

4.7 TRANSPORTATION AND TRAFFIC

4.7 TRANSPORTATION AND TRAFFIC

This section presents the environmental setting and impact analysis for transportation and traffic resulting from the Proposed Project and its alternatives. This section addresses the existing transportation and traffic system in the Proposed Project area, applicable regulations, environmental impacts, and mitigation measures to reduce and avoid significant effects. Appendix M provides existing traffic count data for area roads and estimated traffic volumes with the Proposed Project.

4.7.1 Definitions

4.7.1.1 Roadway Classifications

Roadways were classified into the following functional classifications:

- **~~Principal~~ Primary Arterial.** Roadway with separated directional travel lanes with limited access points and few or no at-grade intersections; designed to carry through traffic at high volume.
- **~~Minor~~ Major Arterial.** A relatively high speed road, other than a principal arterial, that is usually used for through traffic on longer trips and can carry larger traffic volumes.
- **Collector.** Roadway that conveys traffic from local roads to arterials. Usually shorter than arterials but longer than local roads. Frequently allows traffic to circulate in residential, commercial, industrial, and civic areas.
- **Local.** Roadway that serves as direct access to homes, businesses, and other such destinations and that are not classified as another type of roadway.

Cities and counties will often have data on larger roadways (~~principal~~ primary arterial, ~~minor~~ major arterial, and collector), whereas the availability of data for local roadways varies based on the level of traffic. Most local roads do not experience enough traffic to warrant data collection.

4.7.1.2 Level of Service

Level of service (LOS) is a scale that measures the operational effectiveness of a roadway or intersection. The LOS analysis methodology and acceptable LOS is determined by each jurisdiction in their General Plan (refer to Section 4.7.4 for a description of the LOS standards within each jurisdiction).

Caltrans LOS

The Caltrans Traffic Guidelines recommend that the LOS calculations for freeway segments use the latest Highway Capacity Manual operation analysis methodology based on densities (passenger cars per mile per lane). Table 4.7-1 shows the densities for each LOS.

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Table 4.7-1 Level of Service for Freeway Segments

Level of Service	Density (passenger cars per mile per lane)
A	Less than or equal to 11
B	Greater than 11 thru 18
C	Greater than 18 thru 26
D	Greater than 26 thru 35
E	Greater than 35 thru 45
F	Greater than 45; or volume to capacity ratio greater than 1

Source: Transportation Research Board 2010

Local Roads LOS

Roadways and intersections are rated at various LOS to describe the roadway operating condition. LOS ratings range from LOS A, which represents the best range of operating conditions, to LOS F, which represents the worst. Table 4.7-2 lists the definitions of LOS for local roads.

Table 4.7-2 Definitions of Level of Service for Local Roads

Level of Service	Description of Traffic Flow
A	Indicates a relatively free flow of traffic with little or no limitation on vehicle movement or speed.
B	Describes a steady flow of traffic with only slight delays in vehicle movement and speed. All queues clear in a single signal cycle.
C	Denotes a reasonably steady high volume flow of traffic with some limitations on movement and speed and occasional backups on critical approaches.
D	Denotes the level where traffic nears an unstable flow. Intersections still function but short queues develop and cars may have to wait through one cycle during short peaks.
E	Describes traffic characterized by slow movement and frequent although momentary stoppages. This type of congestion is considered severe but is not uncommon at peak traffic hours with frequent stopping long standing queues and blocked intersections.
F	Describes unsatisfactory stop and go traffic characterized by traffic jams and stoppages of long duration. Vehicles at signalized intersections usually have to wait through one or more signal changes and upstream intersections may be blocked by the long queues.

Source: City of Poway 1991

4.7.1.3 Volume to Capacity Ratio

The capacity of a roadway is defined as the maximum rate at which vehicles can pass through a given point during a particular period of time. The volume of a roadway is defined as how many vehicles pass through a given point during a particular period of time.

LOS can be estimated based on a road's traffic volume to capacity (v/c) ratio and the average delay experienced by vehicles at an intersection. The v/c ratio represents the ability of an

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intersection to accommodate vehicle demand. Adequate roadway capacity is likely available under conditions where the v/c ratio is less than 0.85. However, as the v/c ratio approaches 1.0, traffic flow may become unstable with delays (U.S. DOT 2004).

4.7.1.4 Bicycle Route Classes

The City of San Diego's Bicycle Master Plan, defines bicycle routes in the following classes (City of San Diego 2013).

- **Class I Bikeway (Bike Path).** Bike paths, also termed shared-use or multi-use paths, are paved right-of-way for exclusive use by bicyclists, pedestrians, and those using non-motorized modes of travel. They are physically separated from vehicular traffic and can be constructed in roadway right-of-way or exclusive right-of-way. Bike paths provide critical connections in the city where roadways are absent or are not conducive to bicycle travel.
- **Class II Bikeway (Bike Lane).** Bike lanes are defined by pavement striping and signage used to allocate a portion of a roadway for exclusive or preferential bicycle travel. Bike lanes are one-way facilities on either side of a roadway. Whenever possible, bike lanes should be enhanced with treatments that improve safety and connectivity by addressing site-specific issues, such as additional warning or way finding signage.
- **Class III Bikeway (Bike Route).** Bike routes provide shared use with motor vehicle traffic within the same travel lane. Designated by signs, bike routes provide continuity to other bike facilities or designate preferred routes through corridors with high demand. Whenever possible, bike routes should be enhanced with treatments that improve safety and connectivity, such as the use of "sharrows," or shared lane markings to delineate that the road is a shared-use facility.

4.7.1.5 Peak-Hour Traffic

In an urban setting, traffic volumes typically peak twice a day during the morning and evening commute. The peak traffic periods are referred to as the AM Peak Period and the PM Peak Period. These peak traffic periods are usually between the hours of 7 AM to 9 AM and 4 PM to 7 PM, respectively. The peak-hour traffic is the sum of the traffic counts during four consecutive 15-minute periods that result in the highest volume for a one-hour period during either the AM Peak Period or the PM Peak Period.

4.7.1.6 Congestion Management Program Roadways

Congestion Management Program (CMP) roads are routes included in the SANDAG CMP of special interest or concern. All state highways and principal arterials are CMP roads. SANDAG established LOS standards and monitors CMP road performance relative to the LOS standards.

4.7.2 Approach to Data Collection

4.7.2.1 Literature Review

Data for the transportation network were collected and analyzed from a variety of sources, including highway maps, route alignment maps, and maps from various reports. Traffic

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volume data was obtained from agencies, both state and local, with jurisdiction over the roadways or was counted in the field. Lane information was obtained from aerial photographs, local government agencies, and street view photography, including Google Earth.

Specific sources for transportation and traffic information include:

- Guide for the Preparation of Traffic Impact Studies (Caltrans 2002)
- Highway Capacity Manual 2010 (Transportation Research Board 2010)
- 2013 Traffic Volumes on the California State Highway System (Caltrans 2013a)
- San Diego Associated Governments (SANDAG 2010)
- Letter to Dan Klausenstok, from KOA Corporation dated January 14, 2014
- Poway Comprehensive Plan, Volume One – The General Plan (City of Poway 1991)
- City of San Diego Bicycle Master Plan (Alta Planning + Design 2013)
- City of San Diego Traffic Impact Study Manual (City of San Diego 1998)
- State of California 2015 Vehicle Code
- Final 2008 Congestion Management Program Update (SANDAG 2008)

4.7.2.2 Traffic Counts

Traffic volumes for roads and highways within the Proposed Project area were obtained from SANDAG (2010), Caltrans (2013), and KOA (2014). Figures 4.7-1 through 4.7-3 show traffic count locations. Traffic volumes obtained from previous data (i.e., prior to the EIR baseline year) is generally representative of the traffic conditions in the Proposed Project area because the traffic in the area is primarily from suburban development, with the exception of I-15 and SR-56, which include commuter traffic from other areas. Much of the residential development surrounding the Proposed Project dates back to the 1970s. Increases in traffic since the date of collected traffic data would not change the baseline LOS on area roads because the annual growth rate for the past two years has been less than two percent (Caltrans 2013a). Traffic volumes present a snapshot of the traffic situation and the standard deviation of the average daily traffic would exceed the growth in traffic volume since the time of data collection (i.e., 2010, 2013, or 2014).

4.7.3 Environmental Setting

4.7.3.1 Regional Setting

Figures 2.2-1 through 2.2-7 show the regional roadway network in the Proposed Project area. The Proposed Project would be located in the Cities of San Diego and Poway. The Encina Hub work area is located in the City of Carlsbad; however, due to the limited amount of work in the area (i.e., relocation of existing wires and potential replacement of one pole) off of area roads, the traffic setting and policies in the City of Carlsbad are not discussed in detail. The Proposed Project area includes I-15 and SR-56, which are both regional principal arterials. Table ~~4.7-3~~ 4.7-4 contains annual average daily traffic (AADT) volumes for I-15 and SR-56. The “Ahead AADT” column represents traffic volumes north of the count location and “Back AADT” represents traffic volumes south of the count location. The LOS for I-15 and SR-56 in the Proposed Project areas are provided in Appendix M, Table M-5. The highway LOS was calculated based on the

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latest Caltrans Highway Capacity Manual operational analysis methodology (Caltrans 2013^a). The LOS calculation for peak-hour traffic volumes on highways includes a number of inputs including: terrain, number of lanes, and percent of heavy vehicles in the traffic flow.

Air Traffic

Public airports and public and private heliports located within 10 miles of the Proposed Project area are provided in Table 4.7-4 4.7-3. Regional airport locations are shown on Figure 4.7-4. There are no private airstrips within 10 miles of the Proposed Project.

Table 4.7-3 Airports and Heliports in the Proposed Project Vicinity

Airport/Heliport	Nearest Proposed Project Facility	Approximate Distance to Proposed Project Facility
San Diego International Airport	Mission Substation Staging Yard	4.3 miles
MCAS Miramar	Work area along Segment C	4.6 miles
Montgomery Field General Aviation Airport	Mission Substation Staging Yard	1.7 miles
Gillespie Field Airport	Sycamore Canyon Substation	6.6 miles
McClellan Palomar Airport	Encina Hub	2.4 miles
Oceanside Municipal Airport	San Luis Rey Substation	0.8 mile
Pomerado Hospital Heliport	Work area along Segment A near Black Mountain Ranch Park	5 miles
Qualcomm Building N Heliport	Work along Carrol Road near I-805	Less than 1 mile
Torrey Pines Gliderport	Peñasquitos Substation	2.5 miles
Torrey Pines Corporate Helistop	Peñasquitos Substation	1.5 miles
Tri-City Hospital Heliport	Encina Hub	4 miles

Source: AIRNAV 2015

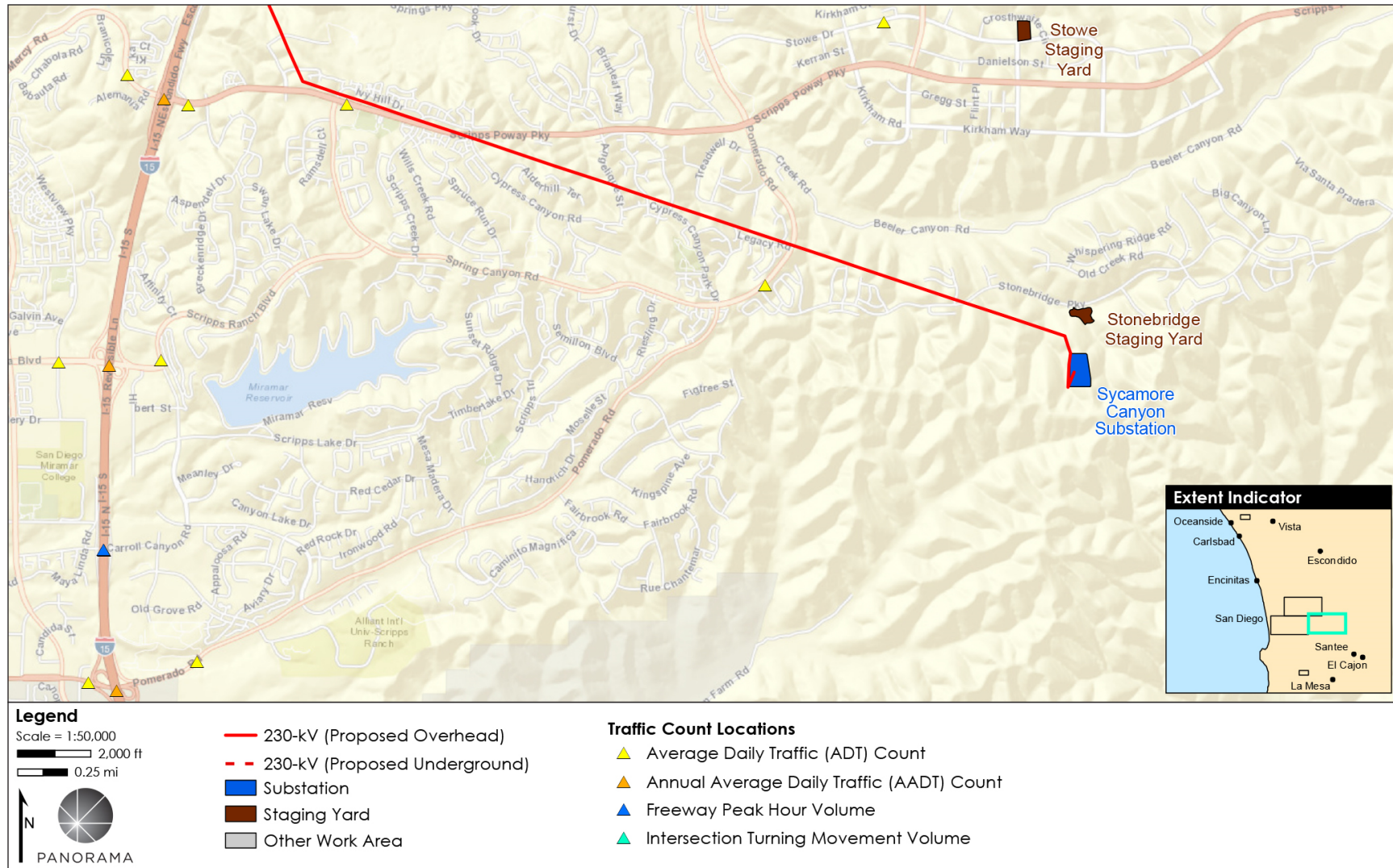
Table 4.7-4 Traffic Volumes on I-15 and SR-56

Road	Lanes	Description	Back AADT	Ahead AADT
I-15	14 to 18	Miramar Way	292,000	289,000
		Mira Mesa Boulevard	258,000	249,000
		Mercy Road	249,000	236,000
		SR-56	207,000	229,000
SR-56	4 to 6	Interstate 5 (I-5)	N/A	56,000
		Carmel Valley Road	75,000	65,000
		Black Mountain Road	72,000	76,000
		Rancho Peñasquitos Boulevard	76,000	71,000
		I-15	71,000	34,500

Source: Caltrans 2013^a

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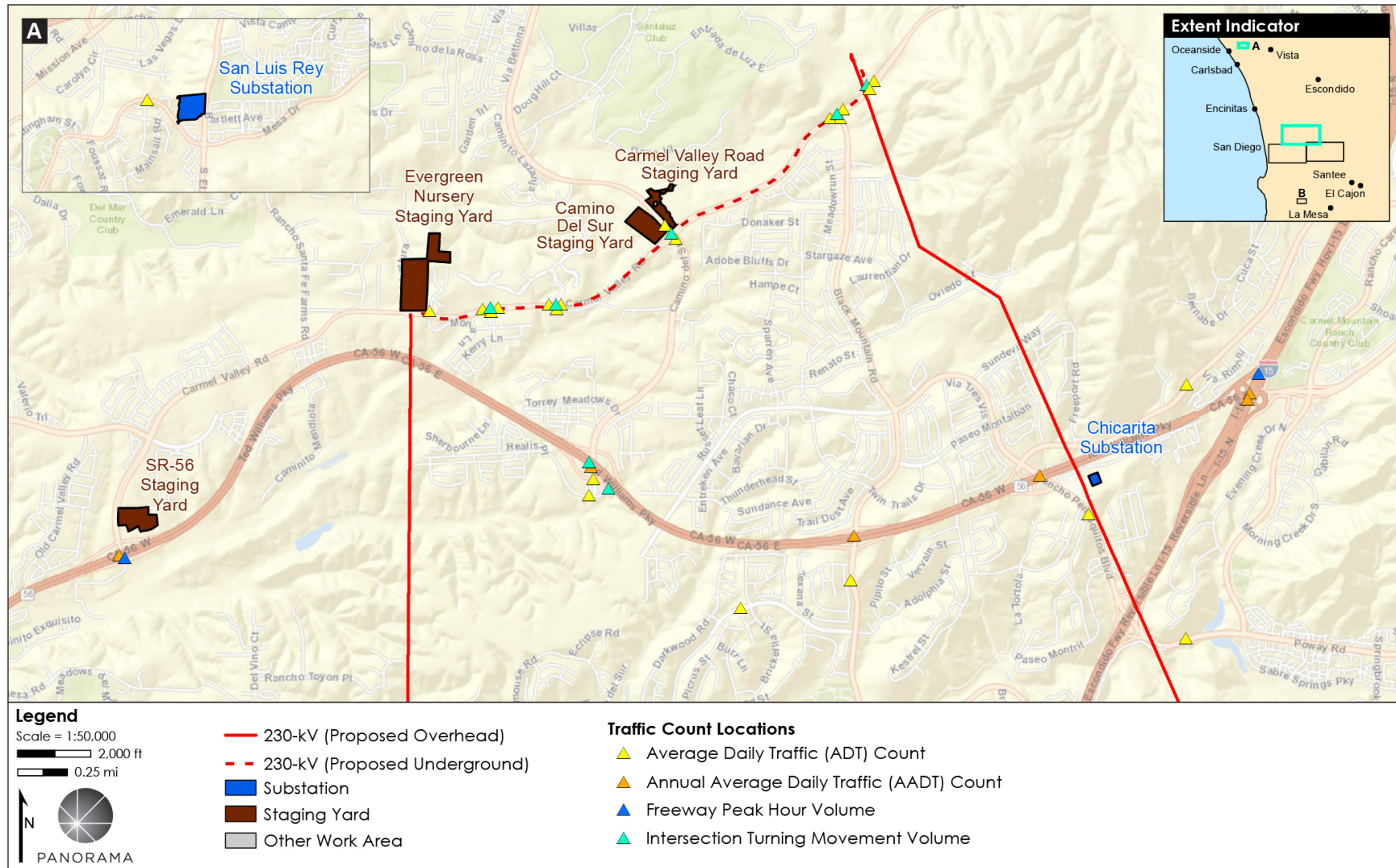
Figure 4.7-1 Traffic Count Locations (1 of 3)



Sources: Caltrans 2013a; Counts Unlimited 2015a and 2015b; Esri 2015a; KOA 2014; SANDAG 2010

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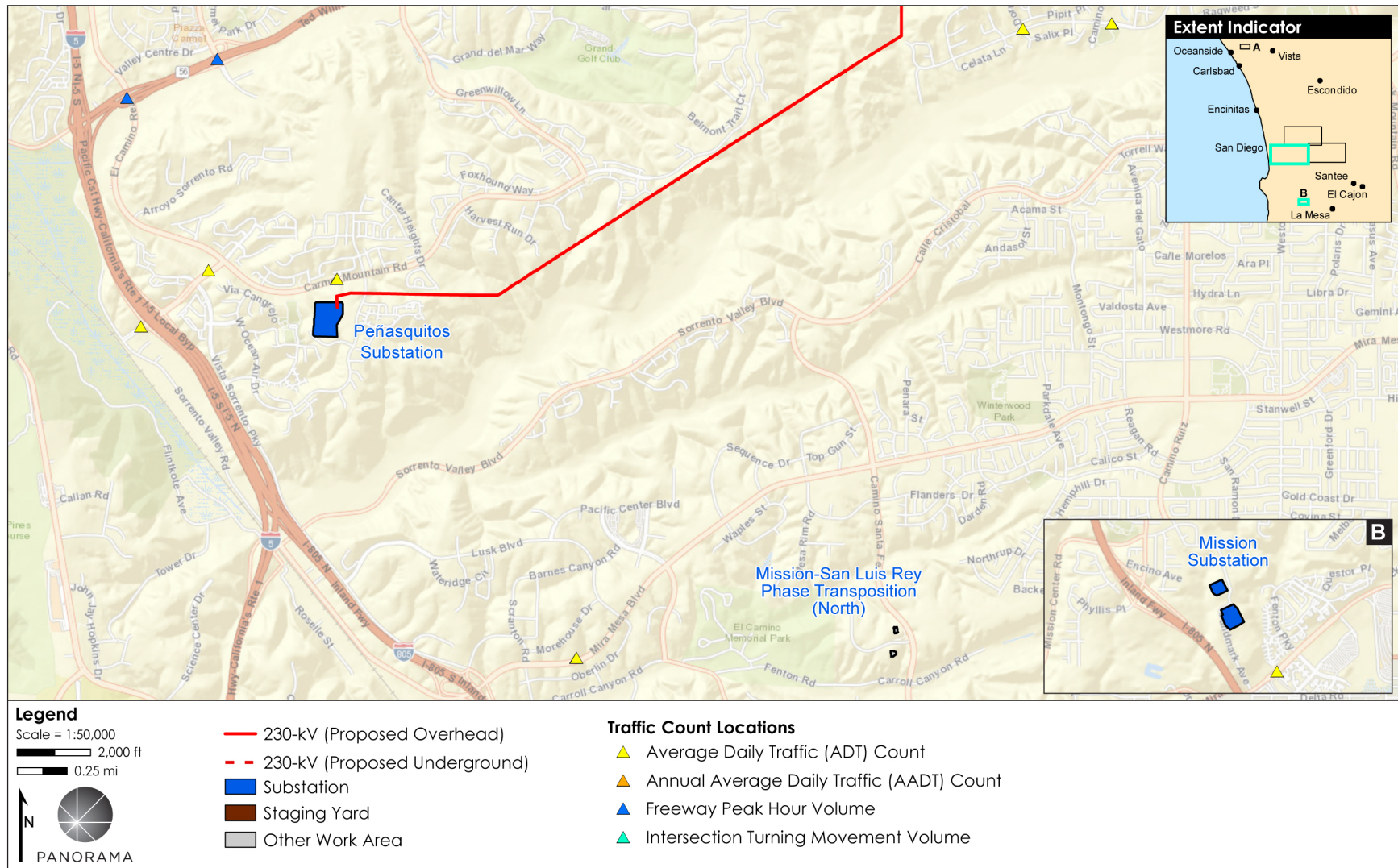
Figure 4.7-2 Traffic Count Locations (2 of 3)



Sources: Caltrans 2013a; Counts Unlimited 2015a and 2015b; Esri 2015a; KOA 2014; SANDAG 2010

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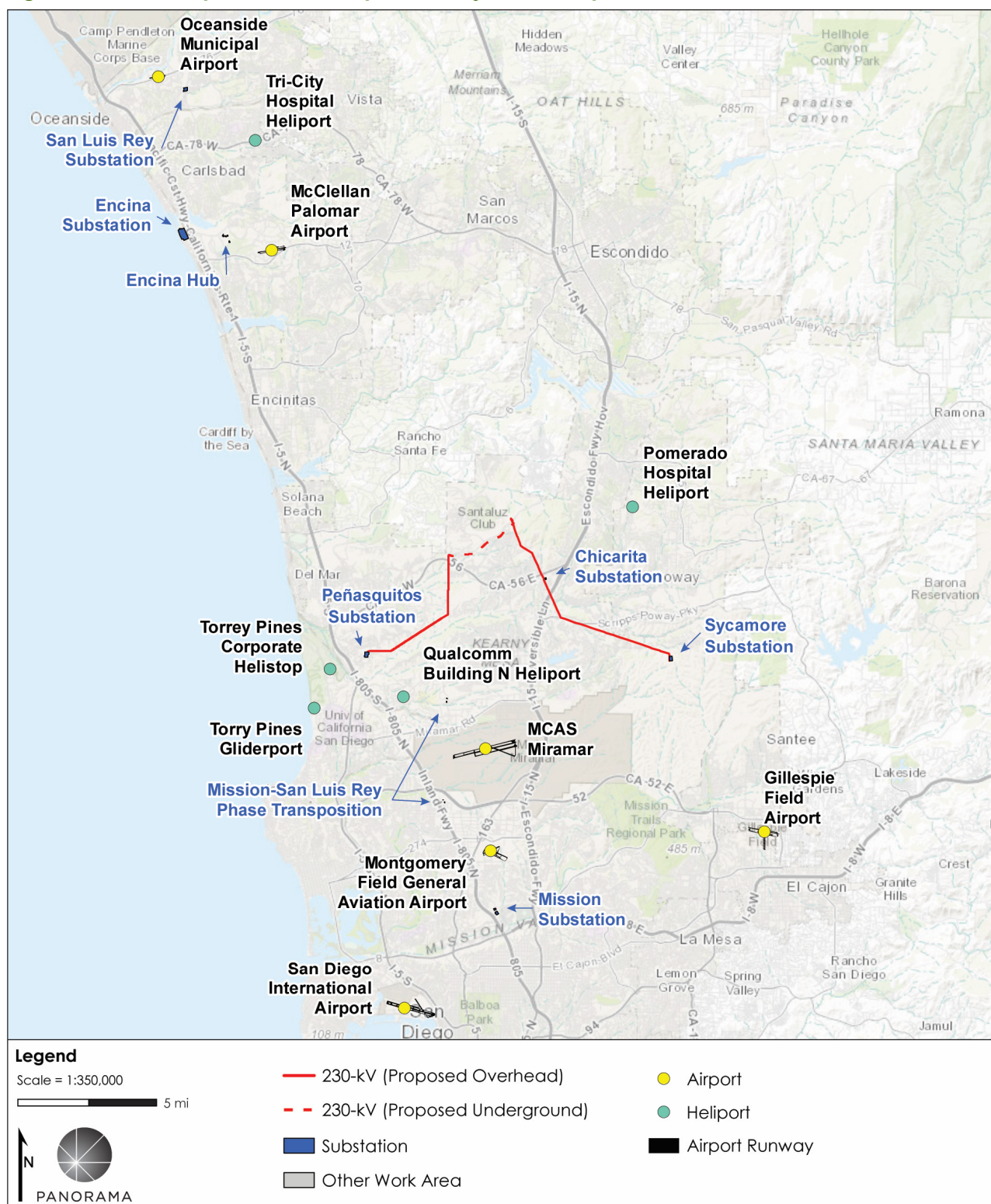
Figure 4.7-3 Traffic Count Locations (3 of 3)



Sources: Caltrans 2013a; Counts Unlimited 2015a and 2015b; Esri 2015a; KOA 2014; SANDAG 2010

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Figure 4.7-4 Airports in the Proposed Project Vicinity



Sources: County of San Diego 2010; Esri 2015b; SanGIS 2014

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4.7.3.2 Proposed Project Setting

Road Network and Existing Traffic Volumes

Transmission Line Segments A, B, C, and D

Roads in the transmission line Segment A area are within the City of Poway, the City of San Diego, or Caltrans ROW. Roads in the transmission line Segments B, C, and D area are located within the City of San Diego or Caltrans ROW. Appendix M, Table M-6 provides a summary of the existing traffic volume and LOS for primary collector and arterial roads located near the proposed transmission line by transmission line segment. The LOS is based on the City of San Diego Traffic Impact Study Manual, Table 2 (Caltrans 2013a). Some of the traffic count data is more than a year old; however, it is assumed that this traffic data represents the current traffic volume on area roads because the annual growth rate is less than 2 percent per year in the area (Caltrans 2013a) and the surrounding area was developed prior to the date of the traffic counts. The traffic volumes presented in Appendix M, Table M-6 are a snapshot of the traffic situation on area roads on the day the traffic data was collected. It is expected that there is variability in the volume of traffic on area roads on a day-to-day basis and the standard deviation in the average traffic volume would exceed the growth since the time of data collection.

Staging Yards

Appendix M, Table M-7 provides traffic volume data and LOS for the collector and ~~minor~~ arterial roads adjacent to the staging yards or roads that will provide access to the staging yards. The Proposed Project staging yards are located within the City of San Diego with the exception of the Stowe Staging Yard, which is located in the City of Poway, and the San Luis Rey Substation, which is located in the City of Oceanside. Traffic volumes on roads adjacent to staging yards were counted in 2014, unless noted otherwise. The counted volumes were rounded to nearest hundreds. The LOS presented is based on the City of San Diego Traffic Impact Study Manual, Table 2.

Encina Hub and Mission—San Luis Rey Phase Transposition

Encina Hub is in the City of Carlsbad. Access to the Encina Hub site is via Cannon Road from I-5 to the west or El Camino Real to the east. I-5 is a multilane freeway. Both Cannon Road and El Camino Real have two lanes in both directions with a median near the Proposed Project area.

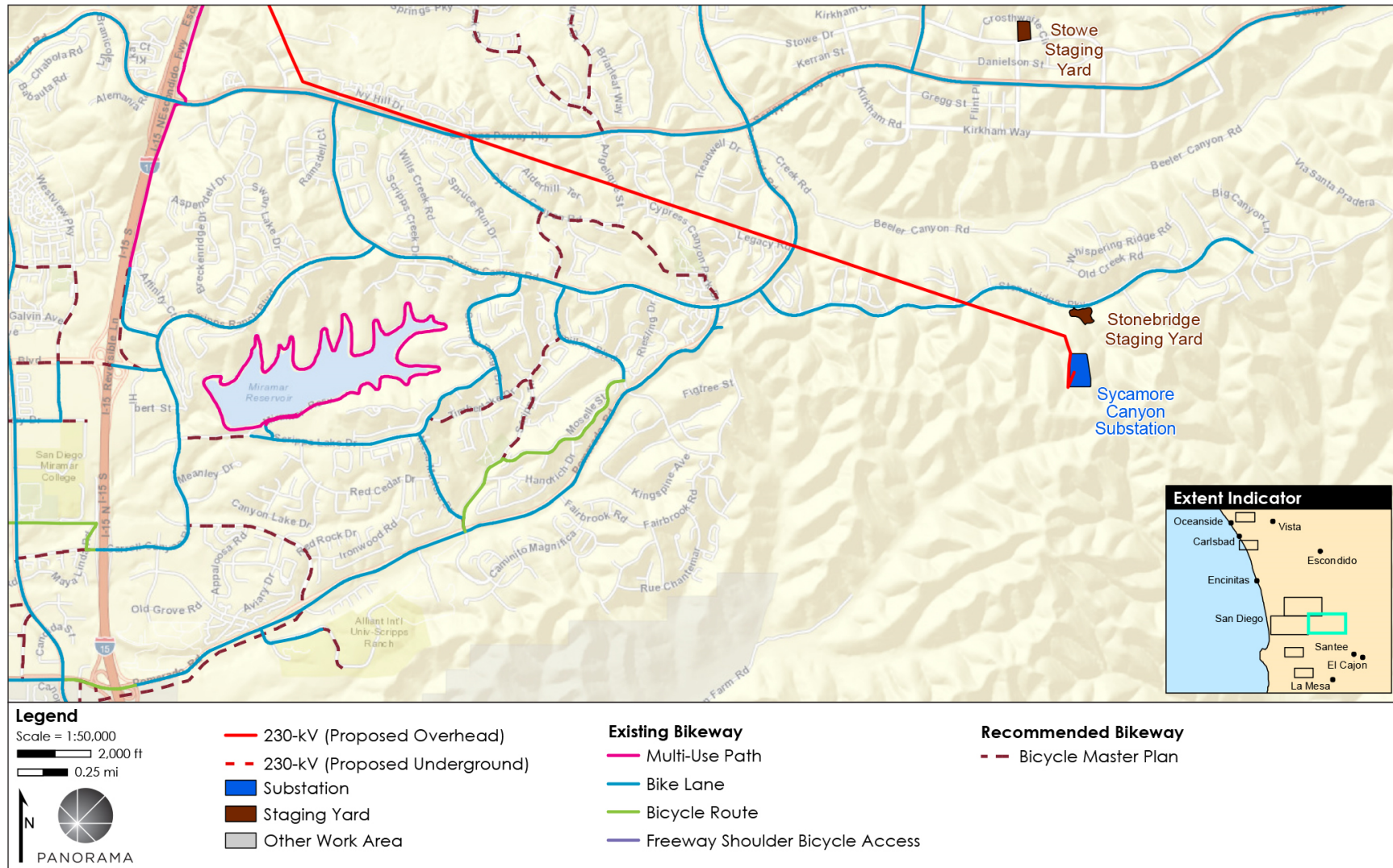
The Mission—San Luis Rey Phase Transposition North Work Area can be accessed from Camino Santa Fe and Summers Ridge Road. The Mission—San Luis Rey Phase Transposition South Work Area can be accessed from Copley Drive northwest of the intersection with Hickman Field Drive.

Bicycle Routes

Class I and II bicycle routes along roadways within the Proposed Project area are shown in Table 4.7-5 and Figures 4.7-5 through 4.7-8. It is assumed that all local roads in residential areas are Class III Bikeways because all roads, except where specifically excluded, are available for use by bicycles (State of California 2015 Vehicle Code, Section 21200). There are no Class I or II bicycle routes in the vicinity of Encina Hub.

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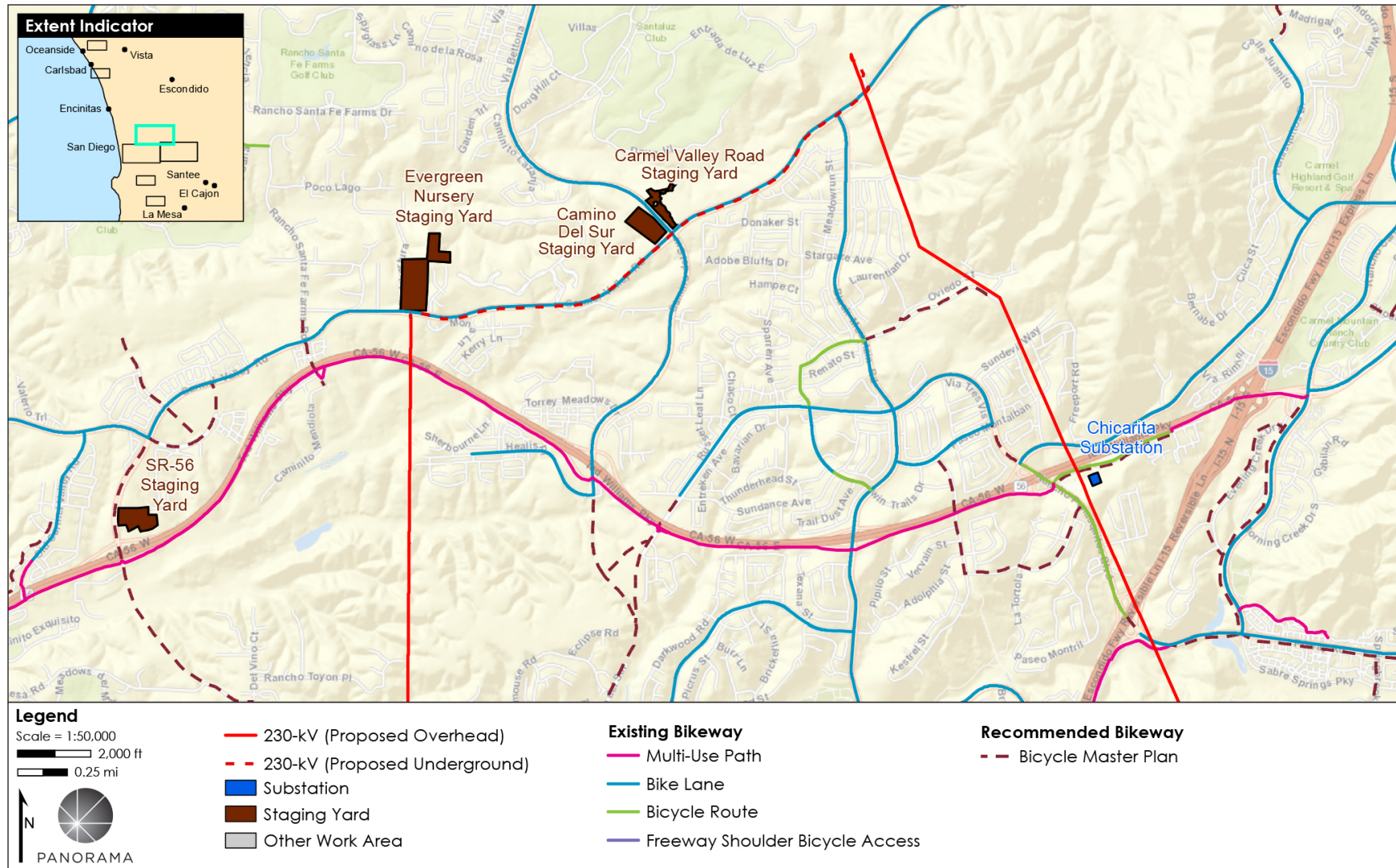
Figure 4.7-5 Bikeways in the Vicinity of the Proposed Project (Map 1 of 4)



Sources: Alta+Planning and City of San Diego 2015; Esri 2015a; SanGIS 2014; SANDAG 2015

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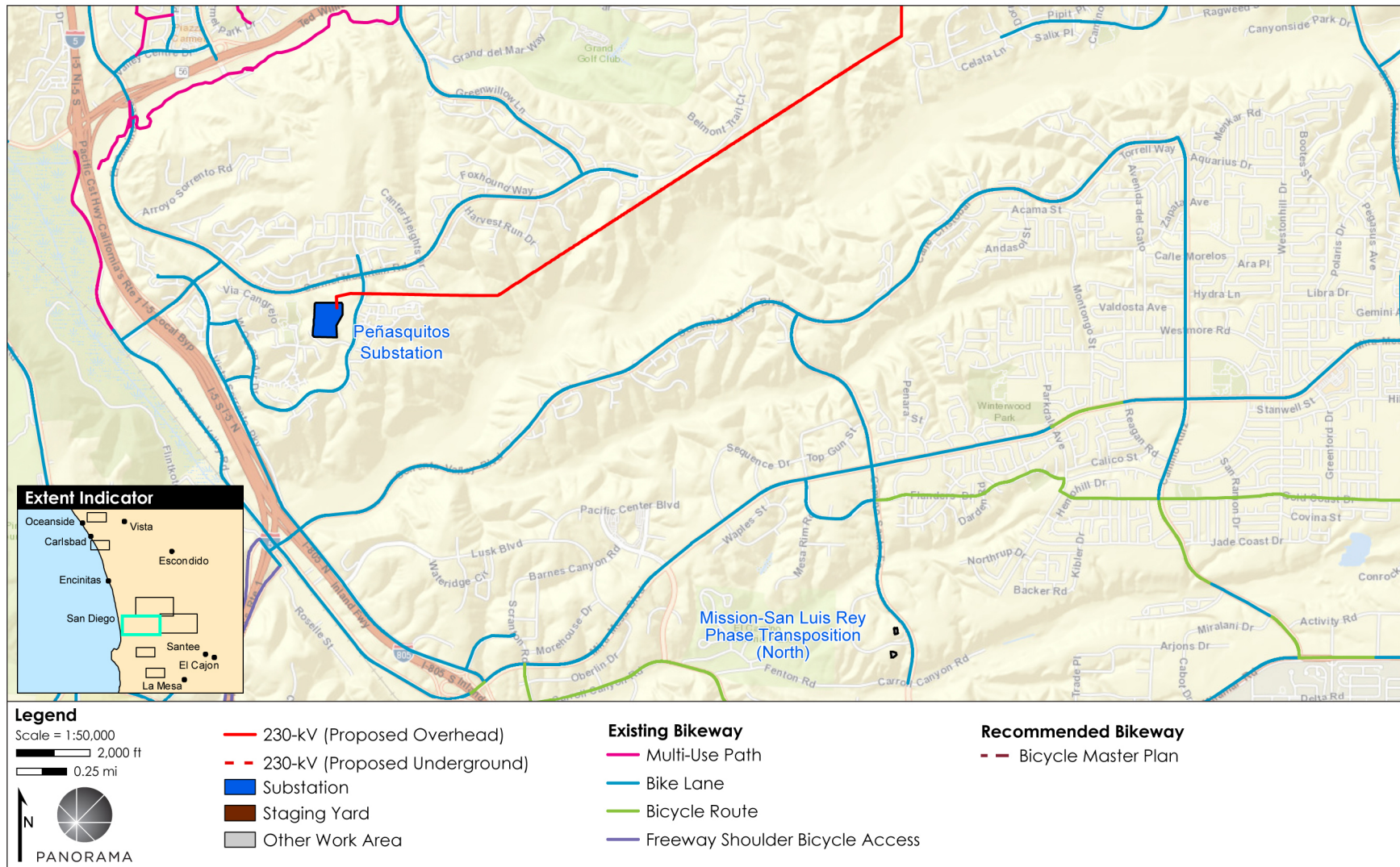
Figure 4.7-6 Bikeways in the Vicinity of the Proposed Project (Map 2 of 4)



Sources: Alta+Planning and City of San Diego 2015; Esri 2015a; SanGIS 2014; SANDAG 2015

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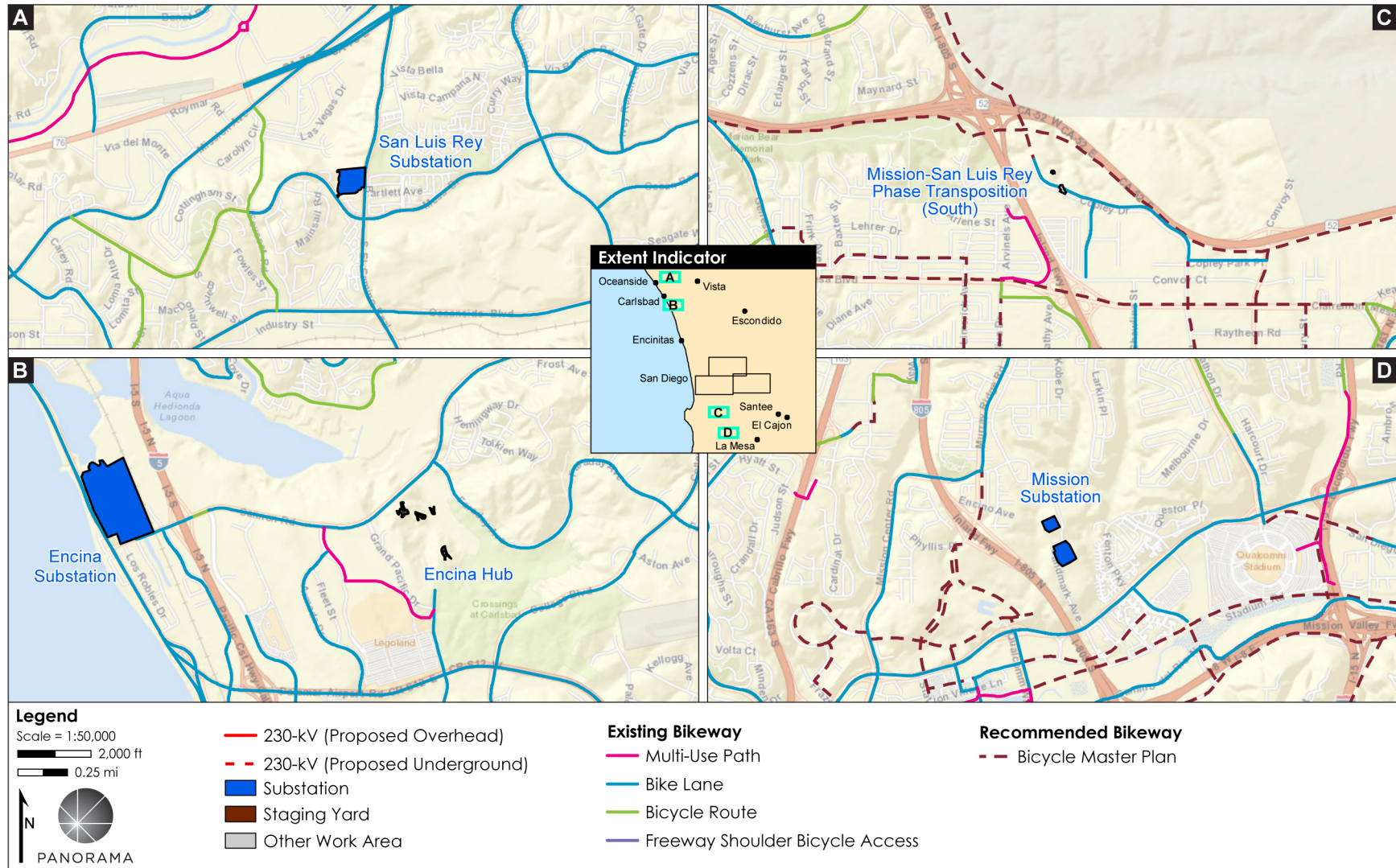
Figure 4.7-7 Bikeways in the Vicinity of the Proposed Project (Map 3 of 4)



Sources: Alta+Planning and City of San Diego 2015; Esri 2015a; SanGIS 2014; SANDAG 2015

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Figure 4.7-8 Bikeways in the Vicinity of the Proposed Project (Map 4 of 4)



Sources: Alta+Planning and City of San Diego 2015; Esri 2015a; SanGIS 2014; SANDAG 2015

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Table 4.7-5 Bicycle Routes near the Proposed Project Area

Street	Bikeway Class	City
Transmission Line Segment A		
Stonebridge Parkway	II	San Diego
Pomerado Road	II	San Diego, Poway
Cypress Canyon Road	II	San Diego
Scripps Poway Parkway	II	San Diego
SR-56	I	San Diego
Carmel Mountain Road	II	San Diego
Black Mountain Road	II	San Diego
Carmel Valley Road	II	San Diego
Transmission Line Segment B		
Carmel Valley Road	II	San Diego
Black Mountain Road	II	San Diego
Camino Del Sur	II	San Diego
Transmission Line Segment C		
Carmel Valley Road	II	San Diego
Along the SR-56	I	San Diego
Torrey Santa Fe Road	II	San Diego
Camino Del Sur	II	San Diego
Transmission Line Segment D		
Carmel Mountain Road	II	San Diego
East Ocean Air Drive	II	San Diego
Torrey Circle	II	San Diego
Mission Substation Staging Yard		
Friar's Road	II	San Diego
San Luis Rey Substation Staging Yard		
Mesa Drive	II	Oceanside
Camino Del Sur, Carmel Valley Road, and Evergreen Nursery Staging Yards		
Camino Del Sur	II	San Diego
Carmel Valley Road	II	San Diego
Stonebridge Staging Yard		
Stonebridge Parkway	II	San Diego

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Street	Bikeway Class	City
Sycamore Substation Staging Yard		
Stonebridge Parkway	II	San Diego
SR-56 Staging Yard		
SR-56 Bike Trail	I	San Diego
Carmel Valley Road	II	San Diego
Mission – San Luis Rey Phase Transposition		
Miramar Road	II	San Diego

Sources: City of Poway 1991, City of San Diego 2013

Public Transit

Public transit routes located within the Proposed Project area and the operating period for each route are provided in Table 4.7-6. All public transit routes within the Proposed Project alignment are located in transmission line Segment A and operated by the San Diego Metropolitan Transit System. There are no public transit routes listed in the San Diego County Regional Transit Map along transmission line Segments B, C, or D. Figures 4.7-9 through 4.7-12 show the public transit routes near the Proposed Project area.

4.7.4 Applicable Regulations, Plans, and Standards

4.7.4.1 Federal

Federal Aviation Administration

The FAA, an agency that is part of the U.S. Department of Transportation (USDOT), is responsible for regulating civil aviation including the oversight of air traffic and aeronautical obstructions. All airports and navigable airspace not administered by the U.S. Department of Defense are under the jurisdiction of the FAA. The FAA requires applicants to submit a Notice of Proposed Construction or Alteration and receive approval prior to ground disturbance associated with the project. Title 14 Section 77.13 states that an aviation obstruction would be created if any equipment is positioned such that it would be more than 200 feet above the ground or exceeds an imaginary surface extending outward and upward from applicable airport runways at the following slopes: 100:1 within 20,000 feet, 50:1 within 10,000 feet, and 25:1 within 5,000 feet. FAA also has restrictions on helicopter flights ~~within 1,500 feet of residential dwellings carrying external loads in congested areas~~¹. Helicopter flights ~~within this area require a helicopter lift plan with external loads in congested areas require submittal of a “Congested Area Plan” to the FAA (14 CFR Part 133.33).~~

¹ Congested area refers to a city, town, or open air assembly of people.

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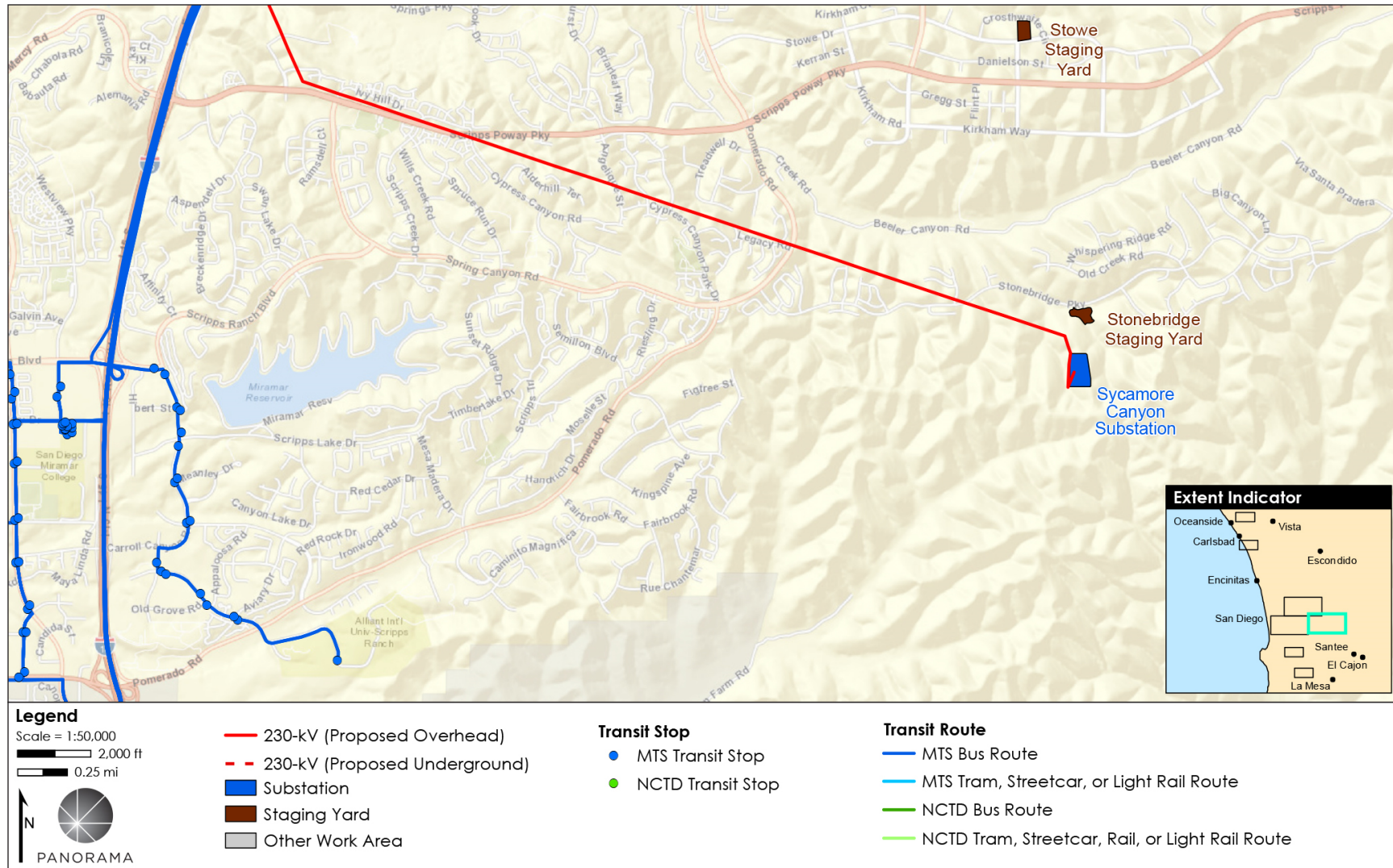
Table 4.7-6 Public Transit Routes near the Proposed Project Area

Route	Transit System	Operating Period
Transmission Line Segment A		
Route 944 Poway – Sabre Springs	San Diego Metropolitan Transit System	Monday to Saturday
Route 945/945A Rancho Bernardo – Poway	San Diego Metropolitan Transit System	Monday to Saturday
Route 237 Rancho Bernardo – UCSD Rapid	San Diego Metropolitan Transit System	Monday to Friday
Route 235 Downtown – Escondido Rapid	San Diego Metropolitan Transit System	Monday to Sunday
Route 290 Rancho Bernardo – Downtown Rapid Express	San Diego Metropolitan Transit System	Monday to Friday
Route 280 Escondido – Downtown Rapid Express	San Diego Metropolitan Transit System	Monday to Friday
Route 270 Rancho Bernardo – Sorrento Mesa Rapid Express	San Diego Metropolitan Transit System	Monday to Friday
Segment A Chicarita Substation		
Route 20 Downtown – Rancho Bernardo	San Diego Metropolitan Transit System	Monday to Sunday
Encina Hub Modifications		
Route 444 Carlsbad Poinsettia – COASTER	North County Transit District	Monday to Friday
Route 445 Carlsbad Poinsettia – COASTER	North County Transit District	Monday to Friday
Route 446 Carlsbad Poinsettia – COASTER	North County Transit District	Monday to Friday
Mission – San Luis Rey Phase Transposition		
Route 313 Oceanside – San Luis Rey Transit Center	North County Transit District	Monday to Friday
Route 309 Oceanside – Encinitas	North County Transit District	Monday to Sunday
San Luis Rey Substation		
Route 303 Oceanside – Vista	North County Transit District	Monday to Sunday
Route 313 Oceanside Transit Center – San Luis Rey Transit Center	North County Transit District	Monday to Friday
Mission Substation		
Route 60 Euclid Trolley – UTC	San Diego Metropolitan Transit System	Monday to Friday

Sources: SDMTS 2015, NCTD 2015

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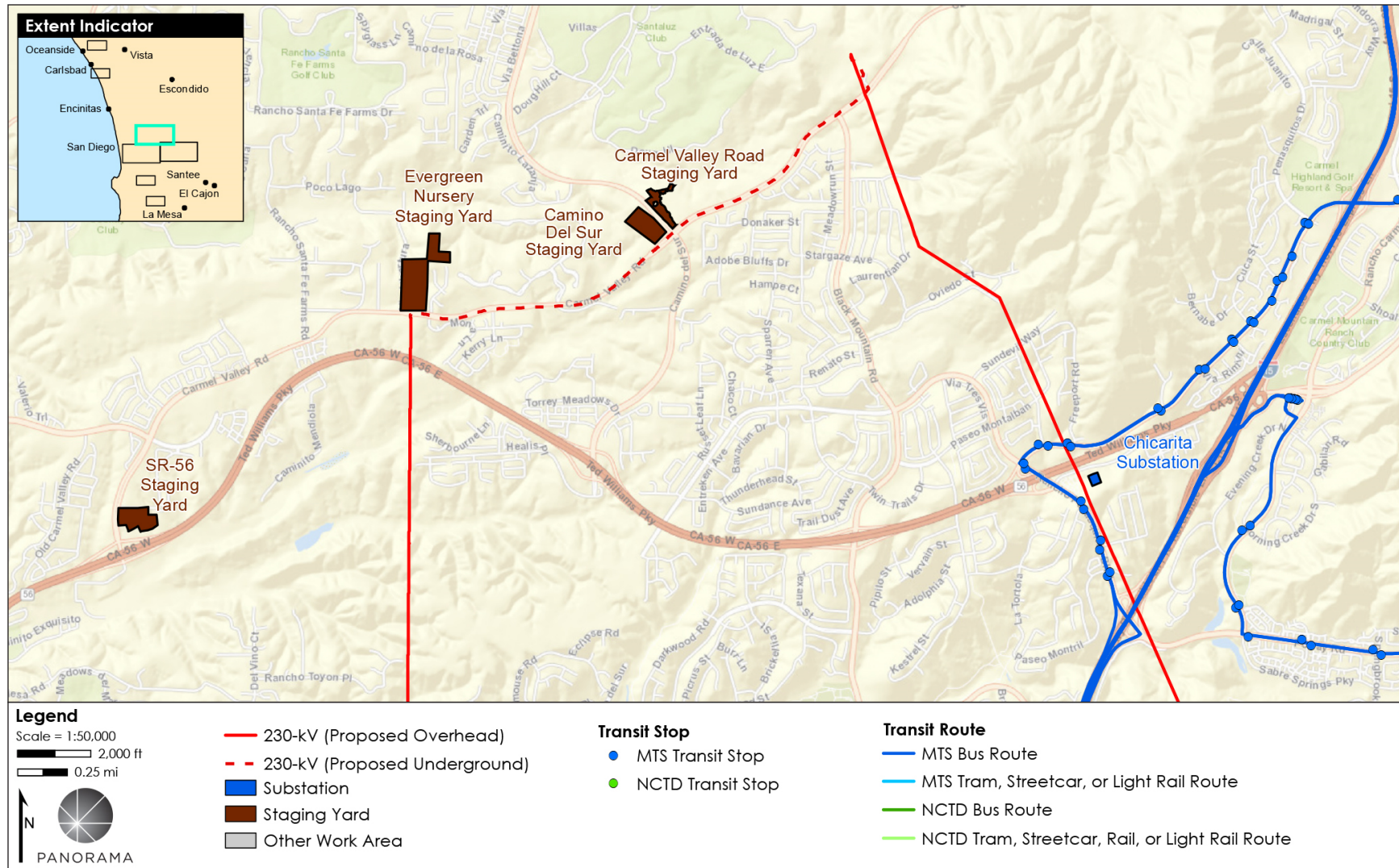
Figure 4.7-9 Transit in the Vicinity of the Proposed Project (Map 1 of 4)



Sources: Esri 2015a and SanGIS 2015

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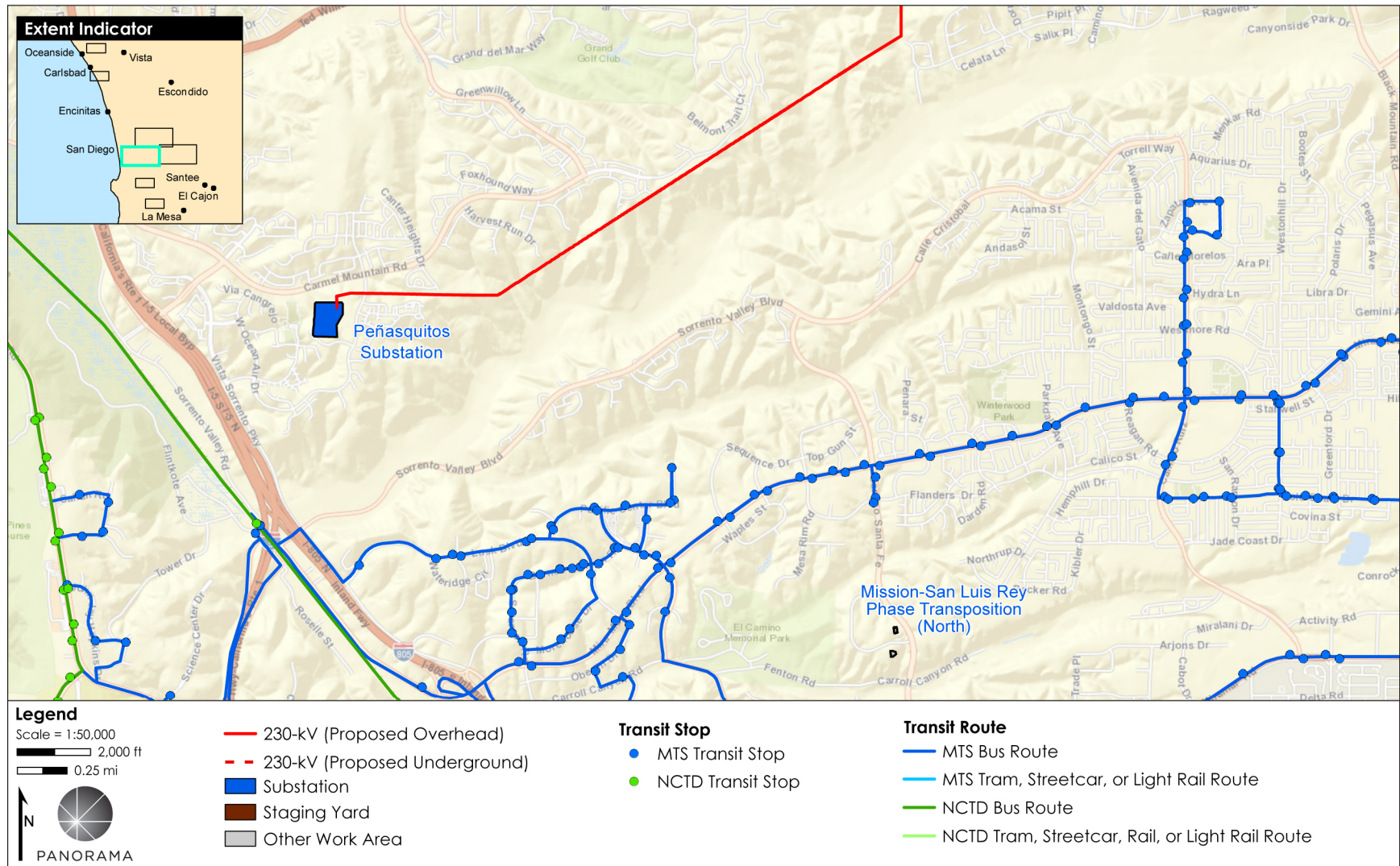
Figure 4.7-10 Transit in the Vicinity of the Proposed Project (Map 2 of 4)



Sources: Esri 2015a; SanGIS 2015

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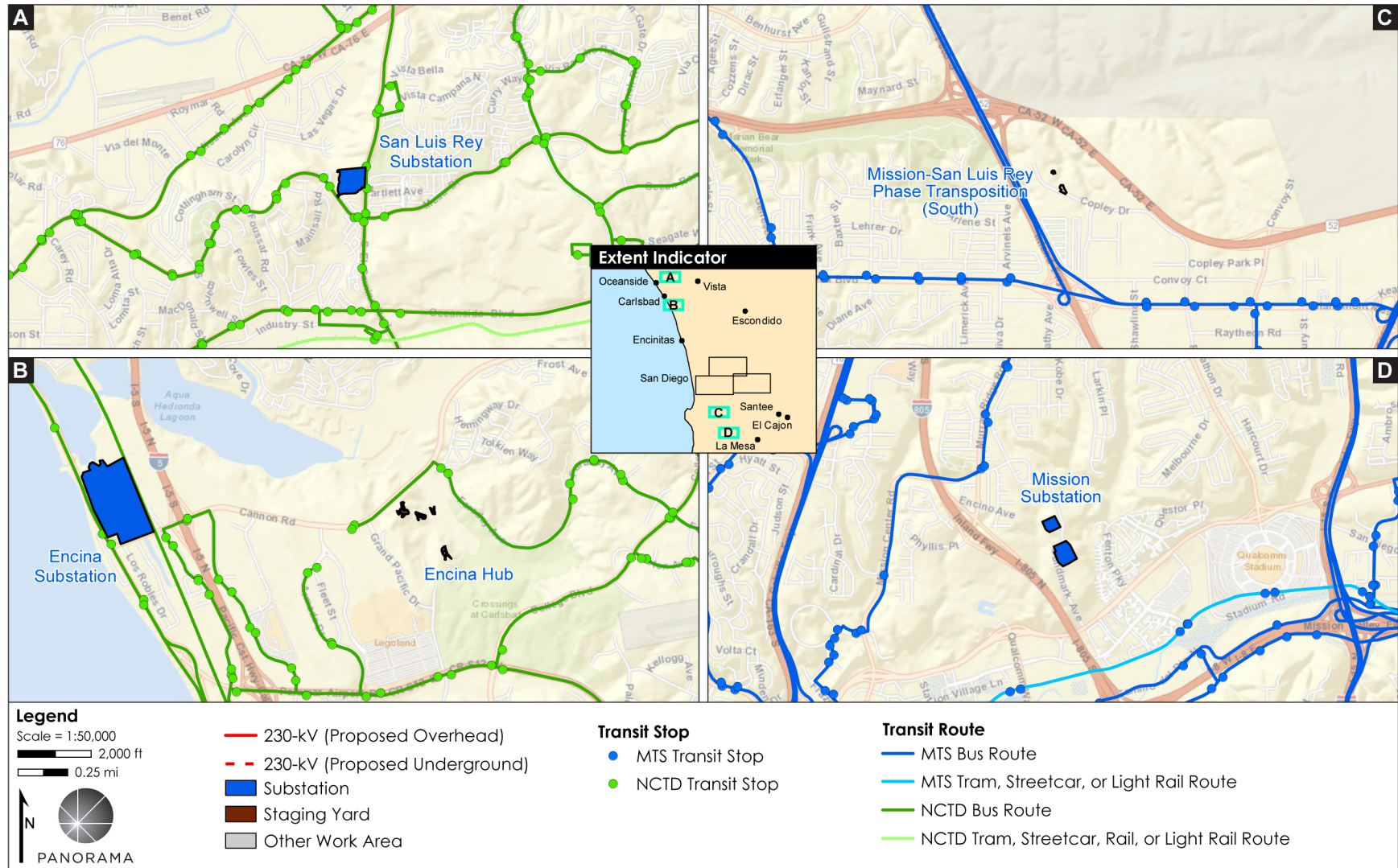
Figure 4.7-11 Transit in the Vicinity of the Proposed Project (Map 3 of 4)



Sources: Esri 2015a; SanGIS 2015

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Figure 4.7-12 Transit in the Vicinity of the Proposed Project (Map 4 of 4)



Sources: Esri 2015a; SanGIS 2015

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4.7.4.2 State

Interstate highways are governed by the FHWA in the USDOT. They provide research, technical assistance, standards, and financial assistance to state and local agencies for the design, construction, and maintenance of roads.

In the State of California, the “Streets and Highways Code Section 70-86” gives responsibility for meeting or exceeding the FHWA guidelines to the California Transportation Commission and thereby to the California Department of Transportation (Caltrans).

The Division of Transportation Planning within Caltrans is therefore primarily responsible for the maintenance, development, and support of transportation facilities within the State. However, the Division of Transportation Planning also partners with counties and cities in planning, managing, and maintaining the transportation system. All work on or over Caltrans facilities would require coordination with the Caltrans District 11 office, issuance of an encroachment permit, and approval of traffic control plans based on the 2014 (or latest) California Manual on Uniform Traffic Control Devices ([Caltrans 2013b](#)).

Caltrans also provides a Guide for the Preparation of Traffic Impact Studies. The guide states that Caltrans shall endeavor to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities. Caltrans acknowledges that this may not always be feasible and recommends that the lead agencies consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than the appropriate target LOS, the existing LOS should be maintained.

Under Caltrans guidelines, anticipated traffic impacts warrant further analysis when a project:

1. Generates over 100 peak-hour trips assigned to a State highway facility.
2. Generates 50 to 100 peak-hour trips assigned to a State highway facility, and affected State highway facilities are experiencing noticeable delay approaching unstable traffic flow conditions (LOS C or D).
3. Generates 1 to 49 peak-hour trips assigned to a State highway facility. The following are examples that may require a full Traffic Impact Study or some lesser analysis:
 - a. Affected State highway facilities are experiencing significant delay and unstable or forced traffic flow conditions (LOS E or F)
 - b. The potential risk for a traffic incident is significantly increased (i.e., congestion related collisions, non-standard sight distance considerations, increase in traffic conflict points, etc.)
 - c. Change in local circulation networks that impact a State highway facility (i.e., direct access to State highway facility, a non-standard highway geometric design, etc.)

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4.7.4.3 Local

San Diego Association of Governments

The SANDAG CMP states that the current CMP LOS standard for the San Diego region established by the original 1991 CMP is LOS E. However, a lower standard, LOS F, is allowed in circumstances when a roadway segment is operating at this level when the base year LOS was established. In these circumstances, LOS F shall be the standard; these segments also are referred to as “grandfathered” segments. However, with the adoption of the 2002 CMP Update, it is SANDAG policy that all roadway segments that operate at LOS F are subject to Deficiency Plan requirements, regardless of whether they were “grandfathered” segments.

It should be noted that under SANDAG guidelines, a project that generates traffic greater than 1,000 total average daily trips (ADT) or 100 peak-hour trips is anticipated to have traffic impacts and may need additional study.

City of Poway

The City of Poway aims to have a LOS of C or better. The City of Poway follows the impact guidelines provided by the SANDAG CMP.

The City of Poway requires that all Caltrans rules and regulations are followed for vehicles and traffic. For any traffic control devices, only the Director of Public Services shall determine the hours and days during which traffic control devices shall be in operation or be in effect, except in those cases where such hours or days are specified in the Poway Municipal Code or established by resolution of the Council.

General Plan

The Transportation Master Element of the City of Poway General Plan sets forth goals, policies, and strategies to promote efficient and safe use of existing transportation facilities and development of new facilities). The Transportation Master Element separately addresses roadways, public transit, bikeways, and pedestrian facilities. The following goals are relevant to the Proposed Project:

- | | |
|----------|--|
| Goal II | It is the goal of the City of Poway to provide for an orderly balance of both public and private land uses in the convenient and compatible locations throughout the City and to ensure that all such uses serve to protect and enhance the environment, character, and image of the City. |
| Goal IV | It is the Goal of the City of Poway to provide a safe, efficient, and integrated transportation system to serve the present and future mobility needs of all residents of Poway. |
| Goal XII | It is the goal of the City of Poway to encourage regional cooperation and coordination. |

No work on or over the roads in the City of Poway is anticipated. If work is needed, coordination with the City’s Development Services Department, issuance of an encroachment permit and approved traffic control plans based on the City’s Standards would be required.

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City of San Diego

The City of San Diego has its own guidelines as outlined in their 1998 Traffic Impact Study Manual. This manual states that the acceptable LOS standard for roadways and intersections in the City of San Diego is LOS D. However, for undeveloped locations, the goal is to achieve LOS C.

An increase in traffic, generated by the project, that exceeds the standards from the City of San Diego Traffic Impact Study Manual, also calls for a Traffic Impact Study. The City of San Diego also uses the guideline that a project that generates traffic greater than 1,000 total ADT or 100 peak-hour trips is anticipated to have traffic impacts and may need additional study.

The City of San Diego requires that a Public ROW Permit for Traffic Control be filed and approved prior to any construction projects not performed by the City. This permit is equivalent to an encroachment permit issued by other jurisdictions. The permit is required when work will be performed within the public ROW, including the sidewalk area of the streetscape. Although the work would not be performed by the City of San Diego, the City would require the work to be subject to inspection by the city engineer, who reserves the right to change the traffic control plans as warranted.

General Plan

The Mobility Element of the City of San Diego General Plan contains goals and policies aimed at relieving congestion in the roadway network and increasing transportation choices in the City of San Diego. Goals relevant to the Proposed Project are summarized below:

- A Walkable Communities. Increase the walkability of all neighborhoods throughout the City.
- B Transit First. Improve the public transit system and increase ridership.
- C Street and Freeway System. Enhance the street and freeway system to balance the needs of multiple users.
- D Intelligent Transportation Systems (ITS). Maintain an intelligent transportation system to improve the efficiency and safety of the surface transportation system. Topics to address include, but are not limited to, traffic control, safety, emergency operations, and parking.
- E Transportation Demand Management. Improve the efficiency of the street and freeway system.
- F Bicycling. Create a safe and comprehensive bikeway network.
- G Parking Management. Provide adequate and reasonably available parking.
- H Airports. Ensure adequate airport operations for transportation and economic needs.

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Black Mountain Ranch Subarea Plan, Carmel Valley Community Plan, Del Mar Mesa Specific Plan, Pacific Highlands Ranch Subarea Plan, Ranch Encantada Precise Plan, Rancho Peñasquitos Community Plan, Torrey Highlands Subarea Plan

Objectives in these plans relate to how road and transportation systems are built, maintained, or upgraded in these residential communities; therefore, no plan objectives are relevant to the Proposed Project.

Miramar Ranch North Community Plan

Objectives relevant to the Proposed Project are to:

- Provide transit alternatives to private vehicular travel.
- Provide for safe, accessible pedestrian circulation within the community and equestrian connecting links with regional trails shown in the Planning Department's "A Plan for Equestrian Trails and Facilities."

Sabre Springs Community Plan

The objective relevant to the Proposed Project is to:

- Promote transit alternatives to private vehicular travel within the community which can be integrated with the regional circulation network.

Scripps Miramar Ranch Community Plan

Objectives relevant to the Proposed Project are to:

- Alleviate current traffic congestion and prevent chronic congestion in the future, particularly for access to and from I-15.
- Provide a continuous pedestrian, equestrian, and bicycle system throughout the community in conjunction with open space areas, minimizing conflicts with vehicular traffic patterns.
- Encourage and facilitate the use of public transit, carpools, and bicycles within and outside the community in conjunction with ongoing citywide programs.
- Provide adequate access to all community resources and areas, with an emphasis on safety, aesthetics, and integration of facilities.
- Prohibit off-road vehicles on all open space and public property.

Torrey Hills Community Plan

Objectives relevant to the Proposed Project are to:

- Provide a transportation system that maximizes the opportunities for public transit.
- Provide a system of bikeways and pedestrian facilities that will encourage bicycling and walking as a means of transportation.
- Provide a transportation system that is a convenient linkage to the community's activity centers and to the rest of the metropolitan region.

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City of Carlsbad General Plan

The City of Carlsbad has a level of service standard of LOS D or better. The City has developed a multi-model level of service to measure the effectiveness of multiple forms of transit including vehicles, pedestrians, bicycles, and transit. Relevant policies within the General Plan include:

- 3-P.6 Utilize transportation demand management strategies, non-automotive enhancements (bicycle, pedestrian, transit, train, trails, and connectivity), and traffic signal management techniques as long-term transportation solutions and traffic mitigation measures to carry out the Carlsbad Community Vision.
- 3-P.24 Improve and enhance parking, connectivity, access, and utilization for pedestrians and bicycles to COASTER stations, utility corridors, and open spaces consistent with city planning documents.
- 3-P.40 Work with San Diego County and other agencies to ensure continued safe and efficient operation of the McClellan Palomar Airport, consistent with the Carlsbad Community Vision and existing city policy.

4.7.5 Applicant Proposed Measures

SDG&E has proposed measures to reduce environmental impacts. The significance of the impact is first considered prior to application of APMs and a significance determination is made. The implementation of the APMs is then considered as part of the Project when determining whether impacts would be significant and thus would require mitigation. These APMs would be incorporated as part of any CPUC project approval, and SDG&E would be required to adhere to the APMs as well as any identified mitigation measures. The APMs are included in the MMRP for the Proposed Project (refer to Chapter 9 of this EIR), and the implementation of the measures would be monitored and documented in the same manner as mitigation measures. The APMs that are applicable to the transportation and traffic analysis are provided in Table 4.7-7.

Table 4.7-7 Applicant Proposed Measures for Transportation and Traffic Impacts

APM Number	Requirements
APM TR-1: Emergency Access	SDG&E will coordinate with local emergency response agencies during all construction within Carmel Valley Road.
APM TR-2: Comply with Relevant Helicopter Use Restrictions	Any helicopter use will comply with all relevant usage restrictions including those imposed by the FAA and Caltrans. SDG&E and/or the construction contractor will coordinate with local air traffic control and comply with applicable FAA regulations regarding helicopter use to prevent conflict with air traffic generated by local airports. Helicopter usage will conform to acceptable hours for construction activities, as outlined within the applicable local noise codes and ordinances. As required, a Congested Area Plan (or CAP) will be prepared, based upon actual helicopter usage, pursuant to FAA regulations (14 CFR 137.51).

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APM Number	Requirements
APM TR-3: Traffic Control	SDG&E will implement traffic control plans to address potential disruption of traffic circulation during construction activities and address any safety issues. These traffic control plans will be prepared by the project engineer or contractor and subject to approval by the appropriate jurisdictional agency, such as the City of San Diego and Caltrans.
APM TR-4: Encroachment Permits	SDG&E will obtain the required encroachment permits from the City of San Diego for crossings at city streets and Caltrans for work near I-15 and Hwy 56, and will ensure that proper safety measures are in place while construction work is occurring near public roadways. These safety measures include flagging, proper signage, and orange cones to alert the public to construction activities near the roadway.

4.7.6 CEQA Significance Criteria

Appendix G of CEQA Guidelines (14 CCR 15000 *et seq.*) provides guidance on assessing whether a project would have significant impacts on the environment. Consistent with Appendix G, the Proposed Project would have significant impacts on transportation and traffic if it 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, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Given the specific location and design of the Proposed Project, impacts are analyzed in this section under two thresholds not listed in Appendix G. Specifically, the Proposed Project would have significant impacts on transportation and traffic if it would:

- g. Cause temporary road or lane closures that would temporarily disrupt traffic flow.
- h. Result in inadequate parking capacity.

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4.7.7 Approach to Impact Analysis

This impact analysis considers whether implementation of the Proposed Project or alternatives would result in significant impacts to transportation and traffic. The analysis focuses on reasonably foreseeable effects of the Proposed Project and alternatives as compared with baseline conditions. The analysis uses significance criteria based on the CEQA Appendix G Guidelines. The potential direct and indirect effects of the Proposed Project and alternatives are addressed; cumulative effects are addressed in Chapter 5: Cumulative Impacts. Effects that would result from operation and maintenance of the Proposed Project and alternatives are also addressed. Applicable APMs are identified and mitigation is defined to avoid or reduce significant transportation and traffic impacts.

CEQA guidelines for traffic impact analyses are being revised by the California Office of Planning and Research (OPR) to reflect the use of vehicle miles traveled (VMT) rather than LOS, consistent with Senate Bill (SB) 743. OPR developed preliminary discussion draft guidelines for the use of VMT in CEQA impact analysis (OPR 2014); however, no final guidance is currently available. The Proposed Project would generate additional trips during construction and would involve construction activities within roadways that could create a traffic hazard; however, the Proposed Project does not involve land use changes that would create a permanent source of traffic in the area. LOS provides more accurate accounting of the traffic impacts for the Proposed Project than VMT because the long-term generation of VMT from the project is negligible and would not be significant. Additionally, the General Plans and policies for the Cities of San Diego and Poway currently use LOS to assess traffic impacts. For these reasons, the traffic impacts of the Proposed Project are analyzed in terms of LOS rather than VMT.

4.7.7.1 Maximum Construction Trips per Segment

The maximum number of daily construction-related vehicle trips was estimated by calculating the number of workers required and deliveries needed on a peak day of construction for each Segment (SDG&E 2014). The maximum daily vehicle trips for each segment are provided in Table 4.7-8. There is the potential for traffic from two segments to travel down the same roadways where roads provide access to more than one segment. It is expected that vehicles traveling to all Proposed Project segments would travel on area highways (e.g., I-15 and SR-56). Worker vehicles make up the largest portion of the construction traffic.

It is assumed that trucks and construction workers traveling to and from the Proposed Project area would use existing state highways and local (City of San Diego or Poway) roads in the Proposed Project vicinity. Traffic increases on these roads were estimated at the maximum possible impact with all maximum trips per day for each Proposed Project segment (or two segments at segment intersections) directed down the same road on the same day. This approach provides a very conservative assessment of traffic-related impacts because vehicles would likely be distributed throughout the local road network rather than concentrated on the same road, depending on the locations of work.

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Table 4.7-8 Maximum Construction Vehicle Trips per Transmission Line Segment

Type of Vehicle Trip	Vehicle Trips by Segment			
	A	B	C	D
Worker Trips ¹	62	132	60	60
Hauling Trips ²	12	54	12	12
Water Trucks	4	8	4	4
Equipment Delivery	24	28	24	24
<i>Total per Segment</i>	102	222	100	100
<i>Total at Segment Intersections</i>	324	322	200	
Total All Segments	524			

¹ Worker trips assumes two one-way trips for each worker per day. Worker trips include passenger trips, including work trucks. The peak number of workers includes environmental monitors.

² Hauling trips are assumed to equal 2 daily trips (round-trip hauls) for each haul truck that would be used and include waste/soil hauling and material hauling/delivery.

Sources: SDG&E 2014, HKA 2015

The projected traffic volume on area roads with Proposed Project construction is provided in Appendix M, Tables M-5, M-6, and M-7. The projected traffic volume provides a worst-case scenario because it assumes all construction vehicles for a segment on a peak construction day would travel down a single road ~~during peak construction hours~~ during a single day. In reality, construction traffic is not expected to be directed down a single road on any day of construction ~~during peak hours~~ because it would be dispersed on local roads as vehicles travel to multiple work sites and staging yards throughout the Proposed Project area and throughout the day. Trips generated would fluctuate throughout the 12-month Proposed Project construction period. This analysis examines impacts ~~during peak construction periods~~ to peak hour volumes on highways and average weekday volumes on City roadways using the maximum daily construction employee, truck, and delivery counts in order to estimate impacts conservatively and account for uncertainty in project construction approach and timing.

4.7.7.2 Estimated Daily Equipment Deliveries

The daily vehicle trips for delivery of equipment to Proposed Project work areas are summarized in Table 4.7-9. The following assumptions were used in the equipment delivery vehicle trip estimates:

- Two of each piece of equipment would be used at each site
- Equipment would be transferred to the work site in the morning and returned to the staging yard at night
- In Segments A, C, and D, vehicles used to transfer the equipment to the site would stay at the work site to bring it back to the yard at the end of the day
- In Segment B, the delivery vehicles for the larger equipment would return to the yard after delivery due to workspace limitations

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Table 4.7-9 Estimated Proposed Project Vehicle Trips for Equipment Deliveries

Activity	Equipment	Daily Trips from Yard to Site	Daily Trips from Site to Yard	Total Daily Trips
Transmission Line Segments A, C, and D - Conductor Installation	Bucket trucks	2	2	4
	Pulling equipment	2	2	4
	Stringing equipment	2	2	4
	Total Daily Trips Segments A, C, and D for One Work Site			12
Transmission Line Segment B - Trench, Vault and Bridge Excavation	Excavator	2	2	4
	Crane truck	2	2	4
	Tool van	1	1	2
	Pickup with generator	1	1	2
	Traffic control truck	1	1	2
	Total Daily Trips Segment B for One Work Site			14

Source: HKA 2015

4.7.7.3 Staging Yards

SDG&E may use any of the proposed staging yards and substations (see Chapter 2: Project Description) for construction of any or all Proposed Project segments depending on the availability of the staging yard at the time of construction and the areas where work is required. The number of construction vehicle trips on roads adjacent to staging yards are therefore assumed to be the maximum construction vehicle trips for all Proposed Project transmission line segments (refer to Table 4.7-9).

4.7.7.4 Freeways

The traffic impact on area freeways is analyzed based on the density during the peak-hour traffic consistent with Caltrans Highway Capacity Manual (2013). Construction traffic during peak hours would almost exclusively be worker vehicle trips. SDG&E assumes that up to 100 workers could be working on the project at one time. Worker trips would therefore result in an additional 100 worker vehicles on local highways including I-15 and SR-56 during AM and PM peak hours. In addition to worker vehicles, heavy trucks making equipment deliveries would be traveling on area roads during AM and PM peak hours. Each heavy truck results in traffic equivalent to three worker vehicles due to the large size and decreased acceleration and deceleration of large trucks. It is assumed that up to 30 heavy trucks (equivalent to 90 worker vehicles) could be traveling on highways during AM and PM peak hours. 30 trucks is a conservative estimate because deliveries and hauling of materials would be spread out over the course of the construction work day.

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4.7.8 Proposed Project Impacts and Mitigation Measures

Impacts to transportation and traffic resulting from implementation of the Proposed Project are discussed below including both short-term construction and long-term operational phases for all Proposed Project components. The Proposed Project would not introduce any new land uses or activities to the area that would generate long-term increases in traffic volume. Traffic increases would be limited to temporary construction-related activities associated with installation of the Proposed Project facilities.

Table 4.7-10 provides a summary of the significance of impacts to transportation and traffic prior to application of APMs, after application of APMs and before implementation of mitigation measures, and after the implementation of mitigation measures.

Table 4.7-10 Summary of Proposed Project Impacts to Transportation and Traffic

Significance Criteria	Project Phase	Significance Prior to APMs	Significance after APMs and before Mitigation	Significance after Mitigation
Impact Traffic-1: Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.	Construction	Significant	Significant	Significant and unavoidable MM Traffic-1
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-2: Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.	Construction	Significant	Significant	Significant and unavoidable MM Traffic-1
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-3: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.	Construction	Significant	Significant APM TR-2	Less than significant MM Traffic-2
	Operation and Maintenance	Less than significant	---	---

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Significance Criteria	Project Phase	Significance Prior to APMs	Significance after APMs and before Mitigation	Significance after Mitigation
Impact Traffic-4: Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Construction	Significant	Significant	Less than significant MM Traffic-3 MM Traffic-4 MM Traffic-5 MM Traffic-6 MM Traffic-7
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-5: Result in inadequate emergency access.	Construction	Significant	Significant APM TR-1	Less than significant MM Traffic-1 MM Traffic-6 MM Traffic-8
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-6: The project would conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.	Construction	Significant	Significant APM TR-1 APM TR-3 APM TR-4	Less than significant MM Traffic-1 MM Traffic-7
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-7: Cause temporary road and lane closures that would temporarily disrupt traffic flow	Construction	Significant	Significant	Less than significant MM Traffic-5 MM Traffic-6
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-8: The project would result in inadequate parking capacity	Construction	Significant	Significant	Significant and unavoidable MM Traffic-9 MM Traffic-10
	Operation and Maintenance	Less than significant	---	---

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Impact Traffic-1: Would the Proposed Project conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency, taking into account all modes of transportation? (Significant and unavoidable)

Construction

Transmission Line - All Segments

The CMP, City of San Diego, and the City of Poway have acceptable LOS standards for roadways within the Proposed Project area. These LOS standards constitute a measure of the existing performance of the circulation system, against which the Proposed Project's effects are measured. Exceedance of the acceptable LOS as defined in applicable plans and policies would be a significant impact. The acceptable LOS is defined as the following:

- LOS E for all roads in the SANDAG CMP
- LOS D for roads within the City of San Diego
- LOS C for road within the City of Poway

The allowable v/c ratio increase from a single project's contribution to traffic volumes for roads not meeting LOS criteria D or better per the City of San Diego (2011) is as follows:

- LOS E: 0.02
- LOS F: 0.01

The allowable increase to the v/c ratio for City of San Diego roadways within the Proposed Project area provides a method to compare the existing performance of the circulation system against conditions with Proposed Project traffic. Exceedance of the allowable increase to v/c ratio would constitute a significant impact.

Construction of the transmission lines would require additional vehicle trips on area roadways for transport of workers, material hauling, equipment delivery, and water transport for compaction and for dust control.

Construction of the Proposed Project would add traffic to roads and highways that are currently operating below acceptable LOS (Refer to Appendix M, Tables M-5 and M-6). Construction traffic would not cause any road that is currently meeting LOS standards to fall below the standard or result in an increase in the v/c ratio in excess of the standards (refer to Appendix M for details on the change in v/c ratio resulting from the Proposed Project). SR-56 ~~and Scripps Poway Parkway, east of Spring Canyon Road~~ currently operates at LOS F, which does not meet LOS standards set by ~~the City of San Diego and~~ SANDAG CMP. Construction of the Proposed Project would add traffic to SR-56 for up to a year. Construction traffic would increase traffic volumes on SR-56 during the AM and PM peak hour by approximately 4 percent. The addition of over 500 construction vehicles (refer to Table 4.7-8) to highways ~~and roads~~ not meeting LOS standards would be substantial enough to constitute a significant impact.

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Mitigation Measure Traffic-1 requires SDG&E to prepare a Construction Transportation Management Plan (CTMP) that includes timing vehicle and equipment deliveries to occur outside of peak commute hours and avoid roads not meeting LOS standards to the extent feasible. While this mitigation measure would reduce the impact to LOS, construction vehicles could not reasonably avoid the roads that are not meeting LOS standards or avoid AM or PM peak traffic. Construction activities require workers to travel on area roads and deliveries to be made during peak traffic hours; therefore, the impact to LOS even with the mitigation would be significant. Impacts to LOS from the additional transmission line construction traffic would be significant and unavoidable.

Staging Yards

Construction could add up to 524 vehicle trips daily ~~to~~ distributed along roadways near staging yards if all vehicle traffic on a peak day were traveling to and from a single staging yard (i.e., only one staging yard were used). This scenario is unlikely because multiple staging yards are proposed for the project and each staging yard has limited capacity; however, the analysis assumes a single yard could be used because of uncertainty regarding staging yard availability at the time of construction.

The additional vehicle traffic to and from staging yards would not cause any road that is currently meeting standards to fall below standards or result in an increase in the v/c ratio in excess of the standards. Similar to the transmission line construction traffic, construction staging would add traffic to SR-56 ~~and Scripps Poway Parkway, east of Spring Canyon Road~~, which currently operates at LOS F and therefore does not meet LOS standards set by ~~the City of San Diego and~~ SANDAG CMP (Refer to Appendix M, ~~Table M-7~~ Table M-5). Construction traffic would increase traffic volumes on SR-56 during the AM and PM peak hour by approximately 4 percent. The addition of construction traffic (refer to Table 4.7-8) to highways ~~and roads~~ that currently do not meet LOS standards would be substantial enough to constitute a significant impact.

Mitigation Measure Traffic-1 requires SDG&E to prepare a CTMP to time vehicle and to time equipment deliveries to occur outside of peak commute hours to the extent feasible. While this mitigation measure would reduce the impact to LOS, construction vehicles could not reasonably avoid the roads adjacent to the staging yards that are not meeting LOS standards. In addition, construction activities require workers to travel on area roads and deliveries to be made during peak traffic hours; therefore, the impact to LOS even with the mitigation would be significant. Impacts to LOS from travel to area staging yards would be significant and unavoidable.

Substations

The minor modifications at Sycamore and Peñasquitos substations would require up to ten vehicles each day for a few months. The substation modifications would primarily occur within the substation fence and would not require regular travel onto area roads. The impact from the substation modifications would not be significant because the additional vehicles would be indiscernible from the baseline conditions and are far less than existing daily variability in

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traffic volumes on these roads (i.e., traffic volumes are typically rounded to the nearest 100 vehicles; less than 10 vehicles is a smaller number than rounding error in the volumes used to calculate LOS) and less than the standard deviation for averaging the traffic counts on a daily basis. The relay work at Chicarita and San Luis Rey Substations would require approximately one vehicle at the site for a few days. The addition of one vehicle on area roads for a few days would not impact LOS. The impact would therefore be less than significant. No mitigation is required.

Encina Hub Modifications

Construction at Encina Hub would involve up to nine vehicles traveling to the work area each day and potentially a helicopter for transmission line relocation. The work at Encina Hub would be isolated from the rest of the Proposed Project construction traffic and would last approximately 1 week. Encina Hub is accessed from Cannon Road. Cannon Road currently operates at LOS A (City of Carlsbad 2014). The impact to LOS would be less than significant due to the low number of vehicles and limited duration of activity at Encina Hub as well as the current LOS of 'A' on Cannon Road. No mitigation is required.

Mission—San Luis Rey Phase Transposition

Construction for Mission—San Luis Rey phase transposition would require one bucket truck to reposition the wire phasing. The addition of one vehicle on area roads for less than a week would have a less than significant impact on LOS. No mitigation is required.

Operation and Maintenance

Transmission Line Segments A, C, and D

The transmission line would be unattended and operation of the line would not generate traffic. SDG&E maintenance and inspection activities on Segments A, C, and D would be substantially the same in intensity, frequency, duration, and type as existing maintenance and inspection activities for the adjacent transmission lines. Typical activities include routine inspections, preventative maintenance, and vegetation clearing around the pole base. SDG&E would use helicopters for annual inspections of the overhead facilities; this activity would take about one day per year. Ground patrols would also be used for annual inspections. Inspections are used to identify corrosion, equipment misalignment, loose fittings, and other common mechanical problems. Typical maintenance would include access repairs, repairs and replacements of equipment, and insulator washing. Vegetation would be cleared or trimmed annually. Vegetation would be cleared from a 15-foot area surrounding the pole base for operation and maintenance activities. SDG&E would also trim vegetation that grows within 10 horizontal feet of any conductor. Helicopters would be used in the case of an outage or service curtailment to patrol power lines in areas with no vehicle access or with rough terrain. Because of the irregular nature and low activity level for inspection and maintenance of the transmission line, the inspection and maintenance activities would not be a source of new traffic on area roads. Therefore, operation and maintenance of the overhead transmission line would have a less than significant impact on LOS. No mitigation is required.

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Underground Transmission Line Segment B

Inspections of underground Segment B would be conducted ~~annually~~ approximately every three years at the ten new vaults that would be located within Carmel Valley Road. SDG&E would implement traffic control to access the vaults. Inspections would be done visually, as entry into the vaults with energized lines is not permitted. Each vault inspection would take less than one day. Maintenance could include cable repair and cable connection repair. The addition of one vehicle ~~per every three years~~ on area roads would not affect LOS. The operation and maintenance of underground segment B would therefore have a less than significant impact on LOS. No mitigation is required.

Substations

Operation and maintenance of the affected existing substations would not change. Typical maintenance activities include equipment testing, equipment monitoring and repair, and emergency and routine procedures for service continuity and preventative maintenance. A major maintenance inspection typically takes place annually, lasting approximately one week. Routine vegetation maintenance such as clearing and landscaping would continue to occur at each substation on an as-needed basis for purposes of safety, access, and aesthetics. Vegetation clearing activities typically involve the presence of one or two small maintenance vehicles and one or more employees to clear or trim vegetation to achieve the minimum necessary working space around the substation facilities. The additional Proposed Project infrastructure would not result in additional vehicle trips to the substation during operation and maintenance; therefore, operation and maintenance of the Proposed Project components at the Sycamore Canyon and Peñasquitos Substations and modifications at Chicarita and San Luis Rey Substations would have no impact on LOS. No mitigation is required.

Mitigation Measures: Mitigation Measure Traffic-1

Mitigation Measure Traffic-1: Construction Transportation Management Plan.

SDG&E shall develop and implement a project-specific Construction Transportation Management Plan (CTMP). SDG&E shall submit the plan to CPUC for review and approval at least 30 days prior to construction. The CTMP shall conform to the California Joint Utility Traffic Control Committee's Work Area Protection and Traffic Control Manual. The CTMP shall include provisions for the following:

- Implementation of standard safety practices, including installation of appropriate barriers between work zones and transportation facilities, placement of appropriate signage, and use of traffic control devices.
- Use of flaggers and/or signage to guide vehicles through or around construction zones using proper techniques for construction activities including staging yard entrance and exit.

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- Alternate traffic routes and the use of construction personnel carpools or shuttles to avoid roads that are operating at LOS D or lower.
- Traffic detours for any road or lane closures with appropriate signage marking the detours.
- Timing of worker commutes and material deliveries to avoid peak commuting hours.
- Timing of lane and road closures.
- Locations that would be accessed and receive material deliveries via helicopter.
- Plans for construction worker parking and transportation to work sites.
- Methods for keeping roadways clean.
- Storage of all equipment and materials in designated work areas in a manner that minimizes traffic obstructions and maximizes sign visibility.
- Limiting of vehicles to safe speed levels according to posted speed limits, road conditions, and weather conditions.
- Coordination with public transit providers.
- Routing of trucks to avoid minor roads, where possible, to reduce congestion and potential asphalt damage.
- Repair of asphalt and other road damage (e.g., curb and gutter damage, rutting in unpaved roads) caused by construction vehicles.
- Detours for cyclists and pedestrians when bike lanes or sidewalks must be closed.
- Abiding by encroachment permit conditions, which shall supersede conflicting provisions in the CTMP.

The CTMP must at a minimum comply with the requirements of the appropriate City of the City of San Diego and the City of Poway and must be submitted to the respective cities for review and approval at least 60 days prior to commencing construction activities.

Significance after Mitigation: Significant and unavoidable.

Impact Traffic-2: Would the Proposed 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? (Significant and unavoidable)

Construction

As discussed in Impact Traffic-1, construction of the Proposed Project would add traffic to SR-56, a CMP highway. SR-56 does not currently meet the CMP LOS standard of E.

Construction traffic would increase traffic volumes on SR-56 during the AM and PM peak hour

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by approximately 4 percent. Construction of the Proposed Project would add vehicles to SR-56 for up to a year resulting in a significant impact. Mitigation Measure Traffic-1 would reduce the impact to traffic on SR-56 by requiring that material deliveries be timed to avoid peak commuting hours. While the mitigation measure would reduce impacts on traffic, the Proposed Project could not reasonably avoid travel on SR-56. Impacts from increased traffic on a CMP road that is currently operating below standards would be significant and unavoidable.

Operation and Maintenance

As discussed in Impact Traffic-1, operation of the Proposed Project would not generate traffic on area roads. Maintenance and inspection of the new transmission line would be conducted in conjunction with routine maintenance and inspections of SDG&E facilities in the Proposed Project area. The inspection and maintenance activities would not be a source of new traffic on area roads because of the irregular nature and low activity level for inspection and maintenance of the transmission line. The impact would be less than significant. No mitigation is required.

Mitigation Measures: Traffic-1 (refer to Impact Traffic-1)

Significance after mitigation: Significant and unavoidable.

Impact Traffic-3: Would the Proposed 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? (Less than significant with mitigation)

Construction

Transmission Line Segments A, C, and D

Construction of transmission line Segments A, C, and D would require the use of light- and medium-lift helicopters to install conductor and transport workers and materials to work areas. Heavy-lift helicopters could also be used to transport large materials (i.e., TSPs). The Proposed Project could use multiple helicopters simultaneously for up to 10 months during construction on Segments A, C, and D. Multiple helicopters would be used if multiple types of activities requiring helicopter operation (e.g., conductor stringing and material transport) occur simultaneously or if one type of activity requiring helicopter operation (e.g., conductor stringing) occurs at two separate locations along the project alignment and one helicopter is not sufficient. Refer to Section 2.3.8 of Chapter 2: Project Description for further details on helicopter use.

Helicopters would likely be required to transport workers and materials to work areas in Segments C and D where access may be limited due to the presence of potential vernal pools (refer to Mitigation Measure Biology-4 in Section 4.1: Biological Resources). The use of helicopters for up to 10 months could impact air traffic patterns. APM TR-2 requires SDG&E and/or the construction contractor to coordinate with local air traffic control and comply with applicable FAA regulations regarding helicopter use to prevent conflicts with air traffic. While APM TR-2 would reduce impacts to air traffic, helicopters would be carrying loads over congested areas, which could increase safety risks, causing a significant impact.

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Mitigation Measure Traffic-2 requires contractors to coordinate helicopter activities with the FAA and prepare Final Helicopter Lift Plans Congested Area Plans for flights over congested areas (refer to Section 2.3.8 of Chapter 2: Project Description ~~for the Preliminary Helicopter Lift Plan~~). Impacts to air traffic would be less than significant with mitigation.

Underground Transmission Line Segment B

The transmission line would be located underground within Segment B. Construction within Segment B would not require the use of helicopters and there would be no impact to air traffic patterns or traffic levels.

Encina Hub Modifications

SDG&E may use a helicopter to assist in the transmission line reconfiguration at Encina Hub. The Encina Hub work area is not located near any residences; however, the transport of materials to the Encina Hub area via helicopter could increase air traffic hazards resulting in a significant impact.

Mitigation Measure Traffic-2 requires contractors to coordinate helicopter activities with the FAA and prepare Helicopter Lift Plans Congested Area Plans for flights over congested areas. Impacts to air traffic would be less than significant with mitigation.

Staging Yards

Any of the Proposed Project staging yards could potentially be used as helicopter fly yards. The use of medium- or heavy-lift helicopters to transport materials from helicopter fly yards could pose a potentially significant safety risk. SDG&E would implement APM TR-2 as part of the Proposed Project. APM TR-2 requires that SDG&E and/or the construction contractor coordinate with local air traffic control and comply with applicable FAA regulations regarding helicopter use to prevent conflicts with air traffic. While APM TR-2 would reduce impacts to air traffic, helicopters would be carrying loads over congested areas, which would increase safety risks and cause a significant impact.

Mitigation Measure Traffic-2 requires FAA notification and preparation of Helicopter Lift Plans Congested Area Plans for transport of materials within 1,500 feet of residences or over congested areas. Impacts to air traffic would be less than significant with mitigation.

Substations and Mission—San Luis Rey Phase Transposition

No helicopter activities would be required for construction at the substations or Mission—San Luis Rey phase transposition. There would be no impact to air traffic patterns or traffic levels.

Operation and Maintenance

New Transmission Line and Structures

The overhead transmission line includes poles and wires that may require FAA notification through filing of Form 7460-1: Notification of Proposed Construction or Alteration as described

4.7 TRANSPORTATION AND TRAFFIC

in CFR Title 14, Part 77². Consistent with CFR Title 14, Part 77, SDG&E must file notification at least 45 days prior to construction and the FAA will complete an aeronautical study and make a determination detailing the study findings. SDG&E is required to implement any measures required by FAA as a result of the aeronautical study, which may include the addition of marker balls on the overhead wire and/or lighting on structures. The Proposed Project ~~includes lighting would include lights~~ and marker balls on all structures ~~that require FAA notification for which the FAA determines they are necessary. For the purpose of analysis in this EIR, it is assumed that all structures and transmission line spans that require FAA notification could require lights and marker balls.~~ SDG&E would implement lighting and marker balls as required by the FAA. Impact to air traffic and safety would be less than significant with the proposed marker balls and lighting and compliance with FAA requirements. No mitigation is required.

Helicopter Use

The overhead transmission line would be inspected once a year by helicopter in conjunction with the inspections for the existing transmission lines in SDG&E's ROW. These helicopter flights are currently conducted for the existing transmission and power lines within SDG&E ROW. There would be no increase in the frequency or duration of these flights as a result of the Proposed Project because the Proposed Project facilities would be inspected at the same time as other lines within SDG&E's ROW. Helicopter flights for inspection of the Proposed Project facilities would not impact the volume of air traffic or air traffic safety in the area. Impacts would be less than significant. No mitigation is required.

Mitigation Measures: Traffic-2

Mitigation Measure Traffic-2: ~~Helicopter Lift Plan~~ Congested Area Plan. Prior to construction, helicopter contractors shall coordinate helicopter activities for the project with the regional FAA office and obtain any required approvals to operate helicopters. FAA coordination shall include submittal of a ~~Helicopter Lift Plan~~ Congested Area Plan prepared by the helicopter operator to obtain approval for the helicopter operations for all routes ~~within 1,500 feet of~~

² § 77.9 - Any person/organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA:

- Any construction or alteration exceeding 200 feet above ground level.
- Any construction or alteration:
 - within 20,000 feet of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 feet.
 - within 10,000 feet of a public use or military airport which exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 feet.
 - within 5,000 feet of a public use heliport which exceeds a 25:1 surface.

4.7 TRANSPORTATION AND TRAFFIC

~~residences or~~ that would cross over “congested areas” as described in 14 CFR 133.33. The ~~Helicopter Lift Plan~~ Congested Area Plan will identify ~~the location of the lift,~~ anticipated work dates, a detailed description of the work to be performed, ~~any required notifications or coordination to local agencies or adjacent property owners to restrict work area access,~~ any safety hazard control measures that are required, and appropriate emergency procedures and emergency landing area(s). Helicopter contractors shall provide the CPUC with all required approvals, documents, and conditions of work prior to conducting helicopter activities for the project.

Significance after mitigation: Less than significant.

Impact Traffic-4: Would the Proposed Project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (Less than significant with mitigation)

Construction

Use of Transmission Line Construction Vehicles

SDG&E construction traffic would use streets and unpaved routes in the transmission corridor that are used by pedestrians and bicyclists. Use of these routes by heavy equipment and vehicles, and entrance and exit from the work site by heavy equipment would pose a hazard to pedestrians and bicyclists resulting in a significant impact. The use of heavy equipment on roadways could also result in damage to heavily traveled roads, which would cause a hazard to vehicles and bicyclists, which would be a significant impact.

Mitigation Measure Traffic-1 requires implementation of safety practices, reduced vehicle speeds, routing of trucks to avoid minor roads where feasible, and detours for bicyclists and pedestrians when bicycle lanes or sidewalks are closed. Mitigation Measure Traffic-3 requires SDG&E to document pre-and post-construction conditions on area roads and to repair damaged roads. Impacts from construction vehicle traffic would be less than significant with mitigation.

Transmission Line Overhead Stringing

The transmission line would be installed overhead across roads and highways within Segments A, C, and D. The conductor could fall across a roadway during installation causing a hazard to vehicles, pedestrians, or bicyclists in the area. SDG&E has proposed guard structures at all crossing of roadways to reduce this hazard; however, the conductor installation process could still pose a substantial increase in hazards, which is a significant impact.

Mitigation Measure Traffic-4 requires additional assessment of crossing locations and installation of nets or temporary closure of roads during stringing in high-risk areas to reduce potential hazards. Mitigation Measures Traffic-5 and Traffic-6 address the impact from temporary closure of highways and roads during conductor stringing. Impacts would be less than significant with mitigation.

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Underground Transmission Line Segment B

Hazards to Vehicles. Construction of the underground transmission line in Carmel Valley Road would require an open trench approximately 3 feet wide during duct bank construction. Construction workers, vehicles, and equipment would be within the duct bank and vault installation work areas along Carmel Valley Road. The open trench as well as the presence of construction equipment, workers, and vehicles in proximity to flowing traffic would create a hazard for the workers and vehicular traffic if traffic entered the active work area. Construction within the roadway would also create a hazard if the roadway was not adequately repaired at the completion of construction. These conditions would result in significant impacts.

Mitigation Measure Traffic-1 requires SDG&E to implement traffic controls including barriers between work zones and transportation facilities, placement of appropriate signage, use of traffic control devices, flaggers, and signage. Mitigation Measure Traffic-3 requires that SDG&E repair the road to pre-construction conditions upon completion of construction. Impacts related to vehicle traffic hazards from underground transmission line construction would be less than significant with mitigation.

Hazards to Bicyclists and Pedestrians. The underground transmission line west of Camino Del Sur would be located within a bicycle lane. Construction of the underground transmission line between Segment C and Camino Del Sur would require temporary closure of the bicycle lane on Carmel Valley Road and potential closure of the sidewalk. The temporary bicycle lane closure could cause bicyclists to enter active vehicle traffic lanes on Carmel Valley Road and would increase hazards to bicyclist safety. Closure of the sidewalk would create a hazard for pedestrians as they navigate around the work area. These impacts to pedestrian and bicyclist safety would be significant.

Mitigation Measure Traffic-1 requires implementation of a CTMP that includes detours for bicyclists and pedestrians. Mitigation Measure Traffic-7 specifies the notification and detour requirements for bike lane or sidewalk closures. These measures would reduce safety hazards to pedestrians and bicyclists during construction. Impacts related to bicycle and pedestrian hazards would be less than significant with mitigation.

Staging Yards

Construction traffic would be concentrated along roadways near staging yard entrances and exits due to the delivery of materials and parking of worker vehicles in these areas. Road damage may occur in areas of heavy construction vehicle use, such as entry points and roads near staging yards. Large trucks entering and exiting the staging yards would have slow travel speeds and large turning radii. The road damage and use of large construction vehicles would increase traffic hazards resulting in a significant impact.

Mitigation Measure Traffic-1 requires that SDG&E use flaggers and traffic controls to reduce conflicts with construction vehicles. Mitigation Measure Traffic-3 requires that SDG&E restore damaged roads to pre-construction conditions. Hazards from staging yard use would be less than significant with mitigation.

4.7 TRANSPORTATION AND TRAFFIC

Substations, Encina Hub, and Mission—San Luis Rey Phase Transposition

Construction at substations, Encina Hub, and Mission—San Luis Rey phase transposition work area would occur off of area roads. The construction would not increase hazards or result in an incompatible use. There would be no impact.

Operation and Maintenance

The Proposed Project does not involve changes to existing road layout and, therefore, the Proposed Project would not create any hazards related to road design.

Transmission Line Segments A, C, and D

The presence of the overhead transmission line would not create any hazards to vehicles. The overhead line would be located outside of the roadway and would not conflict with vehicle travel. The Proposed Project would not increase the number of structures within SDG&E ROW; therefore, the Proposed Project would not increase the frequency of inspection or maintenance activities relative to baseline conditions. Operation and maintenance of the Proposed Project would not increase hazards to bicyclists or pedestrians because the frequency and intensity of SDG&E vehicle traffic would not increase as a result of the Proposed Project. The increase in hazards from operation and maintenance of the above-ground transmission line would therefore be less than significant. No mitigation is required.

Underground Transmission Line Segment B

The underground transmission line within Segment B would require ~~annual~~ inspections approximately every three years and maintenance. Each of the ten vaults on Segment B would be inspected for one day or less per year. Because the vaults are located within the roadway, traffic controls would be required while a crew accesses each underground vault. The ~~annual~~ inspections of underground vaults would not substantially increase traffic hazards because the vaults would only be inspected once ~~a-every three years~~ for less than a day each (less than 10 days per year total) and standard traffic controls would be employed for worker safety as required by OSHA and the Federal Highway Administration. Impacts from increased hazards would therefore be less than significant. No mitigation is required.

Substations

All substation improvements would occur within the existing fenced substation yard and off of area roads; therefore, the substation improvements would not increase traffic hazards. There would be no impact.

Mitigation Measures: Traffic-1 (refer to Impact Traffic-1), Traffic-3, Traffic-4, Traffic-5, Traffic-6, and Traffic-7

Mitigation Measure Traffic-3: Post-Construction Road Repair. Prior to construction, SDG&E shall conduct a pre-construction road condition assessment along Carmel Valley Road and entrances and exits to all staging yards. SDG&E shall submit the pre-construction road condition assessment to the CPUC and the local jurisdiction (e.g., City of San Diego or City of Poway). If damage to roads

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occurs as a result of project construction or construction vehicle traffic, SDG&E shall restore damaged roadways within 60 days after the completion of construction at their own expense under the direction of and to the construction standard of the affected local jurisdiction to ensure that impacted roads are adequately repaired.

Mitigation Measure Traffic-4: Temporary Traffic Control Measures. ~~To mitigate the risk of the conductor falling onto traveled roadways during wire stringing operations, Prior to conductor stringing,~~ SDG&E shall determine whether a temporary temporarily close roads closure or incorporate temporary support measures to protect traffic, such as guard structures or netting across roadways that would catch and support the conductor above traffic, would be necessary in the event that tension control of the conductor is lost during installation. The selected temporary measures to be incorporated shall be identified on construction plans and installed by SDG&E in advance of construction and shall remain in place until the conductor is clipped into support hardware on the transmission line structures. SDG&E shall implement all traffic control procedures and measures defined in Mitigation Measure Traffic-1 during installation of temporary support measures or temporary road closure.

Mitigation Measure Traffic-5: Highway Closure Plans. SDG&E shall prepare and submit to Caltrans closure plans as part of the encroachment permit application at least 30 days prior to crossings of SR-56 and I-15. The plans shall require that closure or partial closure of SR-56 and I-15 be limited to off-peak, non-daytime hours, from 10 PM to 5 AM, and that signage be posted prior to the closure to alert drivers of the closure in accordance with Caltrans requirements. Highway closure times will be reviewed and approved by Caltrans to minimize delay to SR-56 and I-15 traffic. The plan shall also outline suggested detours to use during the closures, traffic, including routes and signage. No work shall begin in Caltrans right-of-way until the encroachment permit and Highway Closure Plan are approved by Caltrans. Should emergency evacuation occur prior to or during the highway closure, the closure shall be delayed or ceased to allow unimpeded flow of traffic.

Mitigation Measure Traffic-6: Restrict Road Closures and Maintain Access. SDG&E shall restrict all necessary lane closures or obstructions ~~on major roadways~~ associated with overhead or underground construction activities to off-peak periods to reduce traffic delays. Lane closures must not occur between 6 AM and 9:30 AM and between 3:30 PM and 6:30 PM, unless otherwise directed in writing by the responsible public agency issuing an encroachment permit. SDG&E shall coordinate with schools prior to construction within 1,000 feet of school property to ensure entryways to schools are not blocked during peak drop-off and pick-up hours. Underground work areas within intersections or traffic lanes shall be adequately covered with steel plating prior to 3:30 PM to

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allow uninterrupted traffic flow during peak traffic periods. All residents within 300 feet of proposed temporary lane or road closures shall be notified ~~within at~~ least 7 days ~~of prior to~~ a temporary lane or road closure. SDG&E shall maintain travel through intersections at all times during construction. Access to driveways including entrances to residential communities shall be maintained at all times during construction. SDG&E or its construction contractors shall provide the ability to quickly lay a temporary steel plate trench bridge upon request in order to ensure driveway access to schools, businesses, and residences and shall provide continuous access to properties when not actively constructing the underground cable alignment. In the event of a nearby fire or other emergency, steel plating shall be placed over underground work areas and construction equipment shall be removed from the partially or fully closed roadways, as needed, to permit uninterrupted traffic flow.

Mitigation Measure Traffic-7: Closure Notification and Detours. Where construction results in temporary closures of sidewalks and other pedestrian facilities, SDG&E shall provide temporary pedestrian access, through detours or safe areas along the construction zone. Where construction activity results in bike route or bike path closures, appropriate detours shall be defined. Signs shall be placed along the closed bike path a minimum of 7 days prior to bike path closure notifying bicyclists of the proposed construction activities and duration of bike path closure. Notifications posted along the bike path shall include the locations of detours and alternate routes to avoid conflicts with the construction area.

Significance after mitigation: Less than significant.

Impact Traffic-5: Would the Proposed Project result in inadequate emergency access? (Less than significant with mitigation)

Construction

Transmission Line Segments A, C, and D

Construction of the overhead transmission line within Segments A, C, and D requires stringing conductor across I-15, SR-56, and local roadways. These highways and roadways could be closed temporarily during guard structure installation and/or stringing to reduce potential hazards to vehicle traffic. The closure would likely be for a half hour or less; however, the temporary closure could restrict emergency access, which would be a significant impact.

Mitigation Measure Traffic-8 requires that SDG&E provide advance notice to emergency service providers prior to any road closure. The advance notice would allow emergency service providers to plan alternate routes for use during the temporary road closure. Mitigation Measure Traffic-1 requires use of temporary traffic detours to redirect traffic during temporary road closures. Impacts to emergency access would be less than significant with mitigation.

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Underground Transmission Line Segment B

Construction of the underground transmission line would require temporary closure of the eastbound lane of traffic on Carmel Valley Road while vaults are installed on Segment B, west of Camino Del Sur. The eastbound traffic lane would be closed for approximately two 10-minute periods per vault, while each half of the vault is installed. The temporary lane closure would restrict emergency access, which would be a significant impact.

The underground transmission line work area crosses entrances to communities and commercial areas south of Carmel Valley Road. Duct bank construction would involve trenching within the roadway across the entrance/exit area from these communities. The Proposed Project would have a significant impact on emergency access if it were to block an entrance or exit to a residential community or commercial area. APM TR-1 would reduce impacts on emergency access through coordination with emergency personnel during construction on Carmel Valley Road. While APM TR-1 would reduce impacts, failure to properly notify emergency personnel prior to all lane closures or restricting access to a community during underground construction would be a significant impact.

Mitigation Measure Traffic-8 requires that SDG&E provide advance notice to emergency service providers prior to any lane or road closure. The advance notice would allow emergency service providers to plan alternate routes for use during the temporary lane closure. Mitigation Measure Traffic-6 requires SDG&E to provide access out of any driveway, residential community, or commercial area at all times during construction. Mitigation Measure ~~Traffic-6~~ Traffic-1 requires use of temporary traffic detours to redirect traffic during temporary lane or road closures. Impacts to emergency access would be less than significant with mitigation.

Staging Yards

Large trucks entering and exiting staging yards would slow vehicle travel as large trucks enter and exit the staging yards. Equipment and material delivery at staging yards would cause delays for traffic along roads next to staging yards. The temporary delays at the entrance and exit to staging yards would not cause delays for emergency vehicles because each road near the entrance and exit to a staging yard includes four lanes of travel and emergency vehicles could travel around the construction vehicles entering and exiting the staging yard without impact to emergency access. The impact to emergency access from equipment staging would be less than significant. No mitigation is required.

Substations, Encina Hub, and Mission—San Luis Rey Phase Transposition

Substation, Encina Hub, and Mission—San Luis Rey phase transposition work would not require any lane or road closures and would not restrict vehicle access on any roadways. There would be no impact to emergency access.

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Operation and Maintenance

Transmission Line Segments A, C, and D

Routine operation and maintenance of the Proposed Project would not involve road closures. After construction, emergency access would be restored to baseline conditions. Impacts to emergency access would not occur.

Underground Transmission Line Segment B

Inspection and maintenance work of underground Segment B may require temporary lane closures to avoid the vaults during inspections. At least one lane of traffic would remain open in each direction at all times and emergency access would therefore be maintained. Impacts to emergency access from operation and maintenance of Segment B would be less than significant. No mitigation is required.

Mitigation Measures: Traffic-1 (refer to Impact Traffic-1), Traffic-6 (refer to Impact Traffic-4), Traffic-8

Mitigation Measure Traffic-8: Notify Emergency Personnel of Road Closures.

SDG&E shall notify local emergency personnel (i.e., fire departments, police departments, ambulance, and paramedic services) at least 1 week prior to lane or road closures. The notice shall include location(s), date(s), time(s), and duration of closure(s), and a contact number for SDG&E project personnel.

Significance after mitigation: Less than significant.

Impact Traffic-6: Would the Proposed Project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? (*Less than significant with mitigation*)

Construction

Transmission Line Segments A, C, and D

Construction activities would occur on roads that are used for public transit, bicycle travel (including Class I, II, and III bike lanes), and pedestrian travel. Overhead transmission line construction could require temporary closure of pedestrian or bicycle facilities during guard structure installation or conductor stringing. The temporary closure of these facilities would temporarily impact pedestrian and bicycle travel. The brief delays (less than 30 minutes) that could occur during guard structure installation or overhead conductor installation would not decrease the performance or safety of public transit, bicycle, or pedestrian facilities. Impacts to pedestrian and bicycle travel from overhead transmission line construction would be less than significant. No mitigation is required.

Underground Transmission Line Segment B

There are no public transit facilities located along Segment B (e.g., no bus stops). The Proposed Project construction on Segment B would not affect public transit facilities or performance.

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The underground transmission line west of Camino Del Sur would be located within a Class II bicycle lane. Construction of the underground transmission line between Segment C and Camino Del Sur would require temporary closure of the bicycle lane on Carmel Valley Road for up to 7 months during excavation and duct bank construction. The temporary bicycle lane closure could cause bicyclists to enter an active vehicle traffic lane on Carmel Valley Road which would decrease the performance and safety of the facility. Similarly, the temporary sidewalk closure could reduce pedestrian safety by causing pedestrians to walk along the roadway. These impacts would be significant.

Mitigation Measure Traffic-1 requires implementation of a CTMP that includes detours for bicyclists and pedestrians. Mitigation Measure Traffic-7 specifies the notification and detour requirements for bike lane or sidewalk closures. These measures would reduce the safety hazards to pedestrians and bicyclists during construction. The Proposed Project would not conflict with adopted plans or policies regarding public transit, bicycle, or pedestrian facilities and impacts to the safety of bicyclists and pedestrians would be less than significant with mitigation.

Staging Yards

Ingress and egress of construction equipment and vehicles could potentially affect the use of bicycle lanes on roads adjacent to the staging yards. Class II and III bike lanes are located adjacent to Proposed Project staging yards. Equipment and large vehicle ingress and egress could reduce bicycle safety on these roads, resulting in a significant impact.

Mitigation Measure Traffic-1 requires preparation of a CTMP, which would specify measures to ensure bicyclist safety, such as having flag men to halt bicycle traffic during truck ingress and egress. Impacts would be less than significant with mitigation.

Substations, Encina Hub, and Mission—San Luis Rey Phase Transposition

Substations, Encina Hub, and Mission—San Luis Rey phase transposition work areas are not located in areas with public transit, pedestrian, or bicycle facilities. Construction activities in these areas would have no impact on public transit, bicycle, or pedestrian facilities.

Operation and Maintenance

Transmission Line Segments A, C, and D

The presence of the overhead transmission line would not conflict with public transit, bicycle, or pedestrian facility use. The overhead line would be located outside of the roadway and would not conflict with public transit, bicycle, or pedestrian facilities. There would be no conflict from the presence of the overhead transmission line and impacts would be less than significant.

Underground Transmission Line Segment B

The underground transmission line within Segment B would require ~~annual~~ inspections approximately every three years and maintenance. Each of the ten vaults on Segment B would be inspected for one day or less ~~per every three years~~. Because the vaults are located within the bicycle lane west of Camino Del Sur, short segments of the bicycle lane would be closed for less than a day ~~annually~~ during routine inspections. The impact to the performance of the bicycle

4.7 TRANSPORTATION AND TRAFFIC

lane and safety of bicyclists would be less than significant due to the short duration and area of the bicycle lane closures. No mitigation is required.

Substations

All substation improvements would occur within the existing fenced substation yard where there is no public transit, bicycle, or pedestrian facilities. There would be no impact.

Mitigation Measures: Traffic-1 (refer to Impact Traffic-1) and Traffic-7 (refer to Impact Traffic-4)

Significance after mitigation: Less than significant.

Impact Traffic-7: Would the Proposed Project cause temporary road and lane closures that would temporarily disrupt traffic flow? (*Less than significant with mitigation*)

Construction

Overhead Transmission Line Crossings of Highways

SDG&E proposes to string conductor across I-15 and SR-56 at two locations that could require temporarily closing I-15 and SR-56 while the sock line is flown over the highway. SDG&E may also install temporary guard structures on either side of the highway with netting under the conductor stringing area. Closures of I-15 and SR-56 for conductor stringing and installation of guard structures would cause temporary interruption of traffic flow on the highway. These temporary closures would cause a significant impact on traffic flow if the closure occurred during peak and daytime traffic hours.

Mitigation Measure Traffic-5 would reduce impacts to traffic flow from temporary closure of I-15 and SR-56 during conductor stringing or guard structure installation by limiting the closure to non-peak hours. SDG&E must obtain an encroachment permit from Caltrans for its work in the highway ROW. The encroachment permit would contain additional measures to further reduce the less-than-significant impacts to traffic flow on I-15 and SR-56. The impact from highway closures would be less than significant with mitigation.

Overhead Transmission Line Crossings of Roads

Overhead conductor would be installed over more than 25 roads within the Proposed Project area. SDG&E has proposed installation of guard structures to prevent the transmission line from falling on the roadway during conductor stringing; however, lane or road closures may be necessary depending on the type of guard that would be used (e.g., a bucket truck may take up a portion of a lane while serving as a guard structure). Lanes may also be closed temporarily during installation or removal of temporary guard structures. Temporary closure of lanes or roads during conductor stringing would significantly impact traffic flow if the temporary closure occurred during peak traffic hours.

Mitigation Measure Traffic-6 requires timing of lane closures to avoid peak traffic hours. Impacts to traffic flow from temporary lane closures would be less than significant with mitigation.

4.7 TRANSPORTATION AND TRAFFIC

Underground Transmission Line Segment B

The Proposed Project involves underground transmission line construction within Carmel Valley Road for approximately 2.8 miles. The underground construction work area would be approximately 16 feet wide with an approximately 3-foot wide open trench during duct bank construction. Ten splice vaults are proposed along the underground segment. The splice vaults would occupy an area 24 feet long by 8 10 feet wide within an approximately 30-foot wide work area.

Carmel Valley Road has one to two lanes of traffic in each direction within Segment B. The duct bank and vault work areas would primarily be located in the median between Black Mountain Park Driveway and approximately 400 feet west of Camino Del Sur. The duct bank would cross the westbound lane of traffic at the entrance to the Black Mountain Ranch Community Park. The crossing of the traffic lane would require temporary closure of the traffic lane to avoid the active construction area. West of Camino Del Sur to Segment C, the transmission line work area would occupy the southern lane of traffic and bike lane. The vault work areas would occupy both eastbound lanes of traffic at all vault locations west of Camino Del Sur. Underground duct bank construction within the southern lane of eastbound traffic would require temporary lane closures to avoid the area of excavation, which could temporarily impact traffic flow at Camino Del Sur, County Villas Place, Torrey del Mar Drive, and Moana Lane intersections with Carmel Valley Road. The temporary lane closure and work area could also temporarily block the Carmel Valley Road entrance/exit to the commercial center east of Torrey Del Mar Drive and the residential communities south of Carmel Valley Road.

Eastbound traffic on Carmel Valley Road would be stopped for two 10- to 15-minute periods for installation of each of the ten vaults. The temporary lane and road closures would significantly impact traffic flow if the closure occurred during peak traffic hours on Carmel Valley Road.

Mitigation Measure Traffic-6 requires that all lane or road closures occur during off-peak periods and requires maintenance of at least one lane of traffic for entrances and exits to commercial and residential areas. Temporary impacts to traffic flow from underground construction in Carmel Valley Road would be less than significant with mitigation.

Staging Yard Ingress/Egress

Traffic may be slowed or stopped temporarily on roads adjacent to staging yards as trucks transporting construction materials and equipment enter and exit the staging yard. While slow moving trucks entering or exiting Proposed Project staging yards could cause minor impacts to traffic flow, no temporary lane or road closures are anticipated at roads adjacent to staging yards. Therefore, impacts to traffic flow from staging yard ingress/egress would be less than significant. No mitigation is required.

Substation, Encina Hub, and Mission—San Luis Rey Phase Transposition

No temporary road or lane closures would be required for substation modifications, Encina Hub work, or Mission—San Luis Rey phase transposition. There would be no impact related to temporary lane or road closures.

4.7 TRANSPORTATION AND TRAFFIC

Operation and Maintenance

Transmission Line Segments A, C, and D

No lane closures would be required to operate the overhead transmission lines within Segments A, C, and D. In the unlikely event of a downed transmission line across a roadway, SDG&E would implement emergency maintenance procedures and traffic management, including temporary road closures to avoid the emergency maintenance work area. Because there are existing lines within the transmission corridor that cross roadways and could be downed by weather, the risk of a downed line would not increase from existing conditions; therefore, the impacts from temporary lane closure associated with a downed transmission line would be less than significant. No mitigation is required.

Underground Transmission Line Segment B

Temporary lane closures could be required during ~~annual~~ inspections approximately every three years at the ten underground vaults within Segment B. Traffic control would be implemented during vault access and vault inspection. Because the vaults would be inspected visually once a-every three years, ~~and~~ each vault inspection would take less than a day, and standard traffic controls would be employed for worker safety as required by OSHA and FHWA, the impact to traffic flow would be less than significant. No mitigation is required.

Substations

No lane closures would be required for operation and maintenance of the substation modifications. All substation modifications would be located within the existing substation yard. There would be no impact from temporary lane or road closures.

Mitigation Measures: Traffic-5 and Traffic-6 (refer to Impact Traffic-4)

Significance after mitigation: Less than significant.

Impact Traffic-8: Would the Proposed Project result in inadequate parking capacity? (Significant and unavoidable)

Construction

Transmission Line Segments A, C, and D

The overhead transmission line (Segments A, C, and D) would not be constructed over any parking lots. No parking lots are proposed for staging of materials. Construction workers and vehicles would park within staging yards and would not take up parking spaces within existing parking lots. Therefore, construction of the overhead transmission line would have no impact on parking capacity.

Underground Transmission Line Segment B

Trenching, setting of the proposed vault, and cabling within Black Mountain Ranch Community Park would temporarily reduce access to parking. Trenching in the Black Mountain Community Ranch Park would require closing access to 68 parking spaces for approximately 6 days. Cabling would take approximately 25 days and would require closing the northern parking lot

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(approximately 20 parking spaces). The Black Mountain Ranch Community Park currently has limited parking capacity for the volume of recreational activity that takes place at the park. The temporary loss of parking would be significant because there is no parking in the vicinity of Black Mountain Ranch Community Park and the lack of adequate parking could require circling or parking in unsafe areas. SDG&E would implement APM PS-3 as part of the Proposed Project. APM PS-3 (coordination with parks) may reduce impacts through coordination with the park prior to stringing activities; however, stringing activities could still result in temporary loss of parking which would be a significant impact due to the lack of adequate parking in the vicinity of the park. Mitigation Measures Traffic-9 (notification of temporary parking closures) and Traffic-10 (avoid parking loss during periods of heavy use) would reduce impacts. Mitigation Measure Traffic-9 requires notification of the temporary parking space closure to encourage recreationists to find alternative means of transportation to the park during parking closure. Mitigation Measure Traffic-10 would reduce impacts by requiring City approval for use of the parking area and limiting the timing of parking closures. While these mitigation measures would reduce impacts, construction would still result in the closure and loss of parking space without adequate parking nearby because the duration of construction within the parking area would be approximately a month. Impacts from the temporary loss of parking at Black Mountain Ranch Community Park would be significant and unavoidable.

Operation and Maintenance

The Proposed Project poles and permanent work pads would not occupy any parking spaces. There would be no loss of parking spaces as a result of the Proposed Project. The Proposed Project would not increase demand for parking because operation and maintenance of the Proposed Project would not require regular vehicle travel or parking on area roads. Inspection and maintenance of the proposed poles and transmission line would be conducted from SDG&E's existing access road network. Inspection and maintenance vehicles would park within the permanent pads at each pole location and would not require new parking. There would be no impact.

Mitigation Measures: Traffic-9 and Traffic-10

Mitigation Measure Traffic-9: Notification of Temporary Parking Closures.

SDG&E shall notify the public of any temporary parking space closures. Notification of temporary parking space closure shall be made through multiple media such as local newspapers and on-site postings at least 14 days prior to any closures.

Mitigation Measure Traffic-10: Avoid Parking Loss during Periods of Heavy Use. SDG&E shall coordinate with the City of San Diego Department of Parks and Recreation regarding the timing and location of stringing activities within Black Mountain Ranch Community Park. SDG&E shall avoid impacts to any parking spaces within the park during the periods of heavy recreational use identified by the City. SDG&E shall provide documentation of City of San Diego approval of use of the parking lot to the CPUC at least 30 days prior to any

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construction activities that would result in the loss of parking spaces within Black Mountain Ranch Community Park.

Significance after mitigation: Significant and unavoidable.

4.7.9 Alternative 1: Eastern Cable Pole at Carmel Valley Road (Avoids Cable Pole in Black Mountain Ranch Community Park)

Alternative 1 would involve installation of a new cable pole immediately south of and adjoining Carmel Valley Road within existing SDG&E ROW, transitioning the Segment A overhead transmission line directly into the proposed Carmel Valley Road Segment B underground alignment. Alternative 1 would avoid installation of a cable pole and underground duct bank within the Black Mountain Ranch Community Park. This alternative is described in more detail in Chapter 3: Alternatives.

4.7.9.1 Alternative 1 Environmental Setting

LOS

Alternative 1 would be constructed adjacent to Carmel Valley Road. The traffic conditions for Carmel Valley Road are provided in Appendix M. Carmel Valley Road currently operates at LOS B in the vicinity of Alternative 1. Carmel Valley Road is not a CMP highway. The nearest CMP highway to Carmel Valley Road is SR-56, approximately 2 miles south of Carmel Valley Road. SR-56 currently operates at an LOS F during peak hours.

Airports

The nearest airport to Alternative 1 is MCAS Miramar, located approximately 7 miles south of Alternative 1 (Figure 4.7-4).

Bicycle and Pedestrian Facilities

There is a Class II bicycle lane on Carmel Valley Road and a sidewalk, adjacent to the Alternative 1 cable pole.

Public Transit

There are no public transit facilities in proximity to Alternative 1.

4.7.9.2 Alternative 1 Impacts and Mitigation Measures

Table 4.7-11 summarizes the impacts to transportation and traffic from Alternative 1.

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Table 4.7-11 Summary of Alternative 1 Impacts to Transportation and Traffic

Significance Criteria	Project Phase	Significance Prior to APMs	Significance after APMs and before Mitigation	Significance after Mitigation
Impact Traffic-1: Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit	Construction	Less than significant	---	---
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-2: Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways	Construction	No impact	---	---
	Operation and Maintenance	No impact	---	---
Impact Traffic-3: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks	Construction	No impact	---	---
	Operation and Maintenance	No impact	---	---
Impact Traffic-4: Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)	Construction	Significant	Significant	Less than significant MM Traffic-1 MM Traffic-3 MM Traffic-7
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-5: Result in inadequate emergency access	Construction	No impact	---	---
	Operation and Maintenance	No impact	---	---
Impact Traffic-6: Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities	Construction	Significant	Significant	Less than significant MM Traffic-1 MM Traffic-7
	Operation and Maintenance	Less than significant	---	---

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Significance Criteria	Project Phase	Significance Prior to APMs	Significance after APMs and before Mitigation	Significance after Mitigation
Impact Traffic-7: Cause temporary road and lane closures that would temporarily disrupt traffic flow	Construction	Significant	Significant	Less than significant MM Traffic-6
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-8: Result in inadequate parking capacity	Construction	Significant	Significant APM PS-3	Less than significant MM Traffic-9 MM Traffic-10
	Operation and Maintenance	No impact	---	---

Alternative 1 would have no impact under three of the CEQA significance criteria for traffic and transportation: Impacts Traffic-2, -3, and -5, as indicated in Table 4.7-11 above. The cable pole and underground vault would be installed directly adjacent to Carmel Valley Road. Carmel Valley Road is not a CMP designated road. Construction, operation and maintenance of Alternative 1 would have no impact on CMP roads because travel on CMP roads is not required to access the Alternative 1 area. The construction, operation, and maintenance of Alternative 1 would not trigger FAA notification requirements and helicopters would not be required to install the cable pole. Therefore there would be no impact on air traffic patterns or risk to air traffic safety. Alternative 1 would also be located off of Carmel Valley Road and the construction, operation, and maintenance would not affect emergency access.

Impact Traffic-1: Would Alternative 1 conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency, taking into account all modes of transportation? (*Less than significant; no mitigation required*)

Construction

Construction of Alternative 1 would add traffic to Carmel Valley Road for a few weeks while the retaining wall around the cable pole is constructed and the cable pole is installed. Carmel Valley Road operates at LOS B. The road would continue to operate at LOS B during construction of Alternative 1 and would therefore continue to meet City of San Diego LOS standards. Impacts from Alternative 1 would be less than significant. No mitigation is required.

Operation and Maintenance

SDG&E maintenance and inspection activities for Alternative 1 would consist of annual inspections and as-needed maintenance of the pole and inspection approximately every three years of the underground transmission line. Maintenance would be primarily conducted from within the fenced enclosure surrounding the cable pole; however, specialized equipment such

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as a crane may be needed to lift workers to the phase position due to the height and location of the cable pole. Such equipment would not fit in the fenced enclosure and would therefore be positioned on the southern side of Carmel Valley Road, which would require temporary lane closures and traffic control as required by City of San Diego encroachment permits. Because of the irregular nature and low activity level for inspection and maintenance of the transmission line, inspection and maintenance activities would not be a source of new traffic on area roads, nor would temporary lane closures substantially disrupt traffic circulation or conflict with an applicable traffic standard. Therefore, operation and maintenance of Alternative 1 would have a less than significant impact on LOS. No mitigation is required.

Mitigation Measures: None required.

Impact Traffic-4: Would Alternative 1 substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (Less than significant with mitigation)

Construction

The Alternative 1 cable pole would be constructed directly adjacent to and south of Carmel Valley Road. Construction of a flat pad, fence, and cable pole along the road could require equipment to work within the roadway increasing hazards to vehicle, bicycle, and pedestrian traffic on Carmel Valley Road. The increase in hazards would be a significant impact.

Construction of the driveway to the cable pole could also result in damage to Carmel Valley Road and the bicycle lane, which would cause a significant hazard to vehicles and bicyclists. Implementation of Mitigation Measures Traffic-1, Traffic-3, and Traffic-7 would reduce impacts from construction vehicle traffic through implementation of traffic management and safety measures, post-construction road repair, and closure of the bicycle and pedestrian lane with detours around the work area. Impacts would be less than significant with mitigation.

Operation and Maintenance

The Alternative 1 cable pole would be located off of Carmel Valley Road. The Alternative 1 cable pole would be accessed via a driveway and gated entry off of Carmel Valley Road during maintenance activities. A permanent pad and fence would enclose the cable pole and vehicles would not block Carmel Valley Road during maintenance activities. Alternative 1 does not involve changes to the existing road layout and, therefore, Alternative 1 would not create any hazards related to road design.

Mitigation Measures: Traffic-1, Traffic-3, and Traffic-7 (refer to Section 4.7.8)

Significance after mitigation: Less than significant.

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Impact Traffic-6: Would Alternative 1 conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? (*Less than significant with mitigation*)

Construction

There are no public transit facilities in the vicinity of Alternative 1 (e.g., no bus stops). Construction of Alternative 1 would not affect public transit facilities or performance.

The temporary bicycle lane closure on Carmel Valley Road for construction of the cable pole and underground connection to Segment B could cause bicyclists to enter an active vehicle traffic lane, which would decrease the performance and safety of the facility. Similarly, the temporary sidewalk closure in the vicinity of Alternative 1 could reduce pedestrian safety by causing pedestrians to walk along the roadway. These impacts would be significant. Mitigation Measures Traffic-1 and Traffic-7 would reduce the safety hazards to pedestrians and bicyclists during construction through implementation of traffic management and safety measures and temporary closure and detours for pedestrian and bicycle facilities. Impacts on adopted plans or policies regarding public transit, bicycle, or pedestrian facilities would be less than significant with mitigation.

Operation and Maintenance

SDG&E would perform annual inspections of the cable pole at Carmel Valley Road and maintenance would be conducted on an as-needed basis. The cable pole would be accessed via a locked entry off of Carmel Valley Road and south of the bicycle lane and sidewalk area. Maintenance of the cable pole would not require closure of the bicycle lane or sidewalk. There would be no impact to bicycle or pedestrian facilities during Alternative 1 operation and maintenance.

Mitigation Measures: Traffic-1 and Traffic-7 (refer to Section 4.7.8)

Significance after mitigation: Less than significant.

Impact Traffic-7: Would Alternative 1 cause temporary road and lane closures that would temporarily disrupt traffic flow? (*Less than significant with mitigation*)

Construction

Temporary lane closures may be required during construction of the pad for the cable pole at Carmel Valley Road, cable pole installation, and underground duct bank construction to Segment B. The temporary lane closure on Carmel Valley Road would significantly impact traffic flow if the closure occurred during peak traffic hours on Carmel Valley Road. Implementation of Mitigation Measure Traffic-6 would reduce impacts to traffic flow by restricting road closures to non-peak hours. Impacts would be less than significant with mitigation.

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Operation and Maintenance

The Alternative 1 cable pole would be located off of Carmel Valley Road and would include a maintenance pad for access. Operation and maintenance would not cause temporary road or lane closures on Carmel Valley Road because maintenance activities would be conducted from the maintenance pad off of the roadway. No impact would occur.

Mitigation Measures: Traffic-6 (refer to Section 4.7.8)

Significance after mitigation: Less than significant.

Impact Traffic-8: Would Alternative 1 result in inadequate parking capacity? (*Less than significant with mitigation*)

Construction

Alternative 1 would require closure of up to 56 parking spaces in Black Mountain Ranch Community Park during stringing of the transmission line from the Alternative 1 cable pole. The parking could be closed for up to 12 days. The temporary loss of parking would be significant because there is no parking in the vicinity of the park. Implementation of APM PS-3 (coordination with parks) may reduce impacts through coordination with the park prior to stringing activities; however, stringing activities could still result in temporary loss of parking which would be a significant impact due to the lack of adequate parking in the vicinity of the park and potential to require circling or parking in unsafe areas. Mitigation Measures Traffic-9 (notification of temporary parking closures) and Traffic-10 (avoid parking loss during periods of heavy use) would reduce impacts by requiring SDG&E to notify the public prior to any parking closures and requiring City approval for use of the parking area prior to stringing within the parking lot. Impacts would be less than significant with mitigation.

Operation and Maintenance

Alternative 1 would not occupy any parking spaces. There would be no loss of parking spaces or increase in demand for parking as a result of Alternative 1. Inspection and maintenance vehicles would park within the locked gate at the cable pole pad and would not require new parking. There would be no impact.

Mitigation Measures: Traffic-9 and Traffic-10 (refer to Section 4.7.8)

Significance after mitigation: Less than significant.

4.7.10 Alternatives 2a and 2b: Eastern Cable Pole at Pole P40 and Underground Alignment through City Open Space or City Water Utility Access Road (Avoids Cable Pole in Black Mountain Ranch Community Park)

Alternative 2 would involve installation of a new cable pole in the same location for both Alternatives 2a and 2b, approximately 300 feet south of Carmel Valley Road within existing SDG&E ROW, transitioning the Segment A overhead transmission line into the proposed Carmel Valley Road Segment B underground alignment via one of two underground alignment

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options. Alternative 2a would locate the underground duct bank west of SDG&E ROW through City of San Diego open space and into Carmel Valley Road. Alternative 2b would locate the underground duct bank east of SDG&E ROW through a City of San Diego water utility service road and into Carmel Valley Road. Both Alternative 2a and 2b would avoid installation of a cable pole and underground duct bank within the Black Mountain Ranch Community Park. This alternative is described in more detail in Chapter 3: Alternatives.

4.7.10.1 Alternative 2 Environmental Setting

LOS

Alternative 2 would be constructed approximately 300 feet south of Carmel Valley Road. The traffic conditions for Carmel Valley Road are provided in Appendix M. Carmel Valley Road currently operates at LOS B in the vicinity of Alternative 2. Carmel Valley Road is not a CMP highway. The nearest CMP highway to Carmel Valley Road is SR-56, approximately 2 miles south of Alternative 2. SR-56 currently operates at an LOS F during peak hours.

Airports

The nearest airport to Alternative 2 is MCAS Miramar, located approximately 7 miles south of Alternative 2 (Figure 4.7-4).

Bicycle and Pedestrian Facilities

There is a Class II bicycle lane on Carmel Valley Road and a sidewalk on Carmel Valley Road. The Alternative 2a underground alignment in City open space and 2b underground alignment in City water utility access road both cross the bicycle lane and sidewalk on Carmel Valley Road.

Public Transit

There are no public transit facilities in proximity to Alternative 2.

4.7.10.2 Alternative 2 Impacts and Mitigation Measures

Table 4.7-12 summarizes the impacts to transportation and traffic from Alternative 2.

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Table 4.7-12 Summary of Alternative 2 Impacts to Transportation and Traffic

Significance Criteria	Project Phase	Significance Prior to APMs	Significance after APMs and before Mitigation	Significance after Mitigation
Impact Traffic-1: Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit	Construction	Less than significant	---	---
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-2: Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways	Construction	No impact	---	---
	Operation and Maintenance	No impact	---	---
Impact Traffic-3: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks	Construction	No impact	---	---
	Operation and Maintenance	No impact	---	---
Impact Traffic-4: Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)	Construction	Significant	Significant	Less than significant MM Traffic-1 MM Traffic-3 MM Traffic-7
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-5: Result in inadequate emergency access	Construction	No impact	---	---
	Operation and Maintenance	No impact	---	---
Impact Traffic-6: Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities	Construction	Significant	Significant	Less than significant MM Traffic-1 MM Traffic-7
	Operation and Maintenance	No impact	---	---

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Significance Criteria	Project Phase	Significance Prior to APMs	Significance after APMs and before Mitigation	Significance after Mitigation
Impact Traffic-7: Cause temporary road and lane closures that would temporarily disrupt traffic flow	Construction	Significant	Significant	Less than significant MM Traffic-6
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-8: Result in inadequate parking capacity	Construction	Significant	Significant APM PS-3	Less than significant MM Traffic-9 MM Traffic-10
	Operation and Maintenance	No impact	---	---

Alternative 2 would have no impact on three CEQA significance criteria for traffic and transportation: Impact Traffic-2, -3, and -5, as indicated in Table 4.7-12 above. The cable pole and underground alignment 2a in City Open Space or 2b in the City water utility service road would be installed south of Carmel Valley Road. Carmel Valley Road is not a CMP designated road. Construction, operation, and maintenance of Alternative 2 would have no impact on CMP roads because travel on CMP roads is not required to access the Alternative 2 area. The construction, operation, and maintenance would not trigger FAA notification requirements and helicopters would not be required to install the cable pole because there is adequate access to the cable pole location; therefore, there would be no impact on air traffic patterns or risk to air traffic safety. Alternative 2 would not affect emergency access because the cable pole and underground alignment including the vaults would be located off of City roadways and would not cause any lane or road closures.

Impact Traffic-1: Would Alternative 2 conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency, taking into account all modes of transportation? (*Less than significant; no mitigation required*)

Construction

Construction of Alternative 2 would add traffic to Carmel Valley Road for a few weeks while the cable pole foundation is constructed, the cable pole is installed, and the underground duct bank and vaults are constructed through either City open space or the City water utility service road. Carmel Valley Road operates at LOS B. The road would continue to operate at LOS B during construction of Alternative 2 and would therefore continue to meet City of San Diego LOS standards. Impacts from Alternative 2 would be less than significant. No mitigation is required.

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Operation and Maintenance

SDG&E maintenance and inspection activities for Alternative 2 would consist of annual inspections and as-needed maintenance of the cable pole and inspection approximately every three years of the underground transmission line. Maintenance of the cable pole would be conducted within SDG&E ROW, off of area roadways. Because of the irregular nature and low activity level for inspection and maintenance of the cable pole and underground transmission line, inspection and maintenance activities would not be a source of new traffic on area roads. Therefore, operation and maintenance of Alternative 2 would have a less than significant impact on LOS. No mitigation is required.

Mitigation Measures: None required.

Impact Traffic-4: Would Alternative 2 substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (Less than significant with mitigation)

Construction

Vehicle Traffic

Construction of the underground transmission line options 2a and 2b would require an open trench connecting to Carmel Valley Road. Option 2a involves an open trench on Black Mountain Road and Carmel Valley Road and Option 2b involves an open trench on the southern lane of Carmel Valley Road during duct bank and vault construction. The open trench would create potentially hazardous conditions. The open trench as well as the presence of construction equipment, workers, and vehicles in proximity to flowing traffic would create a hazard for the workers and vehicular traffic if traffic entered the active work area. Construction within the roadway would also create a significant hazard if the roadway was not adequately repaired at the completion of construction. These impacts would be significant. Implementation of Mitigation Measures Traffic-1 and Traffic-3 would reduce impacts related to vehicle traffic hazards from underground transmission line construction through implementation of traffic controls and post-construction road repair. Impacts would be less than significant with mitigation.

Bicyclists and Pedestrians

Construction of the Alternative 2 underground transmission to connect with Segment B at Carmel Valley Road would require temporary closure of the bicycle lane and sidewalk on Carmel Valley Road, which would create a hazard for pedestrians and bicyclists as they navigate around the work area. The increased hazard would be a significant impact. Mitigation Measures Traffic-1 and Traffic-7 would reduce safety hazards to pedestrians and bicyclists during construction through implementation of traffic controls and temporary closure and detours for pedestrian and bicycle facilities. Impacts related to bicycle and pedestrian hazards would be less than significant with mitigation.

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Operation and Maintenance

Alternative 2 does not involve changes to existing road layout and, therefore, Alternative 2 would not create any hazards related to road design. Alternative 2 does not involve any structures within roadways that could require maintenance or repair.

Mitigation Measures: Traffic-1, Traffic-3, and Traffic-7 (refer to Section 4.7.8)

Significance after mitigation: Less than significant.

Impact Traffic-6: Would Alternative 2 conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? (*Less than significant with mitigation*)

Construction

There are no public transit facilities located in proximity to Alternative 2 (e.g., no bus stops). Construction of Alternative 2 on Segment B would not affect public transit facilities or performance.

The temporary bicycle lane and sidewalk closure on Carmel Valley Road for construction of the Alternative 2 underground connection to Segment B could cause bicyclists and pedestrians to enter an active vehicle traffic lane, which would decrease the performance and safety of the facility. These impacts would be significant. Implementation of Mitigation Measures Traffic-1 and Traffic-7 would reduce the safety hazards to pedestrians and bicyclists during construction through implementation of traffic management and safety measures and temporary closure and detours for pedestrian and bicycle facilities. Alternative 2 would not conflict with adopted plans or policies regarding public transit, bicycle, or pedestrian facilities, and impacts to the safety of bicyclists and pedestrians would be less than significant with mitigation.

Operation and Maintenance

Alternative 2 would not conflict with any public transit, bicycle, or pedestrian facilities because no Alternative 2 operation or maintenance activities would be conducted within any of these facilities. There would be no impact.

Mitigation Measures: Traffic-1 and Traffic-7 (refer to Section 4.7.8)

Significance after mitigation: Less than significant.

Impact Traffic-7: Would Alternative 2 cause temporary road and lane closures that would temporarily disrupt traffic flow? (*Less than significant with mitigation*)

Construction

Temporary lane closures for construction of the Alternative 2 underground transmission line connection to Carmel Valley Road would significantly impact traffic flow if the closure occurred during peak traffic hours on Carmel Valley Road. Implementation of Mitigation Measure Traffic-6 would reduce impacts to traffic flow by restricting lane closures to non-peak periods. Impacts would be less than significant with mitigation.

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Operation and Maintenance

No temporary road or lane closures would be required for Alternative 2 because all underground vaults and the cable pole would be located off of public roadways. There would be no impact from operation and maintenance.

Mitigation Measures: Traffic-6 (refer to Section 4.7.8)

Significance after mitigation: Less than significant.

Impact Traffic-8: Would Alternative 2 result in inadequate parking capacity? (*Less than significant with mitigation*)

Construction

Alternative 2 would require closure of up to 56 parking spaces in Black Mountain Ranch Community Park during stringing of the transmission line from the Alternative 2 cable pole. The parking could be closed for up to 12 days. The temporary loss of parking would be significant because there is no parking in the vicinity of the park. Implementation of APM PS-3 may reduce impacts through coordination with the park prior to stringing activities; however, stringing activities could still result in temporary loss of parking, which would be a significant impact due to lack of sufficient parking in the vicinity of the park, which would likely result in circling for parking spaces or parking in unsafe areas. Mitigation Measures Traffic-9 and Traffic-10 would reduce impacts by requiring SDG&E to notify the public prior to any parking closures and requiring City approval for use of the parking area prior to stringing within the parking lot. Impacts would be less than significant with mitigation.

Operation and Maintenance

Alternative 2 would not occupy any parking spaces. There would be no loss of parking spaces or increase in demand for parking as a result of Alternative 2. Inspection and maintenance vehicles would park at the cable pole pad and would not require new parking. There would be no impact.

Mitigation Measures: Traffic-9 and Traffic-10 (refer to Section 4.7.8)

Significance after mitigation: Less than significant.

4.7.11 Alternative 3: Los Peñasquitos Canyon Preserve – Mercy Road Underground (Avoids Overhead in Northern Half of Segment A, Underground in Segment B, and Overhead in Segment C)

Alternative 3 would include installing an underground alignment starting at a new cable pole where the existing SDG&E ROW crosses Ivy Hill Road and ending at a new cable pole approximately 550 feet west of the Peñasquitos Junction (i.e., where Proposed Project Segments C and D meet). The underground alignment would follow Scripps Poway Parkway, Mercy Road, Black Mountain Road, and finally Park Village Road. Alternative 3 would bypass the

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northern half of Proposed Project Segment A and all of Proposed Project Segments B and C. This alternative is described in more detail in Chapter 3: Alternatives.

4.7.11.1 Alternative 3 Environmental Setting

LOS

Alternative 3 would be undergrounded within Scripps Poway Parkway, Mercy Road, Black Mountain Road, and Park Village Road as shown in Figure 3.4-1 (refer to Chapter 3: Alternatives). None of the road segments along the Alternative 3 alignment operate below acceptable LOS. Refer to Attachment M for traffic volumes and LOS for roads located in the Alternative 3 area. Alternative 3 would also require vehicle travel on I-15 and SR-56 for deliveries of materials and to access the work areas.

Traffic Counts

Traffic volumes for roads and highways within the Alternative 3 area were obtained from SANDAG (2010), Caltrans (2013), and KOA (2014). Figure 4.7-13 shows traffic count locations.

Bicycle Routes

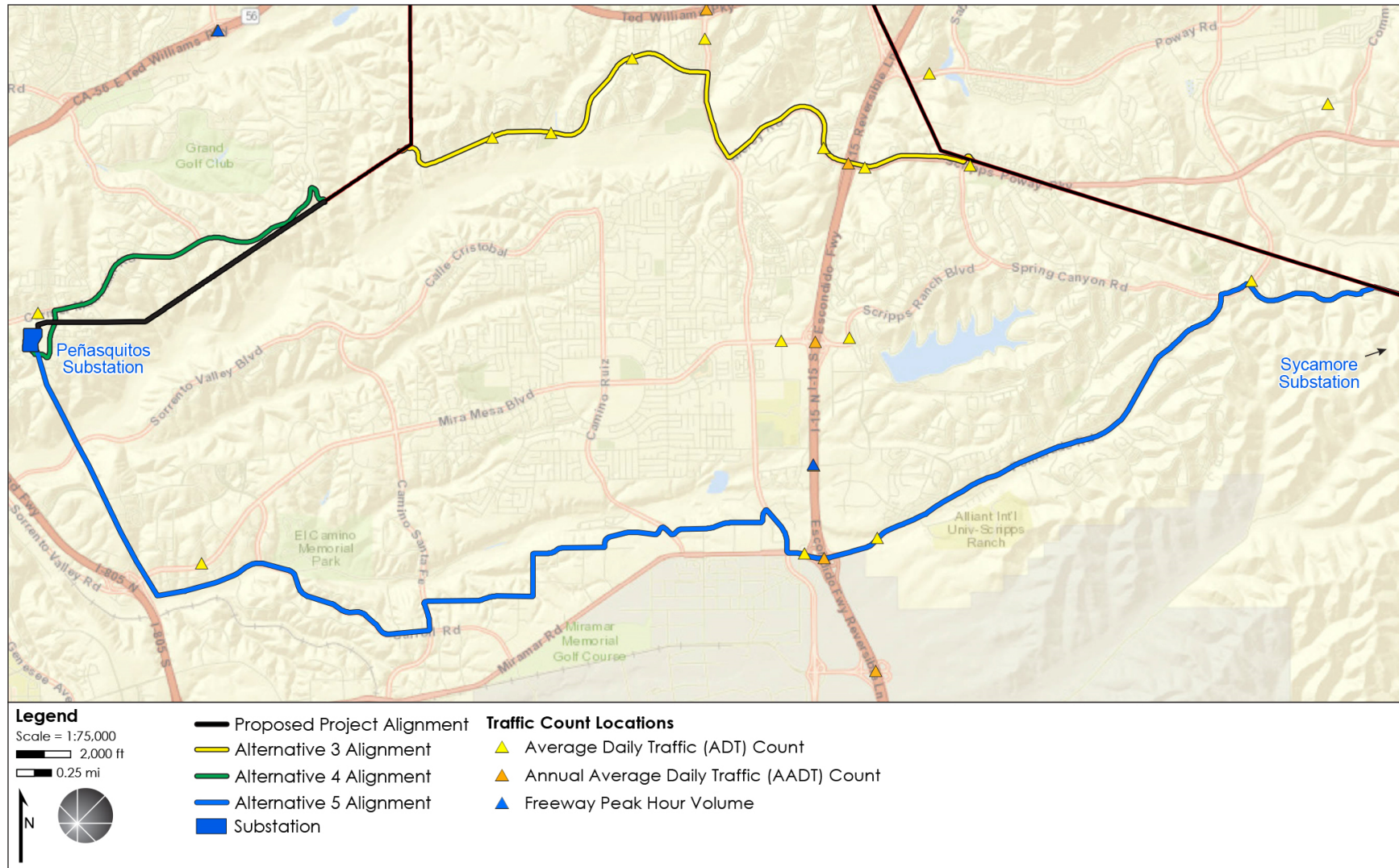
There is a Class II bicycle lane on Scripps Poway Parkway, Mercy Road, Black Mountain Road, and the eastern 2 miles of Park Village Road. Bicycle lanes in the Alternative 3 area are shown in Figure 4.7-14. It is assumed that all local roads in the residential areas are class III bike routes because all roads, except where specifically excluded, are available for use by bicycles (State of California 2015 Vehicle Code, Section 21200).

Public Transit

Figure 4.7-15 shows the transit routes near the project alternatives. There are no public transit routes in the vicinity of Alternative 3. Although there are no public transit routes, there is a City of San Diego School District school bus route that stops along Park Village Road.

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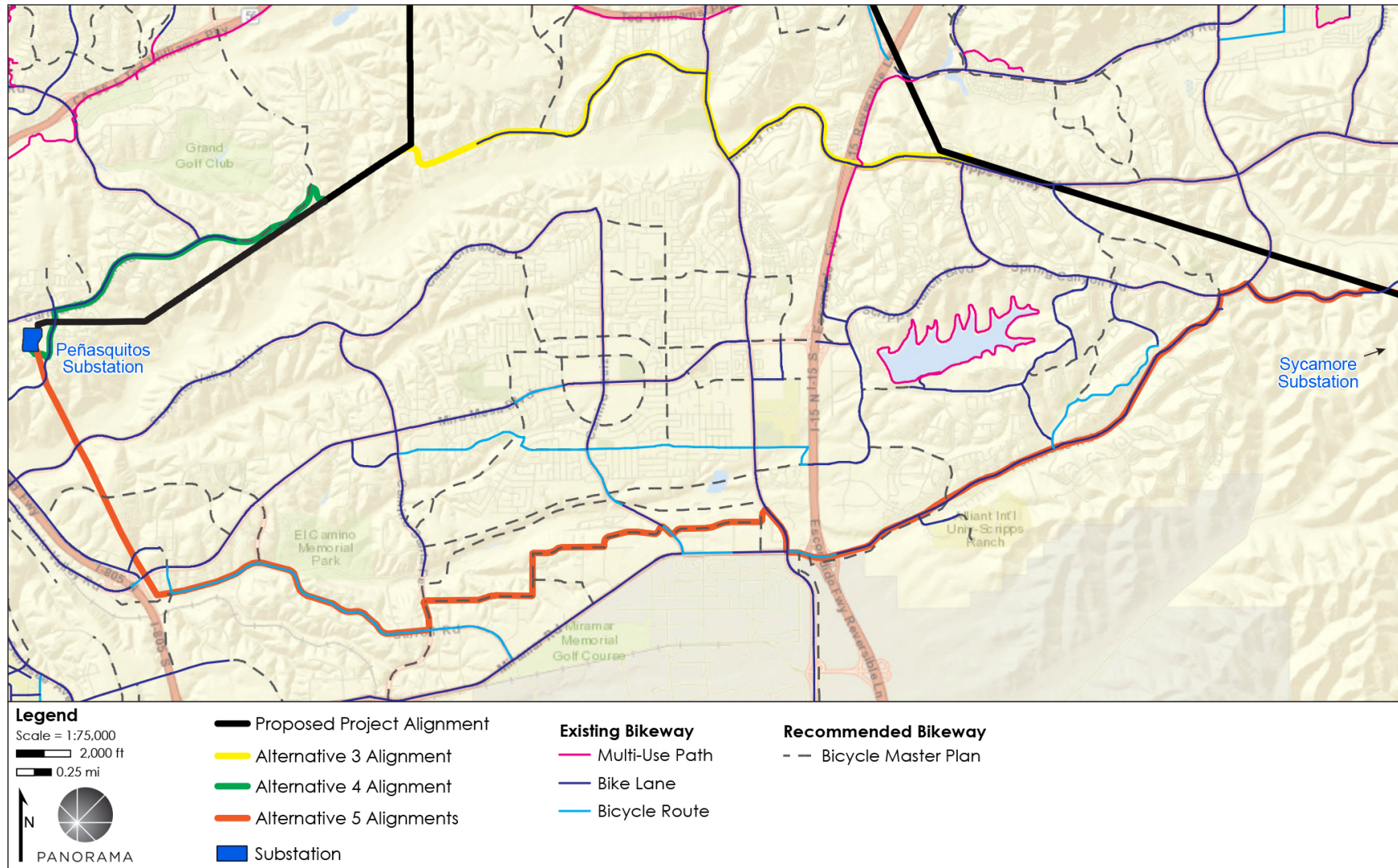
Figure 4.7-13 Traffic Count Locations for Project Alternatives 3, 4, and 5



Sources: Caltrans 2013a; Counts Unlimited 2015a and 2015b; Esri 2015a; KOA 2014; SANDAG 2010

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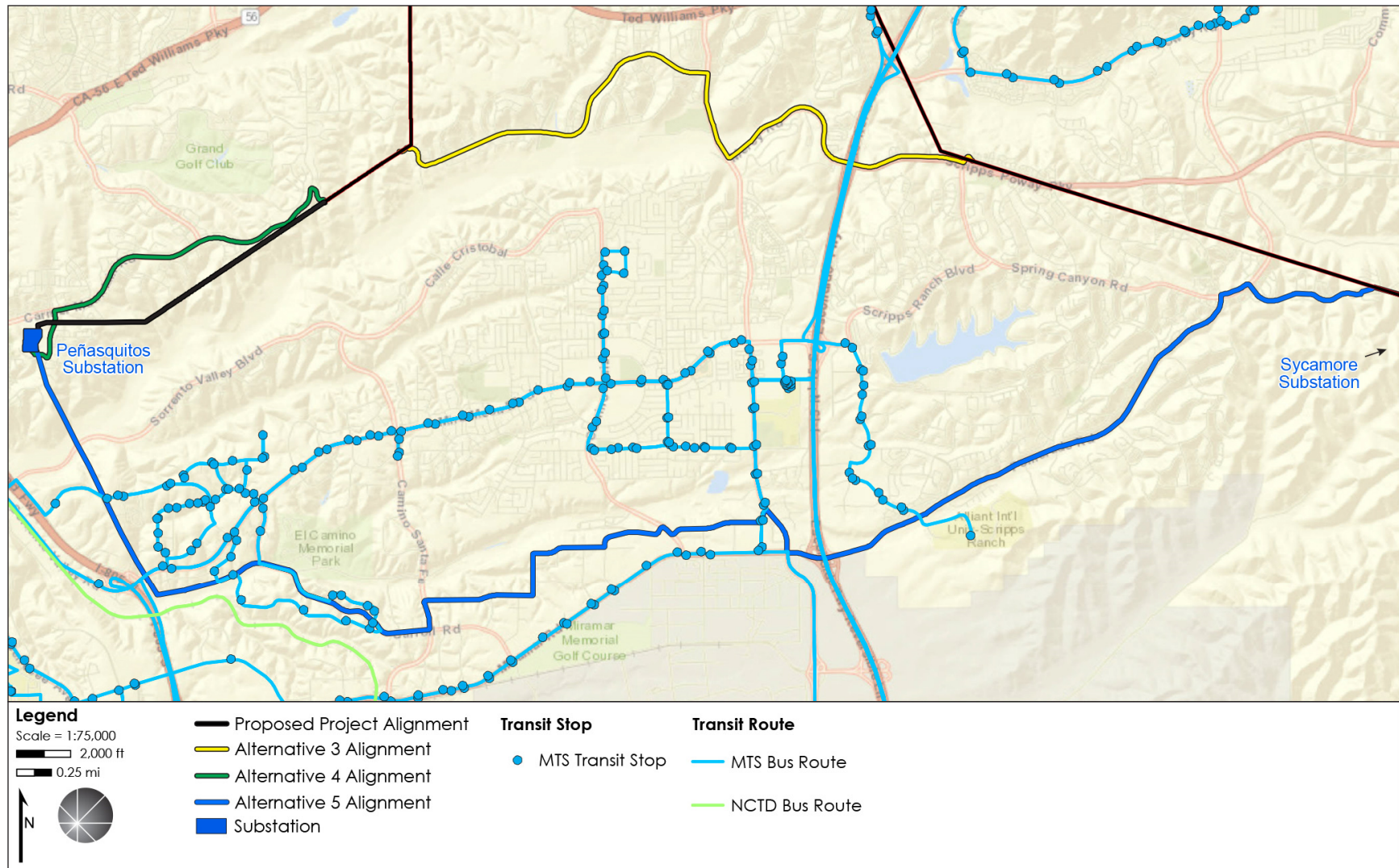
Figure 4.7-14 Bikeways in the Vicinity of Project Alternatives 3, 4, and 5



Sources: Alta+Planning and City of San Diego 2015; Esri 2015a; SanGIS 2014; SANDAG 2015

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Figure 4.7-15 Transit in the Vicinity of Project Alternatives 3, 4, and 5



Sources: Esri 2015a and SanGIS 2015

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4.7.11.2 Alternative 3 Impacts and Mitigation Measures

Table 4.7-13 summarizes the impacts to transportation and traffic from Alternative 3.

Table 4.7-13 Summary of Alternative 3 Impacts to Transportation and Traffic

Significance Criteria	Project Phase	Significance Prior to APMs	Significance after APMs and before Mitigation	Significance after Mitigation
Impact Traffic-1: Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.	Construction	Significant	Significant	Significant and unavoidable MM Traffic-1
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-2: Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.	Construction	Significant	Significant	Significant and unavoidable MM Traffic-1
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-3: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.	Construction	No impact	---	---
	Operation and Maintenance	No impact	---	---
Impact Traffic-4: Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Construction	Significant	Significant	Less than significant MM Traffic-1 MM Traffic-3 MM Traffic-7
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-5: Result in inadequate emergency access.	Construction	Significant	Significant APM TR-3 APM TR-4	Less than significant MM Traffic-1 MM Traffic-6 MM Traffic-8 MM Traffic-11
	Operation and Maintenance	Less than significant	---	---

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Significance Criteria	Project Phase	Significance Prior to APMs	Significance after APMs and before Mitigation	Significance after Mitigation
Impact Traffic-6: Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.	Construction	Significant	Significant	Less than significant MM Traffic-1 MM Traffic-6 MM Traffic-7 MM Traffic-12
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-7: Cause temporary road and lane closures that would temporarily disrupt traffic flow	Construction	Significant	Significant	Less than significant MM Traffic-6
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-8: Result in inadequate parking capacity	Construction	Less than significant	---	---
	Operation and Maintenance	No impact	---	---

Alternative 3 would have no impact on one CEQA significance criterion: Impact Traffic-3, as indicated in Table 4.7-13. Alternative 3 would have no impact on air traffic patterns or safety risks because the cable poles are less than 200 feet tall and would not trigger FAA notification. Helicopters would not be used to install the cable poles or underground transmission line for the Alternative 3 route segment. Therefore, there would be no impact to air traffic or increase in air traffic safety risks.

Impact Traffic-1: Would Alternative 3 conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency, taking into account all modes of transportation? (Significant and unavoidable)

Construction

Construction of the underground transmission line for Alternative 3 would require a greater amount of additional vehicle trips on area roadways for transport of workers, material hauling, and equipment delivery compared to the Proposed Project. Table 4.7-14 shows the trips included in the analysis of Alternative 3. Since the underground portion of the Alternative 3 alignment is almost twice as long as Segment B of the Proposed Project, it is assumed that construction trips along the underground portion of the Alternative 3 alignment would be double the amount of construction trips estimated for Segment B of the Proposed Project.

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Table 4.7-14 Maximum Construction Vehicle Trips for Alternative 3

Construction Phase	Maximum Daily Trips
Worker Trips ¹	264
Hauling Trips ²	108
Water Trucks	16
Equipment Delivery	56
TOTAL	444
Total All Segments	646

¹ Worker trips assumes two one-way trips for each worker per day. Worker trips include passenger trips, including work trucks. Also includes specialty monitors (SWPPP, Bio, etc.).

² Hauling trips are assumed to equal 2 daily trips (round-trip hauls) for each haul truck that would be used and include waste/soil hauling and material hauling/delivery.

Source: HKA 2015

Construction traffic on City roadways would not result in an increase in the v/c ratio in excess of standards (refer to Appendix M, Table M-8). Alternative 3 could add traffic to SR-56, which currently operates below acceptable LOS (Refer to Appendix M, ~~Tables M-7~~ Table M-5). Construction traffic would not cause any road or highway that is currently meeting LOS standards to fall below the standard or result in an increase in the v/c ratio in excess of the standards. SR-56 currently operates at LOS F, which does not meet LOS standards set by ~~the City of San Diego and~~ SANDAG CMP (refer to Appendix M, ~~Table M-7~~ Table M-5). Construction of Alternative 3 could add traffic to SR-56 for up to 10 months from travel to the work site and to and from staging yards. Construction traffic would increase traffic volumes on SR-56 during the AM and PM peak hour by approximately 5 percent. The addition of construction traffic to highways ~~and roads~~ not currently meeting LOS standards would be substantial enough to constitute a significant impact.

Mitigation Measure Traffic-1 would reduce the impact to LOS by defining alternate traffic routes to avoid roads that are operating at LOS D or lower and timing deliveries to avoid peak commute hours. Construction vehicles could access the Alternative 3 work area from I-15 and local roads and avoid traveling on SR-56 or avoid AM or PM peak traffic on SR-56; however, additional trips would be required to staging yards located near SR 56 and it would be infeasible to avoid travel on SR 56 during peak hours due to the need to deliver materials to staging yards. Impacts to LOS from Alternative 3 construction traffic would therefore be significant and unavoidable.

Operation and Maintenance

Operation and maintenance of Alternative 3 would require annual inspection of the cable poles and inspection approximately every three years of the vaults. Vault inspections would add one vehicle to area roads for up to one day per every three years for each vault. The addition of one vehicle ~~per year~~ approximately every three years on area roads for less than 4 weeks would not

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affect LOS. The operation and maintenance of the alternative underground segment would therefore have a less than significant impact on LOS. No mitigation is required.

Mitigation Measures: Traffic-1 (refer to Section 4.7.8)

Significance after mitigation: Significant and unavoidable.

Impact Traffic-2: Would Alternative 3 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? (Significant and unavoidable)

Construction

As discussed in Impact Traffic-1, construction of Alternative 3 would add traffic to SR-56, a CMP highway. SR-56 does not currently meet the CMP LOS standard of E. Construction traffic would increase traffic volumes on SR-56 during the AM and PM peak hour by approximately 5 percent. Construction of Alternative 3 could add vehicles to SR-56 for 10 months, resulting in a significant impact.

Implementation of Mitigation Measure Traffic-1 would reduce impacts on traffic by defining alternate traffic routes to avoid SR-56 and timing deliveries to avoid peak commute hours. Alternative 3 activities could not reasonably avoid SR-56 because the staging yards are located in proximity to SR-56 and travel on SR-56 would be required to deliver materials for Alternative 3. Impacts from increased traffic on a CMP road that is currently operating below standards would therefore be significant and unavoidable.

Operation and Maintenance

Operation of Alternative 3 would not generate traffic on area roads. Inspection and maintenance activities would not be a source of new traffic on area roads because of the irregular nature and low activity level for inspection and maintenance of the underground transmission line. The impact would be less than significant. No mitigation is required.

Mitigation Measures: Traffic-1 (refer to Section 4.7.8)

Significance after mitigation: Less than significant.

Impact Traffic-4: Would Alternative 3 substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (Less than significant with mitigation)

Construction

Vehicles

Construction of the Alternative 3 underground transmission line would create potentially hazardous conditions along the underground alignment. The open trench as well as the presence of construction equipment, workers, and vehicles in proximity to flowing traffic would create a hazard for the workers and vehicular traffic if traffic entered the active work area.

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Construction within the roadway would also create a significant hazard if the roadway was not adequately repaired at the completion of construction, resulting in a significant impact.

Implementation of Mitigation Measures Traffic-1 and Traffic-3 would reduce impacts related to vehicle traffic hazards from underground transmission line construction because the mitigation requires SDG&E to implement traffic control and safety procedures and repair the road to pre-construction conditions. Impacts would be less than significant with mitigation.

Bicyclists and Pedestrians

Construction of the Alternative 3 underground transmission line would require temporary closure of the Class II bicycle lane on Scripps Poway Parkway, Mercy Road, Black Mountain Road, and Park Village Road for approximately 5 miles. The alternative could also require potential closure of the sidewalk in vicinity of the underground work area for pedestrian safety. Temporary closures would create a hazard for pedestrians and bicyclists as they navigate around the work area, which would be a significant impact. Implementation of Mitigation Measures Traffic-1 and Traffic-7 would reduce safety hazards to pedestrians and bicyclists during construction by requiring traffic control and safety procedures, notification of bicycle and sidewalk closures, and detours for bicyclists and pedestrians. Impacts related to bicycle and pedestrian hazards would be less than significant with mitigation.

Operation and Maintenance

Alternative 3 does not involve changes to existing road layout; therefore, Alternative 3 would not create any hazards related to road design. The alternative underground transmission line would require ~~annual~~ inspections and maintenance approximately every three years. The ~~annual~~ inspections of underground vaults would not substantially increase traffic hazards because the vaults would only be inspected once a-every three years for less than a day each (19 vaults total) and standard traffic controls would be employed for worker safety as required by OSHA and the Federal Highway Administration. Impacts from increased hazards during operation and maintenance would therefore be less than significant. No mitigation is required.

Mitigation Measures: Traffic-1, Traffic-3, and Traffic-7 (refer to Section 4.7.8)

Significance after mitigation: Less than significant.

Impact Traffic-5: Would Alternative 3 result in inadequate emergency access? (Less than significant with mitigation)

Construction

Construction of the underground transmission line would require temporary closure of one lane of traffic on Scripps Poway Parkway, Mercy Road, Black Mountain Road, and Park Village Road while duct banks are constructed. Two lanes of traffic would be closed during vault installation. Vault installation would require a 30-foot work area and would be conducted for two 10-minute periods at each vault while each half of the vault is installed.

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Alternative 3 would have a significant impact on emergency access if it were to block an entrance or exit to a residential community or commercial area. West of Camino Del Sur, Park Village Road is the only emergency access route for the surrounding residential roadways, which end in cul-de-sacs. Temporary road closure would restrict emergency access to the residential community, which would be a significant impact. Implementation of APM TR-3 (traffic control) and APM TR-4 (encroachment permits) would reduce impacts to emergency access, but impacts would remain significant because these APMs do not address notification of emergency personnel and restricting access to a community could still occur, which would be a significant impact.

Mitigation Measures Traffic-1 Traffic-6, Traffic-8, and Traffic-11 would reduce impacts through traffic management measures including detours and safety procedures, restricting lane closures to non-peak hours and requiring maintained access to properties, notification of emergency personnel at least one week prior to lane closure, and prohibiting parking in the vicinity of vault installation areas. A single lane of traffic could be maintained on Park Village Road west of Celata Lane during each 10-minute vault installation period so long as parking is prohibited in the area during vault installation consistent with Mitigation Measure Traffic-11. Impacts to emergency access would be less than significant with mitigation.

Operation and Maintenance

Inspection and maintenance access of the Alternative 3 underground vaults may require temporary lane closures. At least one lane of traffic would remain open at all times, and emergency access would therefore be maintained. Impacts to emergency access from operation and maintenance of the underground transmission line would be less than significant. No mitigation is required.

Mitigation Measures: Traffic-1, Traffic-6, Traffic-8 (refer to Section 4.7.8), and Traffic-11

Mitigation Measures Traffic-11: Close Roadside Parking during Vault Installation. Roadside parking shall be prohibited within 100 feet of vault installation areas at least 8 hours prior to vault installation activities. SDG&E shall post notices of the parking closure at least 72 hours prior to vault installation. The notices shall define the location of the parking closure and the dates that no parking will be allowed in the area.

Significance after mitigation: Less than significant.

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Impact Traffic-6: Would Alternative 3 conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? (*Less than significant with mitigation*)

Construction

Underground Transmission Line

~~There are no public transit facilities located along the Alternative 3 underground alignment (e.g., no bus stops). Construction of Alternative 3 would not affect public transit facilities or performance.~~

Construction of Alternative 3 could affect a school bus route that stops along the underground alignment on Park Village Road because temporary lane and road closures would cause short delays during peak traffic hours. An impact on the performance of the school bus(es) would occur if the delays caused students to be late for class. This impact would be significant.

Mitigation Measure Traffic-6 would restrict construction times and require coordination with schools so that construction would not occur during school drop-off and pick-up times. Impacts would be less than significant with mitigation.

Underground transmission line construction in the vicinity of a school bus stop could also cause bus stop closures and/or relocation(s) if underground construction occurred during the school year during school drop-off or pick-up times. Bus stop closure or relocation could affect access to bus stops, impacting the performance of these facilities. This would be a significant impact.

Mitigation Measure Traffic-12 requires SDG&E to coordinate with the City of San Diego School District regarding underground construction along bus routes and near bus stops and requires notification of all stop relocations. Bus stops will be temporarily relocated or bus routes will be temporarily rerouted as necessary until construction in the area is complete. Impacts would be less than significant with mitigation.

The temporary bicycle lane closure on Scripps Poway Parkway, Mercy Road, Black Mountain Road, and Park Village Road for construction of the underground segment could cause bicyclists to enter an active vehicle traffic lane, which would decrease the performance and safety of the facility. Similarly, temporary sidewalk closure in the vicinity of the underground work area could reduce pedestrian safety by causing pedestrians to walk along the roadway. These impacts would be significant.

Implementation of Mitigation Measures Traffic-1 and Traffic-7 would reduce the safety hazards to pedestrians and bicyclists during construction through use of traffic management and safety measures and notification of pedestrian and bicycle facility closure and detours for bicyclists and pedestrians. Alternative 3 would not conflict with adopted plans or policies regarding public transit, bicycle, or pedestrian facilities, and impacts to the safety of bicyclists and pedestrians would be less than significant with mitigation.

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Operation and Maintenance

The alternative underground transmission line would require ~~annual~~ inspections and maintenance approximately every three years. The impact to the performance of the bicycle lane and safety of bicyclists would be less than significant due to the short duration and length (immediate vicinity of the vault) of the bicycle lane closures. No mitigation is required.

Mitigation Measures: Traffic-1, Traffic-6, ~~and~~ Traffic-7 (refer to Section 4.7.8), and Traffic-12

Mitigation Measure Traffic-12: Consult with Bus and Transit Services. SDG&E shall consult with the San Diego Metropolitan Transit System and City of San Diego School District at least one month prior to construction to coordinate construction activities adjacent to bus stops. If necessary, bus stops will be temporarily relocated or buses will be rerouted until construction in the vicinity is complete. SDG&E shall post notices of any temporary bus stop closure at least 14 days prior to temporary closure. The notices shall provide information on the nearest available bus stop on the bus route and the scheduled duration of closure.

Significance after mitigation: Less than significant.

Impact Traffic-7: Would Alternative 3 cause temporary road and lane closures that would temporarily disrupt traffic flow? (*Less than significant with mitigation*)

Construction

Underground Transmission Line

Alternative 3 would involve underground transmission line construction within approximately 5.9 miles of roadways, which could impact traffic flow. Temporary lane and road closures for construction of the underground segment would significantly impact traffic flow if the closure occurred during peak traffic hours. Temporary impacts to traffic flow from underground construction within the roadways would be reduced to less than significant with implementation of Mitigation Measure Traffic-6 which requires SDG&E to restrict lane closure to non-peak traffic hours and to install steel plates over the construction area to maintain traffic flow during commuting hours. Impacts would be less than significant with mitigation.

Operation and Maintenance

Temporary lane closures could be required during ~~annual~~ inspections at the underground vaults approximately every three years. Traffic control would be implemented during vault access and vault inspection to protect worker safety as required by OSHA and the Federal Highway Administration. The impact to traffic flow would be less than significant because the vault inspections would only occur once per every three years at each of the 19 vaults and the inspections would comply with federal standards for traffic safety. No mitigation is required.

Mitigation Measures: Traffic-6 (refer to Section 4.7.8)

Significance after mitigation: Less than significant.

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Impact Traffic-8: Would Alternative 3 result in inadequate parking capacity? (*Less than significant with mitigation*)

Construction

Construction of the underground line could temporarily impact parking along Park Village Road in areas adjacent to active duct bank and vault installation. The loss of parking would be limited to the area of active construction; however, impacts could be significant because if the temporary parking loss could cause people to drive for longer periods and potentially park in unsafe areas in search of parking. Mitigation Measure Traffic-11 requires SDG&E to notify the public prior to roadside parking closure so that alternative parking plans can be made in the vicinity of parking loss. Impacts to parking from Alternative 3 would be less than significant with mitigation.

Operation and Maintenance

The Alternative 3 poles and permanent work pads would not occupy any parking spaces. There would be no loss of parking spaces or increase in demand for parking as a result of Alternative 3. Inspection and maintenance vehicles would park within the permanent pads at the cable poles and would not require new parking. There would be no impact.

Mitigation Measures: Traffic-11 (refer to Impact Traffic-5)

Significance after mitigation: Less than significant.

4.7.12 Alternative 4: Segment D 69-kV Partial Underground Alignment (Reduces New TSPs in Segment D)

Alternative 4 would include the installation of a double 69-kV underground alignment starting at two new cable poles (P48AA and P48BB) in Proposed Project Segment D near existing lattice tower E17. The underground alignment would follow Carmel Mountain Road and East Ocean Air Drive, ending at the Peñasquitos Substation. Within Proposed Project Segment D, an existing 69-kV line would be removed from the existing steel lattice towers, and a second 69-kV power line on existing H-frame structures would be de-energized and left in place.

Construction within Proposed Project Segment D would be reduced under Alternative 4. The 230-kV transmission line would be installed on the existing steel lattice towers similar to the Proposed Project; however, the H-frame structures would not be removed, and no new TSPs would be installed between lattice tower E17 and the Peñasquitos Substation. This alternative is described in more detail in Chapter 3: Alternatives.

4.7.12.1 Alternative 4 Environmental Setting

LOS

Alternative 4 would be undergrounded within Carmel Mountain Road and East Ocean Air Drive. None of the road segments along the Alternative 4 alignment operate below acceptable LOS. Refer to Attachment M for traffic volumes and LOS for roads located in the Alternative 4 area. Alternative 4 would also require vehicle travel on SR-56 for deliveries of materials and to access the work areas.

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Traffic Counts

Traffic volumes for roads and highways within the Alternative 4 area were obtained from SANDAG (2010), Caltrans (2013), and KOA (2014). Figure 4.7-13 shows traffic count location on Carmel Mountain Road in proximity to Alternative 4. Alternative 4 traffic counts are provided in Appendix M.

Bicycle Routes

There is a Class II bicycle lane along the majority of Carmel Mountain Road (approximately 1.5 miles) and along East Ocean Air Drive. The remaining portion of Carmel Mountain Road is planned to have a Class II bicycle lane (Alta + Planning and City of San Diego 2015). Bicycle routes along roadways in the Alternative 4 area are shown in Figure 4.7-14. It is assumed that all local roads in the residential areas are class III bike routes because all roads, except where specifically excluded, are available for use by bicycles (State of California 2015 Vehicle Code, Section 21200).

Public Transit

There are no public transit routes in the vicinity of Alternative 4.

4.7.12.2 Alternative 4 Impacts and Mitigation Measures

Table 4.7-15 summarizes the impacts to transportation and traffic from Alternative 4.

Table 4.7-15 Summary of Alternative 4 Impacts to Transportation and Traffic

Significance Criteria	Project Phase	Significance prior to APMs	Significance after APMs and before Mitigation	Significance after Mitigation
Impact Traffic-1: Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.	Construction	Significant	Significant	Significant and unavoidable MM Traffic-1
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-2: Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.	Construction	Significant	Significant	Significant and unavoidable MM Traffic-1
	Operation and Maintenance	Less than significant	---	---

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Significance Criteria	Project Phase	Significance prior to APMs	Significance after APMs and before Mitigation	Significance after Mitigation
Impact Traffic-3: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.	Construction	No impact	---	---
	Operation and Maintenance	No impact	---	---
Impact Traffic-4: Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Construction	Significant	Significant	Less than significant MM Traffic-1 MM Traffic-3 MM Traffic-7
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-5: Result in inadequate emergency access.	Construction	Significant	Significant APM TR-1	Less than significant MM Traffic-1 MM Traffic-6 MM Traffic-8
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-6: Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.	Construction	Significant	Significant	Less than significant MM Traffic-1 MM Traffic-7
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-7: Cause temporary road and lane closures that would temporarily disrupt traffic flow.	Construction	Significant	Significant	Less than significant MM Traffic-6
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-8: Result in inadequate parking capacity.	Construction	No impact	---	---
	Operation and Maintenance	No impact	---	---

Alternative 4 would have no impact on two significance criteria for Transportation and Traffic: Impacts Traffic-3 and Traffic-8, as indicated in Table 4.7-15 above. Alternative 4 would have no impact on air traffic patterns or safety risks or on parking. The Alternative 4 cable poles are less than 200 feet tall and would not trigger FAA notification. Helicopters would not be used to install the cable poles or underground transmission line. Therefore, there would be no impact to air traffic or increase in air traffic safety risks. There are no parking areas along Alternative 4.

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The construction, operation, and maintenance of Alternative 4 would not impact parking capacity.

Impact Traffic-1: Would Alternative 4 conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency, taking into account all modes of transportation? (Significant and unavoidable)

Construction

Transmission Line

Alternative 4 would generate additional traffic on Carmel Mountain Road and East Ocean Air Drive during construction of the underground 69-kV power lines. Additional trips would also be generated on SR-56, I-5, or I-805 to access to the Alternative 4 alignment.

Construction of Alternative 4 could add traffic to SR-56, which is currently operating below acceptable LOS (Refer to Appendix M, Tables M-5 and M-6). Construction traffic would not cause any road or highway that is currently meeting LOS standards to fall below the standard or result in an increase in the v/c ratio in excess of the standards. SR-56 currently operates at LOS F, which does not meet LOS standards set by ~~the City of San Diego and~~ SANDAG CMP (refer to Appendix M, ~~Table M-7~~ Table M-5). Construction traffic would increase traffic volumes on SR-56 during the AM and PM peak hour by approximately 4 percent. Construction of Alternative 4 would add traffic to SR-56 for up to 9 months during access to the work areas and travel to and from staging yards. The addition of construction traffic to highways not currently meeting LOS standards would be substantial enough to constitute a significant impact.

Implementation of Mitigation Measure Traffic-1 would reduce the impact to LOS by requiring vehicles to avoid roads that are operating at LOS D or worse and timing deliveries to off-peak hours to the extent feasible LOS; however, construction vehicles could not reasonably avoid the roads that are not meeting LOS standards or avoid AM or PM peak traffic. Construction activities would require travel during peak traffic hours; therefore, the impact to LOS even with mitigation would be significant. Impacts to LOS from travel to and from staging yards and the additional transmission line construction traffic would be significant and unavoidable.

Operation and Maintenance

Alternative 4 inspections would require one vehicle per year for up to four weeks to inspect the underground power lines. The additional vehicle would be on roadways infrequently and would not affect LOS. The operation and maintenance of the power lines within Carmel Mountain Road and East Ocean Air Drive would therefore have a less than significant impact on LOS. No mitigation is required.

Mitigation Measures: Traffic-1 (refer to Section 4.7.8)

Significance after mitigation: Significant and unavoidable.

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Impact Traffic-2: Would Alternative 4 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? (Significant and unavoidable)

Construction

As discussed in Impact Traffic-1, construction of Alternative 4 would add traffic to SR-56, a CMP highway. SR-56 does not currently meet the CMP LOS standard of E. Construction traffic would increase traffic volumes on SR-56 during the AM and PM peak hour by approximately 4 percent. Construction of Alternative 4 would add vehicles to SR-56 for up to 9 months resulting in a significant impact. While implementation of Mitigation Measure Traffic-1 would reduce impacts on traffic by requiring vehicles to avoid roads that are operating at LOS D or worse and timing deliveries to off-peak hours to the extent feasible, Alternative 4 activities could not reasonably avoid travel on SR-56. Impacts from increased traffic on a CMP road that is currently operating below standards would be significant and unavoidable.

Operation and Maintenance

As discussed in Impact Traffic-1, operation of Alternative 4 would not generate traffic on area roads. Inspection and maintenance activities would not be a source of new traffic on area roads because of the irregular nature and low activity level for inspection and maintenance of the underground power lines. The impact would be less than significant. No mitigation is required.

Mitigation Measures: Traffic-1 (refer to Section 4.7.8)

Significance after mitigation: Significant and unavoidable.

Impact Traffic-4: Would Alternative 4 substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (Less than significant with mitigation)

Construction

Hazards to Vehicles

Alternative 4 would involve underground construction within Carmel Mountain Road and East Ocean Air Drive. The open trench as well as the presence of construction equipment, workers, and vehicles in proximity to flowing traffic would create a hazard for the workers and vehicular traffic if traffic entered the active work area. Construction within the roadway would also create a hazard if the roadway was not adequately repaired at the completion of construction, which would be a significant impact.

Implementation of Mitigation Measures Traffic-1 and Traffic-3 would reduce impacts related to vehicle traffic hazards from underground power line construction through the use of traffic control and safety measures and post-construction road repair. Impacts from traffic hazards would be less than significant with mitigation.

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Hazards to Bicyclists and Pedestrians

Construction of the underground power lines would require temporary closure of the bicycle lanes on Carmel Mountain Road, and East Ocean Air Drive and potential closure of the sidewalk and adjacent multi-use trail along Carmel Mountain Road, which would create a hazard for pedestrians and bicyclists as they navigate around the work area and cause a significant impact. Implementation of Mitigation Measures Traffic-1 and Traffic-7 would reduce safety hazards to pedestrians and bicyclists through traffic control safety measures and advance notification of bicycle and sidewalk closures and pedestrian and bicycle detours. Impacts related to bicycle and pedestrian hazards would be less than significant with mitigation.

Operation and Maintenance

Alternative 4 does not involve changes to existing road layout; therefore, Alternative 4 would not create any hazards related to road design.

The underground power lines would require ~~annual~~ inspections and maintenance approximately every three years. The ~~annual~~ inspections of underground vaults would not substantially increase traffic hazards because the vaults would only be inspected once ~~a every three~~ years for less than a day each vault (20 vaults total), and standard traffic controls would be employed for worker safety as required by OSHA and the Federal Highway Administration. Impacts from increased hazards would therefore be less than significant. No mitigation is required.

Mitigation Measures: Traffic-1, Traffic-3, and Traffic-7 (refer to Section 4.7.8)

Significance after mitigation: Less than significant.

Impact Traffic-5: Would Alternative 4 result in inadequate emergency access? (*Less than significant with mitigation*)

Construction

Alternative 4 would require temporary closure of a lane of traffic and potentially temporary closure of Carmel Mountain Road and East Ocean Air Drive during vault installation. Vault installation would require a 30-foot work area and would be conducted for two 10-minute periods at each vault while each half of the vault is installed. The temporary road closure during vault installation could restrict emergency access, which would be a significant impact. Alternative 4 could also impact emergency access if underground construction were to block an entrance or exit to a residential community or commercial area. Implementation of APM TR-1 (emergency access) would reduce impacts; however, failure to properly notify emergency personnel prior to all lane closures or restricting access to a community during underground construction would be a significant impact.

Mitigation Measures Traffic-1, Traffic-6, and Traffic-8 would reduce impacts through traffic management measures including detours and safety procedures, restricting lane closures to non-peak hours and requiring maintained access to properties, and notification of emergency personnel at least one week prior to lane closure. Impacts to emergency access would be less than significant with mitigation.

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Operation and Maintenance

Inspection and maintenance of the underground power lines may require temporary lane closures to avoid the vaults during inspections. Carmel Mountain and East Ocean Air Drive are four-lane boulevards and vault inspections would only impact one lane of traffic. Underground power line inspections and maintenance would therefore not affect emergency access. Impacts to emergency access from operation and maintenance of underground power lines would be less than significant. No mitigation is required.

Mitigation Measures: Traffic-1, Traffic-6, and Traffic-8 (refer to Section 4.7.8)

Significance after mitigation: Less than significant.

Impact Traffic-6: Would Alternative 4 conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? (*Less than significant with mitigation*)

Construction

There are no public transit facilities located along the underground power line route within Carmel Mountain Road and East Ocean Air Drive (e.g., no bus stops). Construction of Alternative 4 on Carmel Mountain Road, and East Ocean Air Drive would not affect public transit facilities or performance. There would be no impact.

The temporary bicycle lane closure on Carmel Mountain Road and East Ocean Air Drive for construction of the underground line could cause bicyclists to enter an active vehicle traffic lane, which would decrease the performance and safety of the facility. Similarly, the temporary sidewalk closure could reduce pedestrian safety by causing pedestrians to walk along the roadway. These impacts would be significant.

Implementation of Mitigation Measures Traffic-1 and Traffic-7 would reduce the safety hazards to pedestrians and bicyclists during construction through use of traffic control and safety measures and advance notification of the closure and detours for pedestrians and bicyclists. Alternative 4 would not conflict with adopted plans or policies regarding public transit, bicycle, or pedestrian facilities, and impacts to the safety of bicyclists and pedestrians would be less than significant with mitigation.

Operation and Maintenance

The underground power lines within Carmel Mountain Road and East Ocean Air Drive would require ~~annual~~ inspections and maintenance approximately every three years. The impact to the performance of the bicycle lane and safety of bicyclists would be less than significant due to the short duration and length (immediate vicinity of the vault) of the bicycle lane closures. No mitigation is required.

Mitigation Measures: Traffic-1 and Traffic-7 (refer to Section 4.7.8)

Significance after mitigation: Less than significant.

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Impact Traffic-7: Would Alternative 4 cause temporary road and lane closures that would temporarily disrupt traffic flow? (*Less than significant with mitigation*)

Construction

Alternative 4 involves underground power line construction within Carmel Mountain Road and East Ocean Air Drive. Temporary lane and road closures for underground power line construction including vault installation would significantly impact traffic flow if the closure occurred during peak traffic hours on Carmel Mountain Road and East Ocean Air Drive.

Mitigation Measure Traffic-6 restricts road closures to non-peak hours and requires that SDG&E maintain access to commercial and residential areas along the alignment. Impacts would be less than significant with mitigation.

Operation and Maintenance

Temporary lane closures could be required during ~~annual~~ inspections approximately every three years at the underground vaults within ~~Carmel Valley Road~~, Carmel Mountain Road, and East Ocean Air Drive. Traffic control would be implemented during vault access and vault inspection to protect worker safety as required by OSHA and the Federal Highway Administration. The impact to traffic flow would be less than significant because the vault inspections would only occur once ~~per every three~~ years at each of the 20 vaults and the inspections would comply with federal standards for traffic safety. No mitigation is required.

Mitigation Measures: Traffic-6 (refer to Section 4.7.8)

Significance after mitigation: Less than significant.

4.7.13 Alternative 5: Pomerado Road to Miramar Area North Combination Underground/Overhead (Avoids All Proposed Project Segments)

Alternative 5 would include underground installation of the transmission line with the exception of the east and west ends where the transmission line would be installed in an overhead position within existing SDG&E ROWs. Under this alternative, the alignment would exit the Sycamore Substation at MCAS Miramar an overhead line and travel westerly within an existing SDG&E ROW toward Stonebridge Parkway. The transmission line would transition to underground beneath Stonebridge Parkway in the vicinity of Greenstone Court, then continue underground on Pomerado Road, Miramar Road, Kearny Villa Road, Black Mountain Road, Activity Road, Camino Ruiz, Miralani Drive, Arjons Drive, Trade Place, Camino Santa Fe, Carroll Road/Carroll Canyon Road and Scranton Road. The transmission line would either remain underground within the Pomerado/Miramar bridge or temporarily transition to an overhead alignment via two new cable poles and potentially two new interset poles, where it would cross I-15. At the western end of the underground portion, the line would transition back to overhead structures located within an existing SDG&E ROW heading northward into the Peñasquitos Substation. Alternative 5 would avoid construction within the Proposed Project alignment with the exception of approximately 3,400 feet of existing SDG&E ROW in Segment

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A connecting to the Sycamore Canyon Substation. This alternative is described in more detail in Chapter 3: Alternatives.

4.7.13.1 Alternative 5 Environmental Setting

LOS

Alternative 5 would be located underground within Stonebridge Parkway, Pomerado Road, Miramar Road, Kearny Villa Road, Black Mountain Road, Activity Road, Camino Ruiz, Miralani Drive, Arjons Drive, Trade Place, Camino Santa Fe, Carroll Road/Carroll Canyon Road and Scranton Road.

The LOS for Pomerado Road currently operates at LOS ~~EF~~. All other roads within the underground alignment operate at LOS D or better. The LOS for roads in the Alternative 5 area are provided in Appendix M, Table M-9.

In addition to the Proposed Project staging yards, SDG&E may use up to eight other staging yards during construction of Alternative 5. The Alternative 5 staging yards would be located within the Conrock and Hanson Aggregates Pacific Southwest quarries north of the Alternative 5 underground alignment, within the cul-de-sac west of Birch Canyon Place, off of Summers Ridge Road, and behind the Sorrento Canyon Golf Center. Several roads in the vicinity of the Alternative 5 staging yards operate below LOS standards (KOA 2016). The LOS for roadways that may be used for access to and from the eight Alternative 5 staging yards are provided in Appendix M, Alternative 5 Staging Yard Memo.

Traffic Counts

Traffic volumes for roads and highways within the Alternative 5 area were obtained from SANDAG (2010), Caltrans (2013), and KOA (2014). Figure 4.7-13 shows traffic count locations in the vicinity of Alternative 5. Traffic counts for Alternative 5 roads are provided in Table M-9 and Alternative 5 Staging Yard Memo (KOA 2016) in Appendix M.

Bicycle Routes

Class II bicycle lanes are located on Stonebridge Parkway, Pomerado Road and Kearny Villa Road. There is a bicycle route (Class III) on Carroll Road/Carroll Canyon Road and master planned bicycle lanes on the remainder of the underground alignment. Class II bicycle lanes, bicycle routes, and master planned bicycle routes along roadways in the Alternative 5 area are shown in Figure 4.7-14. The class of each bicycle route is listed in Table 4.7-5 above.

Public Transit

Alternative 5 would cross and follow a bus route on a portion of Carroll Canyon Road. The Alternative 5 underground route on Carroll Canyon Road is in proximity to bus stops. Public transit routes located within the Alternative 5 area are shown in Figure 4.7-15. The public transit route number and operating times are listed in Table 4.7-6 above. All public transit routes within the Alternative 5 area are operated by the San Diego Metropolitan Transit System.

4.7.13.2 Alternative 5 Impacts and Mitigation Measures

Table 4.7-16 summarizes the impacts to transportation and traffic from Alternative 5.

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Table 4.7-16 Summary of Alternative 5 Impacts to Transportation and Traffic

Significance Criteria	Project Phase	Significance Prior to APMs	Significance after APMs and before Mitigation	Significance after Mitigation
Impact Traffic-1: Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.	Construction	Significant	Significant	Significant and unavoidable MM Traffic-1
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-2: Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.	Construction	Significant	Significant	Significant and unavoidable MM Traffic-1
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-3: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.	Construction	Significant	Significant APM TR-2	Less than significant MM Traffic-2
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-4: Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Construction	Significant	Significant	Less than significant MM Traffic-1 MM Traffic-3 MM Traffic-4 MM Traffic-5 MM Traffic-6 MM Traffic-7
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-5: Result in inadequate emergency access.	Construction	Significant	Significant APM TR-3 APM TR-4	Less than significant MM Traffic-1 MM Traffic-6 MM Traffic-8
	Operation and Maintenance	Less than significant	---	---

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Significance Criteria	Project Phase	Significance Prior to APMs	Significance after APMs and before Mitigation	Significance after Mitigation
Impact Traffic-6: Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.	Construction	Significant	Significant	Less than significant MM Traffic-1 MM Traffic-7 MM Traffic-12
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-7: Cause temporary road and lane closures that would temporarily disrupt traffic flow	Construction	Significant	Significant	Less than significant MM Traffic-5 MM Traffic-6
	Operation and Maintenance	Less than significant	---	---
Impact Traffic-8: Result in inadequate parking capacity	Construction	Significant	Significant	Less than significant MM Traffic-11
	Operation and Maintenance	No impact	---	---

Impact Traffic-1: Would Alternative 5 conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency, taking into account all modes of transportation? (Significant and unavoidable)

Construction

Transmission Line and Staging Yards

Construction of the overhead and underground transmission line for Alternative 5 would require a greater amount of vehicle trips on area roadways for transport of workers, material hauling, equipment delivery, and water transport for compaction and for dust control. Since the underground portion of the Alternative 5 is approximately four times as long as Segment B of the Proposed Project, it is assumed that construction trips along the underground portion of the Alternative 5 alignment would be quadruple the amount of construction trips estimated for Segment B of the Proposed Project. Underground transmission line construction would contribute 888 peak daily construction trips, and the traffic would come from either end of the alternative alignment because SDG&E would be working in multiple areas simultaneously.

Table M-9 in Appendix M shows the roads used for the Alternative 5 alignment. Pomerado Road between I-15 and Willow Creek Road does not meet LOS standards set by the City of San Diego. Construction of Alternative 5 would add traffic to Pomerado Road for several months during construction of the underground transmission line within Pomerado Road. The underground construction activities would also result in decreased capacity by impacting a lane

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during construction. ~~The addition of construction traffic and decreased capacity on roads not currently meeting LOS standards would cause a significant impact on LOS. Construction traffic would result in a greater than 0.01 increase in the v/c ratio along Pomerado Road between I-15 and Willow Creek Road. Pomerado Road currently operates at LOS F and the increase in traffic volume as a result of project construction would significantly impact LOS.~~

Implementation of Mitigation Measure Traffic-1 would reduce the impact to LOS through implementation of a CTMP including deliveries at non-peak hours and avoidance of roads operating at LOS D or worse to the extent feasible; however, construction vehicles could not avoid Pomerado Road or avoid AM or PM peak traffic due to the need to construct within the roadway. Construction activities would require travel during peak traffic hours; therefore, the impact to LOS even with mitigation would be significant. Impacts to LOS from the additional transmission line construction traffic would be significant and unavoidable.

Staging Yards

The additional vehicle traffic to and from staging yards would not cause any road that is currently meeting standards to fall below standards or result in an increase in the v/c ratio in excess of the standards. Construction staging would add traffic to SR-56 ~~and Scripps Poway Parkway, east of Spring Canyon Road,~~ which currently operates at LOS F and therefore do not meet LOS standards set by ~~the City of San Diego and~~ SANDAG CMP (Refer to Appendix M, Table M-5, Table M-7, and Alternative 5 Staging Yard Memo). Construction traffic could increase traffic volumes on SR-56 during the AM and PM peak hour by approximately 5 percent. The addition of construction traffic to highways and roads that do not currently meet LOS standards would be substantial enough to constitute a significant impact.

Implementation of Mitigation Measure Traffic-1 would reduce the impact to LOS through implementation of a CTMP including alternative routes for roads not meeting LOS standards and deliveries during non-peak hours to the extent feasible; however, construction vehicles could not reasonably avoid the roads adjacent to the staging yards that are not meeting LOS standards. In addition, construction activities require travel during peak traffic hours; therefore, the impact to LOS even with the mitigation would be significant. Impacts to LOS from travel to area staging yards would be significant and unavoidable.

Substations

Substation modifications under Alternative 5 would be similar to the Proposed Project, except that modifications to the Mission and San Luis Rey substations would be avoided. Therefore, the impact from the substation modifications would not be significant because the vehicle travel would be of such small volume and short duration that it would have a negligible effect on LOS. The relay work at Chicarita Substation would require approximately one vehicle at the site for a few days. The addition of one vehicle on area roads for a few days would not impact LOS, even in areas with unacceptable LOS. The impact would therefore be less than significant. No mitigation is required.

Operation and Maintenance

The overhead transmission line would be inspected annually by ground-based crews and by

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helicopters. The underground transmission line would require ~~annual~~ inspections approximately every three years at each of the 35 vaults with inspections lasting less than a day per vault. Because of the irregular nature and low activity level for inspection and maintenance of the transmission line, inspection and maintenance activities would not be a source of new traffic on area roads. Therefore, operation and maintenance of the overhead transmission line would have a less than significant impact on LOS. No mitigation is required.

Substations

Operation and maintenance of the affected existing substations would not change from existing conditions. The additional Alternative 5 infrastructure would not result in additional vehicle trips to the substations during operation and maintenance; therefore, operation and maintenance of the Alternative 5 components at the affected substations would have no impact on LOS.

Mitigation Measures: Traffic-1 (refer to Section 4.7.8)

Significance after mitigation: Significant and unavoidable.

Impact Traffic-2: Would Alternative 5 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? (*Significant and unavoidable*)

Construction

As discussed in Impact Traffic-1, similar to the Proposed Project, construction staging for Alternative 5 would add traffic to SR-56, a CMP highway. SR-56 does not currently meet the CMP LOS standard of E. Construction traffic could increase traffic volumes on SR-56 during the AM and PM peak hour by approximately 4 percent. Construction of Alternative 5 would add vehicles to SR-56 for up to a year, resulting in a significant impact.

Implementation of Mitigation Measure Traffic-1 would reduce impacts on traffic through preparation of a CTMP; however, Alternative 5 activities could not reasonably avoid travel on SR-56. Impacts from increased traffic on a CMP road that is currently operating below standards would be significant and unavoidable.

Operation and Maintenance

As discussed in Impact Traffic-1, similar to the Proposed Project, operation of Alternative 5 would not generate traffic on area roads. Inspection and maintenance activities would not be a source of new traffic on area roads because of the irregular nature and low activity level for inspection and maintenance of the transmission line. The impact would be less than significant. No mitigation is required.

Mitigation Measures: Traffic-1 (refer to Section 4.7.8)

Significance after mitigation: Significant and unavoidable.

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Impact Traffic-3: Would Alternative 5 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? (Less than significant with mitigation)

Construction

Overhead Transmission Line

Construction of five new poles in the eastern overhead segment of Alternative 5 and conductor stringing in the western overhead segment would require helicopters to install conductor and transport workers and materials to work areas. The use of helicopters could impact air traffic patterns and result in safety risks, which would be a significant impact. Implementation of APM TR-2 (comply with relevant helicopter usage restrictions) would reduce impacts to air traffic; however, helicopters would be carrying loads over congested areas, which could increase safety risks, causing a significant impact.

Implementation of Mitigation Measure Traffic-2 would reduce the safety risk from helicopters carrying loads over congested areas through proper planning for the helicopter lifts. Impacts would be less than significant with mitigation.

Underground Transmission Line and Substations

Construction of the alternative underground transmission line segment and modifications at substations would not require the use of helicopters; there would be no impact to air traffic patterns or traffic levels from these activities.

Staging Yards

Any of the Alternative 5 staging yards could potentially be used as helicopter fly yards, with exception of the Evergreen Nursery staging yard. The use of medium- lift helicopters to transport materials from helicopter fly yards could pose a potentially significant safety risk. Implementation of APM TR-2 (comply with relevant helicopter usage restrictions) would reduce impacts to air traffic; however, helicopters would be carrying loads over congested areas, which would increase safety risks and cause a significant impact.

Implementation of Mitigation Measure Traffic-2 (~~Helicopter Lift Plan~~ Congested Area Plan) would reduce the safety risk from helicopters carrying loads over congested areas through proper planning for the helicopter lifts. Impacts would be less than significant with mitigation.

Operation and Maintenance

New Overhead Transmission Line and Structures

Similar to the Proposed Project, the overhead transmission line includes poles and wires that may require FAA notification. SDG&E shall implement any measures required by FAA, which may include the addition of marker balls on the overhead wire and/or lighting on structures. SDG&E has planned for these measures and marker balls and lighting are currently included on structures or line segments that require FAA notification. The impact to air traffic and safety of operating the new transmission line would be less than significant with the proposed marker balls and lighting and compliance with FAA requirements. No mitigation is required.

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Helicopter Use

The overhead transmission line would be inspected once a year by helicopter in conjunction with the inspections for the existing transmission lines in SDG&E's ROW. One helicopter flight per year would not have a significant impact on the volume of air traffic or safety in the area. Impacts would be less than significant. No mitigation is required.

Mitigation Measures: Traffic-2 (refer to Section 4.7.8)

Significance after mitigation: Less than significant.

Impact Traffic-4: Would Alternative 5 substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (Less than significant with mitigation)

Construction

Use of Transmission Line Construction Vehicles

SDG&E construction traffic would use streets and unpaved routes in the transmission corridor and near staging yards that are used by pedestrians and bicyclists. Use of these routes and entrance and exit from the work site and staging yards by heavy equipment and vehicles would pose a hazard to other vehicles, pedestrians, and bicyclists, resulting in a significant impact. The use of heavy equipment on roadways could also result in damage to heavily traveled roads, which would cause a significant hazard to vehicles and bicyclists.

Implementation of Mitigation Measures Traffic-1, which requires implementation of a CTMP, and Traffic-3, which requires post-construction road repair, would reduce impacts from construction vehicle traffic. Impacts would be less than significant with mitigation.

Transmission Line Overhead Stringing

The transmission line would be installed overhead across Stonebridge Parkway within SDG&E ROW similar to Proposed Project Segment A. The conductor could fall across a roadway during installation and cause a hazard to vehicles, pedestrians, or bicyclists in the area. SDG&E has proposed guard structures at all crossing of roadways to reduce this hazard; however, the conductor installation process could still pose a substantial increase in hazards, which would be a significant impact.

Implementation of Mitigation Measures Traffic-4, Traffic-5, and Traffic-6 would reduce impacts from conductor stringing by requiring temporary traffic controls, establishment and implementation of a highway closure plan, restricting the timing of road closures to maintain access. Impacts would be less than significant with mitigation.

Underground Transmission Line

Hazards to Vehicles. Construction of the underground transmission line under Alternative 5 would create potentially hazardous conditions. The open trench as well as the presence of construction equipment, workers, and vehicles in proximity to flowing traffic would create a significant hazard for the workers and vehicular traffic if traffic entered the active work area.

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Construction within the roadway would also create a hazard if the roadway was not adequately repaired at the completion of construction, which would be a significant impact.

Implementation of Mitigation Measures Traffic-1, which requires implementation of a CTMP, and Traffic-3, which requires post-construction road repair, would reduce impacts related to vehicle traffic hazards from underground transmission line construction. Impacts would be less than significant with mitigation.

Hazards to Bicyclists and Pedestrians. Construction of the underground transmission line within Stonebridge Parkway, Pomerado Road, and Kearny Villa Road would require temporary closure of the bicycle lane on those roads and potential closure of the sidewalk which would create a hazard for pedestrians and bicyclists as they navigate around the work area and would be a significant impact.

Implementation of Mitigation Measures Traffic-1, which requires implementation of a CTMP, and Traffic-7, which requires closure notification and establishment of detours, would reduce safety hazards to pedestrians and bicyclists during construction. Impacts related to bicycle and pedestrian hazards would be less than significant with mitigation.

Substations

Construction at substations would occur off of area roads. The construction would not increase hazards or result in an incompatible use. There would be no impact.

Operation and Maintenance

Alternative 5 does not involve changes to existing road layout and, therefore, Alternative 5 would not create any hazards related to road design.

Overhead Transmission Line

The presence of the overhead transmission line would not create any hazards to vehicles. The overhead line would be located outside of the roadway and would not conflict with vehicle travel. Operation and maintenance of Alternative 5 would not increase hazards to bicyclists or pedestrians because the frequency and intensity of SDG&E vehicle traffic would not increase relative to existing conditions. The increase in hazards from operation and maintenance of the above-ground transmission line would therefore be less than significant. No mitigation is required.

Underground Transmission Line

Similar to the Proposed Project, the Alternative 5 underground transmission line would require ~~annual~~ inspections and maintenance approximately every three years. The ~~annual~~ inspections of underground vaults would not substantially increase traffic hazards because the vaults would only be inspected once a-every three years for less than a day each (35 vaults total). Impacts from increased hazards would therefore be less than significant. No mitigation is required.

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Substations

All substation improvements would occur within the existing fenced substation yard and off of area roads; therefore, the substation improvements would not increase traffic hazards. There would be no impact.

Mitigation Measures: Traffic-1, Traffic-3, Traffic-4, Traffic-5, Traffic-6, and Traffic-7 (refer to Section 4.7.8)

Significance after mitigation: Less than significant.

Impact Traffic-5: Would Alternative 5 result in inadequate emergency access? (*Less than significant with mitigation*)

Construction

Overhead Transmission Line

Construction of the overhead transmission line within the eastern segment of Alternative 5 would require stringing conductor across Stonebridge Parkway. This road could be closed temporarily during guard structure installation and/or stringing to reduce potential hazards to vehicle traffic. The temporary closure could restrict emergency access, which would be a significant impact.

Implementation of Mitigation Measure Traffic-8 which requires notification of emergency personnel of road closures and Mitigation Measure Traffic-1, which requires implementation of a CTMP, would reduce impacts to emergency access. Impacts would be less than significant with mitigation.

Underground Transmission Line

Alternative 5 would require temporary closure of a lane of traffic on approximately 11.5 miles of roads while duct bank and vaults are installed. Alternative 5 would have a significant impact on emergency access if it were to block an entrance or exit to a residential community or commercial area. The temporary lane closure could restrict emergency access to residential communities, which would be a significant impact. SDG&E would implement APM TR-3 (traffic control) and APM TR-4 (encroachment permits) to reduce impacts to emergency access, but impacts would remain significant because these APMs do not address notification of emergency personnel and restricting access to a community could still occur.

Implementation of Mitigation Measure Traffic-8, which requires notification of emergency personnel of road closures, and Mitigation Measure Traffic-6, which restricts road closures off peak periods and maintains access, would reduce impacts to emergency access. Impacts would be less than significant with mitigation.

Staging Yards

Similar to the Proposed Project, Alternative 5 would significantly impact emergency access if a construction vehicle or delivery truck were to temporarily block a lane of traffic while entering or exiting a staging yard and cause delays to emergency vehicles. The impact to emergency

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access would be reduced by implementation of Mitigation Measure Traffic-1 which requires implementation of a CTMP. Impacts would be less than significant with mitigation.

Substations

Substation work would not require any lane or road closures and would not restrict vehicle access on any roadways. There would be no impact to emergency access.

Operation and Maintenance

Overhead Transmission Line

Routine operation and maintenance of the Alternative 5 overhead transmission line would not involve road closures. After construction, emergency access would be restored to baseline conditions. Impacts to emergency access would not occur.

Underground Transmission Line

Inspection and maintenance work of the alternative underground segment may require temporary lane closures to avoid the vaults during inspections. At least one lane of traffic would remain open in each direction at all times, and emergency access would therefore be maintained. Impacts to emergency access from operation and maintenance of the underground transmission line would be less than significant. No mitigation is required.

Mitigation Measures: Traffic-1, Traffic-6, and Traffic-8 (refer to Section 4.7.8)

Significance after mitigation: Less than significant.

Impact Traffic-6: Would Alternative 5 conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? (Less than significant with mitigation)

Construction

Overhead Transmission Line

Construction activities would occur on Stonebridge Parkway, Pomerado Road and Kearny Villa Road, which include Class II bike lanes and sidewalks. Overhead transmission line construction could require temporary closure of pedestrian or bicycle facilities during guard structure installation or conductor stringing, which would temporarily impact pedestrian and bicycle travel. The brief delays (less than 30 minutes) that could occur during guard structure installation or overhead conductor installation would not decrease the performance or safety of public transit, bicycle, or pedestrian facilities. Impacts would be less than significant. No mitigation is required.

Underground Transmission Line

Alternative 5 has the potential to affect public transit. There are several public transit routes that cross or parallel small sections (i.e., less than a mile) of the alternative underground alignment (refer to Figure 4.7-15). There is also a school bus route that stops along the underground alignment. Bus stops are located where these routes cross the underground alignment. Temporary lane closures could potentially cause bus stop relocation or short delays during peak

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traffic hours; however, one lane would remain open on all roads where bus routes would parallel or cross the Alternative 5 underground alignment. Impacts from delays would be less than significant. Construction of Alternative 5 could affect access to bus stops, resulting in a significant impact to performance of the facilities.

Mitigation Measure Traffic-12 requires SDG&E to coordinate with the San Diego Metropolitan Transit System and school district regarding underground construction along bus routes and near bus stops; SDG&E shall assist with bus stop or route temporarily relocation until construction is complete. Impacts would be less than significant with mitigation.

The temporary bicycle lane closure on Stonebridge Parkway, Pomerado Road, and Kearny Villa Road for construction of the underground segment could cause bicyclists to enter an active vehicle traffic lane which would decrease the performance and safety of the facility. Similarly, the temporary sidewalk closure could reduce pedestrian safety by causing pedestrians to walk along the roadway. These impacts would be significant.

Implementation of Mitigation Measures Traffic-1, which requires implementation of a CTMP, and Traffic-7, which requires closure notification and establishment of detours, would reduce the safety hazards to pedestrians and bicyclists during construction. Alternative 5 would not conflict with adopted plans or policies regarding public transit, bicycle, or pedestrian facilities, and impacts to the safety of bicyclists and pedestrians would be less than significant with mitigation.

Staging Yards

Ingress and egress of construction equipment and vehicles could potentially affect the use of Class II and III bicycle lanes on roads adjacent to the staging yards. Equipment and large vehicle ingress and egress could reduce bicycle safety on these roads, resulting in a significant impact.

Implementation of Mitigation Measure Traffic-1, which requires implementation of a CTMP, would reduce the impact. Impacts would be less than significant with mitigation.

Substations

Substation work areas are not located in areas with public transit, pedestrian, or bicycle facilities. Construction activities in these areas would have no impact on public transit, bicycle, or pedestrian facilities. No mitigation is required.

Operation and Maintenance

Overhead Transmission Line

The presence of the overhead transmission line would not conflict with public transit, bicycle, or pedestrian facility use. The overhead line would be located outside of the roadway and would not conflict with public transit, bicycle, or pedestrian facilities. There would be no conflict from the presence of the overhead transmission line, and impacts would be less than significant. No mitigation is required.

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Underground Transmission Line

The alternative underground transmission line would require ~~annual~~ inspections and maintenance approximately every three years. The impact to the performance of the bicycle lane and safety of bicyclists would be less than significant due to the short duration and length (in proximity to the vault) of the bicycle lane closures. No mitigation is required.

Substations

All substation improvements would occur within the existing fenced substation yard where there is no public transit, bicycle, or pedestrian facilities. There would be no impact. No mitigation is required.

Mitigation Measures: Traffic-1, Traffic-7 (refer to Section 4.7.8), and Traffic-12 (refer to Section 4.7.11)

Significance after mitigation: Less than significant.

Impact Traffic-7: Would Alternative 5 cause temporary road and lane closures that would temporarily disrupt traffic flow? (*Less than significant with mitigation*)

Construction

Overhead Transmission Line Crossings of Highways

Similar to the Proposed Project, closure of I-15 for conductor stringing and installation of guard structures would cause temporary interruption of traffic flow on the highway. Temporary closure would cause a significant impact on traffic flow if the closure occurred during peak and daytime traffic hours.

Implementation of Mitigation Measure Traffic-5, which requires preparation and implementation of a highway closure plan, would reduce impacts associated with I-15 closure to a less-than-significant level. SDG&E would also obtain an encroachment permit from Caltrans for its work in the highway ROW that would contain additional measures to further reduce the already less-than-significant impacts to traffic flow on I-15.

Overhead Transmission Line Crossings of Roads

Temporary closure of lanes or roads during conductor stringing would significantly impact traffic flow if the temporary closure occurred during peak traffic hours.

Implementation of Mitigation Measure Traffic-6, which restricts road closures to off peak hours and maintains access, would reduce impacts to traffic flow. Impacts would be less than significant with mitigation.

Underground Transmission Line

Alternative 5 would involve temporary road and lane closures along approximately four times more miles of road than the Proposed Project. Temporary lane and road closures for construction of the underground segment would significantly impact traffic flow if the closure occurred during peak traffic hours.

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Implementation of Mitigation Measure Traffic-6, which restricts road closures to off peak hours and maintains access, would reduce impacts to traffic flow. Impacts would be less than significant with mitigation.

Staging Yard Ingress/Egress

While slow moving trucks entering or exiting staging yards could cause minor impacts to traffic flow, no temporary lane or road closures are anticipated at roads adjacent to staging yards. Therefore, impacts to traffic flow from staging yard ingress/egress would be less than significant. No mitigation is required.

Substations

No temporary road or lane closures would be required for substation modifications. There would be no impact related to temporary lane or road closures.

Operation and Maintenance

Overhead Transmission Line

No lane closures would be required to operate the overhead transmission line. In the unlikely event of a downed transmission line across a roadway, SDG&E would implement emergency maintenance procedures and traffic management, including temporary road closures to avoid the emergency maintenance work area. Because there are existing lines within the transmission corridor that cross roadways and could be downed by weather, the risk of a downed line would not increase from existing conditions; therefore, the impacts from temporary lane closure associated with a downed transmission line would be less than significant. No mitigation is required.

Underground Transmission Line

Temporary lane closures could be required during ~~annual~~ inspections approximately every three years at the underground vaults. Traffic control would be implemented during vault access and vault inspection. Because the vaults would be inspected visually once ~~a every three years~~, and each vault inspection would take less than a day, and standard traffic controls would be employed for worker safety as required by OSHA and FHWA, ~~the~~ the impact to traffic flow would be less than significant. No mitigation is required.

Substations

No lane closures would be required for operation and maintenance of the substation modifications. All substation modifications would be located within the existing substation yard. There would be no impact from temporary lane or road closures.

Mitigation Measures: Traffic-5 and Traffic-6 (refer to Section 4.7.8)

Significance after mitigation: Less than significant.

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Impact Traffic-8: Would Alternative 5 result in inadequate parking capacity? (*Less than significant; no mitigation required*)

Construction

Overhead Transmission Line

The overhead transmission line would not be constructed over any parking lots. No parking lots are proposed for staging of materials. Construction workers and vehicles would park within staging yards and would not take up parking spaces within existing parking lots. Therefore, construction of the overhead transmission line would have no impact on parking capacity.

Underground Transmission Line

Construction of the underground line could temporarily impact parking along roads in areas adjacent to active duct bank and vault installation. The loss of parking would be limited to the area adjacent to the active construction; however, the loss of street parking could cause drivers to circle the area in search of parking. These impacts would be significant. Mitigation Measure Traffic-11 would require SDG&E to post notice of all parking closures prior to closure so that drivers can plan and avoid parking near the construction area. Impacts to parking from Alternative 5 would be less than significant with mitigation.

Operation and Maintenance

The Alternative 5 poles and permanent work pads would not occupy any parking spaces. There would be no loss of parking spaces or increase in demand for parking as a result of Alternative 5. Inspection and maintenance vehicles would park within the permanent pads at each pole location and would not require new parking. There would be no impact.

Mitigation Measures: Traffic-11 (refer to Section 4.7.11)

Significance after mitigation: Less than significant.

4.7.14 No Project Alternative

The No Project Alternative would include construction of the CAISO approved Mission—Peñasquitos 230-kV transmission line, ~~and~~ Second Poway—Pomerado 69-kV power line, Second Miguel—Bay Boulevard 230-kV transmission line, and Second Sycamore Canyon—Scripps 69-kV power line, and upgrades of the Miguel—Mission 230-kV, Bernardo—Felicita Tap—Felicita 69-kV, and Artesian—Bernardo 69-kV lines. ~~The No Project Alternative would also involve installation of a series reactor at Sycamore Canyon Substation.~~ This alternative is described in more detail in Chapter 3: Alternatives. The No Project Alternative would have less impact on transportation and traffic than the Proposed Project because the No Project Alternative would ~~avoid~~ have less underground construction in roads, ~~avoiding-reducing~~ traffic delays and hazards from underground duct bank construction and vault installation within the roadway.

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4.7.14.1 ~~Mission—Peñasquitos 230-kV Transmission Line and Second Poway—Pomerado 69-kV Line~~

Construction of the Mission—Peñasquitos 230-kV transmission line and Second Poway – Pomerado 69-kV power line would add vehicles to area roadways during installation of the overhead lines and new power poles. The additional vehicle traffic would be less than significant because vehicles would only be using area roads for a short duration during overhead power line and pole installation as workers and equipment move along the lines. The number of workers and vehicles necessary to construct the lines would not be expected to impact LOS because overhead construction requires fewer workers and vehicles than underground construction.

The Mission—Peñasquitos transmission line would cross two Caltrans highways, SR-52 and SR-163. The Second Miguel—Bay Boulevard 230-kV transmission line would cross three Caltrans highways, I-5, I-805, and SR-125. The Miguel—Mission 230-kV transmission line, which would be reconductored would cross five Caltrans highways, I-5, I-8, SR-52, SR-67, and SR-94. The Bernardo—Felicita Tap—Felicita 69-kV power line, which would be reconductored would cross one Caltrans highways, I-15. The overhead crossing of the highways would likely result in temporary closure of the highway and detours. The impact on these highways and traffic would be short-term, but significant and coordination with Caltrans would be required. Implementation of standard mitigation measures similar to those described for the Proposed Project would reduce these impacts to less than significant.

A portion of the Second Sycamore Canyon—Scripps 69-kV power line would potentially be installed underground. Underground construction of the Second Sycamore Canyon—Scripps 69-kV power line would require underground duct bank construction and vault installation within the roadway, which would cause traffic delays and hazards. Similar to Segment B of the Proposed Project, the impacts associated with constructing and operating an underground line would be significant. Implementation of standard mitigation measures similar to those described for the Proposed Project could reduce these impacts to less than significant.

Stringing of ~~both~~ the Mission—Peñasquitos transmission line, ~~and~~ Poway—Pomerado power line, Second Miguel—Bay Boulevard 230-kV transmission line, and Second Sycamore Canyon—Scripps 69-kV power line would likely involve the use of helicopters because this has become standard practice for new power line installation, particularly in less developed areas. Helicopters would also be used for the reconductoring of the three existing lines if reconductoring requires the installation of new poles. The use of helicopters and lifts of heavy loads, particularly in congested areas would increase safety hazards for air traffic. The Mission—Peñasquitos transmission line and the Second Sycamore Canyon—Scripps 69-kV power line may also exceed height limits that require FAA notification. In particular, the segment of new transmission line within MCAS Miramar and near the runway could exceed height limits from the runway and impact air traffic safety. These impacts to air traffic safety would be significant. Implementation of standard mitigation measures similar to those described for the Proposed Project would reduce these impacts to less than significant.

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~~4.7.14.2—Series Reactor at Sycamore Canyon Substation~~

~~The series reactor at Sycamore Canyon Substation would be located off of area roads within the existing substation fence. Installation of the series reactor would have a less than significant impact on transportation and traffic because the delivery and installation of the equipment would involve minimal vehicle travel and would not affect vehicle circulation.~~

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