

5.16 Transportation/Traffic

TRANSPORTATION AND TRAFFIC

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

5.16.1 Setting

During construction, the substation site and the subtransmission lines in the vicinity of the proposed Banducci Substation site would be accessed via Pelliser Road. The Banducci Substation Staging Yard would be accessed via Pelliser Road. The North of Highline Road and Highwind Substation Staging Yards would be accessed via Highline Road. The Tehachapi Service Center Staging Yard would be accessed via North Mill Street. SCE would install two new TSP guy stubs along Pelliser Road, replace three wood poles on the south side of Highline Road east of Pelliser Road, install two new wood poles, remove four wood poles, and replace two wood poles on Pelliser Road, and install two new TSP poles and one LWS pole along unimproved Dale Road. Proposed telecommunication routes include underground conduit and overhead lines along portions of Highline Road, Jameson Street, Pelliser Road, Girauda Road, West Valley Boulevard, Woodford Tehachapi Road, Cherry Lane, South Curry Street, West C Street, West H Street, Dennison Road, and Tehachapi Boulevard.

Existing Traffic Volumes and Levels of Service

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 5.16-1. LOS can be estimated based the on the road's traffic volume-to-road capacity (v/c) ratio or the average delay experienced by vehicles on the roadway.

Table 5.16-1. Level of Service Criteria for Roadways.

LOS	V/C	Traffic Flow Characteristics
A	0.00 – 0.60	Free flow; insignificant delays
B	0.61 – 0.70	Stable operation; minimal delays
C	0.71 – 0.80	Stable operation; acceptable delays
D	0.81 – 0.90	Approaching unstable flow; queues develop rapidly but no excessive delays
E	0.91 – 1.00	Unstable operation; significant delays
F	> 1.00	Forced flow; jammed conditions

LOS = level of service; V/C = volume/capacity ratio
Source: SCE, 2014 from Transportation Research Board, 2000.

Regional Transportation

The regional transportation system in the vicinity of the Proposed Project is largely composed of state highways and local roads within Kern County. The proposed Banducci Substation site is located at the intersection of Pelliser Road and Dale Road. Access to Pelliser Road is provided by Banducci Road to the south and Cummings Valley Road to the north. Regional access to the Proposed Project area is provided by California State Route (SR) 202, which heads west from SR-58. Both SR-202 and SR-58 are within the jurisdiction of the California Department of Transportation (Caltrans).

Highways

A summary of the highway characteristics for the roads in the vicinity of the project area is provided in Table 5.16-2.

Table 5.16-2. Roadway Characteristics for Local Access Roads in the Project Area.

Roadway	Location	Classification	Lanes	Average Daily Traffic	Level of Service	Physical Relationship to Project Components
SR-58	East of Mill Street Interchange	Freeway	4	21,000	A	Telecommunications infrastructure overhead and underground crossing
SR-202	North of California Correctional Institute	Enhanced Collector	2	2,500	A	Overhead telecommunication route
	North of Cummings Valley Road	Enhanced Collector	2	9,300	A	Overhead telecommunication route
	East of Old Town Road	Enhanced Collector	2	9,500	A	Overhead telecommunication route
	West of Tucker Road	Enhanced Collector	2	15,000	A	Overhead telecommunication route
Banducci Road	East of Pelliser Road	Collector	2	3,400	A	Access road
Cherry Lane	West of Tucker Road	Collector	2	600	A	Overhead telecommunication route
Dennison Road	North of Highline Road	Collector	2	1,000	A	Underground and overhead telecommunication route
Giraud Road	West of Pelliser Road	Collector	2	500	A	Overhead telecommunication route

Table 5.16-2. Roadway Characteristics for Local Access Roads in the Project Area.

Roadway	Location	Classification	Lanes	Average Daily Traffic	Level of Service	Physical Relationship to Project Components
Highline Road	West of Water Canyon Road	Collector	2	5,000	A	Access road and overhead telecommunication route
	West of Tehachapi Willow Springs Road	Collector	2	3,000	A	Access road and overhead telecommunication route
	East of Banducci Road	Collector	2	4,800	A	Access road and overhead telecommunication route
Pelliser Road	South of Giraudo Street.	Collector	2	1,700	A	Access road
Tehachapi Boulevard	West of Tehachapi Willow Springs Road	Collector	2	4,100	A	Underground telecommunication route
Woodford Tehachapi Road	South of SR-202	Collector	2	4,000	A	Overhead telecommunication route

Source: SCE 2014, Kern County 2010

SR-202: SR-202 is a two-lane highway that travels in an east-west direction northeast and east of the proposed Banducci Substation site. Proposed telecommunications route 2 runs along SR-202 just north of Administration Dr. near the proposed substation site.

SR-58: SR-58 is a two and four-lane highway that travels in a general east-west direction and is located north, northeast, and east of the Proposed Project site. At its nearest, it is approximately eight miles from the substation site. However, SR-58 is crossed by both telecommunications routes as they approach Monolith Substation, which is north of the highway.

Arterial Roads

Cummings Valley Road, Banducci Road, and Giraudo Road: These two-lane roads serve local residents in the vicinity of the substation site. All three are truck routes. The substation site is on Pelliser Road, which can be approach from the south via Banducci Road and from the north via Giraudo Road. Telecommunication Route 2 makes an overhead crossing across Cummings Valley Road and runs along a portion of Giraudo Road.

Highline Road: This roadway is a two-lane east-west roadway parallel to SR-202, on the south side of Tehachapi. Telecommunication route 1 will travel along this roadway.

Tucker Road: This roadway is a key four-lane arterial that extends north from Highline Road Avenue to Tehachapi Boulevard. Both telecommunication routes cross Tucker Road.

South Curry Street: This roadway is a two-lane north-south street in the downtown central core of the City of Tehachapi. Telecommunication route 2 runs along a portion of South Curry Street.

Dennison Road: This roadway is a two-lane north-south roadway located in eastern Tehachapi. Both telecommunication routes cross Dennison Road.

Mass Transit

Kern Transit provides through service to and from Tehachapi on the 100 Bakersfield/Lancaster route. Service is provided 10 times a day during the week and three times a day on weekends. Amtrak Thruway bus service occurs twice daily both east and west bound.

Rail

The Union Pacific Railroad (UPRR) crosses through the middle and downtown areas of the City of Tehachapi at Green Street, Hayes Street, and Dennison Road. Proposed Telecommunication Route 1 crosses the UPRR right-of-way at Grand Avenue, as the line enters Monolith Substation immediately north of the railroad. Proposed Telecommunication Route 2 crosses the UPRR right-of-way three times, twice in the city and once at Grand Avenue to reach Monolith Substation.

Bicycle

There are no existing bikeways located within the vicinity of the proposed Banducci Substation site. The Tehachapi Bicycle Master Plan identifies numerous existing and proposed bikeways that occur on or near to the proposed telecommunication routes (Tehachapi, 2012).

Truck Routes

The northern and eastern segments of SR-202, Cummings Valley Road, Pelliser Road, and Banducci Road could be used as truck routes to access the proposed Banducci Substation site on Pelliser Road. Truck routes providing access to the telecommunication components of the Proposed Project include SR-58, Highline Road, and West Valley Boulevard. See Figure 5.16-1 at the end of this section for truck routes and arterial roads within the Proposed Project vicinity.

Air Transportation

There is a private landing airstrip at PSK Ranch, approximately 0.75 miles northeast of the proposed Banducci Substation site. The Tehachapi Municipal Airport is located more than 9 miles northeast of the proposed Banducci Substation site and just north of the nearest section of the proposed Telecommunications Route 2. The Proposed Project would be located approximately 5 miles north of Black Mountain Supersonic Corridor which is a military Supersonic Corridor. Edwards Air Force base is located more 40 miles southeast of the proposed Banducci Substation site and is approximately 30 miles southeast of the nearest proposed telecommunication routes. The Proposed Project would not be located within an area that would be subject to military review (SCE, 2014).

Regulatory Background

Federal

Hazardous Materials Transportation Act of 1974. The Hazardous Materials Transportation Act of 1974 directs the United States Department of Transportation (USDOT) to establish criteria and regulations regarding safe storage and transportation of hazardous materials. The USDOT would primarily deal with the transportation of hazardous materials on roadways in the Proposed Project area

State

California Streets and Highways Code. This Code requires project proponents to obtain permits from Caltrans for any roadway encroachment and includes regulations for the care and protection of highways (both State and County) and requires permits for any load that exceeds Caltrans weight, length, or width standards for public roadways.

Sections 700 through 711 are specific to utility providers and address utility infrastructure. The Code also outlines directions for cooperation with local agencies, guidelines for permits, and general provisions relating to state highways and Caltrans' jurisdiction.

California Joint Utility Traffic Control Manual. The California Joint Utility Traffic Control Manual (CJUTCM) provides guidelines for ensuring that the needs of all road users (motorists, bicyclists, and pedestrians within the highway including persons with disabilities) are met through a temporary traffic control (TTC) zone during highway construction, utility work, maintenance operations and the management of traffic incidents.

Local

The California Public Utilities Commission (CPUC) General Order No. 131-D states that “local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the Commission’s jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters.” As a public utility project that is subject to the jurisdiction of the CPUC, the Proposed Project is exempt from local regulation and discretionary permits. As such, the regional and local regulatory standards are provided in this analysis for informational purposes only.

Kern County General Plan. One of the goals of the General Plan’s Circulation Element includes maintaining a minimum LOS “D” for all roads throughout the County. These goals include:

- Circulation Goal 2: Upgrade road circulation in and around Tehachapi.
- Circulation Policy 5: The County should monitor development applications as they relate to traffic generation developed for this plan. If traffic resulting from projects would exceed current volume to capacity projections, mitigation is required if development causes roadways to fall below LOS D and LOS C for Caltrans roadways.

Greater Tehachapi Area Specific and Community Plan. The Greater Tehachapi Area (GTA) is a term used to describe the collection of unincorporated communities located in eastern Kern County along state route SR-58 between the San Joaquin Valley and the Mojave Desert. The GTA generally encompasses the rural communities of Alpine Forest, Bear Valley Springs, Brite Valley, Cummings Ranch, Cummings Valley, Golden Hills, Mendiburu Springs, Monolith, Old Towne, and Stallion Springs. Kern County has adopted a GTA Specific and Community Plan (GTASCP) that sets forth a land use plan and goals, policies, and implementation measures designed to ensure that future development in the GTA is consistent with the goals and policies of Kern County’s General Plan while recognizing the uniqueness of the region. The proposed Banducci Substation component of the Proposed Project would be located within the GTASCP.

The Proposed Project would be located within an area that is classified by the GTASCP as a Tehachapi Regional Transportation Impact Fee Area. Development within a Transportation Impact Fee Area is subject to a transportation impact fees if the project would result in substantial transportation-related impacts. Maintaining a LOS of C or better on roadways within the designated Transportation Impact Fee Areas remains one of the goals of the GTASCP.

The GTASCP also provides the following right-of-way allowances for relevant streets near the proposed Banducci Substation location.

- **Banducci Road:** Collector Road – Minimum 90-foot right-of-way (typically provides two to four lanes)
- **Pelliser Road:** Collector Road – Minimum 60-foot right-of-way (typically provides two lanes)
- **Highline Road:** Collector Road – Minimum 90-foot right-of-way (typically provides two to four lanes)
- **Dale Road:** Collector Road – Minimum 90-foot right-of-way (typically provides two to four lanes)

Applicant Proposed Measures

There are no applicant proposed measures for transportation and traffic.

5.16.2 Environmental Impacts and Mitigation Measures

a. *Would the project cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?*

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. The Proposed Project would contribute to traffic congestion by adding truck trips and worker commute trips during construction. The major construction would occur at the proposed substation site. Construction along the telecommunications routes would be period, involving the replacement of some poles and the stringing of fiber optic cable, as well as some trenching for conduit installation underground.

The peak level of estimated truck trips would occur during the import of 10,000 cubic yards of soil of fill material to the substation site. Another 10,000 cubic yards of excavated soil would also be used as fill material. Import of fill (and removal of organic waste in the same trucks) would result in between 550 and 560 round trips (1,100 to 1,120 total trips) using heavy duty trucks (18 cubic yards). Approximately 26 to 28 truck trips per day would be needed to import soil and dispose of organic material over a 30-day period. In addition, SCE estimates that there would be approximately 700 water truck trips over the course of project construction (12 months). Additional trucks would be needed to bring equipment, hardware, and building materials (such as concrete) to the work site. Transformers would be brought to the site on a low-bed truck.

During construction of the Proposed Project, it is anticipated that on any given day up to 50 workers could be at various locations on the Proposed Project. While a number of the workers likely would carpool, in the event that each worker traveled to the site alone, a worst case scenario would include the addition of 50 vehicles to traffic in the vicinity of the Proposed Project (100 one-way trips per day).

Construction of the substation and telecommunication components of the Proposed Project would require crews of between two and 20 workers each working in the project work area. A worst case scenario would include the addition of 20 vehicles to traffic in the vicinity of where the proposed Banducci Substation and transmission components would be constructed. Throughout the day, a majority of these vehicles would be parked at the proposed substation site or construction yards and would not contribute to traffic in the area.

Installation of the proposed fiber optic telecommunications cables would involve crews of approximately three to six workers at a site. A worst case scenario would add up to six vehicles to traffic in the vicinity of where the telecommunications work is taking place. This would be a negligible addition to traffic.

If all 50 worker vehicle trips were to occur at one location, this would represent an approximately ten percent increase on the road segment with the lowest ADT (Giraudo Road west of Pelliser Road) and a less than one percent increase on the road with the highest ADT (Cummings Valley Road without SR-202).¹ Each of these roadways currently is at LOS C or better and the increased use would not be expected to

¹ The assumption of up to 50 trips per day assumes that up to 20 workers would travel to and from the Substation Study Area daily in separate vehicles. This estimate further assumes that up to 10 additional daily trips (i.e., for lunch, supplies, etc.) would be associated with the Proposed Project during construction. For the entire Proposed Project, the worst case scenario would be an additional 50 workers and 100 average daily trips. (SCE, 2014)

impact the current service levels within the vicinity of the substation site or the larger project area (Table 5.16-2: Roadway Characteristics for Local Access Roads in the Project Area).

Temporary traffic slowdowns may occur while large slow-moving equipment is travelling on public roadways to the substation site. SCE anticipates that the majority of such traffic be outside of peak hours. Heavy transport vehicles (60-ton capacity) would be used to deliver transformers to the substation site, and a traffic control service would be required (SEC, 2014). By law, the heavy loads would require SCE to obtain transportation permits from local jurisdictions and Caltrans. Each transportation permit would designate the haul routes to be taken and require SCE to repair any damage caused to any restricted load limit streets. With these procedures in place, congestion and potential roadway damage caused by project-related truck traffic would cause adverse, but less than significant impacts.

Construction activities undertaken within public streets would require the use of traffic control, and any lane closures would be conducted in accordance with applicable requirements of the agency having jurisdiction over the road. These traffic control measures would be consistent with those published in the *California Joint Utility Traffic Control Manual* (SCE, 2014). If lane closures are required, SCE would notify emergency services regarding the project and lane closures/detours.

The increase in traffic that would occur due to construction activities and worker vehicles accessing the work site would be minimized through implementation of Mitigation Measures T-1, T-2, and T-3. **Furthermore, the increase in traffic** would not be substantial in relation to the existing traffic volume and the capacity of the street system, and construction effects would be limited to a short-term duration. During operation of the proposed substation, work crews would visit the substation only two to three times per week for routine maintenance. As such, the permanent increase in traffic would not be substantial, and this impact would be less than significant.

Mitigation Measures for Construction Traffic and Interference with Emergency Access during Construction

MM T-1 **Restrict Lane Closures.** SCE shall restrict all necessary lane closures or obstructions on major roadways associated with overhead or underground construction activities to off-peak periods in congested areas to reduce traffic delays. Lane closures must not occur between 6:00 and 9:30 a.m. or between 3:30 and 6:30 p.m., unless otherwise authorized in writing by the responsible public agency issuing an encroachment permit.

MM T-2 **Ensure Emergency Access and Response.** Prior to construction, SCE shall coordinate with Kern County and emergency service providers regarding emergency access and/or response to the Proposed Project area during construction activities to avoid restricting movements of emergency vehicles. SCE shall ensure that the Proposed Project has considered the relevant Kern County ordinances and building codes so as not to hinder or interfere with emergency access or response (such as, but not limited to, the Kern County Code of Building Regulations: Chapter 17.32, Fire Code and Chapter 17.34, Wildland-Urban Interface Code).

Police departments, fire departments, ambulance services, and paramedic services serving the project area shall be notified 30 days in advance by SCE 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 roads will be temporarily blocked, work crews shall be ready at all times to accommodate emergency vehicles through immediately stopping work for emergency vehicle passage and/or facilitating the use of short detours and alternate routes in conjunction with local agencies.

MM T-3 Implement Traffic Management Plan. SCE shall follow its standard safety practices, including installing appropriate barriers between work zones and transportation facilities, posting adequate signs, and using proper construction techniques. SCE is a member of the California Joint Utility Traffic Control Committee, which published the California Joint Utility Traffic Control Manual (2010). SCE will follow the recommendations in this manual regarding basic standards for the safe movement of traffic on highways and streets in accordance with Section 21400 of the CVC. These recommendations include provisions for safe access of police, fire, and other rescue vehicles.

b. *Would the project cause, either individually or cumulatively, a level-of-service standard established by the county congestion management agency for designated roads or highways to be exceeded?*

LESS THAN SIGNIFICANT. Construction of the Proposed Project would cause a minor short-term increase in the local traffic throughout the project study area. Project-related traffic would result in a relatively small increase when added to the existing daily traffic on highways and arterial roadways. The Proposed Project would not increase traffic substantially as compared to the existing traffic volume and the capacity of the street system in the area. Therefore, it is not anticipated that the temporary construction traffic generated by the Proposed Project would alter the existing level of service designations on area roadways, and level of service standards would not be exceeded. Operation of the Proposed Project would require routine inspection and periodic maintenance visits, which would not cause level of service standards to be exceeded. The result would be less than significant impacts on level of service.

c. *Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

NO IMPACT. The nearest airport facility would be 9 miles from the project site. No change in air traffic patterns would occur as a result of the project.

d. *Would the project substantially increase hazards because of a design feature or incompatible uses?*

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED - CONSTRUCTION. Heavy equipment operating adjacent to or within a road right-of-way could increase the risk of accidents. Construction of the Proposed Project may require the development of access roads and use of existing access roads for trucks, large vehicles, and other equipment to access the substation site and some telecommunication poles; however, these access roads would reduce potential hazardous conditions by ensuring the availability of safe access points to and from various components of the Proposed Project. Additionally, through implementation of Mitigation Measures T-1, T-2, and T-3, SCE would incorporate traffic control measures that are designed to ensure the safety of all road users and to further ensure that hazards along roadways or at intersections are not increased during construction. Therefore, with implementation of mitigation, the Proposed Project would not increase hazards on area roadways due to a design feature or incompatible uses.

NO IMPACT – OPERATIONS AND MAINTENANCE. An entrance to the new Banducci Substation would be constructed off Pelliser Road. This entrance would be constructed on a straight street with low traffic. Because it would be used infrequently and not cause substantial disruption to existing traffic, it would not create a hazard, and there would be no impact.

e. Would the project result in inadequate emergency access?

LESS THAN SIGNIFICANT IMPACT – CONSTRUCTION. Routes for emergency vehicles would be maintained throughout project construction. Project activities could have the potential, in rare circumstances, to slow emergency response vehicles (for example, a slow-moving pole delivery truck occurring simultaneously with the need for emergency vehicle access). Given the frequency with which such occurrences would take place and the brevity of such a delay, this potential impact would be less than significant. This less-than-significant impact would be further minimized with implementation of Mitigation Measure T-2 (Ensure Emergency Access and Response), which requires early coordination with officials providing emergency services.

NO IMPACT – OPERATIONS AND MAINTENANCE. The proposed Banducci Substation would be unstaffed, and electrical equipment within the substation would be remotely monitored and controlled by an automated system from SCE's Vincent Substation. Therefore, no additional operating and maintenance staff would be required after construction is completed. SCE personnel typically would visit for electrical switching and routine maintenance. Existing O&M crews would operate and maintain the new equipment as part of their current O&M activities. Consequently, operation of the project would not result in inadequate emergency access.

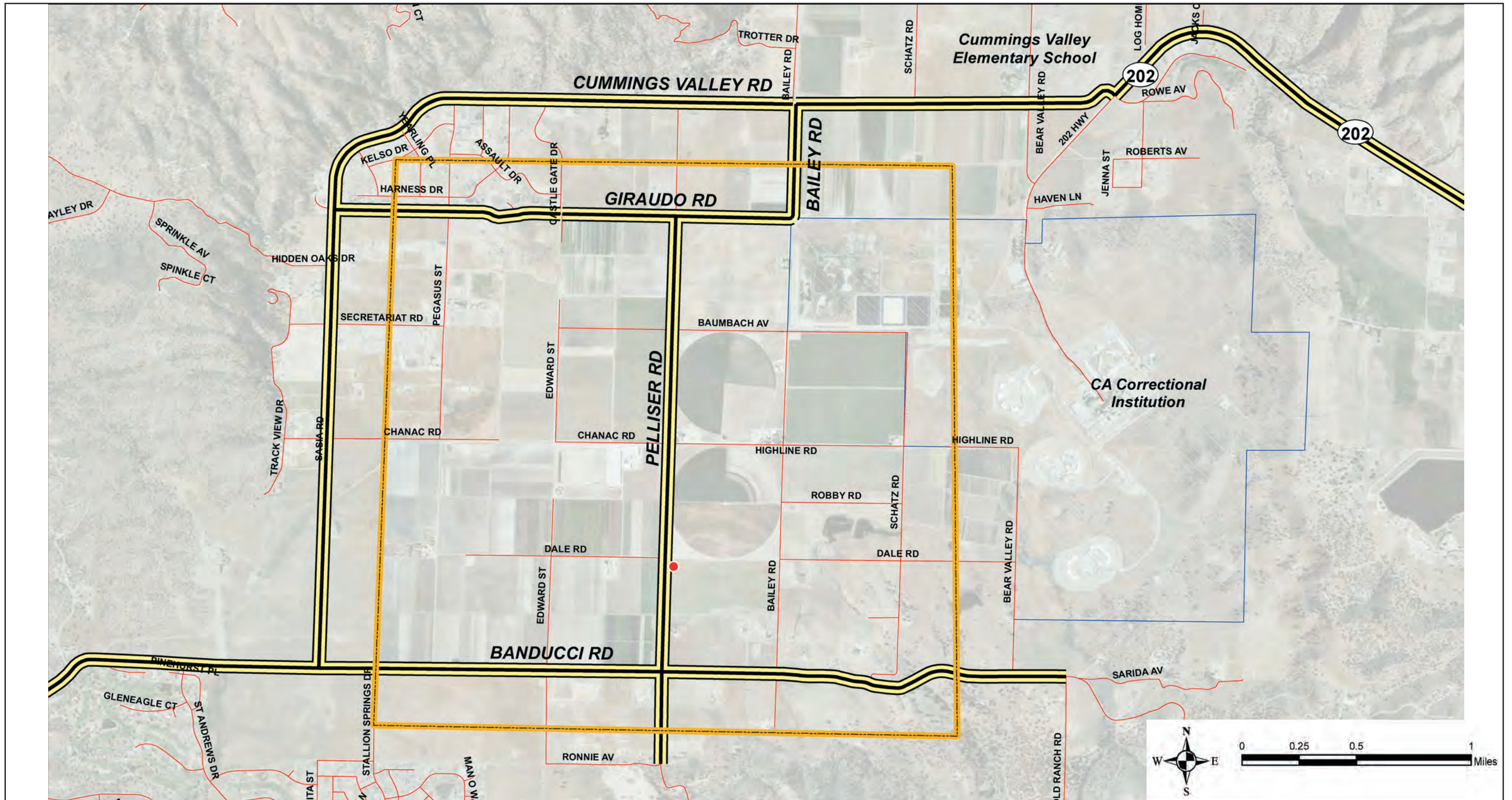
f. Would the project result in inadequate parking capacity?

NO IMPACT. Construction workers would park all personal and project vehicles in the four temporary staging yards set up by SCE (SCE, 2014); therefore, there would be no impacts to parking capacity.

g. Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

NO IMPACT. The Proposed Project would not conflict with plans, policies, or programs supporting development of alternative transportation. The Proposed Project would not permanently remove bicycle lanes or conflict with alternative transportation routes. Impacts would not result from project activities.

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Legend

- Proposed Banducci Substation
- Substation Study Area
- CA Correctional Institution
- Truck Route
- Secondary Road

Source: SCE, 2014.

Figure 5.16-1

**Truck Routes and Arterial Roads
in the Proposed Project Vicinity**

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