

4.16 TRAFFIC AND TRANSPORTATION**4.16.1 Segment 2 500 kV and 220 kV T/L****4.16.1.1 Freeways and State Highways**

The proposed new 20.0 miles of 500 kV T/L and 0.5 mile of 220 kV T/L between SCE's existing Antelope and Vincent Substations would be adjacent to existing T/L corridors over the majority of their lengths. Near its southern end, approximately 1 mile north of the Vincent Substation, the proposed T/L route crosses State Route 14 (refer to Figure 3-1). This portion of SR 14 is a 4-lane divided highway, and had a 2003 annual average daily traffic (ADT) volume of 93,000 vehicles. SR 14 is located in an important travel corridor, Soledad Pass, that connects the Santa Clarita and Los Angeles area to the Antelope Valley region containing the cities of Palmdale and Lancaster. There are also two frontage roads adjacent to the highway, Forest View Road on the north (or west) side and Sierra Highway on the south (or east).

4.16.1.2 Transit and Rail Service

4.16.1.2.1 Lancaster, Palmdale, and Nearby Areas. Local bus service is provided by the Antelope Valley Transit Authority (AVTA). AVTA operates 16 routes throughout the cities of Lancaster and Palmdale, and nearby communities. All of the operations of the AVTA are to the east of the proposed Segment 2 T/L route. The nearest current AVTA operations are in Lancaster and include Route 7, which extends westward to 60th Street W where it runs between Avenues H and L-8, and Route 5, which extends westward along Avenue L-12 to the Mayflower Gardens convalescent hospital and 67th Street W. At its point of closest approach, the Segment 2 T/L route is approximately 1.25 miles to the west of the nearest Route 5 stop.

AVTA also operates a commuter bus service between the Lancaster Transfer Center, where connections with local service are available, and employment centers in Los Angeles. Other park-and-ride facilities and a transfer center are located in Palmdale. Service is provided along the following routes:

Route	Destination
785	Downtown Los Angeles
786	West LA/Century City
787	West San Fernando Valley

This commuter bus service uses SR 14, which would be crossed by the proposed T/L route near its southern end.

The Amtrak and Metrolink station in Lancaster is at 44812 N. Sierra Highway, approximately 7 miles to the east of the Antelope Substation. Amtrak operates motor coaches that connect between Bakersfield and Palmdale. Metrolink is operated by the Southern California Regional Rail Authority, and offers commuter rail service to downtown Los Angeles, with stops at cities and communities between there and Lancaster. Another Metrolink Station is located at Vincent Grade/Acton, east of the southerly end of the proposed Segment 2 T/L route. Existing 500 kV and 220 kV lines pass from north to south, just west of the Metrolink Station parking lot, and the proposed new R-O-W would be immediately to the west of the existing lines.

The Union Pacific Railroad line is located approximately 10 miles east of the Antelope Substation, and east of SR 14 through Lancaster. This line carries freight traffic and the Metrolink commuter trains southward from Lancaster, as described above. Amtrak does not use this segment of rail line.

4.16.1.2.2 Los Angeles County Unincorporated Areas. The Los Angeles Metropolitan Transit Authority (MTA) provides transit bus service as far north as Sylmar, which is about 30 miles southwest of the southern terminus of the Segment 2 T/L route. The unincorporated areas of Los Angeles County north of this extent are served by the agencies and facilities described above. There are no Los Angeles MTA facilities or services in the area that would be affected by the Segment 2 T/L route.

4.16.1.3 Air Transportation

In the Lancaster area, General William J. Fox Airfield is a regional general aviation airport owned by Los Angeles County, and operated under contract by American Airports Corporation. There is no scheduled air service at this airport, but charter service and pilot support services are available. It is located approximately 5 miles northeast of the Antelope Substation.

The joint use Palmdale/Airforce Plant 42 airport is located approximately 15 miles southeast of the Antelope Substation, and about 10 miles northeast of the center portion of the Segment 2 T/L route. No passenger air service occurs at this airport, and prior permission is required for its use by the public.

There are no other general aviation or larger airports near the Segment 2 – Antelope to Vincent proposed T/L route.

4.16.1.4 Local Roadways

4.16.1.4.1 City of Lancaster. The northern end of the proposed Segment 2 500 kV T/L route is in the western portion of the City of Lancaster. Between its start at the Antelope

Substation, and its entrance into the City of Palmdale to the south, the existing R-O-W and proposed route for the new Segment 2 T/L crosses roads as summarized in Table 4.16-1.

**TABLE 4.16-1
LOCAL ROADS, LANCASTER**

Roadway	Description	Segment 2 Route Milepost¹
Several unpaved local streets	2 lanes	0.0-0.9 (crosses)
West Ave. K	2 lanes	1.1 (crosses)
90 th Street W	2 lanes	1.55 (crosses)
Ave K-8	2 lanes, unpaved	1.7 (crosses)
Ave K-12	2 lanes, unpaved	2.0 (crosses)
West Avenue L	2 lanes	2.3 (crosses)
80 th Street W	2 lanes	3.35 (crosses)
City Limits	cross into Palmdale	3.55

¹ Refer to Figure 3-2 for locations.

These roadways are two-lane rural roads, or rural collectors, generally carrying less than 2,000 ADT.

4.16.1.4.2 City of Palmdale. The central portion of the Segment 2 T/L route passes through the western portion of the City of Palmdale. The developed neighborhoods of Palmdale are generally east of the Segment 2 route, and north of the California Aqueduct. Areas within the City and south of the aqueduct are more rural in character, and include the Ritter Ranch and Anaverde specific plan areas that are undergoing development. The City of Palmdale streets that are crossed by or near the proposed Segment 2 route are summarized in Table 4.16-2.

Godde Hill Road serves as a major road connecting Palmdale to Elizabeth Lake Road and the Leona Valley community to the southwest. Elizabeth Lake Road is another major connector through the Leona Valley, between the Elizabeth Lake community to the northwest and Palmdale to the east.

4.16.1.4.3 Los Angeles County Unincorporated Area. South of the City of Palmdale, the route for Segment 2 remains along the existing T/L corridor and continues towards the southeast through unincorporated Los Angeles County lands. The area is rural in nature, and crossed by a number of formal and informal unpaved roads and utility access trails. The named or more prominent local roads in this area are summarized in Table 4.16-3.

**TABLE 4.16-2
LOCAL ROADS, PALMDALE**

Roadway	Description	Segment 2 Route Milepost¹
Pico Way, Dana Drive	2 lanes, residences	4.0 (1/8 mile sw of roads)
75 th Street W	2 lanes	4.2 (crosses)
(crosses CA Aqueduct)		4.5 (crosses)
Poor Rd.	2 lanes, along Portal Ridge (restricted)	5/6-6.25 (crosses and adjacent to)
Godde Hill Road	2 lanes	6.5 crosses
Cherry Tree Lane	2 lanes	7.2 (0.2 mile n of road)
none	Cross into Ritter Ranch area	7.6
Elizabeth Lake Road (N2)	2 lanes	7.95 (crosses)
Anaverde Motorway	2 lanes, unpaved	12.3 (crosses)
Sierra Pelona Motorway	Cross into Anaverde area, unpaved	13.9
	Cross into L.A. County unincorporated area	15.0

¹ Refer to Figure 3-2 for locations.

**TABLE 4.16-3
LOCAL ROADS, LOS ANGELES UNINCORPORATED AREA**

Roadway	Description	Segment 2 Route Milepost¹
Peaceful Valley Road	2 lanes, unpaved	17.1 (crosses)
Tuckerway Ranch Rd.	2 lanes, unpaved	18.6 (crosses)
Peaceful Valley Rd.	2 lanes, paved	19.9 (crosses)
Forest View Rd.	2 lanes	20.4 (crosses)
(frontage nw side of SR 14)		
SR 14	4 lanes, divided	20.45 (crosses)
Sierra Hwy.	2 lanes	20.5 (crosses)
(frontage se side SR 14)		
UR Railroad/Metroink		20.7
Carson Mesa Rd.	2 lanes	20.7 (crosses)
Rockyford Road	2 lanes, unpaved	21.1 (crosses)
Vincent Substation		21.5 (end of route)

¹ Refer to Figure 3-2 for locations.

From Table 4.16-3, the most important roads are the paved frontage roads on either side of SR 14. This portion of SR 14, its frontage roads, and the Union Pacific Railroad all run through Soledad Canyon and Soledad Pass. This is an important travel corridor connecting the greater Los Angeles area and the Santa Clarita Valley from the southwest to the Palmdale and Antelope Valley region to the north.

4.16.2 Segment 2 Substations

4.16.2.1 Modifications to Antelope Substation

The Antelope Substation is located south of W. Avenue J, and east of 100th Street W., about 5 miles west of the center of Lancaster. There are no public roads in this area that would be permanently affected by the project.

4.16.2.2 Modifications to Vincent Substation

The Vincent Substation is located off of Angeles Forest Highway, approximately 1.5 miles south of its interchange with SR 14. The substation is accessed on a short driveway off of the Angeles Forest Highway. Rockyford Road and a series of service trails provide access around the perimeter of the substation. All of the modifications proposed at the Vincent Substation are within the property; no expansion of the substation area is proposed.

4.16.3 Segment 3 Antelope – Substations One and Two

4.16.3.1 Freeways and State Highways

The proposed alignment of the Segment 3 route crosses SR 138 on the western side of 105th Street. Alternatives A and B cross SR 138 on the eastern side of 100th and 110th Street W, respectively. All of these crossings are rural 2-lane unpaved roads. SR 138 is a 2-lane undivided highway, and carries an ADT volume of 4,200 vehicles. This portion of SR 138 is a regionally important east-west route across the Antelope Valley, connecting the north-south corridors of SR 14 on the east with Interstate 5 near Tejon Pass on the west.

In Kern County, only the most northerly portion of the Alternative C 220 kV T/L alignment to alternate Substation 2B (if selected) would cross a state highway: SR 58, east of Tehachapi. This portion of SR 58 is a 4-lane divided highway, and carries an ADT volume of 19,600.

4.16.3.2 Transit and Rail Service

4.16.3.2.1 Lancaster and Nearby Areas. The transit and rail service discussion presented in Section 4.16.1.2.1 is also applicable to Segment 3

4.16.3.2.2 Kern County and Tehachapi. The Kern Regional Transit service is operated by Kern County. Express bus service is provided from Bakersfield to Tehachapi, Rosamond, and Lancaster. Within Rosamond and Tehachapi, dial-a-ride service only is provided. During the summer months, Kern Regional Transit provides community service throughout Tehachapi.

The main line of the Union Pacific Railroad line (UPRR) occurs to the east and north of the Segment 3 route. The northernmost reach of the Alternative C 220 kV route between Substations One and Substation 2B crosses the UPRR.

A spur line from the UPRR main line serves the Cal Cement plant southeast of Tehachapi. This spur railroad line would be crossed by the proposed 500 kV T/L alignment and both Alternatives A and B. The points where the proposed and alternative Segment 3 500 kV T/L routes cross the Cal Cement spur rail line are shown in Table 4.16-4.

**TABLE 4.16-4
CAL CEMENT RAILROAD SPUR T/L CROSSING LOCATIONS**

Segment 3 Alternative	Approximate Milepost¹	Approximate Miles East of Cal Cement
Proposed alignment	24.5	1
Alternative A	24.9	1.5
Alternative B	25.1	2

¹ Refer to Figure 3-3 for locations.

4.16.3.3 Air Transportation

In the Lancaster area, General William J. Fox Airfield is a regional general aviation airport owned by Los Angeles County, and operated under contract by American Airports Corporation. There is no scheduled air service at this airport, but charter service and pilot support services are available. It is located approximately 5 miles northeast of the Antelope Substation.

Mojave Airport is located about 6 miles to the east of the northerly portion of Segment 3. Mojave Airport is operated by the East Kern Airport District. Although there is no commercial air service, Mojave Airport is very active and serves general aviation and heavy transport. The airport property is also used by several major airlines to store large aircraft.

Mountain Valley Airport is located approximately 2 miles west of the proposed location for Substation Two. This is a privately owned airport that is open to public. Mountain Valley Airport serves general aviation, but is predominantly used for sailplane operations.

The Tehachapi Municipal Airport is located about 3 miles to the northwest of the proposed location for Substation Two (or about 2.5 miles west of alternative Substation 2B). This airport is operated by City of Tehachapi and is open to the public. It serves general aviation.

4.16.3.4 Local Roadways

4.16.3.4.1 City of Lancaster and Northern Los Angeles County. The southern end of Segment 3 is in the western portion of the City of Lancaster and unincorporated areas of northern Los Angeles County. Between its start at the Antelope Substation, and its entrance into Kern County to the north, the proposed route for the new Segment 3 T/L crosses roads as summarized in Table 4.16-5.

**TABLE 4.16-5
LOCAL ROADS, LANCASTER AND NORTHERN LA COUNTY**

Roadway	Description	Segment 3 Route Approximate Milepost ¹		
		Proposed Route	Alternative A	Alternative B
W. Ave. J	2 lanes, paved	0.4 (crosses)	Same	Same
100 th St. W.	2 lanes, unpaved	0.5 (crosses)	Same	Same
Lancaster Bl.	Planned	1.0 (crosses)	Same	Same
W Ave. I	2 lanes, paved	1.6 (crosses)	Same	Same
105 th St.	2 lanes, paved	1.7 (crosses)	1.7 (crosses)	1.7 (crosses)
110 th St. W.	2 lanes, paved	NA	NA	2.6 (crosses &/or along side)
W. Ave. H	2 lanes, unpaved	2.6 (crosses)	Same	2.75 crosses
W. Ave. G	2 lanes, paved	3.6 (crosses)	Same	4.85 crosses
W. Ave. F	2 lanes, unpaved	4.6 (crosses)	Same	4.75 crosses
W. Ave. E-8	2 lanes, unpaved	5.1 (crosses)	5.7 crosses	5.25 crosses
W. Ave. E	2 lanes, unpaved	5.6 (crosses)	6.2 crosses	5.75 crosses
W. Ave. D-8	unimproved & 2 lanes, unpaved	6.1 (crosses, unpaved)	7.7 crosses, unimproved	6.25 crosses, unpaved
SR 138	2 lanes, paved, undivided	6.6 (crosses)	7.2 crosses	6.75 crosses
W. Ave. C-8	2 lanes, unpaved	7.1 (crosses)	7.7 crosses	7.25 crosses
W. Ave. C	2 lanes, paved	7.6 (crosses)	8.2 crosses	7.75 crosses
W. Ave. B-8	2 lanes, unpaved	8.1 (crosses)	8.7 crosses (unimproved)	8.25 crosses (unimproved)
W. Ave. B	2 lanes, paved	8.6 (crosses)	9.2 crosses	8.8 crosses
W. Ave. A (Kern County Line)	2 lanes, unpaved	9.7 (crosses)	10.2 crosses	9.8 crosses

¹ Refer to Figure 3-3 for locations.

These named roadways are 2-lane rural roads, or rural collectors, generally carrying less than 2,000 ADT. There are many other unimproved dirt roads crossing the area, many providing access to agricultural fields.

4.16.3.4.2 Kern County West of Rosamond. The unincorporated areas of southern Kern County, through which the proposed Segment 3 T/L route would pass, are generally rural in nature. Relative to the adjacent lands in Los Angeles County, there is more irrigated agriculture land in Kern County, so the access roads surrounding farm fields are generally somewhat more improved. Table 4.16-6 summarizes the main roadways in the unincorporated Kern County areas that would be near to or affected by the project. There are many other unpaved roads throughout the routes, mainly providing access to agricultural areas, open recreational areas, and the wind resource area east of Tehachapi.

The proposed and alternative routes for Segment 3 all terminate east and outside of the City of Tehachapi.

4.16.4 Segment 3 Substations

The Antelope Substation is located south of W Avenue J, and east of 100th Street W., about 5 miles west of the center of Lancaster. There are no public roads in this area that would be permanently affected by the project.

The alternative locations for Substation One are all located south of Oak Creek Road, in southern Kern County, southeast of Tehachapi. There are a few narrow unpaved private roads in this area. Near the point where Oak Creek Road joins Tehachapi-Willow Springs Road, about 3.5 miles northwest of the Substation One location, is the location for Substation Alternative 1C. This area lies north of Oak Creek Road (2-lane, paved), and southeast of and adjacent to Cameron Canyon Road (2-lane, paved).

Highline Road is a paved 2-lane road west of Tehachapi Willow Springs Road, but is unpaved in the vicinity of the Substation Two and 2A sites.

The proposed location for Substation Two is another 4 miles to the northwest, at the easterly end of Highline Road. This is about 0.75 mile east of Tehachapi Willow Springs Road.

Finally, one more mile to the north is the Substation 2B alternative location. The Substation 2B site is north of Tehachapi Boulevard, and west of Williamson Road. Tehachapi Boulevard is a 4-lane arterial that roughly parallels SR 58. Williamson Road is a two lane unpaved road. None of the alternative locations for Substation Two would be directly on public streets, and all are accessible from the adjacent roadways.

**TABLE 4.16-6
LOCAL ROADS – SOUTHERN KERN COUNTY**

Roadway	Description	Segment 3 Route Approximate Milepost ¹		
		Proposed Route	Alternative A	Alternative B
Gaskell Road	2 lanes, paved	10.7 (crosses)	11.2 crosses	10.8 crosses
Sue Ave.	2 lanes, unpaved	NA	12.0	NA
Holiday Ave	2 lanes, unpaved	11.7 crosses	12.2 crosses	11.8 crosses
Barbham Ave., Matra Ave., Astoria Ave., Mojave Ave., Gobi Ave., Sahara Ave. Leslie Ave.	unimproved, unpaved local roads	NA	12.3-13.9 (crosses)	NA
LADWP Easement Road	unpaved	11.9-13.1 (parallels and crosses)	13.9-14.0 (crosses)	11.6-11.8 (crosses)
W. Rosamond Bl.	2 lanes, paved	12.75 (crosses)	13.2 crosses	12.8 crosses
Truman Rd.	2 lanes, unpaved	NA	14.0 (crosses)	NA
Lodestar Ave., Brightstar Ave., Ave. of the Stars., Starbuck Ave., Constellation Ave., Stardust Ave.,	2 lanes, unpaved	NA	14.4-15.1 (crosses)	NA
Sweetser Rd./ Hamilton Rd.	2 lanes, paved from 100 th St. W. eastward	14.8 (crosses)	15.2 crosses	14.8 crosses (unpaved)
El Dorado Rd.	unimproved	NA	15.5	NA
Favorito Ave.	2 lanes, unpaved	15.3 (crosses)	15.7 (crosses)	15.3 (crosses)
Dawn Rd.	2 lanes, unpaved	15.8 (crosses)	16.25 (crosses)	15.8 (crosses)
McConnell Ave.	2 lanes, not continuous	NA	16.85 (crosses)	NA
Billie Ave	2 lanes, unpaved	NA	NA	16.4 (crosses)
Champagne Ave.	2 lanes, unpaved	16.9 (crosses)	17.3 crosses	16.8 crosses
Vim, Bright, Highgate, Troy, Sunbow Ave.	2 lanes, unpaved	16.9-17.7 (crosses)	17.4-18.1 (crosses)	16.9-17.7 (crosses)
Montiverde Rd.	2 lanes, unpaved	17.9 (crosses)	18.25 crosses	17.8 crosses
Champagne Rd.	2 lanes, unpaved	18.4 (crosses)	18.75 crosses	18.3 (crosses)
Backus Rd.	2 lanes, paved east of 100 th St. W.	18.9 (crosses)	19.25 crosses	18.8 (crosses)

TABLE 4.16-6 (CONTINUED)
LOCAL ROADS – SOUTHERN KERN COUNTY

Roadway	Description	Segment 3 Route Approximate Milepost ¹		
		Proposed Route	Alternative A	Alternative B
General Petroleum Rd.	2 lanes, unpaved	19.4 (crosses)	20.1 (crosses)	NA
Trotter Ave.	2 lanes, unpaved	NA	20.3 (crosses)	19.8 (crosses)
LA Aqueduct	& service road	20.1 (crosses)	20.9 (crosses)	19.2 (crosses)
Reed Ave.	2 lanes, unpaved	20.9 (crosses)	21.3 (crosses)	20.8 (crosses)
Tehachapi Willow Springs Rd.	2 lanes, paved	21.0 (crosses)	21.0 (crosses)	21.5 (crosses)
Laguna Ave.	2 lanes, unpaved	NA	21.75 (crosses)	NA
100 th St.	2 lanes, unpaved	23.0 (crosses)	NA	22.3 (crosses)
90 th St. W.	2 lanes, unpaved	24.4 (crosses)	23.75 (crosses)	23.7 (crosses)
80 th St. W.	2 lanes, unpaved	NA	NA	25.1 (joins from sw, then adj. to road)
Substation One, 1A, 1B		25.4 enters substation	25.65 enters 1A	25.8 enters 1B
Roadway	Description	Segment 3 Route Approximate Milepost ¹		
		Proposed 220 kV	Alternative C	
Oak Creek Rd.	2 lanes, paved	25.6-27.4 (parallels then crosses)	0.0-1.8 (parallels then crosses)	
90 th St. W.	2 lanes, unpaved	26.2 (crosses)	0.6 (crosses)	
Oak Creek Rd.	2 lanes, paved	29.2-30.0 (parallels)	3.6-4.3 (parallel)	
Substation 1C		NA	4.4	
Tehachapi-Willow Springs Rd.	2 lanes, paved	30.7 and 31.4 (two crossings)	NA	
Cameron Cn. Rd	2 lanes, paved	NA	5.6	
Substation Two/2A		35.2/NA	9.5 and 9.9	
SR 58	4 lanes, divided	NA	10.1 (crosses)	
Williamson Rd.	2 lanes, unpaved, portion unimproved	NA	10.6 (crosses)	
E. Tehachapi Bl.	4 lanes, paved	NA	10.6 (crosses)	
Substation 2B		NA	10.7	

¹ Refer to Figure 3-3 for locations.

NA = not applicable.