

E.4.9 Transportation and Traffic

The Modified Route D Alternative route is described in Section E.4.1. It includes three main segments: a southwesterly segment that crosses BLM, CNF and private lands before reaching the Cameron Substation, a westerly segment that follows the southern boundary of the CNF, and a northerly segment that is primarily on CNF land and includes the Modified Route D Substation.

E.4.9.1 Environmental Setting

The Modified Route D Alternative would cross the following roads: Interstate 8, Old Highway 80, County Route S1, La Posta Road, La Posta Truck Trail, Lake Morena Drive, South Boundary Road, Barrett Lake Road, Carveacre Road, and Japatul Lyons Valley Road.

- **Interstate 8 (I-8)** is the main east-west freeway in Imperial and San Diego Counties. I-8 is a four-lane divided highway with a posted speed limit of 65 miles per hour (mph) in the project vicinity.
- **Old Highway 80** is a two lane undivided roadway in the County of San Diego.
- **S1 (Buckman Springs Road)** is a two lane undivided roadway in the County of San Diego connecting I-8 to SR94 in eastern San Diego.
- **La Posta Road** is a two lane undivided roadway in the County of San Diego.
- **La Posta Truck Trail** is a two lane undivided roadway in the County of San Diego.
- **Lake Morena Dr** is a two lane undivided roadway in the County of San Diego.
- **South Boundary Road** is a two lane undivided roadway in the County of San Diego.
- **Barrett Lake Road** is a two lane undivided roadway in the County of San Diego.
- **Carveacre Road** is a two lane undivided roadway in the County of San Diego.
- **Japatul Lyons Valley Road** is a two lane undivided roadway in the County of San Diego.

Table E.4-9.1 lists the roads that could be impacted by the Modified Route D Alternative. For many lightly traveled road, neither the County nor the State collect traffic data. In those instances, the table indicates no data are available using the notation ND.

Table E.4.9-1. Public Roadways along the Alternative Route – Modified Route D Alternative

Roadway	Jurisdiction	LOS E Capacity	Existing			Existing & Proposed Project Construction - Related Traffic			
			ADT ^a	LOS ^b	V/C ^c	ADT	LOS	V/C	Δ ^d
Interstate 8	Caltrans	80,000	27,000	A	0.33	27,576	A	0.34	0.01
Old Highway 80	San Diego County	16,200	2200	A	0.13	2776	A	0.17	0.04
S1 (Buckman Springs Rd)	San Diego County	16,200	4300	C	0.26	4876	C	0.30	0.04
Forest Route 17S10	National Forest Service	–	ND	ND	ND	ND	ND	ND	ND
Forest Route 16S03	National Forest Service	–	ND	ND	ND	ND	ND	ND	ND
La Posta Rd	San Diego County	–	ND	ND	ND	ND	ND	ND	ND
La Posta Truck Trail	San Diego County	–	ND	ND	ND	ND	ND	ND	ND

Table E.4.9-1. Public Roadways along the Alternative Route – Modified Route D Alternative

Roadway	Jurisdiction	LOS E Capacity	Existing			Existing & Proposed Project Construction - Related Traffic			
			ADT ^a	LOS ^b	V/C ^c	ADT	LOS	V/C	Δ ^d
Lake Morena Dr	San Diego County	–	ND	ND	ND	ND	ND	ND	ND
South Boundary Rd	San Diego County	–	ND	ND	ND	ND	ND	ND	ND
Avenida De Los Arboles	San Diego County	–	ND	ND	ND	ND	ND	ND	ND
Barrett Lake Rd	San Diego County	–	ND	ND	ND	ND	ND	ND	ND
Carveacre Rd	San Diego County	–	ND	ND	ND	ND	ND	ND	ND
Japatul Lyons Valley Rd	San Diego County	16,200	6000	C	0.37	6576	C	0.40	0.03

Source: California Department of Transportation; County of San Diego; County of Imperial; Linscott, Law & Greenspan Engineers.
N/A = Not applicable; ND = Data not available; ADT = Average Daily Traffic; Roadway segments where existing counts could not be obtained, 1000 ADT has been used as the theoretical worst case existing traffic volume.

E.4.9.2 Environmental Impacts and Mitigation Measures

The Modified Route D Alternative would not have impacts related to the conflict with planned transportation projects (Impact T-8) because there are no known planned transportation projects in the area. Impacts related to underground construction restricting access to properties and businesses (Impact T-10) would not occur because there is no planned underground construction within the Route D Alternative segment. See Appendix 12 for the full text of the mitigation measures. Table E.4.9-2 summarizes the impacts identified for this alternative.

Table E.4.9-2. Impacts Identified – Modified Route D Alternative – Transportation and Traffic

Impact No.	Description	Impact Significance
Modified Route D Alternative, Modified Route D Substation, Star Valley Option, PCT Reroute Option C/D		
T-1	Construction would cause temporary road and lane closures that would temporarily disrupt traffic flow	Class III
T-2	Construction would temporarily disrupt the operation of emergency service providers	Class III
T-3	Construction would temporarily disrupt bus transit services	Class III
T-4	Construction would temporarily disrupt pedestrian and/or bicycle movement and safety	Class II
T-5	Construction vehicles and equipment would potentially cause physical damage to roads in the project area	Class II
T-6	Construction activities would cause a temporary disruption to rail traffic or operations	Class III
T-7	Construction would result in the short-term elimination of parking spaces	Class III
T-9	Construction would generate additional traffic on the regional and local roadways	Class III

Construction Impacts

Impact T-1: Construction would cause temporary road and lane closures that would temporarily disrupt traffic flow (Class III)

The Modified Route D Alternative would cross several interstate, regional and local roadways as an overhead transmission line. Construction of this alternative would potentially require roadways to be temporarily closed and/or lane restrictions imposed to various phases of construction. SDG&E has com-

mitted to implement T-APM-2a and T-APM-2b as part of the Proposed Project, which would require SDG&E to obtain permits and develop detour plans for any lane closures. Any project requirement to transport oversize or overweight loads also would require approval from Caltrans. Impacts to lane closure along the Interstate 8 Alternative would be significant (Class II). To ensure that roads and highways are not unnecessarily impacted during construction, Mitigation Measure T-1a would constrain the time of closure, reducing the impact to less than significant.

Mitigation Measure for Impact T-1: Construction would cause temporary road and lane closures that would temporarily disrupt traffic flow

T-1a Restrict lane closures.

Impact T-2: Construction would temporarily disrupt the operation of emergency service providers (Class III)

Construction activity associated with the Modified Route D Alternative would potentially interfere with emergency response by ambulance, fire, paramedic and police vehicles if roadways are blocked, lanes are closed or access to residences and businesses is restricted. Roadway segments that would be most impacted would be two-lane roadways that provide one lane of travel per direction. SDG&E has committed to implement T-APM-4 as part of the Proposed Project. Implementation of T-APM-4 would reduce the potential for temporary disruptions of emergency service provider operations emergency service providers would be aware of any potential delays, lane closures, and/or roadway closures. Impacts to emergency would be considered less than significant (Class III).

Impact T-3: Construction would temporarily disrupt bus transit services (Class III)

Metropolitan Transit System routes 864, 888 and 894 as well as local school bus routes could potentially be impacted by Modified Route D Alternative. Construction activities would potentially cause transit and school bus schedule delays if roadways need to be shut-down for prolonged length of time. SDG&E has committed to T-APM-5 as part of the Proposed Project, which requires SDG&E to consult with the transit systems and affected school districts at least one month prior to construction to coordinate construction activities; therefore, impacts to bus transit services are considered less than significant (Class III).

Impact T-4: Construction would temporarily disrupt pedestrian and/or bicycle movement and safety (Class II)

Pedestrian and bicycle movement would be affected by construction activities if pedestrians and bicyclists are unable to pass through the construction zone or if established pedestrian and bicycle routes are blocked. Within this alternative segment there are designated pedestrian and bicycle routes that would be affected. SDG&E did not develop APMs for these pedestrian and/or bicycle movement impacts. Therefore, Mitigation Measure T-4a was developed to ensure this potential impact remains less than significant (Class II). (See Appendix 12 for the full text of the mitigation measures.)

Mitigation Measure for Impact T-4: Construction would temporarily disrupt pedestrian and/or bicycle movement and safety

T-4a Ensure pedestrian and bicycle circulation and safety.

Impact T-5: Construction vehicles and equipment would potentially cause physical damage to roads in the project area (Class II)

There is a potential for unexpected damage to roads by construction activities, construction vehicles, and transport of equipment along the Modified Route D Alternative segment. Construction traffic or equipment movement would be considered a significant impact if there is an increase in the wear on roadways, resulting in noticeable deterioration of roadway surfaces or other features in the road ROW. SDG&E has not suggested any applicant proposed measures for damaged roads; therefore, Mitigation Measure T-5a is recommended in order to ensure that the roads would be repaired and properly restored to the original condition (Class II).

Mitigation Measure for Impact T-5: Construction vehicles and equipment would potentially cause physical damage to roads in the project area

T-5a Repair damaged roads.

Impact T-6: Construction activities would cause a temporary disruption to rail traffic or operations (Class III)

Overhead construction activities of the Modified Route D Alternative would potentially interfere with rail traffic on the San Diego and Imperial Valley railroad, which is located approximately 1.5 miles from this alternative, if temporary closure of the railroad ROW is required. SDG&E has committed to implementing T-APM-8 as part of the Proposed Project, requiring SDG&E to obtain a permit to enter the railroad ROWs. By complying with the railroad company permit requirements, the impact of the Modified Route D Alternative on rail traffic operations would be less than significant (Class III).

Impact T-7: Construction would result in the short-term elimination of parking spaces (Class III)

Construction activities may result in short-term elimination of parking spaces during construction activities. SDG&E has committed to implementing T-AMP-6b as part of the Proposed Project, which specifies certain parking requirements and the development of a traffic control plan. Impacts to parking spaces may be adverse but less than significant (Class III).

Impact T-9: Construction would generate additional traffic on the regional and local roadways (Class III)

Construction activities may result in temporarily increase of traffic on the regional and local roadways from construction worker commute trips, project equipment deliveries, and hauling materials to the alternative route segment. These additional trips would be temporary and would not cause an increase that would be substantial in relation to the existing traffic loads. Impacts to the regional and local traffic would be less than significant (Class III). However, to ensure that regional and local roadways are not unnecessarily impacted by additional traffic on roadways, Mitigation Measure T-9a is recommended but not required, because the impact is less than significant.

Mitigation Measure for Impact T-9: Construction would generate additional traffic on the regional and local roadways

T-9a Prepare Construction Transportation Plan.

Operational Impacts

Modified Route D Alternative operations and maintenance would have a minimal effect on traffic, movement, emergency access restrictions, increased road hazards and/or the level of service on Modified Route D Alternative roadways. However, the Modified Route D Alternative could potentially impact air traffic patterns because there is an unnamed landing strip within a mile of the alternative near the Campo Indian Reservation. Unfortunately, landing strip and usage information could not be obtained. Modified Route D Alternative operations would be less than significant (Class III), except for Impact T-11, as discussed below.

Impact T-11LE: Presence of the transmission lines would penetrate airport influence area and/or create a hazard to aircraft (Class II)

The Modified Route D runs near the existing SWPL transmission line and US/Mexico Border from MP MRD-8 to approximately MP MRD 23. According to SDG&E two incidents have occurred involving aircraft flying into the existing SWPL transmission line.¹ Both these incidents occurred shortly after the SWPL was built and since then SDG&E has worked to ensure such incidents do not occur again. While it is unlikely that any such incident would occur, transmission lines and towers would potentially present a substantial obstacle to be avoided, and require additional attention from pilots.

Implementation of Mitigation Measure T-11b would ensure that border patrol staff would be notified of the project location and components in order to educate pilots to significant dangers that would exist as a result of development of the project.

Mitigation Measure for Impact T-11LE: Presence of the transmission lines would penetrate airport influence area and/or create a hazard to aircraft

T-11b Consult with and inform U.S. Customs and Border Protection.

E.4.9.3 Modified Route D Substation

Environmental Setting

The Modified Route D Substation would be a 500 kV substation required to convert 500 kV to 230 kV transmission lines. As shown in Figure E.4.1-2, the Modified Route D Alternative Substation would be located on private land west of Japatul Valley Road. It would be the same size (about 40 acres) as the proposed Central East Substation, and it would have to accommodate future 230 kV circuits exiting the substation when demand growth justifies the need for additional lines.

Although the Modified Route D Substation would not remove any roadways from operation, the Modified Route D Substation would impact three roads during construction. There would be no significant adverse impact to roadways near the Modified Route D Substation during operation.

The following roadways would be impacted during construction of the Modified Route D Substation:

- **Japatul Valley Road** is a two lane undivided roadway in the County of San Diego.
- **Bell Bluff Truck Trail** is a two lane undivided roadway in the County of San Diego.

¹ "Performance Category Upgrade Request." SDG&E, December 19, 2007. http://www.wecc.biz/documents/meetings/PCC/2008/March/Sunrise_Powerlink_Double_Line_Outage_Final_Report.pdf Accessed March 2008.

- **Avenida De Los Arboles** is a two lane undivided roadway in the County of San Diego.

Table E.4.9-3 lists the roads that could be impacted by the Modified Route D Substation.

Table E.4.9-3. Public Roadways along the Alternative Route – Modified Route D Alternative Substation

Roadway	Jurisdiction	LOS E Capacity	Existing			Existing & Proposed Project Construction - Related Traffic			
			ADT ^a	LOS ^b	V/C ^c	ADT	LOS	V/C	Δ ^d
Japatul Valley Road	San Diego County	16,200	3250	B	0.20	3826	B	0.23	0.03
Bell Bluff Truck Trail	San Diego County	-	ND	ND	ND	ND	ND	ND	ND
Avenida De Los Arboles	San Diego County	-	ND	ND	ND	ND	ND	ND	ND

a. Average daily traffic.

b. Level of service; measure of roadway congestion, ranging from A (free flowing) to F (highly congested)

c. Volume to capacity ratio.

d. Δ denotes an increase in delay due to project

e. ND = no data.

Environmental Impacts and Mitigation Measures

Construction Impacts

Access to the substation would be from Avenida De Los Arobles and Bell Bluff Truck Trail via Japatul Valley Road (SR79), which connect to I-8. Substation construction and operation activities related to the Modified Route D Alternative Substation would temporarily increase traffic.

Construction of the ~~Central-South~~ **Modified Route D** Substation Alternative would generate the same type of impact as the construction of the Route D Alternative, and would be subject to the same APMs and mitigation measures. As a consequence, impacts on traffic from the construction of the substation would be less than significant (Class III).

Operational Impacts

Once in operation, there would be routine but not frequent maintenance visits to the substation site. These would involve one or a few vehicles, at most. ~~Central-South~~ **Modified Route D** Substation operations and maintenance would have a minimal effect on traffic, movement, emergency access restrictions, increased road hazards and/or the level of service on nearby roadways. Impacts from project operations for the Central South Substation would be less than significant (Class III).

E.4.9.4 Star Valley Option

Environmental Setting

The Star Valley Option would convert the 500 kV transmission line to a 230 kV at the Modified Route D Alternative Substation (described below), exit the substation overhead, and then transition underground at Star Valley Road. In this option, the route would exit the substation in the north as an overhead double-circuit 230 kV transmission line, heading west and northwest for 2.2 miles, then north for approximately 0.3 miles to meet Star Valley Road, 0.7 miles east of I-8 Exit 33 for Willows Road. On the southwest side of the bend in Star Valley Road, the route would transition underground and continue north to Alpine Boulevard. This option would join the Interstate 8 Alternative at Alpine Boulevard.

If the Star Valley Option is used, a 500/230 kV substation would be required to convert from 500 to 230 kV before the underground segment in Alpine. As shown in Figure E.4.1-2, the Modified Route D Alternative Substation would be located on private land west of Japatul Valley Road. It would be the same size (about 40 acres) as the proposed Central East Substation, and it would have to accommodate future 230 kV circuits exiting the substation when demand growth justifies the need for additional lines. The Star Valley Option crosses over Star Valley Road. This is a two lane undivided roadway in the County of San Diego.

Environmental Impacts

Construction Impacts

Construction of the Star Valley Option would generate the same type of traffic related impact as the construction of the Route D Alternative, and would be subject to the same APMs and mitigation measures as those described in Section E.4.9.2 above. As a consequence, impacts on traffic from the construction of the option would be less than significant (Class III).

Operational Impacts

Once in operation, there would be routine but not frequent inspection and maintenance work along the alignment. This would involve one a few vehicles, at most. This activity would have a minimal effect on traffic, movement, emergency access restrictions, increased road hazards and/or the level of service on nearby roadways. Impacts from project operations for the Star Valley Option would be less than significant (Class III).

E.3.9.5 PCT Reroute Option C/D

The PCT Reroute Option C/D is described in Section E.4.1.3 and illustrated on Figures E.4.1-1b and E.4.1-1c. This route option would diverge from the Modified Route D Alternative route at MP MRD-10.8 and rejoin the route at MP MRD-14.

Environmental Setting

If the PCT Reroute Option C/D is used, it would avoid an approximately three-mile segment of the Modified Route D Alternative, with both route segments located primarily on BLM land. The Big Potrero Truck Trail crosses the Modified Route D Alternative and the PCT Reroute Option C/D. No other public roadways would be affected by this route segment.

Environmental Impacts

Construction Impacts

Construction of the PCT Reroute Option C/D would generate the same type of traffic related impact as the construction of the equivalent segment of the Modified Route D Alternative, and would be subject to the same APMs and mitigation measures as those described in Section E.4.9.2 above. As a consequence, impacts on traffic from the construction of the option would be less than significant (Class III).

Operational Impacts

Once in operation, there would be routine but not frequent inspection and maintenance work along the alignment. This would involve one a few vehicles, at most. This activity would have a minimal effect on traffic, movement, emergency access restrictions, increased road hazards and/or the level of service on nearby roadways. Impacts from project operations for the PCT Reroute Option C/D would be less than significant (Class III).

Comparison of Impacts: Modified Route D Alternative and PCT Reroute Option C/D

There is no difference between these two route options from the perspective of transportation and traffic.

E.4.9.56 Future Transmission System Expansion

For the Proposed Project and route alternatives along the Proposed Project route, Section B.2.7 identifies Future Transmission System Expansion routes for both 230 kV and 500 kV future transmission lines. These routes are identified, and impacts are analyzed in Section D of this EIR/EIS, because SDG&E has indicated that transmission system expansion is foreseeable, possibly within the next 10 years. For the SWPL alternatives, 500 kV and 230 kV expansions would also be possible. The potential expansion routes for the Route D Alternative are described in the following paragraphs.

230 and 500 kV Future Transmission System Expansion

The Modified Route D Alternative would begin at approximately Interstate 8 MP-47 and would head southwest then northward until it reached the Interstate 8 Alternative at approximately MP I8-71. A substation could be built to convert the 500 kV line to 230 kV at approximately MD-34, the Modified Route D Substation Alternative. The double-circuit 230 kV line would exit the substation overhead, then continue north into the CNF, joining the Interstate 8 Alternative at approximately MP I8-71 where it transitions to underground at the east end of Alpine Boulevard. The Modified Route D Substation would accommodate up to six 230 kV circuits and a 500 kV circuit. Only two 230 kV circuits are proposed at this time, but construction of additional 230 kV circuits and a 500 kV circuit out of the Modified Route D Substation may be required in the future. There are three routes that are most likely for these future lines; each is described below. Figure E.1.1-6 illustrates the potential routes of the future transmission lines.

- Two additional 230 kV circuits could be installed underground within Alpine Boulevard, with appropriate compact duct banks and engineering to avoid, or possibly relocate, existing utilities. This route would follow the Interstate 8 Alternative route from the Interstate 8 Alternative Substation until MP I8-70.8 where it would transition underground until MP I8-79 where it would transition overhead again. The future transmission line route would continue to follow the Interstate 8 Alternative's overhead 230 kV route to the point where it meets the Proposed Project at MP 131. See Section E.1.9.1 and E.1.9.2 for the Transportation and Traffic setting, impacts, and mitigation measures along the I-8 route. The future transmission route would then join the proposed route corridor to the west, continuing past the Sycamore Canyon Substation to the Chicarita Substation. See Section D.9.2, D.9.8, and D.9.9 for the Transportation and Traffic setting, impacts, and mitigation measures for the Inland Valley and Coastal Links. It could then follow the Proposed Project's 230 kV Future Transmission Expansion route (see description in Section B.2.7) from Chicarita to the Escondido

Substation shown in Figure B-12a. See Section D.9.11 for the Transportation and Traffic setting, impacts, and mitigation measures for the Future Transmission System Expansion of the Proposed Project.

- Additional 230 and 500 kV circuits could follow the Route D Alternative corridor (see description in Section E.3.1) to the north of Descanso, after following the Interstate 8 Alternative 230 kV route from the Interstate 8 Substation to MP I8-70.3. See Section E.3.9.1 and E.3.9.2 for the Transportation setting, impacts, and mitigation measures along Route D. The Route D corridor would connect with the Proposed Project corridor at Milepost 114.5, and could then follow either: (1) the Proposed Project southwest to the Chicarita Substation and then follow the Proposed Project's 230 kV Future Transmission Expansion route (see description in Section B.2.7) from Chicarita to the Escondido Substation; or (2) the Proposed Project northeastward to the Proposed Central East Substation and then follow the Proposed Project's 500 kV Future Transmission Expansion route shown in Figure B-12b (see description in Section B.2.7). See Section D.9.2, D.9.7, D.9.8, and D.9.9 for the Transportation and Traffic setting, impacts, and mitigation measures for the Central, Inland Valley, and Coastal Links of the Proposed Project. See Section D.9.11 for the Transportation and Traffic setting, impacts, and mitigation measures for the Future Transmission System Expansion of the Proposed Project.
- The future 230 and 500 kV lines could follow the Modified Route D Alternative corridor (within the 368 Corridor identified by the Department of Energy's Draft West-wide Corridor Programmatic EIS) south for 8 miles to MP MD-26. See Section E.4.9.1 and E.4.9.2 for the Transportation and Traffic setting, impacts, and mitigation measures along Modified Route D. At MP MD-26, new 230 or 500 kV circuits would turn west and connect with the northernmost segment of the West of Forest Alternative route as described in Section E.1.1. See Section E.1.9.5 for the Transportation and Traffic setting, impacts, and mitigation measures along MP MD-26 to MP I8-79 corridor. This route would meet up with the Interstate 8 Alternative at approximately MP I8-79 and would follow the Interstate 8 Alternative's overhead 230 kV route to the point where it meets the Proposed Project at MP 131 (for a description of the Interstate 8 transmission corridor see Section E.1.1). The future transmission route would then join the proposed route corridor to the west, continuing past the Sycamore Canyon Substation to the Chicarita Substation. It could then follow the Proposed Project's 230 kV Future Transmission Expansion System (see description in Section B.2.7) from Chicarita to the Escondido Substation. See Section D.9.11 for the Transportation and Traffic setting, impacts, and mitigation measures for the Future Transmission System Expansion of the Proposed Project.