8.6	No No	Link 1 Segment 1-14
418. Tower Access & Carrizo Gorge Rd	0.0/A 0.0/A	8.9/A 8.9/A	8.9 8.9	No No	Link 1 Segment 1-15
419. Carrizo Creek Rd & Carrizo Gorge Rd	0.0/A 0.0/A	8.5/A 8.6/A	8.5 8.6	No No	Link 1 Segment 1-16
420. Old Hwy 80 & Carrizo Gorge Rd	8.5/A 8.5/A	8.8/A 9.1/A	0.3 0.6	No No	Link 1 Segment 1-17
501. Old Hwy 80 & Tower Access	0.0/A 0.0/A	8.8/A 9.0/A	8.8 9.0	No No	Link 1 Segment 1-18
502. Old Hwy 80 & Tower Access	0.0/A 0.0/A	8.9/A 9.0/A	8.9 9.0	No No	Link 1 Segment 1-19
503. Old Hwy 80 & Tower Access	0.0/A 0.0/A	8.7/A 8.8/A	8.7 8.8	No No	Link 1 Segment 1-20
504. Old Hwy 80 & Tower Access	0.0/A 0.0/A	0.8/A 8.6/A	0.8 8.6	No No	Link 1 Segment 1-21
505. Yard #5 & Old Hwy 80	0.0/A 0.0/A	8.8/A 9.0/A	8.8 9.0	No No	Link 1 Segment 1-22
506. In-Ko-Pah Park Rd & I-8 EB On Ramp	8.4/A 8.4/A	8.5/A 8.5/A	0.1 0.1	No No	Link 1 Segment 1-23
507. In-Ko-Pah Park Rd & I-8 EB Off Ramp	8.5/A 0.0/A	8.7/A 8.6/A	0.2 8.6	No No	Link 1 Segment 1-24
508. I-8 WB Ramp & In-Ko-Pah Park Rd	8.5/A 8.5/A	8.7/A 8.7/A	0.2 0.2	No No	Link 1 Segment 1-25
509. I-8 EB Ramp & Mountain Springs Rd	8.4/A 8.4/A	8.5/A 8.5/A	0.1 0.1	No No	Link 1 Segment 1-26
510. Tower Access & Mountain Springs Rd	0.0/A 0.0/A	0.0/A 8.3/A	0.0 8.3	No No	Link 1 Segment 1-27
511. I-8 WB Ramp & Mountain Springs Rd	8.6/A 8.7/A	8.6/A 8.8/A	0.0 0.1	No No	Link 1 Segment 1-28
512. Hwy S2 & Tower Access	0.0/A 0.0/A	8.4/A 8.4/A	8.4 8.4	No No	Link 1 Segment 1-29
513. Hwy S2 & Yard #4	0.0/A 0.0/A	8.7/A 9.3/A	8.7 9.3	No No	Link 1 Segment 1-30

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514. Quarry Rd & Tower Access	0.0/A 0.0/A	8.8/A 8.5/A	8.8 8.5	No No	Link 1 Segment 1-31
515. Quarry Rd & Tower Access	0.0/A 0.0/A	8.5/A 8.6/A	8.5 8.6	No No	Link 1 Segment 1-32
516. Quarry Rd & Tower Access	0.0/A 0.0/A	9.0/A 8.5/A	9.0 8.5	No No	Link 1 Segment 1-33
517. Quarry Rd & Shell Canyon Rd	8.8/A 9.0/A	9.5/A 8.9/A	0.7 -0.1	No No	Link 1 Segment 1-34
518. Hwy S2 & Shell Canyon Rd	7.0/A 6.9/A	7.2/A 7.5/A	0.2 0.6	No No	Link 1 Segment 1-35
519. I-8 WB Ramp & Imperial Hwy S2	8.6/A 8.7/A	8.7/A 8.9/A	0.1 0.2	No No	Link 1 Segment 1-36
520. I-8 EB Ramp & Imperial Hwy S2	8.6/A 8.8/A	9.3/A 9.5/A	0.7 0.7	No No	Link 1 Segment 1-37
521. Co HWY S80 & Co Hwy S2*	8.8/A 8.9/A	9.2/A 9.7/A	0.4 0.8	No No	Link 1 Segment 1-38
601. Co HWY S80 & Yard #3	0.0/A 0.0/A	9.1/A 8.9/A	9.1 8.9	No No	Link 1 Segment 1-39
602. Co HWY S80 & Tower Access	0.0/A 0.0/A	8.9/A 9.2/A	8.9 9.2	No No	Link 1 Segment 1-40
603. I-8 WB Ramp & Dunaway Rd	8.5/A 8.5/A	8.8/A 8.9/A	0.3 0.4	No No	Link 1 Segment 1-41
604. I-8 EB Ramp & Dunaway Rd	8.7/A 8.8/A	9.3/A 9.6/A	0.6 0.8	No No	Link 1 Segment 1-42
605. Unnamed Rd & Dunaway Rd	0.0/A 0.0/A	0.0/A 0.0/A	0.0 0.0	No No	Link 1 Segment 1-43
606. Yuha Cutoff & Yard #1	0.0/A 0.0/A	9.3/A 9.1/A	9.3 9.1	No No	Sx Sub Upgrade
607. Co Hwy S80 & Dunaway Rd	10.4/B 9.8/A	11.5/B 10.6/B	1.1 0.8	No No	NA ¹
701. Cannon Rd & Avenida Encina*	29.3/C 31.4/C	29.1/C 31.4/C	-0.2 0.0	No No	Encino Sub Upgrade
801. Dairy Mart Rd & Monument Rd	8.6/A 8.8/A	8.6/A 8.6/A	0.0 -0.2	No No	NA ¹
802. Water Access & Monument Rd	0.0/A 0.0/A	8.4/A 8.4/A	8.4 8.4	No No	NA ¹
803. Meanley Dr & Scripps Ranch Blvd*	16.0/B 8.3/A	16.3/B 8.7/A	0.3 0.4	No No	NA ¹
804. Scripps Poway Pkwy & Village Ridge Rd*	28.6/C 27.5/C	27.6/C 25.6/C	-1.0 -1.9	No No	NA ¹

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<i>Peak Hour</i>	<i>AM Delay/LOS PM Delay/LOS</i>	<i>AM Delay/LOS PM Delay/LOS</i>	<i>AM Delay PM Delay</i>	<i>AM PM</i>	<i>Area</i>
805. Scripps Poway Pkwy & Water Access	0.0/A 0.0/A	10.2/B 10.7/B	10.2 10.7	No No	NA ¹
806. Mission Gorge Rd & Big Rock Rd*	7.9/A 8.6/A	8.3/A 8.8/A	0.4 0.2	No No	NA ¹
807. Paseo Bello & Big Rock Rd	8.9/A 9.6/A	9.3/A 10.0/A	0.4 0.4	No No	NA ¹
808. Prospect Ave & Water Access	0.0/A 0.0/A	0.0/A 0.0/A	0.0 0.0	No No	NA ¹
809. Water Access & Cuyamaca St	0.0/A 0.0/A	11.3/B 14.1/B	11.3 14.1	No No	NA ¹
810. Prospect Ave & Cuyamaca St*	22.5/C 26.8/C	22.6/C 26.8/C	0.1 0.0	No No	NA ¹
811. Water Access & Magnolia Ave	0.0/A 0.0/A	15.7/C 31.9/D	15.7 31.9	No No	NA ¹
812. Prospect Ave & Magnolia Ave*	22.9/C 34.2/C	23.0/C 34.4/C	0.1 0.2	No No	NA ¹
813. Water Access & Vigilante Rd	0.0/A 0.0/A	8.8/A 8.8/A	8.8 8.8	No No	NA ¹
814. Oak Dr & Lake Morena Dr	6.9/A 7.0/A	7.2/A 7.4/A	0.3 0.4	No No	NA ¹
805. Scripps Poway Pkwy & Water Access	0.0/A 0.0/A	10.2/B 10.7/B	10.2 10.7	No No	NA ¹
806. Mission Gorge Rd & Big Rock Rd*	7.9/A 8.6/A	8.3/A 8.8/A	0.4 0.2	No No	NA ¹
807. Paseo Bello & Big Rock Rd	8.9/A 9.6/A	9.3/A 10.0/A	0.4 0.4	No No	NA ¹
808. Prospect Ave & Water Access	0.0/A 0.0/A	0.0/A 0.0/A	0.0 0.0	No No	NA ¹
809. Water Access & Cuyamaca St	0.0/A 0.0/A	11.3/B 14.1/B	11.3 14.1	No No	NA ¹
810. Prospect Ave & Cuyamaca St*	22.5/C 26.8/C	22.6/C 26.8/C	0.1 0.0	No No	NA ¹
811. Water Access & Magnolia Ave	0.0/A 0.0/A	15.7/C 31.9/D	15.7 31.9	No No	NA ¹
812. Prospect Ave & Magnolia Ave*	22.9/C 34.2/C	23.0/C 34.4/C	0.1 0.2	No No	NA ¹
813. Water Access & Vigilante Rd	0.0/A 0.0/A	8.8/A 8.8/A	8.8 8.8	No No	NA ¹
814. Oak Dr & Lake Morena Dr	6.9/A 7.0/A	7.2/A 7.4/A	0.3 0.4	No No	NA ¹

Intersection	Existing Conditions	Construction Conditions	Δ Delay	Significant?	NTP
<i>Peak Hour</i>	<i>AM Delay/LOS PM Delay/LOS</i>	<i>AM Delay/LOS PM Delay/LOS</i>	<i>AM Delay PM Delay</i>	<i>AM PM</i>	<i>Area</i>
815. Co HWY S80 & Water Access	0.0/A 0.0/A	10.4/B 10.0/A	10.4 10.0	No No	NA ¹
816. Water Access & New River Boulevard	0.0/A 0.0/A	8.4/A 8.4/A	8.4 8.4	No No	NA ¹
817. Co HWY S80 & New River Boulevard	9.8/A 9.3/A	9.8/A 9.0/A	0.0 -0.3	No No	NA ¹
818. Yard #18B E Drwy & Victoria Park Terrace	0.0/A 0.0/A	10.3/B 9.4/A	10.3 9.4	No No	Link 5 Segment 14-18 Alpine Regional Field Offices/Laydown
819. SR-86 (Heber Rd) & Dogwood Rd	8.7/A 10.7/B	10.6/B 19.1/C	1.9 8.4	No No	NA ¹
820. Buena Vista Ave & Cuyamaca St*	8.6/A 10.0/A	8.5/A 10.0/A	-0.1 0.0	No No	NA ¹
821. Water Access & Cuyamaca St	0.0/A 0.0/A	11.8/B 21.2/C	11.8 21.2	No No	NA ¹
822. Prospect Ave & Cottonwood Ave*	7.8/A 11.0/B	8.1/A 11.0/B	0.3 0.0	No No	NA ¹
823. Prospect Ave & Water Access	15.9/C 0.0/A	14.6/B 18.1/C	-1.3 18.1	No No	NA ¹
824. SR-67 SB Ramp & Magnolia Ave*	12.9/B 12.6/B	12.8/B 12.6/B	-0.1 0.0	No No	NA ¹
825. Prospect Ave & Graves Ave*	26.4/C 71.4/E	26.0/C 70.4/E	-0.4 -1.0	No No	NA ¹
826. SR-67 NB Ramp & Graves Ave*	41.2/D 38.5/D	40.7/D 38.4/D	-0.5 -0.1	No No	NA ¹
829. San Felipe Rd & SR-79	8.6/A 0.0/A	9.3/A 9.5/A	0.7 9.5	No No	NA ¹
830. Co Hwy S2 & SR-79	9.4/A 9.4/A	9.5/A 9.5/A	0.1 0.1	No No	NA ¹
831. SR-76 & SR-79	9.4/A 9.8/A	9.5/A 10.0/A	0.1 0.2	No No	NA ¹
832. SR-76 & Lake Henshaw	9.7/A 9.4/A	9.6/A 9.6/A	-0.1 0.2	No No	NA ¹
833. Camino De La Plaza & Dairy Mart Rd	9.7/A 11.1/B	9.8/A 11.3/B	0.1 0.2	No No	NA ¹
834. I-5 SB Ramps & Dairy Mart Rd*	21.1/C 34.0/C	21.2/C 34.2/C	0.1 0.2	No No	NA ¹
835. San Ysidro Blvd & Dairy Mart Rd*	24.8/C 30.5/C	24.6/C 30.4/C	-0.2 -0.1	No No	NA ¹
836. San Ysidro Blvd & I-5 NB Ramps*	34.4/C 26.8/C	33.7/C 26.8/C	-0.7 0.0	No No	NA ¹

Intersection	Existing Conditions	Construction Conditions	Δ Delay	Significant?	NTP
<i>Peak Hour</i>	<i>AM Delay/LOS PM Delay/LOS</i>	<i>AM Delay/LOS PM Delay/LOS</i>	<i>AM Delay PM Delay</i>	<i>AM PM</i>	<i>Area</i>
837. Correll Rd & Dogwood Rd	9.9/A 13.9/B	9.9/A 13.8/B	0.0 -0.1	No No	NA ¹

*Unsignalized intersection

1. Water sources apply to all project NTPs.

**Table 3-2
Segment Conditions**

Roadway Segment	Lanes/ Class	LOS E Capacity	Without Project			Project Traffic	With Project			Comparison	
			ADT	V/C	LOS		ADT	V/C	LOS	Δ V/C	Signi- ficant?
Pomerado Road											
Sycamore Test Rd to Spring Canyon	4C	34,200	15,969	0.467	B	831	16,800	0.491	B	0.024	No
Stonebridge Pkwy to Scripps Poway Pkwy	4MA	37,000	19,552	0.528	B	710	20,262	0.548	B	0.019	No
Stonebridge Parkway											
East of Pomerado Rd	2C	17,100	6,676	0.390	A	618	7,294	0.427	B	0.036	No
Kirkham Way											
Stowe Dr to Yard #21 (105)	2LC	16,200	2,409	0.149	B	0	2,409	0.149	B	0.000	No
Scripps Poway Parkway											
Scripps Creek Dr to Cypress Canyon Road	4MA	37,000	33,343	0.901	D	151	33,494	0.905	E	0.004	No
Stowe Dr to Danielson St	6PA	57,000	16,304	0.286	A	662	16,966	0.298	A	0.012	No
Sycamore Canyon Road											
West of Calle De Rob	2LC	16,200	108	0.007	A	98	206	0.013	A	0.006	No
SR-67											
Scripps Poway Pkwy to Sycamore Park Dr	3MA	25,000	21,355	0.854	D	1,084	22,439	0.898	D	0.043	No
Sycamore Park Dr to Tower Access (111)	3MA	25,000	21,355	0.854	D	1,088	22,443	0.898	D	0.044	No
Tower Access (111) to Tower Access (112)	3MA	25,000	21,355	0.854	D	1,092	22,447	0.898	D	0.044	No
Tower Access (111) to Tower Access (112)	4MA	37,000	21,355	0.577	B	1,096	22,451	0.607	B	0.030	No
Vigilante Road											
SR-67 to Moreno Avenue	2LC	16,200	2,190	0.135	B	100	2,290	0.141	B	0.006	No
South of Moreno Avenue	2LC	16,200	1,814	0.112	A	290	2,104	0.130	B	0.018	No
Moreno Avenue											
East of Vigilante Road	2LC	16,200	700	0.043	A	118	818	0.050	A	0.007	No
Willow Road											
SR-67 to Wildcat Canyon Road/Ashwood Street	2LC	16,200	7,091	0.438	C	290	7,381	0.456	D	0.018	No
Wildcat Canyon Rd to Tower Access (121)	2LC	16,200	429	0.026	A	4	433	0.027	A	0.000	No

Roadway Segment	Lanes/ Class	LOS E Capacity	Without Project			Project Traffic	With Project			Comparison	
			ADT	V/C	LOS		ADT	V/C	LOS	Δ V/C	Signi- ficant?
Mapleview Street											
Maine Avenue to Ashwood Street	4MA	37,000	21,260	0.575	B	650	21,910	0.592	B	0.018	No
Ashwood Street to El Monte Road	4MA	37,000	12,916	0.349	A	890	13,806	0.373	A	0.024	No
Wildcat Canyon Road											
Tower Access (118) to Willow Rd	2RC	16,200	15,874	0.980	E	12	15,886	0.981	E	0.001	No
El Monte Road											
Lake Jennings Park Rd to Yard #20 (123)	2LC	16,200	1,671	0.103	A	890	2,561	0.158	B	0.055	No
East of Yard #20 (122)	2LC	16,200	1,671	0.103	A	550	2,221	0.137	B	0.034	No
West of Tower Access (124)	2LC	16,200	1,399	0.086	A	550	1,949	0.120	B	0.034	No
Tower Access (124) to Tower Access (125)	2LC	16,200	1,399	0.086	A	538	1,937	0.120	B	0.033	No
Tower Access (125) to Yard #19 (126)	2LC	16,200	336	0.021	A	538	874	0.054	A	0.033	No
Yard #19 (126) to Tower Access (127)	2LC	16,200	336	0.021	A	156	492	0.030	A	0.010	No
Alpine Boulevard											
Viewside Ln to I-8 EB Ramps	3TC	19,000	855	0.045	A	98	953	0.050	A	0.005	No
I-8 EB Ramps to Arnold Wy	2C	17,100	855	0.050	A	308	1,163	0.068	A	0.018	No
Arnold Wy to Peutz Valley Rd	2C	17,100	855	0.050	A	298	1,153	0.067	A	0.017	No
Peutz Valley Rd to Tavern Rd	2C	17,100	2,535	0.148	A	58	2,593	0.152	A	0.003	No
Tavern Rd to Arnold Wy	2C	17,100	4,270	0.250	A	308	4,578	0.268	A	0.018	No
Arnold Wy to Bay Meadows Dr	2C	17,100	11,846	0.693	C	308	12,154	0.711	C	0.018	No
Bay Meadows Dr to E. Victoria Dr	2C	17,100	9,189	0.537	B	308	9,497	0.555	B	0.018	No
E. Victoria Dr to Honey Hill Ranch Rd	3TC	19,000	9,189	0.484	C	298	9,487	0.499	C	0.016	No
Honey Hill Ranch Rd to Willows Rd	2C	17,100	5,156	0.302	A	298	5,454	0.319	A	0.017	No
Willows Rd to Viejas Creek Trail	2C	17,100	1,302	0.076	A	390	1,692	0.099	A	0.023	No
Viejas Creek Trail to Star Valley Rd	2C	17,100	885	0.052	A	390	1,275	0.075	A	0.023	No

Roadway Segment	Lanes/ Class	LOS E Capacity	Without Project			Project Traffic	With Project			Comparison	
			ADT	V/C	LOS		ADT	V/C	LOS	Δ V/C	Signi- ficant?
Peutz Valley Road											
North of Alpine Blvd	2UR	1,500	595	0.397	Better than C	156	751	0.501	Better than C	0.104	No
Tavern Road											
West of Victoria Park Terrace	2LC	16,200	624	0.039	A	1,065	1,689	0.104	A	0.066	No
Victoria Park Terrace to I-8 Westbound Ramps	2C	17,100	7,067	0.413	B	1,275	8,342	0.488	B	0.075	No
I-8 Eastbound Ramps to Alpine Blvd	4C	34,200	19,093	0.558	B	524	19,617	0.574	B	0.015	No
Victoria Park Terrace											
North of Tavern Rd	2LC	16,200	4,588	0.283	C	251	4,839	0.299	C	0.015	No
Japatul Valley Road											
North of Bell Bluff Truck Trail	2RM	16,200	1,111	0.069	A	1,110	2,221	0.137	B	0.069	No
South of Bell Bluff Truck Trail	2RM	16,200	1,111	0.069	A	898	2,009	0.124	B	0.055	No
Bell Bluff Truck Trail											
West of Japatul Valley Rd	2UR	1,500	32	0.021	Better than C	1,010	1,042	0.695	Better than C	0.673	No
Japatul Road											
West of Hidden Glen Rd	2RM	16,200	915	0.056	A	0	915	0.056	A	0.000	No
East of High Glen Rd	2RM	16,200	915	0.056	A	240	1,155	0.071	A	0.015	No
Lyons Valley Road											
Japatul Rd to Tower Access (226)	2LC	16,200	430	0.027	A	854	1,284	0.079	A	0.053	No
Tower Access (226) to Yard #16 (227)	2LC	16,200	430	0.027	A	906	1,336	0.082	A	0.056	No
Yard #15 (228) to Tower Access (229)	2LC	16,200	423	0.026	A	836	1,259	0.078	A	0.052	No
Tower Access (229) to Honey Springs Rd	2LC	16,200	423	0.026	A	514	937	0.058	A	0.032	No
Honey Springs Road											
Lyons Valley Rd to Deerhorn Valley Rd	2LC	16,200	958	0.059	A	514	1,472	0.091	A	0.032	No
Deerhorn Valley Road											
East of Honey Springs Rd	2LC	16,200	950	0.059	A	514	1,464	0.090	A	0.032	No
West of Cinnamon Dr	2LC	16,200	259	0.016	A	514	773	0.048	A	0.032	No
East of Cinnamon Dr	2UR	1,500	259	0.173	Better than C	452	711	0.474	Better than C	0.301	No

Roadway Segment	Lanes/ Class	LOS E Capacity	Without Project			Project Traffic	With Project			Comparison	
			ADT	V/C	LOS		ADT	V/C	LOS	Δ V/C	Signi- ficant?
Manzanita Way											
Deerhorn Valley Rd to Yard #14 (234)	2UR	1,500	62	0.041	Better than C	452	514	0.343	Better than C	0.301	No
SR-94 (Campo Road)											
SR-188 (Tecate Rd) to Potrero Valley Rd	2C	17,100	1,775	0.104	A	32	1,807	0.106	A	0.002	No
East of Potrero Valley Rd	2C	17,100	1,196	0.070	A	610	1,806	0.106	A	0.036	No
Portrero Valley Road											
Round Portrero Rd to SR-94 (Campo Rd)	2RLC	16,200	1,421	0.088	A	620	2,041	0.126	B	0.038	No
West of Harris Ranch Rd	2RLC	16,200	21	0.001	A	186	207	0.013	A	0.011	No
Lake Morena Drive											
Tower Access (309) to Tower Access (310)	2RLC	16,200	607	0.037	A	654	1,261	0.078	A	0.040	No
Tower Access (310) to Buckman Springs Rd	2RLC	16,200	607	0.037	A	650	1,257	0.078	A	0.040	No
Buckman Springs Road											
South of Old Hwy 80	2C	17,100	3,405	0.199	A	854	4,259	0.249	A	0.050	No
Oak Dr to Tower Access (315)	2C	17,100	2,375	0.139	A	630	3,005	0.176	A	0.037	No
Tower Access (315) to Tower Access (316)	2C	17,100	2,375	0.139	A	696	3,071	0.180	A	0.041	No
Tower Access (316) to Lake Morena Dr	2C	17,100	2,375	0.139	A	704	3,079	0.180	A	0.041	No
Lake Morena Dr to SR-94 (Campo Rd)	2C	17,100	2,465	0.144	A	610	3,075	0.180	A	0.036	No
La Posta Road											
Tower Access (323) to Cameron Truck Trail (324)	2RLC	16,200	346	0.021	A	164	510	0.031	A	0.010	No
Cameron Truck Trail (324) to Old Hwy 80	2RLC	16,200	346	0.021	A	180	526	0.032	A	0.011	No
North of Old Hwy 80	2RLC	16,200	44	0.003	A	658	702	0.043	A	0.041	No
Thing Valley Road											
South of Yard #10 (326)	2UR	1,500	14	0.009	Better than C	658	672	0.448	Better than C	0.439	No
North of Yard #10 (326)	2UR	1,500	14	0.009	Better than C	220	234	0.156	Better than C	0.147	No

Roadway Segment	Lanes/ Class	LOS E Capacity	Without Project			Project Traffic	With Project			Comparison	
			ADT	V/C	LOS		ADT	V/C	LOS	Δ V/C	Signi- ficant?
McCain Valley Road											
West of Yard #9 (404)	2UR	1,500	8	0.005	Better than C	266	274	0.183	Better than C	0.177	No
East of Yard #9 (404)	2UR	1,500	8	0.005	Better than C	642	650	0.433	Better than C	0.428	No
North of Old Hwy 80	2RLC	16,200	119	0.007	A	1,178	1,297	0.080	A	0.073	No
Ribbonwood Road											
I-8 Eastbound Ramps to Old Hwy 80	2LC	16,200	1,229	0.076	A	968	2,197	0.136	B	0.060	No
Old Highway 80											
Kitchen Creek Rd to Cameron Truck Trail	2C	17,100	689	0.040	A	572	1,261	0.074	A	0.033	No
Cameron Truck Trail to La Posta Rd	2C	17,100	689	0.040	A	622	1,311	0.077	A	0.036	No
Ribbonwood Rd to McCain Valley Rd	2C	17,100	1,080	0.063	A	992	2,072	0.121	A	0.058	No
McCain Valley Rd to Tower Access (408)	2C	17,100	814	0.048	A	194	1,008	0.059	A	0.011	No
Tower Access (408) to Tower Access (409)	2C	17,100	814	0.048	A	178	992	0.058	A	0.010	No
Tower Access (409) to Desert Rose Ranch Rd	2C	17,100	814	0.048	A	166	980	0.057	A	0.010	No
Desert Rose Ranch Rd to Tower Access (411)	2C	17,100	907	0.053	A	150	1,057	0.062	A	0.009	No
East of Tower Access (411)	2C	17,100	907	0.053	A	308	1,215	0.071	A	0.018	No
West of Yard #6 (412)	2C	17,100	449	0.026	A	308	757	0.044	A	0.018	No
Yard #6 (412) to Carrizo Gorge Rd	2C	17,100	449	0.026	A	498	947	0.055	A	0.029	No
Carrizo Gorge Rd to Tower Access (501)	2C	17,100	272	0.016	A	398	670	0.039	A	0.023	No
Tower Access (501) to Tower Access (502)	2C	17,100	272	0.016	A	430	702	0.041	A	0.025	No
Tower Access (502) to Carrizo Creek Rd	2C	17,100	272	0.016	A	424	696	0.041	A	0.025	No
Carrizo Creek Rd to Tower Access (504)	2C	17,100	272	0.016	A	418	690	0.040	A	0.024	No
Tower Access (504) to Yard #5 (505)	2C	17,100	199	0.012	A	430	629	0.037	A	0.025	No
Yard #5 (505) to In-Ko-Pah Park Rd	2C	17,100	199	0.012	A	528	727	0.043	A	0.031	No

Roadway Segment	Lanes/ Class	LOS E Capacity	Without Project			Project Traffic	With Project			Comparison	
			ADT	V/C	LOS		ADT	V/C	LOS	Δ V/C	Signi- ficant?
Interstate 8/Carrizo Gorge Road Connector											
North of Carrizo Gorge Rd	2UR	1,500	320	0.213	Better than C	568	888	0.592	Better than C	0.379	No
Carrizo Gorge Road											
Tower Access (415) to Yard #7 (416)	2RLC	16,200	374	0.023	A	568	942	0.058	A	0.035	No
Yard #7 (416) to Tower Access (417)	2RLC	16,200	374	0.023	A	476	850	0.052	A	0.029	No
Tower Access (417) to Tower Access (418)	2RLC	16,200	374	0.023	A	462	836	0.052	A	0.029	No
Tower Access (418) to Carrizo Creek Rd	2RLC	16,200	407	0.025	A	356	763	0.047	A	0.022	No
Carrizo Creek Rd to Old Hwy 80	2RLC	16,200	407	0.025	A	218	625	0.039	A	0.013	No
Mountain Springs Road											
I-8 WB ramps to Tower Access (510)	2UR	1,500	48	0.032	Better than C	4	52	0.035	Better than C	0.003	No
Tower Access (510) to I-8 EB ramps	2UR	1,500	48	0.032	Better than C	4	52	0.035	Better than C	0.003	No
County Highway S2											
Dos Cabeza to Yard #4 (513)	2LC	16,200	271	0.017	A	190	461	0.028	A	0.012	No
Yard #4 (513) to Shell Canyon Rd	2LC	16,200	271	0.017	A	512	783	0.048	A	0.032	No
Shell Canyon Rd to I-8 WB ramps	2LC	16,200	512	0.032	A	582	1,094	0.068	A	0.036	No
Quarry Road											
North of Yard #4 (513)	2UR	1,500	10	0.007	Better than C	408	418	0.279	Better than C	0.272	No
Yard #4 (514) to Tower Access (515)	2LC	16,200	77	0.005	A	120	197	0.012	A	0.007	No
Tower Access (515) to Tower Access (516)	2LC	16,200	77	0.005	A	182	259	0.016	A	0.011	No
Tower Access (516) to Shell Canyon Rd	2LC	16,200	77	0.005	A	310	387	0.024	A	0.019	No
Shell Canyon Road											
North of County Hwy S2	2LC	16,200	72	0.004	A	332	404	0.025	A	0.020	No
County Highway S80											
West of Tower Access (601)	2C	17,100	234	0.014	A	382	616	0.036	A	0.022	No
Tower Access (601) to Yard #3 (602)	2C	17,100	234	0.014	A	612	846	0.049	A	0.036	No

Roadway Segment	Lanes/ Class	LOS E Capacity	Without Project			Project Traffic	With Project			Comparison	
			ADT	V/C	LOS		ADT	V/C	LOS	Δ V/C	Signi- ficant?
County Highway S80											
East of Yard #3 (602)	2C	17,100	234	0.014	A	607	841	0.049	A	0.035	No
East of New River Road	2C	17,100	2,981	0.174	A	32	3,013	0.176	A	0.002	No
East of Brown Road	2C	17,100	2,468	0.144	A	168	2,636	0.154	A	0.010	No
Dunaway Road											
South of I-8 Eastbound Ramps	2UR	1,500	70	0.047	Better than C	506	576	0.384	Better than C	0.337	No
SR-98 (Yuha Cutoff)											
West of Yard #1 (606)	2C	17,100	1,210	0.071	A	216	1,426	0.083	A	0.013	No
East of Yard #1 (606)	2C	17,100	1,210	0.071	A	272	1,482	0.087	A	0.016	No
New River Road											
North of County Hwy S80	2C	17,100	157	0.009	A	136	293	0.017	A	0.008	No
Oak Drive											
East of Lake Morena Drive	2C	17,100	901	0.053	A	272	1,173	0.069	A	0.016	No
Lake Morena Avenue											
North of Oak Drive	2C	17,100	962	0.056	A	314	1,276	0.075	A	0.018	No
Prospect Avenue											
East of Magnolia Avenue	4MA	37,000	21,127	0.571	B	122	21,249	0.574	B	0.003	No
East of Cuyamaca Street	4MA	37,000	12,100	0.327	A	244	12,344	0.334	A	0.007	No
West of Cuyamaca Street	4MA	37,000	11,048	0.299	A	136	11,184	0.302	A	0.004	No
Magnolia Avenue											
North of Prospect Avenue	6PA	57,000	30,428	0.534	B	136	30,564	0.536	B	0.002	No
Cuyamaca Street											
North of Prospect Avenue	6PA	57,000	19,188	0.337	A	136	19,324	0.339	A	0.002	No
Mission Gorge Road											
East of Big Rock Road	4MA	37,000	13,410	0.362	A	272	13,682	0.370	A	0.007	No
Big Rock Road											
South of Mission Gorge Road	2C	17,100	6,324	0.370	A	272	6,596	0.386	A	0.016	No

Roadway Segment	Lanes/ Class	LOS E Capacity	Without Project			Project Traffic	With Project			Comparison	
			ADT	V/C	LOS		ADT	V/C	LOS	Δ V/C	Signi- ficant?
Scripps Ranch Boulevard											
South of Meanley Drive	4MA	37,000	9,522	0.257	A	272	9,794	0.265	A	0.007	No
Meanley Drive											
East of Scripps Ranch Boulevard	2C	17,100	1,582	0.093	A	272	1,854	0.108	A	0.016	No
Old Dairy Mart Road											
East of Dairy Mart Road	2C	17,100	1,317	0.077	A	272	1,589	0.093	A	0.016	No

Abbreviations: 2LC: 2 lane Light Collector. 2RC: 2 lane Rural Collector. 2RLC: 2 lane Rural Light Collector. 2RM: 2 lane Rural Mountain. 3TC: 3 lane Town Collector. 4C: 4 lane Collector. 4MA: 4 lane Major Road. 6PA: 6 lane Prime Arterial. 2UR: 2 lane typically Unpaved Road. 2C: 2 lane Collector. 3MA: 3 lane Major Arterial.

Pedestrian

Pedestrian facilities currently exist intermittently at different locations throughout the proposed Sunrise Powerlink project. The existing pedestrian network does not currently provide a continuous sidewalk connecting adjoining land uses along Alpine Boulevard. These discontinuous pedestrian facilities are not expected to be impacted by the tower and wire-stringing construction phases of the project.

Transit

Transit service is offered by the Metropolitan Transit Service (MTS) throughout the urbanized area and into the more rural areas of east San Diego County through the mountain communities along the corridor. The project does not directly affect the ability of transit to use any of their existing routes or stops. In the event that an existing bus stop is temporarily affected by construction within an existing street right of way that has transit service, the contractor shall coordinate with MTS to temporarily relocate the affected transit stop location. Otherwise, the service would not be affected since road closures and detours are not a feature of any of the studied access points.

Bicycle

Bicycle lanes and routes are classified on the features provided for them within the right of way. Class II bike lanes are striped in the roadway along the outer edge either near the curb or just outside parking areas. The Class II facilities are the ones that could be affected by construction within the right of way, in the limited number of areas where that occurs for this project. To the extent that any construction activity within the right of way would affect an existing Class II bike lane, the Contractor shall make provisions for the safe passage of bicyclists through the construction zone as part of the permit process for right of way encroachment with the responsible agency. While recreational riders may be present on many of the back country roads, there are no dedicated bicycle lanes for them and they would follow standard vehicular rules of the road.

Parking

Construction workers will park personal vehicles at the substation and construction yard sites where adequate parking space will be provided. The anticipated construction activities will not temporarily eliminate any existing parking spaces that would result in parking deficiencies. Heavy equipment will be parked and maintained at construction sites and all utility trucks will park in the construction yards. Therefore, there would be no impact on the public parking inventory associated with the construction of the project since sufficient parking for all employees, visitors, service vehicles, and contractors will be provided and occur on-site during all tower construction phases of the project.

CHAPTER 4

ANALYSIS RESULTS AND RECOMMENDATIONS

This chapter evaluates locations with traffic impacts.

Traffic impacts are identified if the Project will result in a significant change in traffic conditions on a roadway or intersection. A significant impact is normally defined when project related traffic would cause LOS to deteriorate to below the minimum acceptable level by a measurable amount. Impacts may also be significant if the location is already below the minimum acceptable level and project related traffic causes a further decline.

SDG&E is unaware of any conflicting schedule between the construction activities associated with the Project and any planned transportation projects within the study area. Also, contractors will be required to repair construction related deterioration of roadway surfaces in the vicinity of the Project construction zones resulting from heavy truck or construction equipment movements. In addition, contractors will be required not to position a project structure, crane, or wires such that it could adversely affect aviation activities except when agency approval is granted

ANALYSIS RESULTS

The Project FEIR/EIS states no mitigation is required at San Luis Ray substation, South Bay substation, and three (3) 69kv reconductoring locations. Therefore, SDG&E has not conducted a traffic impact report(s) to evaluate these locations. Chapter 3 summarizes the affects on traffic conditions for the increases in traffic due to the tower construction. **Appendix G** summarizes the combined affects on traffic conditions associated with tower construction and a reduction in road capacity due to the undergrounding construction project along Alpine Boulevard. Appendix H summarizes the affects on traffic conditions associated with the pre-construction stages.

Alpine Regional Field Office/Laydown Yard

No significant impacts have been identified.

Rough Acres

No significant impacts have been identified.

Imperial Valley Substation

No significant impacts have been identified.

Encina Substation

No significant impacts have been identified.

Sycamore Canyon Substation

No significant impacts have been identified.

Link 1

No significant impacts have been identified.

Link 2

No significant impacts have been identified.

Link 3 (Suncrest Substation)

No significant impacts have been identified.

Link 4 (Alpine Underground Transmission Line)

The intersection analysis in **Appendix G** for locations along Link 4 indicates that two segments and two intersections locations would operate with poor levels of service and vehicular delay exceeding the significance standards to cause a potential traffic impact. All intersections along Link 4 are currently operating at an acceptable LOS. Traffic increases associated with only the tower construction will cause no significant impacts to the circulation system. However, this analysis conservatively assumes concurrent activities on the tower and underground portions of construction. The combined affect of traffic increases associated with tower construction and a reduction in road capacity due to the undergrounding construction project along Alpine Boulevard will affect the existing transportation network as follows:

- Necessitate temporary vehicular lane closures resulting in a temporary but substantial disruption to traffic flow and/or increased traffic congestion;
- Necessitate temporary bicycle lane/route closures;
- Necessitate temporary sidewalk and crosswalk closures and detours;
- Necessitate temporary closure of on-street parking spaces;
- Necessitate temporary closure or relocation of bus stops.

Link 5

The intersection analysis for locations along Link 5 indicates that four locations would operate with poor levels of service and vehicular delay exceeding the significance standards to cause a potential traffic impact. Four of these locations are located along SR-67.

The second location is the unsignalized intersection of SR-67 and Sycamore Park Drive (**110**). This intersection is located approximately 0.7 miles south of Scripps Poway and is controlled by a side-street stop sign. Virtually no traffic beyond vehicles related to the project would be using this road. A gate is provided along Sycamore Park Drive allowing the roadway either to be closed to the public or open to provide access to the trailheads in the nearby open space lands to the west. In the analysis, all of the traffic along Sycamore Park Drive is expected to be project-related traffic. As this is a side-street stop-controlled intersection, the reported delay (and associated project traffic impact) is based solely on the traffic approaching on the side or minor street. Given that the significant traffic impact at this location is based on traffic on Sycamore Park Drive and all traffic on Sycamore Park Drive would be project-related, there is no impact to the public traffic using SR-67 insofar as delay is concerned.

The third location is the unsignalized intersection of SR-67 just south of Sycamore Park Drive (**111**) which is a proposed graded construction access road that will be created to access two towers. In the analysis, all of the traffic along this newly graded access point is expected to be project-related traffic. As this is considered a side-street stop-controlled intersection, the reported delay (and associated project traffic impact) is based solely on the traffic approaching on the side or minor street. Given that the significant traffic impact at this location is based on project related traffic on the newly graded access point, there is no impact to the public traffic using SR-67 insofar as delay is concerned.

The fourth location is the signalized intersection of SR-67 and Willow Road (**114**) which is an existing T intersection with SR-67 carrying substantial northbound and southbound traffic volumes. Under the existing condition the intersection provides a single northbound and southbound through lane, an exclusive northbound right-turn lane, one southbound left-turn lane and a shared left through right lane on Willow Road. The temporary project related tower construction traffic will be added to the northbound and southbound through movements currently experiencing long delays in the peak hours.

The fifth location is the signalized intersection of Willow Road and Wildcat Canyon (**119**) which is an existing all-way stop controlled intersection. Under the existing condition the intersection provides a single lane on each approach. The temporary project related construction traffic will be added to the northbound, southbound, eastbound and westbound approaches currently experiencing delays in the peak hours.

RECOMMENDATIONS

Construction of the project would result in a temporary increase in traffic volumes on the regional and local roadways. The following are recommendations to enhance transportation operations on the regional and local roadways that provide access to the project construction sites:

Alpine Facility

Since there are no significant impacts at the Alpine Facilities there is no recommended mitigation. The existing circulation system and intersection controls function adequately.

Rough Acres Facility

The construction of the project will not cause significant traffic impact within the study area of the Rough Acres Facility. However, on Old Highway 80 at McCain Valley Road (**407**) the low volume paved McCain Valley Road on the north side will be used for construction access to Yards 8 and 9. Drivers on Old Highway 80 are not familiar with encountering construction traffic entering the roadway at this location. We recommend that during the full-construction phase one advance sign be placed on Old Highway 80 in each direction approximately one quarter mile in advance of McCain Valley Road. That sign would read “Trucks Entering Exiting” as a warning sign in construction orange background with black lettering on a diamond shaped plate per the California MUTCD for C44 (see **APPENDIX I**). This may require a permit and other applicable recommendations to be implemented from the County of San Diego.

Imperial Valley Substation

Since there are no significant impacts at this facility, there is no recommended mitigation. The existing circulation system and intersection controls function adequately.

Sycamore Canyon Substation

Since there are no significant impacts at this facility, there is no recommended mitigation. The existing circulation system and intersection controls function adequately.

Encina Substation

Since there are no significant impacts at this facility, there is no recommended mitigation. The existing circulation system and intersection controls function adequately.

Link 1

The construction of the project will not cause significant traffic impact within the study area of Link 1. However, several locations listed below exist where construction access will take place at several lesser roads. Drivers would not typically be used to encountering construction traffic entering the roadway at these locations. We recommend that during the full-construction phase one advance sign be placed on Old Highway 80 and on other listed roadways in each direction approximately one quarter mile in advance of each of these access road locations. That sign would read “Trucks Entering Exiting” as a warning sign in construction orange background with black lettering on a diamond shaped plate per the California MUTCD for C44 (see **APPENDIX I**). Placement of the temporary sign may require a permit and other applicable recommendations to be implemented from the associated jurisdictional agency.

- Old Hwy 80 & Tower Access **(408)**
- Old Hwy 80 & Tower Access **(410)**
- Old Hwy 80 & Tower Access **(411)**
- Old Hwy 80 & Yard #6 **(412)**
- Yard #7 & Carrizo Gorge Rd **(416)**
- Tower Access & Carrizo Gorge Rd **(417)**
- Tower Access & Carrizo Gorge Rd **(418)**
- Carrizo Creek Rd & Carrizo Gorge Rd **(419)**
- Old Hwy 80 & Tower Access **(501)**
- Old Hwy 80 & Tower Access **(502)**
- Old Hwy 80 & Tower Access **(503)**
- Old Hwy 80 & Tower Access **(504)**
- Yard #5 & Old Hwy 80 **(505)**
- Hwy S2 & Tower Access **(512)**
- Quarry Rd & Tower Access **(514)**
- Quarry Rd & Tower Access **(515)**
- Quarry Rd & Tower Access **(516)**
- Co HWY S80 & Yard #3 **(601)**
- Co HWY S80 & Tower Access **(602)**
- Yuha Cutoff & Yard #1 **(606)**

Note that one sign will be appropriate for a stretch of roadway that includes a number of closely spaced access points.

Link 2

The construction of the project will not cause significant traffic impact within the study area of Link 2. However, several locations listed below exist where construction access will take place at several lesser roads. Drivers would not typically be used to encountering construction traffic entering the roadway at these locations. We recommend that during the full-construction phase one advance sign be placed each direction approximately one quarter mile in advance of each of these access road locations. That sign would read “Trucks Entering Exiting” as a warning sign in construction orange background with black lettering on a diamond shaped plate per the California MUTCD for C44 (see **APPENDIX I**). Placement of the temporary sign may require a permit and other applicable recommendations to be implemented from the associated jurisdictional agency.

- Japatul Valley Road at High Glen and Hidden Glen Roads **(223, 224)**
- Lake Morena Drive at Hauser Creek Road **(309)**
- Buckman Springs Road at several locations (Cameron Truck Trail, a new location on the east side south of that location, and at the existing distribution station further south on the west side) **(315, 316, 317)**
- Old Highway 80 at Cameron Truck Trail **(323)**

- La Posta Road at two locations on the west side of the road in the first mile south of Old Highway 80 (324, 325)

Link 3 (Suncrest Substation)

Since there are no significant impacts at this facility, there is no recommended mitigation. The existing circulation system and intersection controls function adequately.

Link 4 (Alpine Underground Transmission Line)

The proposed transmission undergrounding construction project along Alpine Boulevard is analyzed in **Appendix G**. Traffic control plans have been prepared to alleviate vehicular, pedestrian, bicycle, transit and parking impacts to the extent possible. These plans are in the process of being reviewed and approved by the County of San Diego. Contractors will be required to follow the approved control plans to ensure that safe routes throughout the construction zones are provided for all modes of transportations.

Link 5

Four locations along SR-67 would operate with poor levels of service and vehicular delay exceeding the significance standards to cause a potential traffic impact. The following are recommendations to be implemented at those locations:

SR-67 and Sycamore Park Drive (110) The PM peak hour impact and resulting poor operating conditions at this location do not reflect through movement delay on SR-67; it only characterized the side street delay, which is project-related. To the degree that project traffic would be unwilling to tolerate the delays that the analysis estimates would occur during the peak periods, drivers could instead turn right from Sycamore Park Drive to head southbound along SR-67 and make a more circuitous trip downhill instead of uphill and lessen delay as a result. Given the speed of traffic on SR-67, traffic control should be implemented to provide ingress and egress at these locations in addition to the implementation of one of the following options. The PM peak hour impact would be avoided/mitigated by reducing the eastbound left-turn volumes by eight vehicles, the eastbound right-turn volumes by two vehicles and the northbound left-turn vehicles by two vehicles.

- Turn restrictions
- Employee shuttle to consolidate trips during the peak hour
- Limit employee trips during peak hours to lessen delay
- Transport all materials/employees via helicopter to avoid dependency on ground access

This may require a permit and other applicable recommendations to be implemented as directed by the relevant jurisdictional agency.

SR-67 just south of Sycamore Park Drive (111) The PM peak hour impact and resulting poor operating conditions at this location do not reflect through movement delay on SR-67; it only characterized the side street delay, which is project-related. Given the speed of traffic on SR-67, traffic control should be implemented to provide ingress and egress at these locations in addition to:

- Transporting all materials/employees via helicopter to avoid dependency on ground access

This may require a permit and other applicable recommendations to be implemented as directed by the relevant jurisdictional agency.

SR-67/Willow Road (114) The AM peak hour impact would be avoided/mitigated by reducing the northbound through movement volumes by five vehicles and the southbound through movement vehicles by nine vehicles. The AM peak hour volumes could be reduced by one of the following measures:

- Shifting some of the traffic demand associated with the project from peak to non-peak hours including delivery time restriction
- Alternative routes so that peak-hour trips can avoid this intersection including rerouting project delivery traffic
- Other project traffic reduction measures

Willow Road/Wildcat Canyon (119) The PM peak hour impact would be avoided/mitigated by reducing the northbound through movement volumes by six vehicles and the southbound through movement vehicles by four vehicles. The PM peak hour volumes could be reduced by one of the following measures:

- Shifting some of the traffic demand associated with the project from peak to non-peak hours including delivery time restriction
- Alternative routes so that peak-hour trips can avoid this intersection including rerouting project delivery traffic
- Other project traffic reduction measures

By limiting the amount of delivery trips during peak hours or by rerouting project trips that would use this intersection project impacts would be avoided. This may require a permit and other applicable recommendations to be implemented as directed by the relevant jurisdictional agency.

Two additional access points within Link 5 are not significantly impacted by the project but could be considered for traffic operation improvements. The first location, SR-67/Tower Access (112) is located approximately 1.5 miles north of Vigilante Road. This intersection will be created to access a couple of towers off SR-67 which consists of two lanes in each direction separated by a median barrier and a new, graded construction access road. Drivers on SR-67 would not be expecting any traffic at this location nor do the existing roadway alignment and curves permit adequate sight-distance to see ahead. This condition could completely avoid dependency on ground access and use helicopters instead; the issues about having to interact with traffic on SR-67 can be avoided entirely.

The second location, Wildcat Canyon Road /Tower Access (118) is located north of Willow Road. This is a narrower, two-lane paved rural highway climbing uphill and serving casino traffic among other users. Given the speed of traffic on Wildcat Canyon Road and the available sight distance, traffic control would be needed to provide ingress and egress. This may require a permit and other applicable recommendations to be implemented as directed by the relevant jurisdictional agency. Alternatively, this site could completely avoid dependency on ground access and use helicopters instead; the issues about having to interact with traffic on Wildcat Canyon Road can be avoided entirely.

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