15. TRANSPORTATION/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)?	☐	☐	■	☐
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	■	☐
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	■
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	■
e. Result in inadequate emergency access?	☐	■	☐	☐
f. Result in inadequate parking capacity?	☐	■	☐	☐
g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	■	☐

Existing Conditions

The main transportation corridors providing access to the project area are US 101 and Interstate 380. The arterial roadways crossed by the project include El Camino Real, Peninsula Avenue, Broadway, Millbrae Avenue, San Bruno Avenue, South Airport Boulevard, East Grand Avenue, Gateway Boulevard, Sister Cities Boulevard, Bayshore Boulevard, Guadalupe Canyon Parkway, and Geneva Avenue (see Figure B-2).

Existing traffic conditions of roads within the project vicinity vary. As a result, roadway intersections along the project route also vary in their levels of congestion, as measured by Level of Service (LOS).[1] Examples of intersections at LOS C include Peninsula Avenue and US 101 in San Mateo and Millbrae Avenue and Rollins Road in Millbrae. No intersections crossed by the project operate at LOS E ("at capacity") or worse.

Freeways and State Routes. The project corridor traverses two highways: US 101 and Interstate 380.

U.S. Highway 101. U.S. Highway 101 (US 101) is a major four- to six-lane, north-south freeway that traverses 26.1 miles through San Mateo County, connecting with major urban centers within and beyond state boundaries. The power line spans US 101 in three locations: the intersection of US 101 and Broadway in Burlingame; approximately 0.25 mile north of the US 101 and Interstate 380 interchange in San Bruno; and 0.5 mile north of the Grand Avenue and US 101 interchange in South San Francisco. Caltrans reported that in 2001 an average of between 400,000 and 496,000 vehicles per day used US 101 at various recording points between Peninsula Avenue and Grand Avenue. Peak hour traffic averaged between 30,400 and 33,100 vehicles in this stretch.

Interstate 380. Interstate 380 is a major six-lane, west-east freeway that connects Interstate 280 to US 101 in San Bruno. The power line spans Interstate 380 just west of the US 101 and Interstate 380 interchange. Caltrans reported a 2001 average of 150,000 vehicles per day, with peak hour traffic averaging 11,300 vehicles at the intersection of US 101 and Interstate 380.

Arterial Roads. The power line spans or runs parallel to 12 arterial roadways, which generally move a large volume of traffic from one section of a city to another and beyond. Table B.15-1 lists average traffic daily volumes for arterial roads crossed by the project.

Peninsula Avenue/Coyote Point Drive. Peninsula Avenue is a two-lane, east-west arterial west of US 101 in Burlingame. It connects El Camino Real to US 101, Coyote Point Drive, and Airport Boulevard, providing access to San Mateo and the Burlingame Bayfront area. Peninsula Avenue also intersects the Rollins Road arterial and parallels US 101 in Burlingame. The power line passes directly north of the US 101 off-ramp to Peninsula Avenue.

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[1] Traffic congestion is measured by dividing traffic volume by roadway capacity. The resulting number is known as the volume-to-capacity (V/C) ratio. The V/C ratings are divided into six "Levels of Service" (LOS), A through F, representing conditions ranging from unrestricted traffic flow (A) to extreme traffic congestion (F). LOS E represents theoretical capacity of the roadway with a V/C ratio of 1.0.

Table B.15-1
Average Daily Traffic Volumes Within The Project Area

Roadway	City	Approximate Average Daily Traffic	Date
El Camino Real			
At Millbrae Avenue (northbound)	Millbrae	39,000	2001
At Interstate 380 (I-380) junction (northbound)	San Bruno	45,000	2001
At Hillside Boulevard (northbound)	Daly City	35,000	2001
Peninsula Avenue (California Avenue to Dwight Road)	Burlingame	16,000	1995
Broadway (El Camino Real to California Avenue)	Burlingame	11,000	1995
Millbrae Avenue (US 101 to Old Bayshore Highway)	Millbrae	14,000	2001
San Bruno Avenue (3rd Avenue to 4th Avenue)	San Bruno	11,287	2002
South Airport Boulevard (Utah Avenue to the I-380 ramps)	South San Francisco	22,000	1997
East Grand Avenue (Gateway Boulevard to Forbes Boulevard)	South San Francisco	33,100	1997
Gateway Boulevard (East Grand Avenue to Mitchell Avenue)	South San Francisco	15,900	1998
Sister Cities Boulevard (Hillside Boulevard to Airport Boulevard)	South San Francisco	5,000	1997
Bayshore Boulevard (City and County of San Francisco border to Geneva Avenue)	Brisbane	10,449*	1999
Guadalupe Canyon Parkway (Bayshore Boulevard to North Hill Drive)	Brisbane	6,217*	2001
Geneva Avenue (City and County of San Francisco border to Bayshore Boulevard)	Daly City/ Brisbane	9,133*	1999

Sources: California Department of Transportation, 2002; City of South San Francisco, 1999; Burlingame, 1995; Millbrae, 2001; Fehr and Peers Associates, 1998; Brisbane, 2001; Millbrae, 2001.

Note: *Data based on a single 24-hour weekday period.

El Camino Real. El Camino Real is a major four- to six-lane arterial with a north-south orientation that runs parallel to US 101 until the roads intersect at San Bruno Avenue in San Bruno. At this point, El Camino Real branches west around San Bruno Mountain through South San Francisco and Daly City and US 101 branches east along the bay through Brisbane. Because El Camino Real bisects many arterials to major freeways, it experiences heavy traffic, especially during commuting hours. The power line does not intersect El Camino Real at any point.

Broadway. Broadway is a two-lane, east-west arterial in Burlingame that connects the Burlingame Bayfront area to US 101. It also connects to Airport Boulevard, Rollins Road, Bayshore Highway, California Drive, and Bernal Avenue. The power line spans the western portion of the Broadway overpass after crossing US 101.

Millbrae Avenue. Millbrae Avenue is a four- to six-lane, east-west arterial in Millbrae that connects to US 101, Bayshore Highway, Rollins Road, California Drive, El Camino Real, and, eventually, Interstate 280. The power line spans Millbrae Avenue just west of the Millbrae Avenue/US 101 overpass.

San Bruno Avenue. San Bruno Avenue is a four-lane, east-west arterial in San Bruno that connects to Airport Boulevard, US 101, San Mateo Avenue, El Camino Real, Cherry Avenue, Interstate 280, and State Route 35 (Skyline Boulevard). The power line spans San Bruno Avenue just south of the Interstate 380 interchange at US 101 within unincorporated San Mateo County.

South Airport Boulevard. South Airport Boulevard is a four-lane, north-south arterial in South San Francisco that connects to San Bruno Avenue at its southern end. The road then travels under Interstate 380 and connects to the arterials of Utah Avenue, San Mateo Avenue, and Gateway Boulevard. The power line spans South Airport Boulevard near its intersection with Utah Avenue.

Gateway Boulevard. Gateway Boulevard is a four-lane, north-south arterial in South San Francisco. It begins at the northern end of the South Airport Boulevard/San Mateo Avenue intersection. As Gateway Boulevard heads north, it spans East Grand Avenue before terminating at Oyster Point Boulevard. The power line passes over Gateway Boulevard near its start at South Airport Boulevard and near its intersections with East Grand Avenue and Corporation Drive.

East Grand Avenue. East Grand Avenue is a four- to six-lane, east-west arterial in South San Francisco. It begins at Grandview Drive and, heading west, intersects with Forbes Avenue, Harbor Way, and Gateway Boulevard before bisecting US 101. As East Grand Avenue continues west of US 101, it intersects with the minor arterial roads of Linden Avenue, Spruce Avenue, Orange Avenue, and Chestnut Avenue before terminating at Mission Road. The power line spans East Grand Avenue just east of the Gateway Boulevard intersection.

Sister Cities Boulevard. Sister Cities Boulevard is a four-lane, east-west arterial in South San Francisco. At its western terminus, Sister Cities Boulevard becomes Hillside Boulevard. It intersects US 101 at its eastern terminus. The power line spans Sister Cities Boulevard approximately 0.5 mile west of the Sister Cities Boulevard/US 101 overpass.

Bayshore Boulevard. Bayshore Boulevard is a four-lane, north-south arterial in South San Francisco. The southern portion of this road begins near the Sister Cities Boulevard/US 101 intersection. The power line passes over Airport Boulevard at Linden Avenue just south of the Sister Cities Boulevard/US 101 intersection. Heading north, Bayshore Boulevard parallels US 101 for a short distance before branching slightly west and around the Brisbane Lagoon in Brisbane before intersecting with Guadalupe Canyon Parkway and Geneva Avenue near the project terminus.

Guadalupe Canyon Parkway. Guadalupe Canyon Parkway is a winding, four-lane, east-west arterial. From its western terminus, it travels within the San Bruno Mountain State and County Park before entering Brisbane, where it terminates at Bayshore Boulevard. The power line spans Guadalupe Canyon Parkway approximately 0.25 mile west of the Guadalupe Canyon Parkway/Mission Blue Drive intersection.

Geneva Avenue. Geneva Avenue is a four-lane, east-west arterial that terminates at Bayshore Boulevard near the Daly City/Brisbane border. Geneva Avenue angles southeast from the San Francisco border to just north of the Martin Substation. The power line does not cross Geneva Avenue.

Collector Roads. Collector roads link local residential streets and commercial and office parking areas to arterials. The project construction activities surrounding the Burlingame Substation would require the temporary closure of one traffic lane of Nerli Lane, a minor collector road adjacent to the substation, north of Broadway and west of US 101.

Other collector roads adjacent to the substations include Poplar Avenue at the San Mateo Substation, Aviador Avenue and Center Street near the Millbrae Substation, and Main Street south of the Martin Substation.

Nerli Lane. Nerli Lane is an approximately 0.2-mile long, two-lane side street that runs both east-west and north-south within the project area. On-street parking and adjacent mixed industrial and commercial use parking lots are available along the street. Nerli Lane connects with Rollins Road to the north and south of the Burlingame Substation.

Poplar Avenue. Access to San Mateo Substation is off Poplar Avenue, a two-lane, east-west road that provides access to Poplar Creek Golf Course and residential areas between the San Mateo Substation and US 101.

Aviador Avenue. Aviador Avenue is a two-lane road that runs generally north-south, paralleling US 101 north of the Millbrae Avenue/US 101 interchange. The road accesses residential areas south of the Millbrae Substation and the southern portion of the West of Bayshore parcel.

Center Street. Center Street is a two-lane, east-west road that accesses the residential neighborhood north of the Millbrae Substation by spanning the Caltrain right-of-way and connecting with El Camino Real to the west.

Main Street. Two-lane Main Street accesses the residential neighborhood southwest of the Martin Substation, crosses under the existing power line at Tower 11/86, and connects to Bayshore Boulevard southeast of the substation.

Airports. SFO, located east of the existing power line, is a busy airport, ranking ninth in the world and fifth in the nation with an estimated 41 million passengers in 2000. Most airport users arrive by car via US 101 and Interstate 280 (via Interstate 380).

Bikeways. The existing power line spans approximately ten bikeways in San Mateo County. These bikeways include on- and off-road paths maintained by the county and/or various cities. For more information on bikeways and other recreational facilities, refer to Section B.14, Recreation.

Public Transportation. Public transportation systems along the San Mateo-Martin #4 power line include Caltrain commuter rail service, light-rail service at SFO, the new BART extension to SFO, and SamTrans bus routes.

Rail. The Peninsula Corridor Joint Powers Board (JPB) operates Caltrain, which uses the rail right-of-way from San Francisco through San Jose to Gilroy. Amtrak carries commuters, while Southern Pacific Railway retains freight service rights along the corridor. Approximately 55 trains serve the South San Francisco Station, each carrying an estimated 1,000 daily passengers. There are 68 trains a week traveling between San Francisco and Gilroy. Between the San Mateo and Martin Substations, Caltrain operates the following stations:

- South San Francisco Station at Dubuque and Grand Avenues,
- San Bruno Station at Herman Street and Huntington Avenue,
- Millbrae Station at Airport Drive and Millbrae Avenue,
- Broadway Station at California Drive and Broadway,
- Burlingame Station at California Drive and Burlingame Avenue, and
- San Mateo Station at North B Street.

In addition, the new "Baby Bullet" program along the JPB alignment between San Francisco and San Jose will allow express trains to pass local service trains via new tracks. Service is expected to commence in 2004.

The existing power line roughly parallels the railroad from the San Mateo Substation to the intersection of Linden Avenue in South San Francisco and US 101. The power line then passes approximately 0.75 mile west of the railroad corridor. The line's northern terminus at the Martin Substation is directly across Bayshore Boulevard from the South San Francisco Station. The existing power line spans the railroad tracks approximately three times.

AirTrain. The new AirTrain automated light-rail service around SFO will connect existing terminals to the new international terminal, the Airport BART Station, and a future train station on the Caltrain corridor. The existing power line in this section spans the new automated light-rail system at the intersection of US 101 and Interstate 380.

Bay Area Rapid Transit. BART provides rail service to approximately 251,000 riders per day. BART connects the West Bay (San Francisco and San Mateo counties) with the East Bay (Alameda and Contra Costa counties) and experiences peak congestion during commuting hours into San Francisco in the morning and out in the evening. The new BART–San Francisco Airport Extension, scheduled to open in June 2003, includes 8.7 miles of new track and four new stations, in South San Francisco, San

Bruno, at SFO, and in Millbrae. BART expects the extension to eliminate 10,000 auto trips daily to the airport.

The power line would cross the north- and southbound tracks of the extension as they separate upon leaving SFO. The line would not cross any other new or existing BART tracks. For a distance of approximately 1 mile, the power line roughly parallels the BART–San Francisco Airport Extension from the new Millbrae Station north to the new San Bruno Station.

SamTrans. SamTrans operates an estimated 80 bus routes in the San Mateo County, serving approximately 73,800 passengers per day. SamTrans offers local community and commuting transportation services, as well as connections to other public transportation, such as BART, Caltrain, and San Francisco Municipal Railway (MUNI). The power line spans and parallels multiple local and express SamTrans bus routes in San Mateo County, as shown in Table B.15–2.

Table B.15-2
Samtrans Bus Routes Within The Project Area

City	Roadway Crossed	Route
Burlingame	U.S. Highway 101 (US 101)	FX, KX, NX, PX, RX, and TX (all express)
Burlingame	Broadway	292
Millbrae	Millbrae Avenue	397
San Bruno	San Bruno Avenue	193
San Bruno	Interstate 380	BX and MX (all express)
South San Francisco	US 101	FX, KX, NX, PX, RX, and TX (all express)
South San Francisco	Airport Boulevard	292 and 397
South San Francisco	Bayshore Boulevard	292 and 397
South San Francisco	Linden Avenue	32, 34, 130, and 131
South San Francisco	Hillside Boulevard	131

Source: SamTrans Bus System Route Map, 2002.

Significance Criteria

The significance criteria for this project is based on Appendix G of the CEQA Guidelines. The project is considered to have a significant impact if it would:

- 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);
- Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways;
- 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;

- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access;
- Result in inadequate parking capacity; or
- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Explanation of Transportation/Traffic Checklist

a. Increase in Traffic/Congestion **Less-than-Significant Impact**

The proposed project impacts to traffic are discussed below in relation to construction/reconductoring activities and traffic flow.

Construction. Prior to construction, PG&E would be required to obtain Encroachment Permits from the various cities in which construction would encroach on city streets (see Table B-9). The Encroachment Permits would include conditions to install temporary flaggers and guard structures that would reduce traffic impacts to less than significant levels. In addition, the proposed project would use the existing traffic control procedures from PG&E's *Work Area Protection Guide and Traffic Control Manual* (see Appendix E for applicable pages from the manual), which is based on and specifies current requirements of the U.S. DOT's *Manual of Uniform Traffic Control Devices* and the Caltrans *Manual of Traffic Controls for Construction and Maintenance Work Zones*. The manual contains procedures for installation of flaggers and temporary guard structures during construction. Construction of the project would thus not result in significant impacts to transportation or traffic.

Project-related truck traffic would be limited to transporting supplies to and from construction and laydown areas along the right-of-way once a day. The number of truck trips is estimated at 10 to 12 per day for the reconductoring work and 12 to 15 trucks per day for the first month of substation construction per substation. After the first month of substation construction, the number of truck trips would decline to two to three per day per substation. This level of project-related traffic per day is less than 1 percent of the existing daily traffic in the project area. In addition, the increase of up to 27 truck trips for reconductoring and substation work would not exceed an established LOS standard because the change in traffic volume would not be enough to change the existing volume-to-capacity ratios.

Traffic flow on US 101 could be temporarily disrupted during the pulling of lines between Towers 2/18 and 2/19 in Burlingame, and Towers 6/54, 7/55, 8/66 and 8/67 in South San Francisco. Disruption would include closure of the freeway typically for 15-minute time periods and would be governed by a Caltrans encroachment permit, which is required for any work on a state roadway. To the extent feasible, this work would occur on weekend mornings between 5 a.m. and 10 a.m. It is possible that Caltrans would require nighttime work at US 101 crossings. Compliance with Caltrans' traffic requirements would ensure less-than-significant impacts to US 101.

Conductor conversion could affect traffic conditions along local arterial and collector roads that are spanned by the power line. If temporary guard structures or netting are used at road crossings, traffic would not be affected. On the other hand, if flaggers are used, traffic would be interrupted for brief stretches of time as PG&E workers pull out the 60 kV line and install the 115 kV line. This impact would be temporary, lasting approximately two to four days, short term, and limited to each crossing. As a result, impacts would be less than significant.

Operation. The new San Mateo–Martin #4 115 kV power line would be operated and maintained in the same manner as the existing lines. No additional trips for operation and maintenance of the converted line would be required. The operation of power lines does not conflict with the existing transportation and traffic within the project area. As a result, operation and maintenance of the project would not cause impacts to transportation and traffic.

b. Exceed Level of Service Standards **Less-than-Significant Impact**

Construction of the proposed project would cause a minor increase in the local traffic throughout the project corridor (see item a, above). At an increase of up to 27 trips per day, the level of service standards would not be exceeded. This level of new trips is far below the San Mateo County Congestion Management Agency standard of 100 peak hour trips for a traffic impact study. Construction/reconductoring activities would not cause any established levels of service to be exceeded. As a result, the level of service on routes of regional significance in the project area would be less than significant.

c. Result in a Change in Air Traffic Patterns **No Impact**

Helicopters would be used for tower and line work along the project corridor where access by trucks is undesirable because of potential impacts to environmentally sensitive habitat. Helicopters would be used only to the extent feasible and where weather and SFO air security restrictions permit their use to assist with installation and removal of conductors and insulators. Because PG&E would be required to obtain clearance from SFO, air traffic would not be affected by helicopters used to perform some or all of the tower modification activities.

d. Design Feature Hazards **No Impact**

The proposed project would not increase hazards on area roadways due to a design feature or to incompatible uses. The project is a modification of the current use of the power line and substations. As a result, it would not increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or to incompatible uses.

e. Result in Inadequate Emergency Access **Less-than-Significant with Mitigation Incorporated**

The proposed project would use the existing traffic control procedures from PG&E's *Work Area Protection Guide and Traffic Control Manual* (see Appendix E), which is based on and specifies current requirements of the U.S. DOT's *Manual of Uniform Traffic Control Devices* and the Caltrans

Manual of Traffic Controls for Construction and Maintenance Work Zones. The manual contains procedures to accommodate emergency vehicles traveling through the work zone. Use of this document for the proposed project would prevent impacts to emergency access routes in and around the project site. No APMs or BMPs have been proposed to reduce emergency access-related impacts. Implementation of MM TR-1 would ensure that potential project impacts on emergency service routes would be less than significant.

MM TR-1 PG&E shall inform local emergency personnel of lane closure activities prior to project commencement to prevent impacts to emergency routes and shall amend its plans, if necessary, based on local agency input.

f. Result in Inadequate Parking Capacity **Less-than-Significant with Mitigation Incorporated**

Pull and tension sites could affect parking at Coyote Point and the parking lots of the Park Plaza Hotel north of Tower 2/18, Sieger Engineering (Tower 7/55), Hampton Inn and Embassy Suites (between Towers 8/62 and 8/63), and in front of Irish Town Park (Tower 8/67). These impacts would be temporary, lasting four to five days. APM-9 calling for construction workers to carpool in combination with MM TR-2 and TR-3 below would reduce impacts to parking capacity to less-than-significant levels.

MM TR-2 No material or equipment shall be left or parked overnight along the project right-of-way or on private property; however, in the event pull and/or tension trucks or equipment need to remain on the site more than one day, PG&E shall notify, the appropriate representative or landowner.

MM TR-3 Construction personnel shall park in designated areas and shall be encouraged to carpool to the job site if suitable park-and-ride facilities exist in the project vicinity.

One lane of Nerli Lane in Burlingame would be closed for three to five days. The impact would be limited in duration and the impact area would be small. Parking on streets surrounding Nerli Lane could be used to offset any parking temporarily displaced for pull and tension activities. MM TR-4 below would ensure that closure of one traffic lane along Nerli Lane would be less than significant. While this measure would not alleviate any of the parking loss, it does provide advanced warning to affected individuals and affords them an opportunity to adjust their normal routine.

MM TR-4 PG&E shall post signage 24 hours in advance of the lane closure on Nerli Lane in Burlingame to notify any residents or businesses that might be inconvenienced.

g. Conflict with Alternative Transportation Policies **Less-than-Significant Impact**

During construction and reconductoring activities, the proposed project would use the existing traffic control procedures from PG&E's *Work Area Protection Guide and Traffic Control Manual* (see Appendix E), which is based on and specifies current requirements of the U.S. DOT's *Manual of Uniform Traffic Control Devices* and the Caltrans *Manual of Traffic Controls for Construction and*

Maintenance Work Zones. Use of this document for the proposed project would prevent conflicts with alternative transportation policies in and around the project site and reduce potential effects associated with lane closures and detours.

The power line spans several bike routes, bus routes, and rail lines, and construction and operation of the project would not interfere with the operation of these routes. The short-term closure of US 101 would have the potential to impact existing bus routes; however, the closure would occur in only three locations for typically 15 minutes per closure on weekend mornings between the times of 5:00 a.m. and 10:00 a.m. It is possible that Caltrans would require the closure to be at night. In addition, new lines would be strung across existing towers on either side of the train tracks, and pull sites would be located on either side of the railroad right-of-way. Any activity within the railroad right-of-way would require consultation with Caltrain and compliance with their regulations to ensure worker safety and uninterrupted rail service. Construction activities and the pull and tension sites are limited and would not result in significant detours or interruptions of services. Consequently, impacts to bicyclists and transit operators would be less than significant.

As previously discussed, the power line would cross the new, automated light-rail system at the intersection of US 101 and Interstate 380; however, it would not disrupt service because the power line is located underground at this crossing. The line would also cross the new Millbrae BART Station, but it would remain within the existing right-of-way and would have no effect on either the station design or the use of land in the new station. Therefore, the project would have no impact on the BART system.