

D.16 Transportation and Traffic

This section evaluates the potential for the South Bay Substation Relocation Project (Proposed Project) to impact traffic activity in the project area. Section D.16.1 provides a summary of existing major study area roadways, transit and rail service, airports, and bicycle facilities. Section D.16.2 describes the regulatory setting for transportation and traffic. Section D.16.3 provides analysis of transportation and traffic impacts resulting from the Proposed Project. Section D.16.4 includes an analysis of the alternatives, and Section D.16.5 provides mitigation monitoring and reporting information.

D.16.1 Environmental Setting for the Proposed Project

The following summary of the existing environmental setting surrounding the Proposed Project discusses the roadway network, rail and public transportation networks, air transportation network, and bicycle and pedestrian facilities. The study area for this analysis includes roadways directly affected by the Proposed Project. Existing roadway classifications are based on review of the Land Use and Transportation Element found in the City of Chula Vista (City) General Plan (2005a) and the Chula Vista Bayfront Master Plan (CVBMP) Traffic Impact Analysis (March 2008).

Existing Roadway Network

Figure B-3, Project Overview Map, (see Section B, Project Description) illustrates the study area roadway network that could potentially be affected by the Proposed Project. California Interstate 5 (I-5) is an eight-lane divided freeway that runs north–south approximately 500 feet east of the Proposed Project area. I-5 would serve as the main route to Bay Boulevard from north or south of the Proposed Project site using H Street, J Street, L Street, and/or Palomar Street exits to access Bay Boulevard. H Street, J Street, L Street, and Palomar Street are local public streets that run east–west, and are four lanes wide (in the Proposed Project area). Each street intersects Bay Boulevard between the Proposed Project site and I-5. Bay Boulevard runs north–south, and is a two-lane roadway.

Roadways and intersections are rated at varying levels of service (LOS). LOS is a measure of roadway operating conditions, ranging from LOS A, which represents the best range of operating conditions, to LOS F, which represents the worst. Basic definitions are presented in Table D.16-1.

**Table D.16-1
Level of Service Definitions**

LOS	Descriptions
LOS A	Traffic is typically free-flowing at average travel speeds, with very little delay. Vehicles are seldom impeded in their ability to maneuver in the traffic stream. Delays at intersections are minimal.
LOS B	Represents reasonably unimpeded operations at average travel speeds. The ability to maneuver in the traffic stream is slightly restricted, but the majority of vehicles do not stop and it is not bothersome.
LOS C	Represents stable operations with acceptable delays; if an intersection is signalized, a few drivers may have to wait through one signal cycle. The ability to change lanes and maneuver may be more restricted than LOS B.
LOS D	Congestion occurs and a small change in volume increases delays substantially during short periods, but excessive backups do not occur.
LOS E	Congestion occurs with extensive delays of one or more signal cycle and low travel speeds.
LOS F	Arterial traffic flows at extremely low speeds, intersection congestion occurs with excessive delays, and backups from other locations restrict or prevent movement.

Source: City of Chula Vista 2005b

Table D.16-2 lists the major roadways and arterials in the project study area and includes general roadway classifications, number of lanes, daily traffic volumes, acceptable traffic volumes, and levels of service.

**Table D.16-2
Roadways within the South Bay Substation Project Area**

Roadway Segment	Classification	Lanes	Acceptable Volume	Daily Traffic Volume	V/C Ratio ¹	LOS
<i>H Street</i>						
Bay Boulevard to I-5 Ramps	Gateway Street	4	38,400	15,841	0.33	A
I-5 Ramps to Broadway	Gateway Street	4	38,400	28,750	0.60	A
<i>J Street</i>						
Marina Parkway to Bay Boulevard	Major Street	4	30,000	8,617	0.23	A
Bay Boulevard to I-5 Ramps	Major Street	4	30,000	17,199	0.46	A
<i>L Street</i>						
Bay Boulevard to Industrial Way	Gateway Street	4	38,400	15,100	0.31	A
<i>Bay Boulevard</i>						
H Street to J Street	Class III Collector	2	7,500	2,489	0.26	A
J Street to L Street	Class II Collector	2	12,000	2,962	0.20	A
L Street to I-5 Ramps	Class II Collector	2	12,000	3,303	0.22	A
South of I-5 Ramps	Class III Collector	2	7,500	3,303	0.35	A

**Table D.16-2
Roadways within the South Bay Substation Project Area**

Roadway Segment	Classification	Lanes	Acceptable Volume	Daily Traffic Volume	V/C Ratio ¹	LOS
<i>Palomar Street²</i>						
Bay Boulevard to I-5 Ramps	Class I Collector	4	27,590	6,561	0.24	A
<i>Interstate 5</i>						
H Street to J Street	Freeway	4	8,000	9,010	N/A	F
J Street to L Street	Freeway	4	8,000	8,854	N/A	F
L Street to Palomar Street	Freeway	4	8,000	8,385	N/A	F

Source: City of Chula Vista Master Bayfront Environmental Impact Report (EIR), Transportation Study, (CVBMP 2008), unless where otherwise noted

¹ The vehicle-to-congestion (V/C) ratio is calculated by dividing the average daily traffic (ADT) volume by each respective roadway segment's capacity.

² **Source:** Traffic Study for Palomar Gas and Car Wash in Chula Vista, California, June 21 (The Perfect Solution 2010)

Table D.16-3 lists the major intersections in the project study area and includes a.m. and p.m. levels of service.

**Table D.16-3
Intersections within the South Bay Substation Project Area**

Intersection	Peak Hour	Delay	LOS
H Street & Bay Boulevard	AM	15.4	B
	PM	5.9	A
H Street & I-5 Southbound (SB) Ramps	AM	22.9	C
	PM	23.7	C
H Street & I-5 Northbound (NB) Ramps	AM	12.9	B
	PM	13.7	B
J Street & Bay Boulevard	AM	10.8	B
	PM	12.8	B
J Street & I-5 SB Ramps	AM	15.1	B
	PM	18.6	B
J Street & I-5 NB Ramps	AM	15.2	B
	PM	15.1	B
L Street & Bay Boulevard	AM	16.8	C
	PM	120.3	F
L Street & Industrial Boulevard	AM	24.9	C
	PM	24.7	C
Bay Boulevard & Palomar Street ¹	AM	9.6	A
	PM	13.5	B
I-5 SB Ramps & Palomar Street	AM	21.0	C
	PM	26.6	C
I-5 NB Ramps & Palomar Street	AM	26.2	C
	PM	24.1	C

**Table D.16-3
Intersections within the South Bay Substation Project Area**

Intersection	Peak Hour	Delay	LOS
I-5 SB Ramps & Bay Boulevard	AM	22.2	C
	PM	48.6	E
I-5 NB Ramps & Industrial Boulevard	AM	15.4	B
	PM	17.7	B

Source: City of Chula Vista Master Bayfront EIR, Transportation Study 2008, unless where otherwise noted

¹ Source: Traffic Study for Palomar Gas and Car Wash in Chula Vista, California, June 21 (The Perfect Solution 2010)

Bold – Values indicate intersections operating at LOS E or F.

Delays refer to the average control delay for the entire intersection measured in seconds per vehicle.

Rail and Public Transit Transportation Networks

Public transit in or near the project area consists of railway, bus, and trolley services. These services are primarily provided by the Metropolitan Transit Development Board (MTDB). MTDB manages the Metropolitan Transit System (MTS) bus services and trolley routes that serve the cities of Chula Vista, National City, and San Diego. Passenger rail services are provided by both Amtrak and North County Transit District (NCTD). Freight rail services are provided by San Diego & Imperial Valley Railroad (SDIV).

Rail

Freight service in San Diego is provided by the San Diego & Arizona Eastern Railway (SD&AE), a subsidiary of MTDB that operates the SDIV railroad tracks, and Burlington Northern Santa Fe Railroad (BNSF). An unused portion of the SD&AE line is located within a 40-foot easement that currently parallels SDG&E's existing transmission easement area within the project site. The proposed access road to the Bay Boulevard Substation will cross over the railroad tracks at two locations.

Bus

MTS and Chula Vista Transit operate the bus transit system in and near the project area. The closest bus stops to the project area are located along Bay Boulevard, which is east of and parallel to I-5, adjacent to the project area and the SDG&E right-of-way (ROW). The nearest bus stop is the Palomar Street Trolley Station, located approximately 1,000 feet southeast of the Proposed Project area at the intersection of Palomar Street and Bay Boulevard. This trolley/bus stop is serviced by routes 701, 704, 712, and 712L. The next closest bus stop is located at the H Street Trolley Station, located approximately 0.5 mile north of the Proposed Project area at the intersection of H Street and Woodlawn Avenue.

Trolley

San Diego Trolley Inc. (SDTI), a subsidiary corporation of MTDB, operates three trolley routes that serve the San Diego region. The Orange Line extends from the downtown area east through Lemon Grove and La Mesa to El Cajon. The Green Line extends from Old Town San Diego east to Santee. The Blue Line provides service between Old Town San Diego to the San Ysidro–Mexico border crossing. The Proposed Project would not parallel or span any trolley routes.

Air Transportation Network

San Diego International Airport is the closest international airport to the Proposed Project. It is located approximately 10 miles northwest of the Bay Boulevard Substation site.

Brown Field Municipal Airport is the closest public airport to the Proposed Project. It is located approximately 6.3 miles southeast of the Bay Boulevard Substation site. This airport has two runways measuring approximately 7,972 and 3,180 feet long, respectively. This airport is owned and operated by the City of San Diego (City of San Diego 2010).

Bicycle Facilities

Bike lanes are striped lanes for one-way bike travel, identified by special signs, lane striping, and other pavement markings. Bike paths or trails are a completely separate ROW for the exclusive use of non-motorized travel. Bay Boulevard, between J Street and Palomar Street, is a Class II bicycle route. Class II bicycle routes have on-street bicycle lanes that are marked either on the curb or the parking lane. This segment is part of a 26-mile loop around San Diego Bay known as the Bayshore Bikeway. Additionally, local City of Chula Vista bikeways connect to the Bayshore Bikeway via Palomar and J Streets on the South and North side of the project, respectively (see further discussion regarding bicycle facilities in Section D.15.1).

D.16.2 Applicable Regulations, Plans, and Standards

Federal

Airports and navigable airspace not administered by the Department of Defense are under the jurisdiction of the Federal Aviation Administration (FAA). Federal Regulation Title 14, Section 77, establishes the standards and required notification for objects affecting navigable airspace (14 CFR 77). In general, construction projects exceeding 200 feet in height above ground level, or extending at a ratio greater than 50 to 1 (horizontal to vertical) from a public or military airport runway less than 3,200 feet long, out to a horizontal distance of 20,000 feet are considered potential obstructions and require FAA notification. In addition, the FAA requires a Helicopter Lift Plan for operating a helicopter within 1,500 feet of residential dwellings. ~~All helicopter construction activities would be required to comply with all appropriate regulations of~~

the FAA. Helicopter work associated with the Proposed Project would consist of sock line and stringing across I-5.

State

California Department of Transportation (Caltrans) is the state agency tasked with improving and maintaining roads in the state of California. In areas with designated state routes, the state has the responsibility to maintain these roadways, while the local jurisdiction is responsible for maintaining local roads. Local jurisdictions work with Caltrans to designate transportation network requirements and critical areas in need of improvement.

Local

Construction of the Proposed Project could potentially affect access, traffic flows, curbside parking, and transit routes on public streets and highways. Therefore, it will be necessary for SDG&E and/or the construction contractor to obtain encroachment permits or similar legal agreements from the public agencies responsible for each affected roadway or other transportation ROW. Such permits are needed for ROWs that would be crossed by the underground transmission line as well as for transmission line construction activities that would require the use of public ROW for a parallel installation. For the Proposed Project, these encroachment permits would be issued by Caltrans and/or the City of Chula Vista (City).

City of Chula Vista Municipal Code

Pursuant to the Chula Vista Municipal Code, Chapter 12.28, using or encroaching upon public ROWs for certain private purposes may not interfere with or obstruct the overriding ROW use. Chapter 12.28 provides procedures and regulations to appropriately use dedicated public ROWs adjacent to or contiguous to projects on private property. The Proposed Project is located on private property. The uses and encroachments permitted by Chapter 12.28 are in addition to those specifically authorized under Chapters 44 and 45 of the 1967 Uniform Building Code as adopted by the City (City of Chula Vista 2010).

City of Chula Vista General Plan

The City of Chula Vista General Plan establishes goals and policies to accommodate future traffic and provide the means to move people and goods within and throughout the City. The City's transportation system connects the its land uses with various types of roads and paths, providing access to residential, commercial, industrial, and recreational facilities. The Land Use and Transportation Element (City of Chula Vista 2005c) discusses Chula Vista's Circulation Plan; Measurements of Traffic; Urban Core Circulation Element; Public Transit Plan; Bikeway System; Pedestrian Sidewalks, Paths and Trails; Movement of Goods; and Noise (as it relates to traffic) through the year 2030. Figure 5-13W, shown in the Chula Vista Land Use and

Transportation Element, details the circulation for western Chula Vista, encompassing the Proposed Project Area. The following General Plan policies are relevant to the Proposed Project and will be considered in the analysis (City of Chula Vista 2005c):

- **Chula Vista General Plan Land Use and Transportation Element Policy LUT 18.3**
Provide and enhance all feasible alternatives to the automobile, such as bicycling and walking, and encourage public transit ridership on existing and future transit routes.
- **Chula Vista General Plan Land Use and Transportation Element Policy LUT 18.5**
Implement Transportation Demand Management (TDM) strategies, such as carpooling, vanpooling, and flexible work hours that encourage alternatives to driving alone during peak periods.

D.16.3 Environmental Impacts and Mitigation Measures

A transmission substation and relocation of transmission facilities are more likely to affect the transportation facilities during construction than during operation, because there is only a minimal amount of surface activity required to operate a transmission substation and lines. Routine maintenance is expected to necessitate approximately six trips per year by a two- to four-person crew. Consequently, the transportation analysis is devoted to the potential impacts during the construction phase.

D.16.3.1 Definition and Use of Significance Criteria

The significance criteria are based on the CEQA checklist in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) a review of environmental documentation for other utility projects in California, as well as input from staff at the public agencies responsible for the transportation facilities. Traffic/transportation impacts would be significant if one or more of the following conditions resulted from construction:

- 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 result 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.

D.16.3.2 Applicant Proposed Measures

Table D.16-4 shows the applicant proposed measure (APM) proposed by SDG&E to reduce project impacts related to transportation and traffic.

**Table D.16-4
APMs for Transportation and Traffic Resources**

APM No.	Description
APM-TRA-01	Heavy-duty construction vehicles and equipment would not utilize L Street during the p.m. peak hours (between 4:00 p.m. and 6:00 p.m. on weekdays). Alternate travel routes, such as J Street and Palomar Avenue, would instead be used during this time.

D.16.3.3 Bay Boulevard Substation

Impact TRA-1: Construction would cause temporary road and lane closures that would temporarily disrupt traffic flow.

During construction of the proposed Bay Boulevard Substation, traffic will be generated by construction crews and equipment/material deliveries. As shown in Table D.16-5, site development and grading of the Bay Boulevard Substation is anticipated to necessitate approximately 12,520 trips to the site. The construction trips generated would be associated with material delivery and removal, site development, underground duct bank construction, and asphalt construction over a 17-month construction period. Construction of the 230 kV loop-in, 69 kV relocation, and 138 kV extension transmission lines, and South Bay Substation demolition are expected to generate an additional 1,800 trips associated with material delivery and removal over a 34-month construction period. As seen in Table D.16-5, the maximum number of trips generated during construction (63 ADT) would occur during site development associated with the Bay Boulevard Substation, which is anticipated to occur over 7 months.

In addition to the trips generated by specific project component construction activities, the project is also expected to generate approximately 60 trips per day by construction workers during times of peak construction activities. As indicated by the construction schedule discussed in Section B.6.1 and listed in Table B-2, Proposed Schedule, trips associated with construction activities would occur throughout the project’s anticipated 3.25-year construction period. The

peak in simultaneous construction activities is expected to occur during site development and below-grade construction activities at the Bay Boulevard Substation for 7 months and is expected to generate approximately 130 maximum trips per day (SDG&E 2010a).

**Table D.16-5
Project-Generated Trips**

Proposed Project Component/Activity	Average Daily Traffic	Total Trips
Bay Boulevard Substation		
Material Delivery/Removal	6	2,832
Site Development	63	9,335
Underground Duct Bank	1	313
Asphalt	8	40
230 kV Loop-in		
Material Delivery/Removal	1	80
69 kV Relocation		
Material Delivery/Removal	3	165
138 kV Extension		
Material Delivery/Removal	3	300
South Bay Substation Demolition		
Material Delivery/Removal	6	1,254

Source: SDG&E 2010b

The workforce is expected to arrive at the Proposed Project site in the morning and leave in the evening at the end of the day's construction activities. The truck trips, however, are anticipated to be generally evenly distributed throughout the day. Table D.16-6, Existing Traffic and Project-Generated Traffic, compares the anticipated increase in ADT to the existing traffic conditions near the Proposed Project. The worst-case impact on ADT is determined by calculating the largest percentage of increase on any given roadway. The worst-case increase is measured against the segments of roadway with the lowest existing ADT figures, which will result in the highest percentage of increase. Therefore, Table D.16-6 reports impacts based on the segment of each roadway with the lowest existing ADT levels.

**Table D.16-6
Existing Traffic and Project-Generated Traffic**

Roadway Segment	Classification	Lanes	Acceptable Volume	Daily Traffic Volume	V/C Ratio ¹	LOS	Maximum Average Daily Traffic from Construction of the Proposed Project	ADT with Project	Percent Temporary Increase from Construction of the Proposed Project
<i>H Street</i>									
Bay Boulevard to I-5 Ramps	Gateway Street	4	38,400	15,841	0.33	A	130	15,971	0.8%
I-5 Ramps to Broadway	Gateway Street	4	38,400	28,750	0.60	A	130	28,880	0.5%
<i>J Street</i>									
Marina Parkway to Bay Boulevard	Major Street	4	30,000	8,617	0.23	A	130	8,747	1.5%
Bay Boulevard to I-5 Ramps	Major Street	4	30,000	17,199	0.46	A	130	17,329	0.8%
<i>L Street</i>									
Bay Boulevard to Industrial Way	Gateway Street	4	38,400	15,100	0.31	A	130	15,230	0.9%
<i>Bay Boulevard</i>									
H Street to J Street	Class III Collector	2	7,500	2,489	0.26	A	130	2,619	5.2%
J Street to L Street	Class II Collector	2	12,000	2,962	0.20	A	130	3,091	4.4%
L Street to I-5 Ramps	Class II Collector	2	12,000	3,303	0.22	A	130	3,433	4.0%
South of I-5 Ramps	Class III Collector	2	7,500	3,303	0.35	A	130	3,433	4.0%
<i>Palomar Street²</i>									
Bay Boulevard to I-5 ramps	Class I Collector	4	27,590	6,561	0.24	A	130	6691	2.0%

Source: CVBMP EIR, Transportation Study (2008) and project description, unless otherwise noted

The V/C ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

Source: Traffic Study for Palomar Gas and Car Wash in Chula Vista, California, June 21 (The Perfect Solution 2010)

As noted in Table D.16-6, the maximum increase in ADT from traffic associated with construction would be approximately 5%, which would occur on Bay Boulevard from H Street to J Street, resulting in an increase from the current 2,489 ADT to 2,619 ADT. This increase is not considered substantial. Therefore, the increase in traffic associated with construction is not anticipated to result in LOS on any of the affected roadways falling below acceptable levels.

As shown in Table D.16-6, construction of the Proposed Project would generate additional traffic on the regional and local roadways serving the area. Construction worker commuter trips, project equipment deliveries, and hauling materials such as concrete, clean fill, excavation spoils, and gravel would increase the existing traffic volumes in the project area. Access to and from the construction site would occur along local access routes including I-5, Bay Boulevard, H Street, J Street, L Street, and Palomar Street. The anticipated construction-related traffic would create a short-term and limited impact on traffic volumes and may change traffic patterns in a manner that would affect the LOS or vehicle-to-congestion ratio on the study area roadways. In addition, as seen in Table D.16-3, both the L Street/Bay Boulevard and I-5 SB Ramps/Bay Boulevard intersections are currently operating at a failing LOS in the PM peak hours. Further, construction activities may require lane closures along Bay Boulevard at the points of egress/ingress to the project site. Therefore, Mitigation Measures TRA-1, TRA-2, and TRA-3 are provided along with APM-TRA-01 to ensure that traffic congestion and delays due to project-related construction would be less than significant (Class II).

TRA-1 Prior to the start of construction, SDG&E shall submit traffic management plans (TMPs) to the City as part of the required traffic encroachment permits. Traffic control plans (TCPs) shall define the locations of all roads that would need to be temporarily closed due to construction activities, including hauling of oversized loads by truck, conductor stringing activities, and trenching activities. Input and approval from the City shall be obtained, and copies of an approval letter from the City must be provided to the California Public Utilities Commission (CPUC) prior to the start of construction. The TCPs shall define the use of flag persons, warning signs, lights, barricades, cones, etc., according to standard guidelines outlined in the California Department of Transportation (Caltrans) *Traffic Manual for Construction and Maintenance Work Zones* (Caltrans 1996), the *Standard Specifications for Public Works Construction* (Caltrans 2009a), and the *Work Area Traffic Control Handbook (WATCH)* (Caltrans 2009b). Documentation of the approval of these plans, consistency with SDG&E's utility franchise agreements, and issuance of encroachment permits (if applicable) shall be provided to CPUC prior to the start of construction activities that require temporary closure of a public roadway.

TRA-2 SDG&E shall stagger work shifts during the peak period of construction activity, which shall occur during the approximately 6-month grading and site development phase, and construction shifts shall be staggered to the degree possible, such that employee arrivals and departures from the site will avoid the project area peak traffic hours (7:30–8:30 a.m. and 4:30–5:30 p.m.) or as otherwise approved by the City of Chula Vista. Construction-related truck traffic shall also be scheduled to avoid travel during peak periods of traffic on the surrounding roadways.

TRA-3 Construction workers shall be encouraged to carpool to the job site to the extent feasible.

With implementation of APM-TRA-01 and Mitigation Measures TRA-1, TRA-2, and TRA-3, it is expected that short-term construction-related traffic would not create a substantial impact on traffic volume nor change traffic patterns in such a way that congestion and delay would be substantially increased on street segments or intersections.

Impact TRA-2: **Construction activities would restrict the movements of emergency vehicles (police cars, fire trucks, ambulances, and paramedic units), and there are no reasonable alternative access routes available.**

Table D.16-6 shows the roadways affected by the proposed Bay Boulevard Substation component. Construction activities may require lane closures along Bay Boulevard at the points of egress/ingress to the project site. These activities could potentially interfere with emergency response by ambulance, fire, paramedic, and police vehicles due to brief lane closures. Temporary lane closures and associated safety concerns, increased traffic levels and constrained circulation associated with temporary road closures is considered a significant impact, and would be mitigated to less than significant with implementation of Mitigation Measure TRA-4 (Class II).

TRA-4 SDG&E shall coordinate in advance with the City of Chula Vista (City) to avoid restricting movements of emergency vehicles. SDG&E shall request that police departments, fire departments, ambulance services, and paramedic services be notified by the City of the proposed locations, nature, timing, and duration of any construction activities that may restrict emergency services and be advised of any access restrictions that could impact their effectiveness. At locations where access to nearby property is blocked, provision shall be ready at all times to accommodate emergency vehicles, such as plating over excavations, short detours, and alternate routes in conjunction with local agencies. Traffic control plans (Mitigation Measure TRA-1) shall include details regarding emergency services coordination and procedures. Documentation of coordination with the

City shall be provided to California Public Utilities Commission prior to the start of construction.

Impact TRA-3: **Construction activities would result in unstable flow, or fluctuations in volumes of traffic that temporarily restrict flow; or in an unacceptable reduction in performance of the circulation system, as defined by an applicable plan (including a congestion management program), ordinance, or policy establishing measures of effectiveness for the performance of the circulation system.**

Construction:

As previously discussed in Impact TRA-1, project-related construction traffic would result in a less-than-significant impact with implementation of mitigation measures TRA-1, 2, and 3. Roads spanned by the project may require temporary closure to through traffic, but this would occur during nonpeak traffic times to the extent possible. In addition, traffic delays could occur when large trucks enter and exit the roadway at designated access points along Bay Boulevard. Implementation of mitigation measures TRA-1, 2, and 3 will ensure impacts to the existing LOS standards for vicinity roads would be less than significant (Class III).

Operation and Maintenance:

Operation of the Bay Boulevard Substation will necessitate approximately six trips per year by a two- to four-person crew. Vegetation clearing activities would require up to two maintenance vehicles visiting on an as-needed basis, which is conservatively estimated at two trips every other week, or one trip per week. Routine maintenance activities would require approximately six trips per year. One annual major inspection of the facility would require approximately 20 personnel visiting the site for 1 week. All of these visits would amount to between five and seven trips per week, or between one and two vehicle trips per day. This negligible amount of traffic would not impact traffic in or around the project area or alter traffic patterns. Therefore, O&M activities will not have an impact on the current LOS.

Impact TRA-4: **The project would substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).**

Construction:

Short-term construction-related activities, such as trenching or pole replacement, are planned along Bay Boulevard, which would temporarily interfere with traffic patterns and safe pedestrian and cyclist access along Bay Boulevard. Implementation of Mitigation Measures LU-1 (Construction Notification), LU-2 (Provide Continuous Access to Properties), and TRA-1 (Traffic Safety and

Control Plan) would ensure that temporary construction-related impacts would be less than significant (Class II).

Operation and Maintenance:

No long-term changes to circulation patterns are proposed as part of the project. The Proposed Project would relocate an existing substation in an existing industrially developed area and would not permanently increase hazards related to existing traffic patterns in the area. The substation is monitored and controlled remotely. Operation and maintenance of the proposed Bay Boulevard Substation is expected to require site visits in conjunction with activities that include switching, vegetation clearing, inspection, and maintenance. Maintenance activities are anticipated to necessitate approximately six trips per year by a two- to four-person crew. Vegetation clearing activities would require up to two maintenance vehicles visiting on an as-needed basis, which is conservatively estimated at two trips every other week, or one trip per week. Routine maintenance activities would require approximately six trips per year. One annual major inspection of the facility would require approximately 20 personnel visiting the site for 1 week. All of these visits would amount to between five and seven trips per week, or between one and two vehicle trips per day. Crews would access the Bay Boulevard Substation via Bay Boulevard at either the primary access and/or secondary access. This limited number of vehicle trips would result in less-than-significant impacts to traffic patterns and the local circulation system (Class III).

Impact TRA-5: Construction would substantially disrupt bus or rail transit service, and there would be no suitable alternative routes or stops; or would impede pedestrian movements or bike trails, and there are no suitable alternative pedestrian/bicycle access routes or accommodation through construction zones; or would conflict with planned transportation projects in the project area.

Pedestrian and Bicycle Facilities

Construction activities are not anticipated to require the full closure of roadways; however, undergrounding and pole replacement activities along Bay Boulevard may temporarily limit traffic movement to one lane, and would temporarily eliminate bike and pedestrian access to the bicycle lane and shoulders along Bay Boulevard. The potential temporary disruption of traffic, bike, and pedestrian use along Bay Boulevard would be significant. To reduce this impact to less than significant, Mitigation Measures LU-1 (Construction Notification) and LU-2 (Provide Continuous Access to Properties) are provided in Section D.10, Land Use, as well as Mitigation Measures TRA-1 and TRA-5, which would ensure that potential impacts to cyclists and pedestrians would be less than significant (Class II).

TRA-5 Where construction will result 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. Any affected pedestrian facilities and the alternative facilities or detours that shall be provided will be identified in the traffic management plan. Where construction activity will result in bike route or bike path closures, appropriate detours and signs shall be provided.

Mass Transit

The project is in the vicinity of bus and trolley services provided by the San Diego MTS (2010a and 2010b). The nearest bus and trolley stops are both located at the Palomar Street Trolley Station, at the intersection of Palomar Street and Industrial Boulevard, approximately 0.5 mile southeast of the Proposed Project area. The Proposed Project does not parallel or span trolley routes (MTS 2010b). As indicated previously, with implementation of APM-TRA-01 and Mitigation Measures TRA-1, TRA-2, and TRA-3, it is expected that short-term construction-related traffic would not create a substantial impact on traffic volume nor change traffic patterns in such a way that congestion and delay would be substantially increased on street segments or intersections, and thus would not interfere with bus service in the area (Class II).

Impact TRA-6: **Construction or staging activities would increase the demand for and/or reduce the supply of parking spaces, and there would be no provisions for accommodating the resulting parking deficiencies.**

All construction vehicles and equipment would be staged within the proposed Bay Boulevard Substation site or nearby SDG&E property as discussed in Section B.6.2. No loss of public parking would occur. Parking requirements associated with the O&M of the Bay Boulevard will be accommodated within the fenced substation. Impacts would be considered less than significant (Class III).

D.16.3.4 South Bay Substation Dismantling

Impact TRA-1: **Construction would cause temporary road and lane closures that would temporarily disrupt traffic flow.**

As seen in Section D.16.3.3, construction activities are not expected to create a substantial impact on traffic volumes nor change traffic patterns in such a way that congestion and delay would substantially increase on street segments or at intersections with implementation of mitigation measures TRA-1, 2, and 3. Therefore, construction traffic related to the dismantling of the South Bay Substation is anticipated to have a less-than-significant impact to traffic and transportation within the study area with implementation of mitigation measures TRA-1, 2, and 3 (Class II).

Impact TRA-2: **Construction activities would restrict the movements of emergency vehicles (police cars, fire trucks, ambulances, and paramedic units), and there are no reasonable alternative access routes available**

As seen in Section D.16.3.3, construction activities could potentially interfere with emergency response by ambulance, fire, paramedic, and police vehicles due to brief roadway closures (see Impact TRA-2 in Section D.16.3.3). This is considered a significant impact, and would be mitigated to less than-significant-levels with implementation of Mitigation Measure TRA-4 (Class II).

Impact TRA-3: **Construction activities would result in unstable flow, or fluctuations in volumes of traffic that temporarily restrict flow; or in an unacceptable reduction in performance of the circulation system, as defined by an applicable plan (including a congestion management program), ordinance, or policy establishing measures of effectiveness for the performance of the circulation system.**

Construction

As previously discussed in Impact TRA-1, project-related construction traffic would result in a less-than-significant with implementation of mitigation measures TRA-1, 2, and 3. Roads spanned by the project may require temporary closure to through traffic, but this would occur during nonpeak traffic times to the extent possible. In addition, traffic delays could occur when large trucks enter and exit the roadway at designated access points. Implementation of mitigation measures TRA-1, 2, and 3 will ensure impacts to the existing LOS standards for vicinity roads would be less than significant (Class III).

Operation and Maintenance

Upon completion of dismantling of the existing South Bay Substation, no further operation or maintenance activities would be required; therefore, no impacts would occur.

Impact TRA-4: **The project would substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).**

Construction

The proposed dismantling of the South Bay Substation would not permanently increase hazards related to existing traffic patterns in the area. Short-term construction-related activities would temporarily interfere with traffic patterns and safe pedestrian and cyclist access along Bay Boulevard. Implementation of Mitigation Measures LU-1 (Construction Notification), LU-2 (Provide

Continuous Access to Properties), and TRA-1 (Traffic Safety and Control Plan) would ensure that temporary construction related impacts would be less than significant (Class II).

Operation and Maintenance

Upon completion of dismantling of the existing South Bay Substation, no further operation or maintenance activities would be required; therefore, no impacts would occur.

Impact TRA-5: Construction would substantially disrupt bus or rail transit service, and there would be no suitable alternative routes or stops; or would impede pedestrian movements or bike trails, and there are no suitable alternative pedestrian/bicycle access routes or accommodation through construction zones; or would conflict with planned transportation projects in the project area.

Dismantling of the South Bay Substation would occur entirely within the substation fence line; therefore, no impacts to bike trails, pedestrian movements, and transit or rail operations would occur.

Impact TRA-6: Construction or staging activities would increase the demand for and/or reduce the supply of parking spaces, and there would be no provisions for accommodating the resulting parking deficiencies.

All construction vehicles and equipment would be staged within the South Bay Substation site or within the H & B Yard. Upon completion of dismantling of the existing South Bay Substation, no further operation or maintenance activities would be required; therefore, no impacts would occur. Therefore, no loss of public parking would occur due to dismantling of the South Bay Substation.

D.16.3.5 Transmission Interconnections

Impact TRA-1: Construction would cause temporary road and lane closures that would temporarily disrupt traffic flow.

The overhead and undergrounding transmission interconnections would cause temporary lane closures on roadways in the project vicinity including Bay Boulevard. The temporary lane closures, increased traffic levels and constrained circulation in the area is considered a significant impact and would be mitigated to less than significant (Class II) with implementation of Mitigation Measures TRA-1, 2, and 3 (see Section D.16.3.3).

Impact TRA-2: Construction activities would restrict the movements of emergency vehicles (police cars, fire trucks, ambulances, and paramedic units), and there are no reasonable alternative access routes available

Underground and overhead construction activities could potentially interfere with emergency response by ambulance, fire, paramedic, and police vehicles. Potential roadway segments that would be most impacted would be two-lane roadways, which provide one lane of travel per direction. The loss of a lane and the resulting increase in congestion could lengthen the response time required for emergency vehicles passing through the construction zone. Moreover, there is a possibility that emergency services may be needed at a location where access is temporarily blocked by the construction zone. This is considered a significant impact and would be mitigated to less than significant (Class II) with implementation of Mitigation Measure TRA-4.

Impact TRA-3: Construction activities would result in unstable flow, or fluctuations in volumes of traffic that temporarily restrict flow; or in an unacceptable reduction in performance of the circulation system, as defined by an applicable plan (including a congestion management program), ordinance, or policy establishing measures of effectiveness for the performance of the circulation system.

Construction:

As previously discussed in Section D.16.3.3, project-related construction traffic would result in a less-than-significant with implementation of mitigation measures TRA-1, 2, and 3. Roads spanned by the project may require temporary closure to through traffic, but this would occur during nonpeak traffic times to the extent possible. Implementation of mitigation measures TRA-1, 2, and 3 will ensure impacts to the existing LOS standards for vicinity roads would be less than significant (Class III).

Operation and Maintenance:

Operation of the proposed transmission lines would require inspections, brush clearing, repair or replacement activities and routine washing of the insulators. These routine activities will require a crew composed of four personnel with two to three trucks (a boom or line truck, an aerial lift truck, and an assist truck) to gain access to the area of the equipment in need of repair or replacement. The washing process would require the use of a water truck, typically operated by a two-man crew, which allows a high-pressure hose to be used to spray deionized water on the insulators. This negligible amount of traffic would not impact traffic in or around the project area or alter traffic patterns. Therefore, O&M activities will not have an impact on the current LOS.

Impact TRA-4: **The project would substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).**

Construction

The proposed transmission interconnections would not permanently increase hazards related to existing traffic patterns in the area. Short-term construction-related activities would temporarily interfere with traffic patterns and safe pedestrian and cyclist access along Bay Boulevard. Implementation of Mitigation Measures LU-1 (Construction Notification), LU-2 (Provide Continuous Access to Properties), and TRA-1 (Traffic Safety and Control Plan) would ensure that temporary construction related impacts would be less than significant (Class II).

The nearest public airport, Brown Field Municipal Airport, is located approximately 6.3 miles southeast of the proposed Bay Boulevard Substation. The nearest private airport, Naval Outlying Landing Field Imperial Beach, is located approximately 3 miles southwest of the proposed Bay Boulevard Substation. Impacts could occur during both construction and operation of the transmission lines being relocated because these impacts are caused by physical impediments to the navigable air space. However, according to the guidelines of the Federal Aviation Administration (FAA), construction of the Proposed Project could potentially have a significant impact on aviation activities if a structure, crane, or wire were to be positioned such that it would be more than 200 feet above the ground or if an object would penetrate the imaginary surface extending outward and upward from a public or military airport runway or a helipad. The Proposed Project would not be located within the air space of a public or military airport runway or helipad. Because the new transmission structures would be a maximum height of approximately 165 feet, these project components would not extend into navigable air space. Therefore, there would be no long-term aviation impacts associated with the Proposed Project.

During construction helicopters would be used ~~to install overhead conductors and to remove wood and steel poles~~ to facilitate conductor stringing activities. Temporary helicopter use during construction is not expected to interfere with air traffic patterns at local airports due to the project's distance from local airports and the relatively limited use of helicopters during construction. However, if helicopters are to be used for the installation or removal of any structures, to ensure that helicopter use during construction follows all safety procedures in compliance with FAA regulations, Mitigation Measure TRA-6 will apply and will ensure that helicopter use during construction follows all safety procedures in compliance with FAA regulations. With implementation of Mitigation Measure TRA-6 impacts to air traffic patterns and air safety from the Proposed Project's helicopter use during construction would be less than significant (Class II).

TRA-6 Should helicopters be required to lift any structures during construction, SDG&E shall prepare a lift plan to be approved by both the Federal Aviation

Administration (FAA) and the CPUC that identifies procedures that will need to be implemented to ensure public safety. Documentation of FAA approval of the lift plan shall be provided to ~~the California Public Utilities Commission~~ CPUC prior to the start of construction activities that require the use of a helicopter.

Operation and Maintenance

No long-term changes to circulation patterns are proposed as part of the project. The Proposed Project would relocate existing transmission line facilities in an existing industrially developed area. The limited number of vehicle trips for operation and maintenance activities associated with the transmission line interconnections would result in less-than-significant impacts to traffic patterns and the local circulation system (Class III).

Impact TRA-5: Construction would substantially disrupt bus or rail transit service, and there would be no suitable alternative routes or stops; or would impede pedestrian movements or bike trails, and there are no suitable alternative pedestrian/bicycle access routes or accommodation through construction zones; or would conflict with planned transportation projects in the project area.

As discussed previously in Impact TRA-1, no long-term changes to circulation patterns are proposed as part of the project. Construction the Proposed Project would temporarily interfere with traffic patterns and safe pedestrian and cyclist access along Bay Boulevard during trenching or pole replacement activities. The Proposed Project is not expected to interfere with bus or trolley systems in the area. Implementation of Mitigation Measures LU-1 (Construction Notification), LU-2 (Provide Continuous Access to Properties), and TRA-1 and TRA-4 would ensure that temporary construction related impacts to cyclists and pedestrians along Bay Boulevard would be less than significant.

Impact TRA-6: Construction or staging activities would increase the demand for and/or reduce the supply of parking spaces, and there would be no provisions for accommodating the resulting parking deficiencies.

Trenching and overhead construction activities could affect parking for businesses occurring along Bay Boulevard. This impact would be limited in duration and parking on surrounding streets could be used to offset any parking temporarily displaced by trenching activities. Implementation of Mitigation Measures TRA-7a and TRA-7b would ensure that construction activities would have a less-than-significant impact on parking (Class II). While this measure would not alleviate any short-term parking loss, the advanced warning to affected individuals allows them to adjust their normal routine.

TRA-7a SDG&E shall coordinate with the lessee and/or owner of affected parking lots to minimize parking loss through timing restrictions that minimize potential conflicts with peak parking needs.

TRA-7b SDG&E shall post signage 24 hours in advance of trenching activities along affected streets to notify businesses that might be inconvenienced.

D.16.4 Project Alternatives

D.16.4.1 Gas Insulated Substation Technology Alternative

Environmental Setting

Section D.16.1 describes the existing traffic conditions at the proposed South Bay Substation Relocation Project. Because the Gas Insulated Substation Technology Alternative would only decrease the development footprint of the Bay Boulevard Substation, the existing traffic conditions would be the same as described in Section D.16.1.

Environmental Impacts and Mitigation Measures

Under this alternative, a smaller development footprint for the Bay Boulevard Substation would be required when compared to the Proposed Project due to the reduction of A-frame structures needed for the air insulated substation required under the Proposed Project. The smaller development footprint for the Gas Insulated Substation Technology Alternative design would reduce the amount of imported fill required for construction by approximately 75,000 CY. The reduction in imported fill requirements will result in an overall reduction of 4,335 truck trips during grading activities. Therefore, the Gas Insulated Substation Technology Alternative would result in a reduction in construction-related trips during grading activities, thus reducing traffic-related impacts from those identified under the Proposed Project. As with the Proposed Project, construction-related traffic would create a short-term and limited impact on traffic volumes and may change traffic patterns, thus requiring temporary road and lane closures (Impacts TRA-1 and TRA-3). Impacts would be less than significant (Class II) with implementation of Mitigation Measures TRA-1, TRA-2, and TRA-3, and APM-TRA-01.

Comparison to the Proposed Project

Transportation and traffic impacts resulting from the construction of SDG&E's Gas Insulated Substation Technology Alternative would be substantially the same; however, there would be an overall reduction of truck trips during grading activities in comparison to the Proposed Project.

D.16.4.2 Tank Farm Site Alternative

Environmental Setting

Section D.16.1 describes the transportation and traffic conditions in the project vicinity. Because the Tank Farm Site Alternative would occur in the same area as the Proposed Project, the existing traffic conditions would be as described in Section D.16.1. As identified under the Proposed Project, the Tank Farm Site Alternative would be accessed from Bay Boulevard via L Street.

The environmental setting for the Air Insulated Substation and Gas Insulated Substation Alternatives at the Tank Farm site would be the same, and therefore, environmental setting is not further discussed in Sections D.16.4.2.1 and D.16.4.2.2.

D.16.4.2.1 Tank Farm Site – Air Insulated Substation Alternative

Environmental Impacts and Mitigation Measures

Because this alternative site is located in the same project area, transportation and traffic impacts would be similar to those of the Proposed Project. As with the Proposed Project, construction-related traffic would create a short-term and limited impact on traffic volumes and may change traffic patterns, thus requiring temporary road and lane closures (Impacts TRA-1 and TRA-3). Impacts would be less than significant (Class II) with implementation of Mitigation Measures TRA-1, TRA-2, and TRA-3, and APM-TRA-01.

Similar to the Proposed Project, impacts associated with the interference of emergency response by ambulance, fire, paramedic, and police vehicles (Impact TRA-2) due to brief road/lane closure for undergrounding and overhead construction activities would occur under this alternative. This is considered a significant impact, and would be mitigated to less-than-significant levels (Class II) with implementation of Mitigation Measure TRA-4.

As with the Proposed Project, short-term construction-related activities, such as trenching or pole replacement, would temporarily interfere with traffic patterns and safe pedestrian and cyclist access along Bay Boulevard (Impacts TRA-4 and TRA-5). These potential hazards to pedestrian and cyclist access would be reduced to less than significant (Class II) with implementation of Mitigation Measures LU-1 (construction notification), LU-2 (provide continuous access to properties), TRA-1 (traffic safety and control plan), and TRA-5 (provide temporary pedestrian access). In addition, under this alternative, helicopters would be used during construction to install overhead conductors and to facilitate conductor stringing activities~~to remove wood and steel poles~~. With implementation of Mitigation Measure TRA-6 (safety procedures in compliance with FAA regulations), impacts to air traffic patterns and air safety from helicopter use during construction would be less than significant (Class II).

Under this alternative, all construction vehicles and equipment would be staged within the proposed Tank Farm Site Alternative or nearby SDG&E property as identified under the Proposed Project. During construction of the transmission facilities, trenching and overhead construction activities could affect parking for neighboring businesses. With implementation of Mitigation Measures TRA-7a (coordinate with the lessee and/or owner of affected parking lots) and TRA-7b (post signage 24 hours in advance of trenching activities), impacts due to parking loss would be less than significant (Class II).

Comparison to the Proposed Project

Transportation and traffic impacts resulting from construction of the Tank Farm Site – Air Insulated Substation Alternative would be substantially the same as those of the Proposed Project for Impacts TRA-1 through TRA-6.

D.16.4.2.2 Tank Farm Site – Gas Insulated Substation Alternative

Environmental Impacts and Mitigation Measures

Under this alternative, a similar development footprint and layout as identified for the Gas Insulated Substation Technology Alternative described in Section D.16.4.1 would be required for the new substation and would be constructed at the Tank Farm site. The smaller development footprint for the Gas Insulated Substation Alternative design would reduce the amount of imported fill required for construction, thereby resulting in an overall reduction of truck trips during grading activities. Due to the reduction in construction-related trips during grading activities, traffic-related impacts under this alternative would be reduced from those identified under the Proposed Project. Transportation and traffic impacts resulting from the construction and operation of the Tank Farm Site – Gas Insulated Substation Alternative would be the same as described in Section D.16.4.2.1, which were determined to be less than significant (Class II) with implementation of Mitigation Measures TRA-1 through TRA-7a and b.

Comparison to the Proposed Project

Transportation and traffic impacts (Impacts TRA-1 through TRA-6) resulting from the construction of Tank Farm Site – Gas Insulated Substation Alternative would be substantially the same; however, there would be an overall reduction of truck trips during grading activities in comparison to the Proposed Project.

D.16.4.3 Existing South Bay Substation Site Alternative

Environmental Setting

Section D.16.1 describes the traffic conditions in the project vicinity. Because the Existing South Bay Substation Site Alternative would occur in the same area as the Proposed Project, the existing traffic conditions would be the same as described in Section D.16.1. As identified under the Proposed Project, the Existing South Bay Site Alternative would be accessed from Bay Boulevard via L Street.

D.16.4.3.1 Existing South Bay Substation Site – Air Insulated Substation Alternative

Environmental Impacts and Mitigation Measures

Although construction of the Air Insulated Substation Alternative would entail a longer overall construction period, site development for the new facility is anticipated to require a smaller workforce due to the developed state of the existing substation site and could, therefore, generate fewer daily construction truck trips. While overall truck trips may be reduced under this alternative, construction traffic would still result in short-term increases to traffic volumes on local area roadways and could affect existing traffic patterns and flow (Impact TRA-1 and TRA-3). Implementation of APM-TRA-01 and Mitigation Measures TRA-1, TRA-2, and TRA-3 would reduce potential impacts TRA-1, TRA-2, and TRA-3 to less than significant (Class II).

Construction traffic could result in the closure of roads or travel lanes, which could affect emergency response by ambulance, fire, paramedic, and police vehicles (Impact TRA-2) in the immediate area. Implementation of Mitigation Measure TRA-4, which would require coordination with the City of Chula Vista and notification of local police departments, fire departments, ambulance services, and paramedic services regarding the proposed locations, nature, timing, and duration of any construction activities, would reduce TRA-2 impacts to less than significant (Class II).

Trenching activities and/or transmission pole replacement (and subsequent laydown of materials) along or near Bay Boulevard would temporarily interfere with traffic patterns and safe pedestrian and cyclist movement along the roadway (Impacts TRA-4 and TRA-5). While temporary, this interference would be considered significant. Implementation of Mitigation Measures LU-1 (construction notification), LU-2 (provide continuous access to properties), TRA-1 (traffic safety and control plan), and TRA-5 (provide temporary pedestrian access) would reduce potential impacts to less than significant (Class II). Helicopters would also be used during construction, and their presence could conflict with local air traffic patterns and safety if not properly coordinated with appropriate agencies. Implementation of Mitigation Measure TRA-6 (safety procedures in compliance with FAA regulations) would reduce potential impacts to local aviation patterns and safety to less than significant (Class II).

During construction, all vehicles and equipment would be staged within the existing substation site or within nearby SDG&E property, and construction vehicles and equipment are not anticipated to use existing parking in the area. Trenching and overhead construction activities along Bay Boulevard could require the temporary closure of travel lanes and ROW, which could affect parking for area businesses. Implementation of Mitigation Measures TRA-7a and TRA-7b would minimize potential conflicts with peak parking needs through advanced notification of potential parking loss and through coordination with local businesses to less than significant (Class II).

Comparison to the Proposed Project

The removal of existing equipment and construction of a new air insulated substation at the existing South Bay Substation site would be staged to keep existing circuits in service during construction. Although this alternative would entail a longer overall construction period, the transportation and traffic impacts (Impacts TRA-1 through TRA-6) resulting from construction would be substantially the same; however, there would be an overall reduction in truck trips during grading activities in comparison with the Proposed Project.

D.16.4.3.2 Existing South Bay Substation Site – Gas Insulated Substation Alternative

Environmental Impacts and Mitigation Measures

Under this alternative, a similar development footprint and layout as identified for the Gas Insulated Substation Technology Alternative described in Section D.16.4.1 would be required for the new substation, and it would be constructed at the existing South Bay Substation site (the existing substation would be dismantled and removed). The smaller development footprint for the Gas Insulated Substation Alternative design would reduce the amount of imported fill required for construction, thereby resulting in an overall reduction of truck trips during grading activities. Due to the reduction in construction-related trips during grading activities, traffic-related impacts (TRA-1) under this alternative would be reduced from those identified under the Proposed Project. Although impacts would be reduced, construction-related traffic would still create a short-term and limited impact on traffic volumes and may change traffic patterns, thus requiring temporary road and lane closures (Impacts TRA-1 and TRA-3). Impacts would be less than significant (Class II) with implementation of Mitigation Measures TRA-1, TRA-2, and TRA-3, and APM-TRA-01.

Similar to the Proposed Project, impacts associated with the interference of emergency response by ambulance, fire, paramedic, and police vehicles (Impact TRA-2) due to brief road/lane closure for undergrounding and overhead construction activities would occur under this alternative. This is considered a significant impact, and would be mitigated to less-than-significant levels (Class II) with implementation of Mitigation Measure TRA-4.

As with the Proposed Project, short-term construction-related activities, such as trenching or pole replacement, would temporarily interfere with traffic patterns and safe pedestrian and cyclist access along Bay Boulevard (Impacts TRA-4 and TRA-5). These potential hazards to pedestrian and cyclist access would be reduced to less than significant (Class II) with implementation of Mitigation Measures LU-1 (construction notification), LU-2 (provide continuous access to properties), TRA-1 (traffic safety and control plan), and TRA-5 (provide temporary pedestrian access). In addition, under this alternative, helicopters would be used during construction to install overhead conductors and ~~to remove wood and steel poles to facilitate conductor stringing activities.~~ With implementation of Mitigation Measure TRA-6 (safety procedures in compliance with FAA regulations), impacts to air traffic patterns and air safety from helicopter use during construction would be less than significant (Class II).

Under this alternative, all construction vehicles and equipment would be staged within the proposed South Bay Substation Site Alternative or nearby SDG&E property as identified under the Proposed Project. During construction of the transmission facilities, trenching and overhead construction activities could affect parking for neighboring businesses. With implementation of Mitigation Measures TRA-7a (coordinate with the lessee and/or owner of affected parking lots) and TRA-7b (post signage 24 hours in advance of trenching activities), impacts due to parking loss would be less than significant (Class II).

Comparison to the Proposed Project

Transportation and traffic impacts (Impacts TRA-1 through TRA-6) resulting from construction of the Existing South Bay Substation Site – Gas Insulated Substation Alternative would be substantially the same; however, there would be an overall reduction of truck trips during grading activities in comparison to the Proposed Project.

D.16.4.4 Power Plant Site Alternative

Environmental Setting

Section D.16.1 describes the traffic conditions in the project vicinity. Because the Power Plant Site Alternative would occur in the same area as the Proposed Project, the existing traffic conditions would be similar to those described in Section D.16.1. As identified under the Proposed Project, the Power Plant Site Alternative would be accessed from Bay Boulevard via L Street.

The environmental setting for the Air Insulated Substation and Gas Insulated Substation Alternatives at the Power Plant site would be the same, and therefore, environmental setting is not further discussed in Sections D.16.4.4.1 and D.16.4.4.2.

D.16.4.4.1 Power Plant Site – Air Insulated Substation Alternative

Environmental Impacts and Mitigation Measures

As described in Section C, this alternative site is located in the same project area; therefore, transportation and traffic impacts would be similar to those of the Proposed Project. As with the Proposed Project, construction-related traffic would create a short-term and limited impact on traffic volumes and may change traffic patterns, thus requiring temporary road and lane closures (Impacts TRA-1 and TRA-3). Impacts would be less than significant (Class II) with implementation of Mitigation Measures TRA-1, TRA-2, and TRA-3, and APM-TRA-01.

Similar to the Proposed Project, impacts associated with the interference of emergency response by ambulance, fire, paramedic, and police vehicles (Impact TRA-2) due to brief road/lane closure for undergrounding and overhead construction activities would occur under this alternative. This is considered a significant impact, and would be mitigated to less-than-significant levels (Class II) with implementation of Mitigation Measure TRA-4.

As with the Proposed Project, short-term construction-related activities, such as trenching or pole replacement, would temporarily interfere with traffic patterns and safe pedestrian and cyclist access along Bay Boulevard (Impacts TRA-4 and TRA-5). These potential hazards to pedestrian and cyclist access would be reduced to less than significant (Class II) with implementation of Mitigation Measures LU-1 (construction notification), LU-2 (provide continuous access to properties), TRA-1 (traffic safety and control plan), and TRA-5 (provide temporary pedestrian access). In addition, under this alternative, helicopters would be used during construction to install overhead conductors and to facilitate conductor stringing activities~~to remove wood and steel poles~~. With implementation of Mitigation Measure TRA-6 (safety procedures in compliance with FAA regulations), impacts to air traffic patterns and air safety from helicopter use during construction would be less than significant (Class II).

Under this alternative, all construction vehicles and equipment would be staged within the proposed Power Plant Site Alternative or nearby SDG&E property. During construction of the transmission facilities, trenching and overhead construction activities could affect parking for neighboring businesses. With implementation of Mitigation Measures TRA-7a (coordinate with the lessee and/or owner of affected parking lots) and TRA-7b (post signage 24 hours in advance of trenching activities) impacts due to parking loss would be less than significant (Class II).

Comparison to the Proposed Project

Transportation and traffic impacts resulting from construction of the Power Plant Site – Air Insulated Substation Alternative would be substantially the same as those of the Proposed Project for Impacts TRA-1 through TRA-6.

D.16.4.4.2 Power Plant Site – Gas Insulated Substation Alternative

Environmental Impacts and Mitigation Measures

Under this alternative, a similar development footprint and layout as identified for the Gas Insulated Substation Technology Alternative described in Section D.16.4.1 would be required for the new substation and would be constructed at the Power Plant Site – Gas Insulated Substation Alternative. The smaller development footprint for the Gas Insulated Substation Alternative design would reduce the amount of imported fill required for construction, thereby resulting in an overall reduction of truck trips during grading activities. Due to the reduction in construction-related trips during grading activities, traffic-related impacts (TRA-1) under this alternative would be reduced from those identified under the Proposed Project. Transportation and traffic impacts TRA-2 through TRA-6 resulting from the construction and operation of the Power Plant Site – Gas Insulated Substation Alternative would be similar to the Proposed Project, which were determined to be less than significant (Class II) with implementation of mitigation measures (TRA-1 through TRA-7).

Comparison to the Proposed Project

Transportation and traffic impacts resulting from the construction of the Power Plant Site – Gas Insulated Substation Alternative would be substantially the same; however, there would be an overall reduction of truck trips during grading activities in comparison to the Proposed Project.

D.16.4.5 Broadway and Palomar Site Alternative

Environmental Setting

Section D.16.1 describes the transportation and traffic conditions in the project vicinity. The Broadway and Palomar Site Alternative is located on the east side of I-5 between Industrial Boulevard and Broadway, south of Palomar Street. It is anticipated that the Broadway and Palomar Site Alternative would be accessed from I-5 to Palomar Street to Broadway. Palomar Street is classified as a six-lane major street. The street segment volume between I-5 to Broadway is 34,576 and operates at LOS B (City of Chula Vista 2005b). The Palomar Street Trolley station is located immediately northwest of the Broadway and Palomar Site Alternative, south of the intersection of Palomar Street and Industrial Boulevard.

D.16.4.5.1 Broadway and Palomar Site – Air Insulated Substation Alternative

Environmental Impacts and Mitigation Measures

The 9-acre Broadway and Palomar site is not physically large enough to accommodate the 10-acre Air Insulated Substation Alternative. As such, the Air Insulated Substation Alternative is not technically feasible at this site.

D.16.4.5.2 Broadway and Palomar Site – Gas Insulated Substation Alternative

Environmental Impacts and Mitigation Measures

Since the Broadway and Palomar Site is located on the east side of I-5 where existing traffic volumes are higher than street segments adjacent to the Proposed Project, impacts to transportation and traffic are considered greater than the Proposed Project. As described in Section C.5.5, the Broadway and Palomar Site Alternative would require construction of approximately 2.9 miles of transmission corridors to provide connections to the SDG&E grid, which includes construction of 69 kV lines that would need to cross I-5 via horizontal directional drilling. Establishment of additional corridors would entail the installation of new overhead transmission structures, which would create additional short-term construction traffic beyond that identified under the Proposed Project. Under this alternative, a similar development footprint and layout as identified for the Gas Insulated Substation Technology Alternative described in Section D.16.4.1 would be required for the new substation, and it would be constructed at the Broadway and Palomar Site. The smaller development footprint for the Gas Insulated Substation Alternative design would reduce the amount of imported fill required for construction, thereby resulting in an overall reduction of truck trips during grading activities.

As with the Proposed Project, construction-related traffic would create a short-term and limited impact on traffic volumes and may change traffic patterns, thus requiring temporary road and lane closures (Impacts TRA-1 and TRA-3). Due to existing higher traffic volumes along Palomar Street where transmission interconnection facilities would need to be constructed and materials delivered to the substation site, impacts would be greater than the Proposed Project; however, with implementation of Mitigation Measures TRA-1, TRA-2, and TRA-3, and APM-TRA-01, impacts would be less than significant (Class II).

Under this alternative, as under the Proposed Project, impacts associated with the interference of emergency response by ambulance, fire, paramedic, and police vehicles (Impact TRA-2) due to brief road/lane closure for undergrounding and overhead construction activities and at the points of egress/ingress to the project site would occur. This is considered a significant impact, and would be mitigated to less-than-significant levels (Class II) with implementation of Mitigation Measure TRA-4.

As with the Proposed Project, short-term construction-related activities, such as trenching or pole replacement, would temporarily interfere with traffic patterns and safe pedestrian and cyclist access (Impacts TRA-4 and TRA-5). These potential hazards to pedestrian and cyclist access would be greater than the Proposed Project due to the fact that transmission improvements will need to be completed along approximately 2.9 miles of potential, existing, and new transmission corridors in an urban area that will not be affected under the Proposed Project. This impact would be reduced to less than significant (Class II) with implementation of Mitigation Measures LU-1 (construction notification), LU-2 (provide continuous access to properties), TRA-1 (traffic safety and control plan), and TRA-5 (provide temporary pedestrian access). In addition, under this alternative, helicopters would be used during construction to install overhead conductors and to facilitate conductor stringing activities ~~to remove wood and steel poles~~. With implementation of Mitigation Measure TRA-6 (safety procedures in compliance with FAA regulations), impacts to air traffic patterns and air safety from helicopter use during construction would be less than significant (Class II).

Under this alternative, all construction vehicles and equipment would be staged within the proposed Broadway and Palomar Site Alternative or nearby SDG&E property. During construction of the transmission facilities, trenching and overhead construction activities could affect parking for neighboring businesses. With implementation of Mitigation Measures TRA-7a (coordinate with the lessee and/or owner of affected parking lots) and TRA-7b (post signage 24 hours in advance of trenching activities), impacts due to parking loss would be less than significant (Class II).

Comparison to the Proposed Project

Transportation and traffic impacts resulting from construction of the Broadway and Palomar Site – Gas Insulated Substation Alternative would be greater than the Proposed Project. As a result of the construction traffic occurring on streets with higher traffic volumes and the alternative requiring construction along approximately 2.9 miles of existing and proposed transmission corridors in an urban area that would not be affected under the Proposed Project, impacts would be greater than the Proposed Project.

D.16.4.6 Goodrich South Campus Site Alternative

Environmental Setting

Section D.16.1 describes the traffic conditions in the project vicinity. Because the Goodrich South Campus Site Alternative would occur in a similar area as the Proposed Project, the existing traffic conditions would be similar to those described in Section D.16.1. It is anticipated that the Goodrich South Campus Site Alternative would be accessed from I-5 to J Street to Bay Boulevard.

The environmental setting for the Air Insulated Substation and Gas Insulated Substation Alternatives at the Goodrich South Campus site would be the same, and therefore, environmental setting is not further discussed in Sections D.16.4.6.1 and D.16.4.6.2.

D.16.4.6.1 Goodrich South Campus Site – Air Insulated Substation Alternative

Environmental Impacts and Mitigation Measures

Because this alternative site is located in the same project vicinity and similar construction and operational activities would take place as the proposed Bay Boulevard Substation, the transportation and traffic impacts for construction of the substation under this alternative would be similar to the Proposed Project. As described in Section C.5.6, the Goodrich South Campus Site Alternative would require construction of approximately 0.6 mile of 69 kV lines that would be extended from the existing terminus at the South Bay Substation to the Goodrich Campus site. Establishment of additional corridors would entail the installation of new overhead transmission structures that would create additional short-term construction traffic beyond that identified under the Proposed Project.

As with the Proposed Project, construction-related traffic would create a short-term and limited impact on traffic volumes and may change traffic patterns, thus requiring temporary road and lane closures (Impacts TRA-1 and TRA-3). Impacts would be less than significant (Class II) with implementation of Mitigation Measures TRA-1, TRA-2, and TRA-3, and APM-TRA-01.

Under this alternative, as with the Proposed Project, impacts associated with the interference of emergency response by ambulance, fire, paramedic, and police vehicles (Impact TRA-2) due to brief road/lane closure for undergrounding and overhead construction activities would occur. This is considered a significant impact, and it would be mitigated to less-than-significant levels (Class II) with implementation of Mitigation Measure TRA-4.

As with the Proposed Project, short-term construction-related activities, such as trenching or pole replacement would temporarily interfere with traffic patterns and safe pedestrian and cyclist access (Impacts TRA-4 and TRA-5). Due to the need for constructing transmission facilities beyond those identified under the Proposed Project, construction impacts associated with constructing these facilities would be greater than the Proposed Project. The potential hazards to pedestrian and cyclist access would be reduced to less than significant (Class II) with implementation of Mitigation Measures LU-1 (construction notification), LU-2 (provide continuous access to properties), TRA-1 (traffic safety and control plan), and TRA-5 (provide temporary pedestrian access). In addition, under this alternative, helicopters would be used during construction to install overhead conductors and ~~to facilitate conductor stringing activities to remove wood and steel poles.~~ With implementation of Mitigation Measure TRA-6 (safety procedures in compliance with FAA regulations), impacts

to air traffic patterns and air safety from helicopter use during construction would be less than significant (Class II).

Under this alternative, all construction vehicles and equipment would be staged within the proposed Goodrich South Campus Site Alternative or nearby SDG&E property. During construction of the transmission facilities, trenching and overhead construction activities could affect parking for neighboring businesses. With implementation of Mitigation Measures TRA-7a (coordinate with the lessee and/or owner of affected parking lots) and TRA-7b (post signage 24 hours in advance of trenching activities), impacts due to parking loss would be less than significant (Class II).

Comparison to the Proposed Project

Overall, implementation of the Goodrich South Campus Site – Air Insulated Substation Alternative would have greater short-term construction traffic impacts than the Proposed Project due to increased construction activities and associated disturbance of traffic movement resulting from constructing transmission facilities beyond those required with the Proposed Project.

D.16.4.6.2 Goodrich South Campus Site – Gas Insulated Substation Alternative

Environmental Impacts and Mitigation Measures

Under this alternative, a similar development footprint and layout as identified for the Gas Insulated Substation Technology Alternative described in Section D.16.4.1 would be required for the new substation and would be constructed at the Goodrich South Campus site. Although the smaller development footprint for the Gas Insulated Substation Alternative design would reduce the amount of imported fill required for construction, this alternative requires the construction of approximately 0.6 mile of new transmission lines beyond those required for the Proposed Project. Therefore, traffic-related impacts (TRA-1) under this alternative would be similar to the Proposed Project. Transportation and traffic impacts TRA-2 through TRA-6 resulting from the construction and operation of the Goodrich South Campus Site – Gas Insulated Substation Alternative would be similar to those of the Proposed Project, which were determined to be less than significant (Class II) with implementation of mitigation measures (TRA-1 through TRA-7).

Comparison to the Proposed Project

Transportation and traffic impacts resulting from construction of the Goodrich South Campus Site – Gas Insulated Substation Alternative would have greater short-term construction traffic impacts than the Proposed Project due to increased construction activities and associated disturbance of traffic movement required resulting from constructing new transmission facilities beyond those required with the Proposed Project.

D.16.4.7 H Street Yard Site Alternative

Environmental Setting

Section D.16.1 describes the traffic conditions in the project vicinity. Because the H Street Yard Site Alternative would occur in a similar area as the Proposed Project, the existing traffic conditions would be similar to those described in Section D.16.1. It is anticipated that the H Street Yard Site Alternative would be accessed from I-5 to J Street to Bay Boulevard.

The environmental setting for the Air Insulated Substation and Gas Insulated Substation Alternatives at the H Street Yard site would be the same, and therefore, environmental setting is not further discussed in Sections D.16.4.7.1 and D.16.4.7.2.

D.16.4.7.1 H Street Yard Site – Air Insulated Substation Alternative

Environmental Impacts and Mitigation Measures

Because this alternative site is located in the same project vicinity and similar construction and operational activities would take place as the proposed Bay Boulevard Substation, the transportation and traffic impacts for construction of the substation under this alternative would be similar to the Proposed Project. As described in Section C.5.7, the H Street Yard Site Alternative would require construction of approximately 0.8 mile of 69 kV lines that would need to be extended from the existing terminus at the South Bay Substation to the H Street Yard site. Establishment of additional transmission corridors would entail the installation of new overhead transmission structures, which would create additional short-term construction traffic beyond that identified under the Proposed Project.

As with the Proposed Project, construction-related traffic would create a short-term and limited impact on traffic volumes and may change traffic patterns, thus requiring temporary road and lane closures (Impacts TRA-1 and TRA-3). Impacts would be less than significant (Class II) with implementation of Mitigation Measures TRA-1, TRA-2, and TRA-3, and APM-TRA-01.

Under this alternative, as under the Proposed Project, impacts associated with the interference of emergency response by ambulance, fire, paramedic, and police vehicles (Impact TRA-2) due to brief road/lane closure for undergrounding and overhead construction activities would occur. This is considered a significant impact, and would be mitigated to less-than-significant levels (Class II) with implementation of Mitigation Measure TRA-4.

As with the Proposed Project, short-term construction-related activities, such as trenching or pole replacement, would temporarily interfere with traffic patterns and safe pedestrian and cyclist access (Impacts TRA-4 and TRA-5). Due to the new transmission line corridor needed, these impacts would be greater than the Proposed Project. These potential hazards to pedestrian and cyclist access would

be reduced to less than significant (Class II) with implementation of Mitigation Measures LU-1 (construction notification), LU-2 (provide continuous access to properties), TRA-1 (traffic safety and control plan), and TRA-5 (provide temporary pedestrian access). In addition, under this alternative, helicopters would be used during construction to install overhead conductors and to facilitate conductor stringing activities~~to remove wood and steel poles~~. With implementation of Mitigation Measure TRA-6 (safety procedures in compliance with FAA regulations), impacts to air traffic patterns and air safety from helicopter use during construction would be less than significant (Class II).

Under this alternative, all construction vehicles and equipment would be staged within the proposed H Street Yard Site Alternative or nearby SDG&E property. During construction of the transmission facilities, trenching and overhead construction activities could affect parking for neighboring businesses. With implementation of Mitigation Measures TRA-7a (coordinate with the lessee and/or owner of affected parking lots) and TRA-7b (post signage 24 hours in advance of trenching activities), impacts due to parking loss would be less than significant (Class II).

Comparison to the Proposed Project

Overall, implementation of the H Street Yard Site – Air Insulated Substation Alternative would have greater short-term construction traffic impacts than the Proposed Project due to increased construction activities required for the new transmission facilities that would interconnect with the new substation at this location.

D.16.4.7.2 H Street Yard Site – Gas Insulated Substation Alternative

Environmental Impacts and Mitigation Measures

Under this alternative, a similar development footprint and layout as identified for the Gas Insulated Substation Technology Alternative in Section D.16.4.1 would be required for the new substation and would be constructed at the H Street Yard site. Although the smaller development footprint for the Gas Insulated Substation Alternative design would reduce the amount of imported fill required for construction, as described in Section D.16.4.7.1, this alternative requires the construction of approximately 0.8 mile of transmission lines not needed for the Proposed Project. Therefore, traffic-related impacts (TRA-1) under this alternative would be similar to the Proposed Project. Transportation and traffic impacts TRA-2 through TRA-6 resulting from the construction and operation of the H Street Yard Site – Gas Insulated Substation Alternative would be similar to the Proposed Project, which were determined to be less than significant (Class II) with implementation of Mitigation Measures TRA-1 through TRA-7.

Comparison to the Proposed Project

Transportation and traffic impacts resulting from construction of the H Street Yard – Gas Insulated Substation Alternative would have greater short-term construction traffic impacts than the Proposed Project due to increased construction activities and associated disturbance of traffic movement required resulting from constructing new transmission facilities beyond those required with the Proposed Project.

D.16.4.8 Bayside Site Alternative

Environmental Setting

Section D.16.1 describes the traffic conditions in the project vicinity. Because the Bayside Site Alternative would occur in a similar area as the Proposed Project, the existing traffic conditions would be similar to those described in Section D.16.1. It is anticipated that the Bayside Site Alternative would be accessed from I-5 to J Street to Marina Parkway.

The environmental setting for the Air Insulated Substation and Gas Insulated Substation Alternatives at the Bayside site would be the same, and therefore, environmental setting is not further discussed in Sections D.16.4.8.1 and D.16.4.8.2.

D.16.4.8.1 Bayside Site – Air Insulated Substation Alternative

Environmental Impacts and Mitigation Measures

Because this alternative site is located in the same project vicinity and similar construction and operational activities would take place as the proposed Bay Boulevard Substation, the transportation and traffic impacts for construction of the substation under this alternative would be similar to the Proposed Project. As described in Section C.5.8, the Bayside Site Alternative would require construction of approximately 1.8 miles of 69 and 230 kV transmission lines. Establishment of additional corridors would entail the installation of new overhead transmission structures, which would create additional short-term construction traffic beyond that identified under the Proposed Project.

As with the Proposed Project, construction-related traffic would create a short-term and limited impact on traffic volumes and may change traffic patterns, thus requiring temporary road and lane closures (Impacts TRA-1 and TRA-3). Impacts would be less than significant (Class II) with implementation of Mitigation Measures TRA-1, TRA-2, and TRA-3, and APM-TRA-01.

Under this alternative, as under the Proposed Project, impacts associated with the interference of emergency response by ambulance, fire, paramedic, and police vehicles (Impact TRA-2) due to brief road/lane closure for undergrounding and overhead construction activities would occur.

This is considered a significant impact, and would be mitigated to less-than-significant levels (Class II) with implementation of Mitigation Measure TRA-4.

As with the Proposed Project, short-term construction-related activities, such as trenching or pole replacement, would temporarily interfere with traffic patterns and safe pedestrian and cyclist access (Impacts TRA-4 and TRA-5). Due to the new transmission line corridor needed, these impacts would be greater than the Proposed Project. These potential hazards to pedestrian and cyclist access would be reduced to less than significant (Class II) with implementation of Mitigation Measures LU-1 (construction notification), LU-2 (provide continuous access to properties), TRA-1 (traffic safety and control plan), and TRA-5 (provide temporary pedestrian access). In addition, under this alternative, helicopters would be used during construction to install overhead conductors and to facilitate conductor stringing activities ~~to remove wood and steel poles~~. With implementation of Mitigation Measure TRA-6 (safety procedures in compliance with FAA regulations), impacts to air traffic patterns and air safety from helicopter use during construction would be less than significant (Class II).

Under this alternative, all construction vehicles and equipment would be staged within the proposed Bayside Site Alternative or nearby SDG&E property. During construction of the transmission facilities, trenching and overhead construction activities could affect parking for neighboring businesses. With implementation of Mitigation Measures TRA-7a (coordinate with the lessee and/or owner of affected parking lots) and TRA-7b (post signage 24 hours in advance of trenching activities), impacts due to parking loss would be less than significant (Class II).

Comparison to the Proposed Project

Overall, implementation of the Bayside Site – Air Insulated Substation Alternative would have greater short-term construction traffic impacts than the Proposed Project due to increased construction activities required for the new transmission facilities that would interconnect with the new substation at this location.

D.16.4.8.2 Bayside Site – Gas Insulated Substation Alternative

Environmental Impacts and Mitigation Measures

Under this alternative, a similar development footprint and layout as identified for the Gas Insulated Substation Technology Alternative described in Section D.16.4.1 would be required for the new substation, and it would be constructed at the Bayside Site. Although the smaller development footprint for the Gas Insulated Substation Alternative design would reduce the amount of imported fill required for construction, as described in Section D.16.4.8.1, this alternative requires the construction of approximately 1.8 miles of transmission lines not needed for the Proposed Project. Therefore, traffic-related impacts (TRA-1) under this alternative would

be similar to the Proposed Project. Transportation and traffic impacts TRA-2 through TRA-6 resulting from the construction and operation of the Bayside Site – Gas Insulated Substation Alternative would be similar to the Proposed Project, which were determined to be less than significant (Class II) with implementation of Mitigation Measures TRA-1 through TRA-7.

Comparison to the Proposed Project

Transportation and traffic impacts resulting from construction of the Bayside Site – Gas Insulated Substation Alternative would have greater short-term construction traffic impacts than the Proposed Project due to increased construction activities and associated disturbance of traffic movement required resulting from constructing new transmission facilities beyond those required with the Proposed Project.

D.16.4.9 Environmental Impacts of the No Project Alternative

Under the No Project Alternative, none of the facilities associated with the project would be constructed, and therefore, none of the impacts in this section would occur. The Bay Boulevard Substation would not be built, thereby requiring the existing South Bay Substation to remain in operation with the currently installed equipment. Under the No Project Alternative SDG&E may be required to develop additional transmission upgrades as described in Section C.7 of this EIR. Anticipated upgrades would primarily occur within developed areas (including SDG&E easement or franchise positions) and would generate short-term construction traffic. However, overall traffic and transportation related impacts would be expected to be reduced from those described in Section D.16.3 for the Proposed Project due to the elimination of demolition activities associated with the South Bay Substation, construction associated with the Bay Boulevard Substation and transmission interconnections, and associated construction-related impacts to traffic and transportation.

D.16.5 Mitigation Monitoring, Compliance, and Reporting

Table D.16-7 shows the mitigation monitoring, compliance, and reporting program (MMCRP) for transportation and traffic. CPUC with assistance from applicable local jurisdictions will be responsible for ensuring compliance with the MMCRP for transportation and traffic. The agency mitigation measures as well as the APM that SDG&E has made part of the Proposed Project are listed. Table D.16-7 indicates whether the measure is applicant proposed or agency recommended.

Table D.16-7
MMCRP for Transportation and Traffic

Impact	MM	APM No.	Mitigation Measure/ Applicant Proposed Measure	Implementation Actions	Monitoring Requirements and Effectiveness Criteria	Timing of Action and Location
Impact TRA-1: Construction would cause temporary road and lane closures that would temporarily disrupt traffic flow.	—	APM-TRA-01	Heavy-duty construction vehicles and equipment would not utilize L Street during the p.m. peak hours (between 4:00 p.m. and 6:00 p.m. on weekdays). Alternate travel routes, such as J Street and Palomar Avenue, would instead be used during this time.	SDG&E to implement measure as defined and incorporate commitments into construction contracts.	CPUC to verify commitments have been incorporated into construction contracts. CPUC to inspect periodically to ensure that heavy-duty construction vehicles and equipment do not use L Street during p.m. peak hours (4:00 p.m. and 6:00 p.m.)	Prior to and during construction. This measure applies to construction traffic utilizing L Street.
Impact TRA-1: Construction would cause temporary road and lane closures that would temporarily disrupt traffic flow. Impact TRA-3: Construction activities would result in unstable flow, or fluctuations in volumes of traffic that temporarily restrict flow; or in an unacceptable reduction in performance of the circulation system, as defined by an applicable plan (including a congestion management program), ordinance, or policy establishing measures of	TRA-1	—	Prior to the start of construction, SDG&E shall submit traffic management plans (TMPs) to the City as part of the required traffic encroachment permits. Traffic control plans (TCPs) shall define the locations of all roads that would need to be temporarily closed due to construction activities, including hauling of oversized loads by truck, conductor stringing activities, and trenching activities. Input and approval from the City shall be obtained, and copies of an approval letter from the City must be provided to the CPUC prior to the start of construction. The TCPs shall define the use of flag persons, warning signs, lights, barricades, cones, etc., according to standard guidelines outlined in the California Department of	SDG&E to prepare TMPs as defined.	SDG&E to provide documentation of coordination with the City of Chula Vista as stipulated in the measure and SDG&E confirmation with all required conditions to ensure traffic flows would be generally maintained without severe congestion. Documentation of	Prior to construction. This measure applies to construction activities that require temporary closure of a public roadway.

**Table D.16-7
MMCRP for Transportation and Traffic**

Impact	MM	APM No.	Mitigation Measure/ Applicant Proposed Measure	Implementation Actions	Monitoring Requirements and Effectiveness Criteria	Timing of Action and Location
<p>effectiveness for the performance of the circulation system.</p> <p>Impact TRA-4: The project would substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).</p> <p>Impact TRA-5: Construction would substantially disrupt bus or rail transit service, and there would be no suitable alternative routes or stops; or would impede pedestrian movements or bike trails, and there are no suitable alternative pedestrian/bicycle access routes or accommodation through construction zones; or would conflict with planned transportation projects in the project area.</p>			<p>Transportation (Caltrans) <i>Traffic Manual for Construction and Maintenance Work Zones</i> (Caltrans 1996), the <i>Standard Specifications for Public Works Construction</i> (Caltrans 2009a), and the <i>Work Area Traffic Control Handbook (WATCH)</i> (Caltrans 2009b). Documentation of the approval of these plans, consistency with SDG&E's utility franchise agreements, and issuance of encroachment permits (if applicable) shall be provided to CPUC prior to the start of construction activities that require temporary closure of a public roadway.</p>		<p>plan consistency, consistency with SDG&E franchise agreements, as well as documentation of encroachment permit issuance (if applicable) provided to CPUC in order to verify.</p>	
<p>Impact TRA-1: Construction would cause temporary road and lane closures that would temporarily disrupt traffic flow.</p> <p>Impact TRA-3: Construction activities would result in unstable flow, or fluctuations in volumes of traffic that temporarily restrict</p>	TRA-2	—	<p>SDG&E shall stagger work shifts during the peak period of construction activity, <u>which shall occur during the approximately 6-month grading and site development phase</u>, and construction shifts shall be staggered to the degree possible, such that employee arrivals and departures from the site will avoid the project area peak <u>traffic hours (7:30–8:30 a.m. and 4:30–5:30 p.m.) or as otherwise approved by the City of Chula Vista</u>. Construction-related truck</p>	<p>SDG&E to implement measure as defined and incorporate commitments into construction contracts.</p>	<p>CPUC to verify commitments have been incorporated into construction contracts. CPUC to inspect periodically to ensure truck traffic avoids peak traffic periods on</p>	<p>Prior to and during construction.</p>

**Table D.16-7
MMCRP for Transportation and Traffic**

Impact	MM	APM No.	Mitigation Measure/ Applicant Proposed Measure	Implementation Actions	Monitoring Requirements and Effectiveness Criteria	Timing of Action and Location
flow; or in an unacceptable reduction in performance of the circulation system, as defined by an applicable plan (including a congestion management program), ordinance, or policy establishing measures of effectiveness for the performance of the circulation system.			traffic shall also be scheduled to avoid travel during peak periods of traffic on the surrounding roadways.		surrounding roadways.	
Impact TRA-1: Construction would cause temporary road and lane closures that would temporarily disrupt traffic flow. Impact TRA-3: Construction activities would result in unstable flow, or fluctuations in volumes of traffic that temporarily restrict flow; or in an unacceptable reduction in performance of the circulation system, as defined by an applicable plan (including a congestion management program), ordinance, or policy establishing measures of effectiveness for the performance of the circulation system.	TRA-3	—	Construction workers shall be encouraged to carpool to the job site to the extent feasible.	SDG&E to implement measure as defined.	CPUC to verify.	During construction.
Impact TRA-2: Construction activities would restrict the movements of emergency	TRA-4	—	SDG&E shall coordinate in advance with the City to avoid restricting movements of emergency vehicles. SDG&E shall request that police departments, fire	SDG&E to implement measure as defined .SDG&E	SDG&E to provide documentation of coordination with	Prior to and during construction for all location where

**Table D.16-7
MMCRP for Transportation and Traffic**

Impact	MM	APM No.	Mitigation Measure/ Applicant Proposed Measure	Implementation Actions	Monitoring Requirements and Effectiveness Criteria	Timing of Action and Location
<p>vehicles (police cars, fire trucks, ambulances, and paramedic units), and there are no reasonable alternative access routes available.</p> <p>Impact TRA-5: Construction would substantially disrupt bus or rail transit service, and there would be no suitable alternative routes or stops; or would impede pedestrian movements or bike trails, and there are no suitable alternative pedestrian/bicycle access routes or accommodation through construction zones; or would conflict with planned transportation projects in the project area.</p>			<p>departments, ambulance services, and paramedic services be notified by the City of the proposed locations, nature, timing, and duration of any construction activities and advised of any access restrictions that could impact their effectiveness. At locations where access to nearby property is blocked, provision shall be ready at all times to accommodate emergency vehicles, such as plating over excavations, short detours, and alternate routes in conjunction with local agencies. Traffic control plans (Mitigation Measure TRA-1) shall include details regarding emergency services coordination and procedures. Documentation of coordination with the City shall be provided to CPUC prior to the start of construction.</p>	<p>to incorporate measure into construction contracts.</p>	<p>affected service providers in the City and confirmation with all required conditions to ensure that construction activities would not preclude emergency vehicle access.</p>	<p>temporary road or lane closures would be required.</p>
<p>Impact TRA-5: Construction would substantially disrupt bus or rail transit service, and there would be no suitable alternative routes or stops; or would impede pedestrian movements or bike trails, and there are no suitable alternative pedestrian/bicycle access routes or accommodation through construction zones; or would conflict with planned transportation projects in the project area.</p>	TRA-5	—	<p>Where construction will result 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. Any affected pedestrian facilities and the alternative facilities or detours that shall be provided will be identified in the traffic management plan. Where construction activity will result in bike route or bike path closures, appropriate detours and signs shall be provided.</p>	<p>SDG&E to implement measure as defined. SDG&E to incorporate measure into construction contracts.</p>	<p>SDG&E to provide documentation of coordination with affected public jurisdictions and confirmation with all required conditions to ensure that pedestrian and bicycle circulation would not be disrupted.</p>	<p>Prior to and during construction where closure of sidewalks and other pedestrian services are expected.</p>

**Table D.16-7
MMCRP for Transportation and Traffic**

Impact	MM	APM No.	Mitigation Measure/ Applicant Proposed Measure	Implementation Actions	Monitoring Requirements and Effectiveness Criteria	Timing of Action and Location
Impact TRA-4: The project would substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	TRA-6	—	Should helicopters be required to lift any structures during construction, SDG&E shall prepare a lift plan to be approved by both the Federal Aviation Administration (FAA) and CPUC that identifies procedures that will need to be implemented to ensure public safety. Documentation of FAA approval of the lift plan shall be provided to the California Public Utilities Commission CPUC prior to the start of construction activities that require the use of a helicopter.	SDG&E to prepare lift plan as defined. SDG&E to provide documentation of lift plan approval from the FAA.	CPUC to verify FAA lift plan approval.	Prior to construction for activities that require the use of a helicopter.
Impact TRA-6: Construction or staging activities would increase the demand for and/or reduce the supply of parking spaces, and there would be no provisions for accommodating the resulting parking deficiencies.	TRA-7a	—	SDG&E shall coordinate with the lessee and/or owner of affected parking lots to minimize parking loss through timing restrictions that minimize potential conflicts with peak parking needs.	SDG&E to implement measure as defined. SDG&E to incorporate measure into construction contracts.	SDG&E to provide documentation of coordination with affected lessee and/or owner.	Prior to and during construction where construction would result in temporary parking loss.
Impact TRA-6: Construction or staging activities would increase the demand for and/or reduce the supply of parking spaces, and there would be no provisions for accommodating the resulting parking deficiencies.	TRA-7b	—	SDG&E shall post signage 24 hours in advance of trenching activities along affected streets to notify businesses that might be inconvenienced.	SDG&E to implement measure as defined. SDG&E to incorporate measure into construction contracts.	SDG&E to provide documentation of coordination with City of Chula Vista and businesses.	Prior to and during construction for all locations where temporary road or lane closures would be required.

D.16.6 References

- 14 CCR 15000–15387 and Appendix A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.
- 14 CFR 77.1–77.14. Safe, Efficient Use and Preservation of the Navigable Airspace.
- Caltrans (California Department of Transportation). 1996. *Traffic Manual for Construction and Maintenance Work Zones*.
- Caltrans. 2009a. *Standard Specifications for Public Works Construction*.
- Caltrans. 2009b. *Work Area Traffic Control Handbook (WATCH)*.
- City of Chula Vista. 2005a. *City of Chula Vista Vision 2020 General Plan*. December 13, 2005.
- City of Chula Vista. 2005b. *City of Chula Vista General Plan Update, Final Environmental Impact Report*, Appendix E, Traffic Technical Report: “Transportation Study,” prepared by Kimley-Horn and Associates Inc. Revised September 6, 2005.
- City of Chula Vista. 2005c. *City of Chula Vista Vision 2020 General Plan*, Chapter 5, “Land Use and Transportation Element.” Adopted December 13, 2005.
- City of Chula Vista. 2010. *City of Chula Vista Municipal Code*, Title 12, Chapter 12.28, Encroachments.
- City of San Diego. 2010. “Brown Field Facts.” Accessed October 11, 2010. <http://www.sandiego.gov/airports/brown/>.
- CVBMP (City of Chula Vista Bayfront Master Plan). 2008. *Bayfront Environmental Impact Report, Transportation Study*. Prepared by Kimley-Horn and Associates Inc. March 2008.
- MTS (Metropolitan Transit System). 2010a. “South Bay Region Map.” Accessed October 11, 2010. http://www.sdmts.com/images/subregions/south_bay_lower.pdf.
- MTS. 2010b. “Trolley Information Map.” Accessed October 2010. <http://www.sdmts.com/Trolley/Trolley.asp>.
- SDG&E (San Diego Gas & Electric). 2010a. *South Bay Substation Relocation Project: First Deficiency Letter in Response to Completeness Review*. August 16, 2010.

SDG&E. 2010b. *Proponent's Environmental Assessment (PEA) for South Bay Substation Relocation Project*, Section 4.14, "Transportation and Traffic." Prepared by Insignia Environmental. June 2010.

The Perfect Solution. 2010. Traffic Study for Palomar Gas and Car Wash in Chula Vista, California. June 21, 2010.