



## 2.2.2 EMPLOYMENT DENSITY

The spatial relationship between a person's place of residence and place of work is subject to a range of dynamic socioeconomic factors. Some industries tend to cluster in the same geographic area, creating a denser area of job concentration. Figure 2-13 displays job density in the Study Area within the context of the larger San Francisco Bay Area, according to number of jobs located in each TAZ. The darker areas in Figure 2-13 represent jobs-rich areas, while the lighter areas represent areas with fewer jobs. Similar to population, San Francisco is home to the densest clustering of jobs, with other large clusters occurring in San Mateo County. Job density in the Palo Alto area is more spread out than San Francisco. Some jobs-rich areas are further than one-mile from Caltrain station, indicating that a connecting mode other than walking may be favored by Caltrain commuters – such as shuttles, transit, or biking.





Figure 2-13

## Study Area Employment Density (2013)

Document Path: N:\Projects\SJ13\_Projects\SJ13\_1440\_Caltrain\_Electrification\Graphics  
 Date: November, 2013



## 2.3 EXISTING TRANSIT CONDITIONS

This section summarizes existing transit conditions on Caltrain and all regional and local transit systems that connect to Caltrain stations.

### 2.3.1 CALTRAIN SERVICE AND SCHEDULE

Caltrain provides inter- and intra-county commuter rail service to the San Francisco Bay Area, from San Francisco County in the north, San Mateo County, and Santa Clara County in the southern part of the Study Area. The JPB operates Caltrain 365 days a year with reduced schedules on major U.S. holidays. The current Caltrain operating schedule is comprised of 92 trains each weekday, 36 trains on Saturdays, and 32 on Sundays. Weekday trains are a mix of Baby Bullets, Limited, and Local trains. Weekend service is a mix of weekend Baby Bullets and Local trains, with two Baby Bullet trains in each direction per day. Weekday Northbound service begins at 4:30 AM and ends at 12:01 AM. Weekday Southbound service begins at 4:55 AM and ends at 1:32 AM.

Scheduled headways, or the time between arrivals of vehicles moving in the same direction at a station, vary by time of day, station, and service type. Overall, service is frequent during the peak periods and is provided every hour in both directions during midday periods. Caltrain provides hourly service in both directions on Saturdays and Sundays (36 trains on Saturdays and 32 trains on Sundays) between San Jose and San Francisco only. The existing Caltrain schedule can be found in Attachment J.

During the AM and PM peak periods, all bullet stations are served by at least one bullet train per an hour with headways ranging between 15 to 30 minutes. The higher frequency bullet stations, including San Francisco, Palo Alto, and San Jose Diridon, run at least two bullet trains per hour. Non-bullet stations operate Limited and Local trains at headways ranging between 30 minutes to 60 minutes during peak periods. During off-peak periods (early morning, midday, and after 7:00 PM), headways at all stations are generally about 60 minutes.

### 2.3.2 CALTRAIN ROLLING STOCK

Caltrain's fleet is comprised of 29 locomotives and 118 bi-level passenger cars (Fehr & Peers, 2013). Passenger cars are either Gallery or Bombardier. Gallery cars are manufactured by Nippon Sharyo and are generally older (1985 to 2000). Bombardier passenger cars are newer (2004 forward) and are bi-level. Most Baby Bullet trains operate with Bombardiers. All equipment is serviced at the Caltrain Centralized Equipment Maintenance and Operations Facility (CEMOF), located in San Jose, California. The seating capacities of passenger cars vary widely, from 78 to 148, due to dedicated space for bicycles and luggage. Each consist, defined as the sum total of the locomotive and five cars of either the Gallery or the Bombardier variety, can fit approximately 650 seated passengers.

### 2.3.3 CALTRAIN FARE CATEGORIES AND TRAVEL ZONES

Caltrain operates on a proof-of-payment system. All tickets must be purchased or validated before boarding the train. Caltrain conductors and fare inspectors walk through the trains to check tickets one or more times during each one-way trip. The JPB right-of-way is divided into six zones (Figure 1-1). Fares are

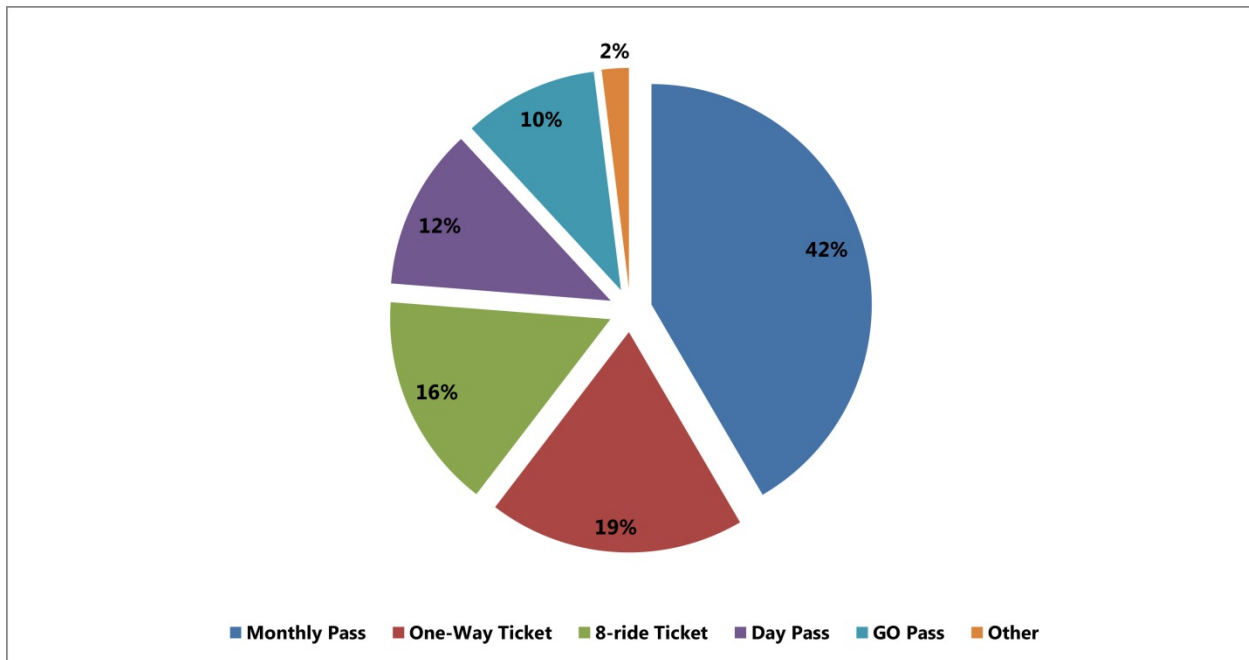


a combination of both a zone fare and a base fare. The core Caltrain Study Area is comprised of four zones approximately 13 miles in length.

Caltrain offers the following types of fares: One-way; Day pass; 8-ride, Monthly Pass; Zone Upgrade and GO Pass (employer subsidized annual fare card). Discount fares are available for those who qualify, including youths, seniors, disabled individuals, and Medicare cardholders. One Way, Day Passes and Zone Upgrades can be purchased in paper form at ticket vending machines located in station areas. Monthly passes, 8-ride tickets, or cash can also be purchased and stored on Clipper fare payment cards. Clipper is a reloadable fare payment card that is accepted on a number of regional transit systems, including BART, Caltrain, MUNI, Santa Clara Valley Transportation Authority, and AC Transit. Clipper purchases can be made online at the Clipper website, over the phone, at ticket vending machines, and in-person at authorized Clipper retail centers. Figure 2-14 displays fare payment methods of Caltrain passengers, by proportion of passengers who used each fare type. The Monthly Pass is the most frequently purchased form of fare payment, with 43 percent of passengers using this method. One-way tickets are the second most frequently purchased form of fare payment (San Mateo County Transit District, "Commuter Fleets" 2013).



**Figure 2-14 Distribution of Caltrain Fare Types (2010)**



Source: "October 2010 Caltrain Onboard Survey Summary Report." (2010) Corey, Canapary and Galanis Research.

### 2.3.4 CALTRAIN ON-TIME PERFORMANCE AND TRAVEL TIMES

Caltrain's on-time performance in FY 2012 was 91.5 percent. Table 2-5 displays average travel times by service type and direction in the Study Area. Northbound times are calculated between the Tamien or San Jose Diridon Stations and the 4th and King Station in San Francisco. Southbound times are between the 4th and King Station and the Tamien or San Jose Diridon Stations.

Because Baby Bullet trains and Limited trains only stop at select stations, travel times on these trains are shorter than Local train travel times. Compared to Local trains, a passenger on a Baby Bullet can cut his/her travel time by about one-third. When making travel choices, passengers often weigh factors such as the time- and cost-competitiveness of the modes available to them. The following section compares the time- and cost-competitiveness of riding Caltrain versus driving in a single-occupancy vehicle along a parallel automobile route in the Study Area.



**TABLE 2-5  
 AVERAGE CALTRAIN TRAVEL TIMES IN STUDY AREA (2013)**

Service Type	Average Travel Time in Minutes	
	Northbound	Southbound
Local	92	92
Limited	84	82
Baby Bullet	60	63

Note: Travel Times expressed from platform to platform between San Jose Diridon and 4<sup>th</sup> and King Station.

### 2.3.5 REGIONAL TRANSIT NETWORK CONNECTIVITY

The greater San Francisco Bay Area is served by an extensive public transit network of rail, buses, and ferries. In general, Caltrain is well connected with the regional transit network, offering public transit connecting service to other service providers or public shuttles at all stations within the Study Area. Caltrain is connected to the following rail transit systems: Bay Area Rapid Transit (BART), the MUNI light rail system operated by San Francisco Municipal Transportation Agency (SFMTA), Altamont Commuter Express (ACE) commuter rail, VTA light rail, and Amtrak. The Caltrain system is also connected to the following bus transit systems: SamTrans, MUNI, VTA, Alameda-Contra Costa (AC) Transit, Santa Cruz Metro Transit District, Monterey-Salinas Transit (MST), and a number of public shuttles. Table 2-6 summarizes the service area of all transit system that currently connects to a Caltrain station within the Study Area. Figure 2-15 displays all rail transit systems connected to Caltrain within the Study Area. Figure 2-16 shows all bus and rail systems connected to Caltrain within Zone 1. Figure 2-17 shows all bus and rail systems connected to Caltrain within Zone 2. Figure 2-18 shows all bus and rail systems connected to Caltrain within Zone 3. Figure 2-19 shows all bus and rail systems connected to Caltrain within Zone 4.



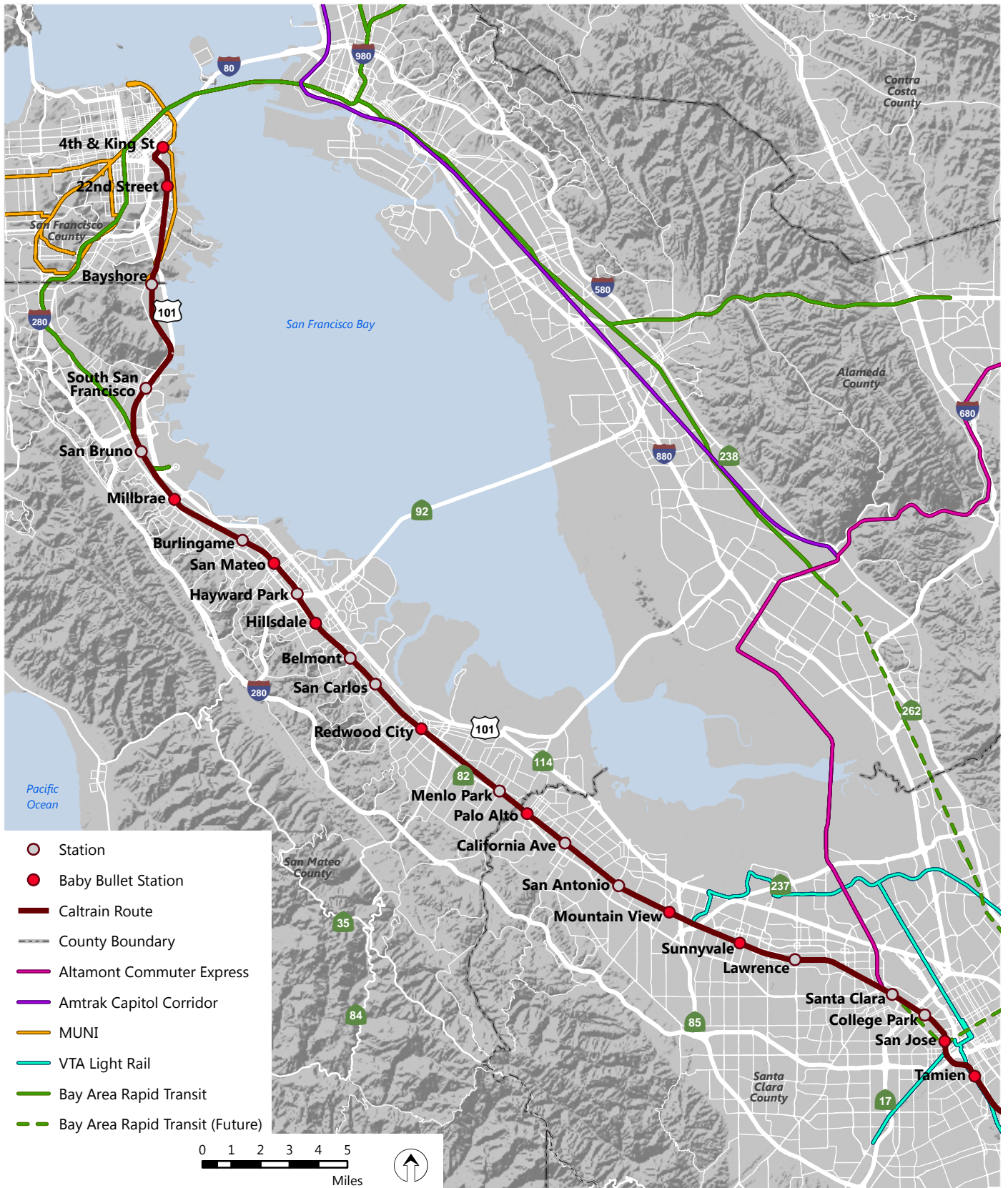


Figure 2-15

## Existing Regional Rail Transit Connections in Study Area (2013)

Document Path: N:\Projects\SJ13\_Projects\SJ13\_1440\_Caltrain\_Electrification\Graphics  
 Date: January, 2013







Figure 2-16

**Existing Study Area Regional Rail and Bus Network, Zone 1 (2013)**

Document Path: N:\Projects\SJ13\_Projects\SJ13\_1440\_Caltrain\_Electrification\Graphics  
 Date: November, 2013



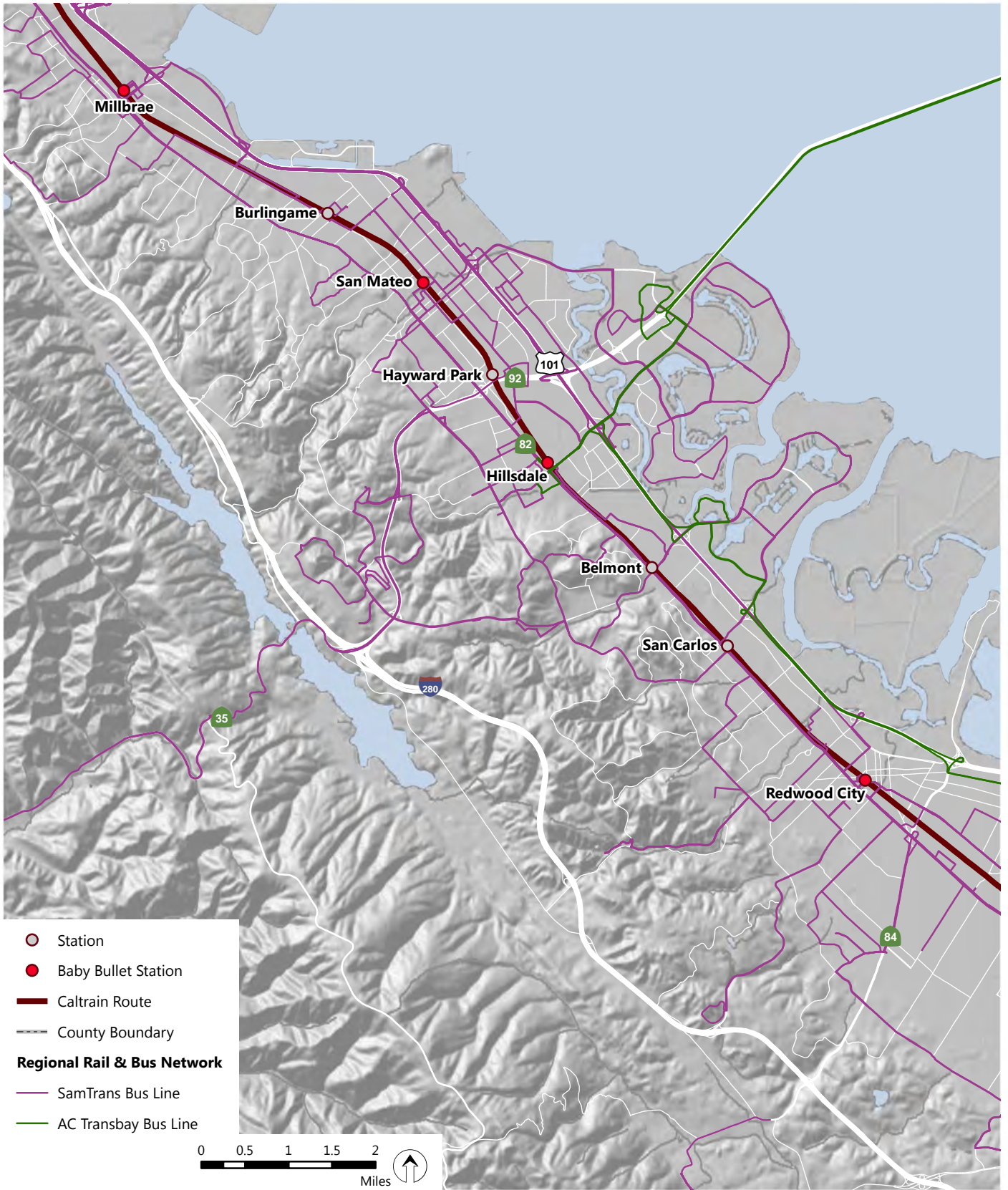


Figure 2-17

**Existing Study Area Regional Rail and Bus Network, Zone 2 (2013)**

Document Path: N:\Projects\SJ13\_Projects\SJ13\_1440\_Caltrain\_Electrification\Graphics  
 Date: November, 2013



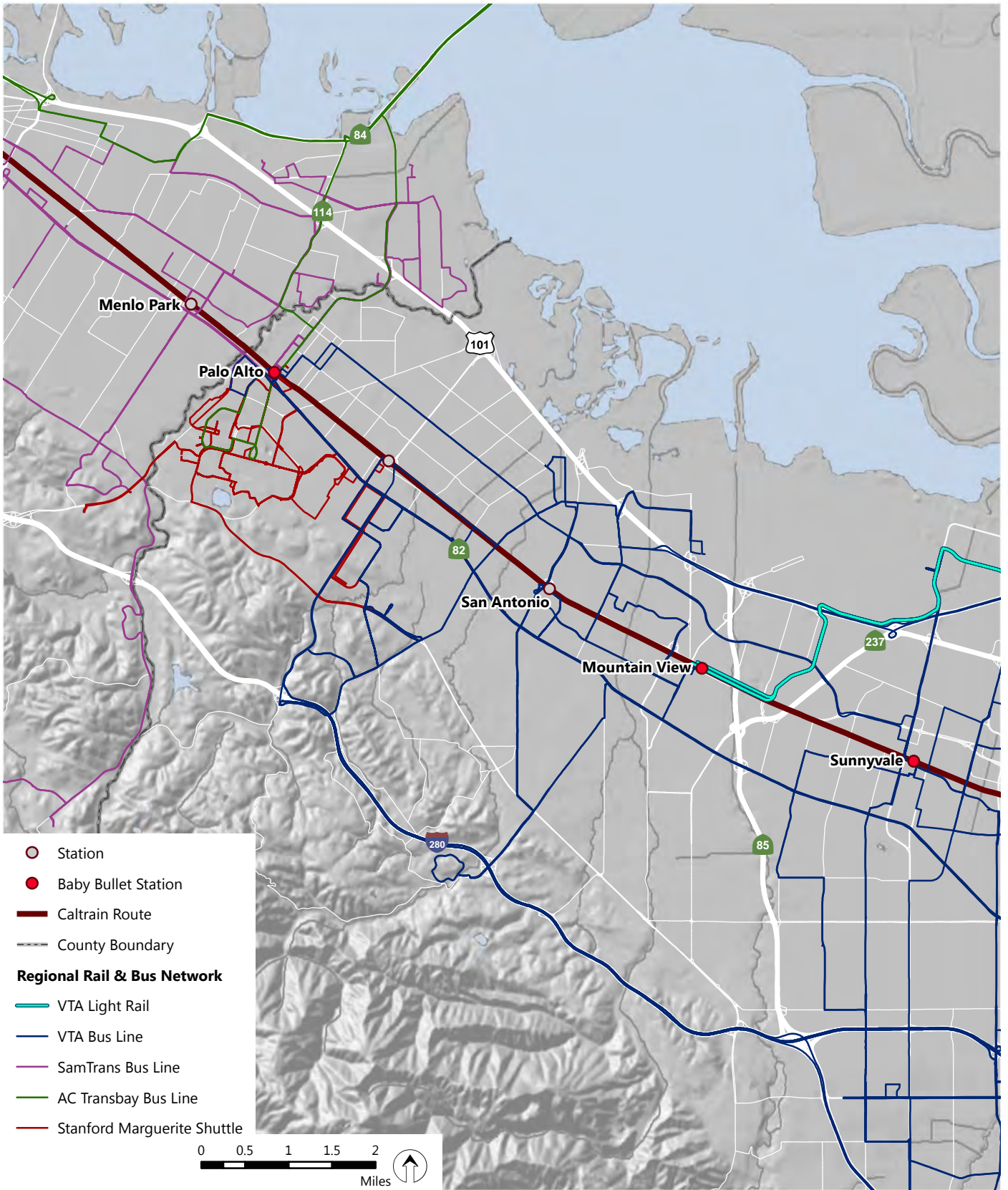


Figure 2-18

**Existing Study Area Regional Rail and Bus Network, Zone 3 (2013)**

Document Path: N:\Projects\SJ13\_Projects\SJ13\_1440\_Caltrain\_Electrification\Graphics\GIS\MXD\Fig\_3-6\_Bus\_Zone3.mxd  
 Date: November, 2013



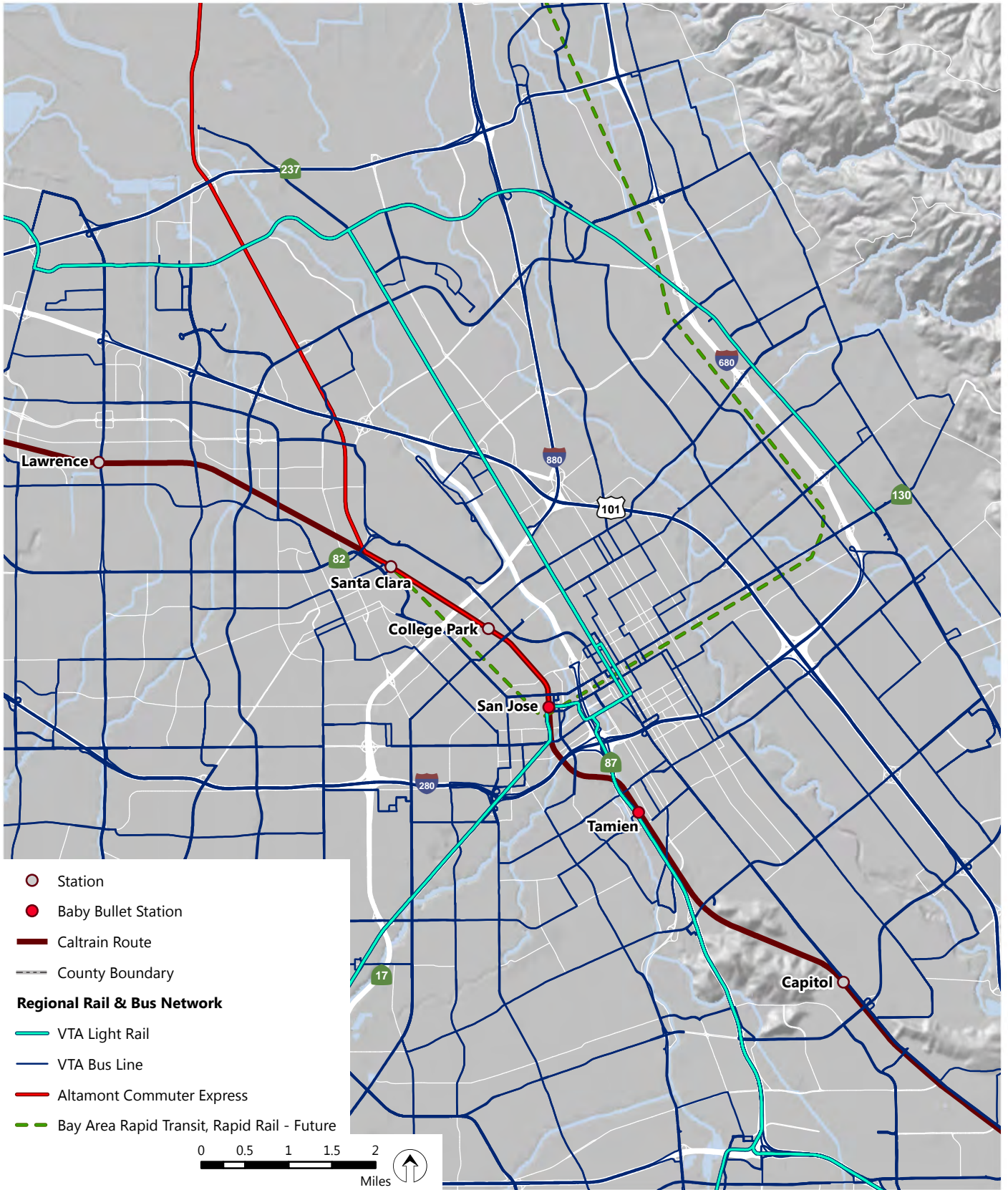


Figure 2-19

**Existing Study Area Regional Rail and Bus Network, Zone 4 (2013)**

Document Path: N:\Projects\SJ13\_Projects\SJ13\_1440\_Caltrain\_Electrification\Graphics\GIS\MXD\Fig\_3-7\_Bus\_Zone4.mxd  
 Date: November, 2013



### **2.3.5.1 Inter-Agency Transfers and Fares**

The following connecting transit systems offer Clipper to passengers: BART, MUNI, VTA, AC Transit, and SamTrans. Clipper is not currently offered on ACE, Santa Cruz Metro Transit District, and Monterey-Salinas Transit (MST). Caltrain offers some discounted inter-agency transfers. Caltrain passengers who load a Caltrain Monthly Passes on their Clipper card can purchase a MUNI pass at a \$5 discount, allowing unlimited rides on all MUNI vehicles excluding cable cars and special routes. VTA passengers with a two-zone or greater Caltrain Monthly Pass to receive a Local fare credit on its bus and light rail services. SamTrans passengers with a two-zone or greater Caltrain Monthly Pass to receive a Local fare credit on all fixed-route bus routes. The Dumbarton Express bus route allows customers presenting a two-zone or greater Caltrain Monthly Pass to receive a transfer credit of a Local fare on its buses if boarding within two hours of first boarding Caltrain.

### **2.3.5.2 San Francisco Bay Area Rapid Transit (BART)**

BART provides rail transit service to the cities in the northern portion of the San Francisco peninsula, Oakland, Berkeley, Fremont, Walnut Creek, Dublin/Pleasanton, and other cities in the East Bay. BART is governed by a Board of Directors comprised of nine elected officials from the nine BART districts. Board members serve a four-year term. A total of 44 stations comprise the BART system. Of the five BART lines, Caltrain connects directly to two at the Millbrae Station: the Richmond Line and the Pittsburg/Bay Point. The Pittsburg/Bay Point includes a connection to San Francisco International Airport. The Richmond Line operates from Millbrae on weekdays before 8:00 PM, and the Pittsburg/Bay Point Line provides service after 8:00 PM and on weekends.

BART passengers can also connect to Caltrain's 4<sup>th</sup> and King Station via MUNI light rail and bus (N-Judah, T-Third, Routes 30 or 45). BART operating hours on weekdays are 4:00 AM to midnight, with trains running every 15 to 20 minutes. On Saturdays, BART operates 6:00 AM to midnight; on Sundays between 9:00 AM and midnight. In the evening and on weekends, BART trains run approximately every 20 minutes (San Francisco Bay Area Rapid Transit District, 2013).

### **2.3.5.3 San Francisco Municipal Transportation Agency (SFMTA)**

The San Francisco Municipal Transportation Agency (SFMTA) is governed by a seven-member Board of Directors appointed by the mayor. This agency oversees all light rail and bus service, bicycle and pedestrian program, taxis, parking and traffic control operations in the City and County of San Francisco. The system is commonly referred to as MUNI. MUNI light rail system, a mixture of above- and below-ground service, is comprised of nine routes serving residential areas and the financial district. The MUNI bus system is comprised of approximately 65 Local and express routes. In addition to light rail and buses, MUNI operates three cable car routes and one historic streetcar route (F-Market and Wharves). A number of MUNI light rail and bus routes, connects to the 4<sup>th</sup> and King, 22<sup>nd</sup> Street, and Bayshore Caltrain Stations (San Francisco Municipal Transportation Agency, 2013). MUNI operates 24 hours per day; actual hours and headways vary by route and type of service (e.g. OWL service only runs during evening hours and express routes run during peak hours only). Muni's hours of operation for light rail service are between approximately 4:00 AM to 2:00 AM, daily with slight variations by route.



#### **2.3.5.4 Santa Clara Valley Transportation Authority (VTA)**

VTA provides light rail, bus and paratransit service to Santa Clara County, including the municipalities of Campbell, Cupertino, Gilroy, Los Altos, Los Altos Hills, Los Gatos, Milpitas, Monte Sereno, Morgan Hill, Mountain View, Palo Alto, San Jose, Santa Clara, Saratoga and Sunnyvale. In addition, VTA is the congestion management agency for Santa Clara County, responsible for countywide transportation planning and funding and for managing the county's congestion reduction and air quality improvement. VTA is governed by a 12-member Board of Directors. Of VTA's three light rail lines, two connect to Caltrain stations: Mountain View – Winchester at the Mountain View and San Jose Diridon Stations, and Ohlone/Chynoweth-Almaden at the Tamien Station. A number of VTA bus routes, including express routes, connect to Caltrain stations within Santa Clara County (San Mateo County Transit District, "Commute Fleets" 2013). Light rail trains operate at 15, 20, and 60 minute frequencies depending on the time of day. VTA bus routes generally operate between 5:00 AM and 1:00AM, with night service connections at most Caltrain stations between 1:00 to 5:00 AM provided by partnering agencies (AC Transit, MUNI, and SamTrans) (Metropolitan Transportation Commission, 2013).

#### **2.3.5.5 Alameda-Contra Costa Transit (AC Transit)**

AC Transit provides bus and paratransit services to 13 cities and adjacent unincorporated areas in Alameda and Contra Costa counties. Currently, AC transit operates 116 bus lines, including rapid services and "transbay" lines that traverse the San Francisco-Oakland Bay Bridge. AC Transit connects to Caltrain via the "M" bus line at the Hillsdale Station, the "U" line at the Palo Alto Station, and the Dumbarton Express at the Palo Alto and California Avenue Stations (AC Transit, "Ridership" 2013). AC Transit is governed by a nine-member Board of Directors. AC Transit bus routes operate at varied times of the day: routes 1-200 operate during peak hours (6:00 – 9:00 AM and 4:00 to 6:00 PM on weekdays); routes 300 to 399 operate during non-peak hours; routes 600 – 699 operate in conjunction with Local school district schedules; and routes 800-899 provide night service between 1:00 to 5:00 AM daily (AC Transit, "AC Transit Bus Line" 2013).

#### **2.3.5.6 San Mateo County Transit District (SamTrans)**

SamTrans operates 73 bus routes and paratransit service throughout San Mateo County and parts of San Francisco and Palo Alto. Caltrain and the San Mateo County Transportation Authority are contracted with SamTrans to serve as their managing agency, under the direction of the JPB and San Mateo County Transportation Authority Board of Directors, respectively. SamTrans buses, including the KX Express and Route ECR along El Camino Real between Palo Alto and Daly City, connect to a number of Caltrain stations throughout the Project Study Area (San Mateo County Transit District, "District Information" 2013). Buses generally operate between 5:00 AM and 12:00 AM daily, with several late-night service routes, including routes 297 and 397.

#### **2.3.5.7 Altamont Commuter Express (ACE)**

ACE provides passenger rail service across the Altamont corridor, spanning from San Jose to Stockton. ACE trains connect to Caltrain at the Santa Clara and San Jose Diridon Stations. The full ACE line is comprised of 10 stations. The San Joaquin Regional Rail Commission (SJRRRC) is the owner and operator of ACE services. AC Transit's hours of operation for westbound trains are 4:20 AM to 9:17 AM. Eastbound trains operate between 3:35 PM and 8:50 PM. Trains depart approximately every hour during service hours (Altamont Corridor Express, 2013).



### **2.3.5.8 Capitol Corridor**

The Capitol Corridor provides intercity passenger rail service to Sacramento, Oakland, and San Jose with Amtrak Thruway bus connections to nearby cities. Commuters traveling on Capitol Corridor trains from Sacramento and the East Bay can connect to Caltrain at the Santa Clara and San Jose Diridon Stations. Capitol Corridor trains operate between 4:30 AM and 11:30 PM. Trains depart about every hour to two hours during the weekdays. The Capitol Corridor is managed by the Capitol Corridor Joint Powers Authority (CCJPA), a partnership of six Local transit agencies in the eight-county service area. BART provides daily management support to the CCJPA, and trains are operated by Amtrak.

### **2.3.5.9 Amtrak**

Amtrak provides rail and bus service to the continental United States. In the San Francisco Bay Area, one Amtrak route connects to Caltrain at San Jose Diridon, offering connections to approximately 200 Amtrak stations throughout California and many other stations in North America. The Coast Starlight connects the San Francisco Bay Area to Seattle in the North and Los Angeles to the South, with Amtrak Thruway bus connections to Vancouver, British Columbia in the North and connective train service to San Diego, California in the South. The Coast Starlight operates between about 5:00 AM to 1:00 AM, depending on the direction (Seattle-bound or Los Angeles-bound) (Amtrak, 2013). The Coast Starlight Train 11 departs San Jose in the southbound direction once daily at 9:55 AM. The northbound Coast Starlight Train 14 departs San Jose at 8:23 PM. In addition, Amtrak Thruway connecting bus service serves the 4<sup>th</sup> and King Caltrain Station at hourly frequencies. This shuttle connects Caltrain passengers to the closest Amtrak stations in Oakland and Emeryville (National Railroad Passenger Corporation, 2013).

### **2.3.5.10 Santa Cruz Metro Transit District**

The Santa Cruz Metropolitan Transit District, commonly referred to as Santa Cruz METRO, provides bus service to Santa Cruz County. Santa Cruz METRO is governed by a Board of Directors. Santa Cruz METRO operates about 30 bus routes year-round and is governed by the Santa Cruz METRO Board of Directors. Caltrain passengers can travel to Santa Cruz via the Highway 17 Express route at the San Jose Diridon Station. The Highway 17 Express operates between the hours of 4:45 AM to 11:45 PM with buses leaving about every hour. Between the hours of 3:00 to 9:00 PM, buses depart every 20 to 30 minutes in both directions (Santa Cruz METRO, 2013). In addition to stopping in downtown Santa Cruz, the route also stops in Scotts Valley and Soquel.

### **2.3.5.11 Monterey-Salinas Transit (MST)**

Monterey-Salinas Transit (MST) provides bus service in Monterey County and southern Santa Cruz. MST operates 59 bus routes and is managed by the board of directors with representatives from the cities of Carmel, Del Rey Oaks, Gonzales, Greenfield, King City, Marina, Monterey, Pacific Grove, Salinas, Sand City, Seaside, Soledad and the County of Monterey. MST bus routes 55 and 79 connect to Caltrain at the San Jose Diridon Station. Route 55, Monterey-San Jose Express, operates between 5:00 AM and 8:00 PM, with three buses northbound and three buses southbound. Headways vary between one and five hours.



**TABLE 2-6  
STUDY AREA WEEKDAY TRANSIT CONNECTIONS, BY STATION (2013)**

Station	Station Address	Transit Connections (Provider, Route)
San Francisco	700 4th Street, San Francisco, CA 94107	<ul style="list-style-type: none"> <li>• MUNI bus: 10, 30, 45, 47, 80X, 81X, 83X, 91 owl, T owl, N owl</li> <li>• MUNI Light Rail: N-Judah, T-Third</li> <li>• Public Shuttles: Amtrak Shuttle</li> </ul>
22nd Street	1149 22 <sup>nd</sup> Street, San Francisco, CA 94107	<ul style="list-style-type: none"> <li>• MUNI Bus: 10, 22, 48</li> <li>• MUNI Light Rail: T-Third</li> </ul>
Bayshore	400 Tunnel Avenue, San Francisco, CA 94134	<ul style="list-style-type: none"> <li>• MUNI Bus: 8X, 8AX, 8BX, 9, 56</li> <li>• MUNI Light Rail: T-Third</li> <li>• SamTrans: 292</li> <li>• Public Shuttles: Bayshore/Brisbane Senior shuttle, Bayshore/Brisbane Commuter Shuttle</li> </ul>
South San Francisco	590 Dubuque Avenue, South San Francisco, CA 94080	<ul style="list-style-type: none"> <li>• Public Shuttles: Oyster Point, Utah-Grand</li> </ul>
San Bruno	297 Huntington Avenue, San Bruno, CA 94066	<ul style="list-style-type: none"> <li>• Public Shuttles: Bayhill San Bruno Shuttle</li> </ul>
Millbrae Transit Center	100 California Drive, Millbrae 94030	<ul style="list-style-type: none"> <li>• SamTrans: 397</li> <li>• BART: Richmond Line, Pittsburg/Bay Point (includes connection to San Francisco International Airport)</li> <li>• Public Shuttles: Broadway/Millbrae, Burlingame Bayside Area, North Burlingame, North Foster City, Sierra Point</li> </ul>
Burlingame	290 California Drive, Burlingame, CA 94010	<ul style="list-style-type: none"> <li>• SamTrans: 46, 292</li> <li>• Public Shuttle: Burlingame Trolley</li> </ul>
San Mateo	385 First Avenue, San Mateo, CA 94401	<ul style="list-style-type: none"> <li>• SamTrans: 250, 292, 295, 59</li> </ul>
Hayward Park	401 Concar Drive, San Mateo, CA 94402	<ul style="list-style-type: none"> <li>• Public Shuttles: Norfolk</li> </ul>
Hillsdale	3333 El Camino Real, San Mateo, CA 94403	<ul style="list-style-type: none"> <li>• SamTrans ECR, KX, 57, 250, 251, 262, 292, 294, 295, 397,</li> <li>• AC Transit: M</li> <li>• Public Shuttles: Belmont - Hillsdale, Campus Drive, Lincoln Centre, Mariners Island/PCA, Oracle, Foster City Connections</li> </ul>
Belmont	995 El Camino Real, Belmont, CA 94402	<ul style="list-style-type: none"> <li>• SamTrans: ECR, KX, 67, 260, 261, 262, 397, 398</li> <li>• Public Shuttles: Belmont - Hillsdale</li> </ul>





**TABLE 2-6  
STUDY AREA WEEKDAY TRANSIT CONNECTIONS, BY STATION (2013)**

Station	Station Address	Transit Connections (Provider, Route)
San Carlos	599 El Camino Real, San Carlos, CA 94070	<ul style="list-style-type: none"> <li>• SamTrans: ECR, KX, FLXS, 260, 261, 295, 397, 398</li> <li>• Public Shuttles: Electronic Arts, Oracle, Redwood Shores (Bridge Park), Redwood Shores (Clipper)</li> </ul>
Redwood City	1 James Avenue, Redwood City, CA 94063	<ul style="list-style-type: none"> <li>• SamTrans: ECR, KX, 270, 274, 275, 276, 278, 296, 297, 397, 398</li> <li>• Public Shuttles: Pacific Shores</li> </ul>
Menlo Park	1120 Merrill Street, Menlo Park, CA 94025	<ul style="list-style-type: none"> <li>• SamTrans: ECR, 85, 286, 296</li> <li>• Public Shuttles: Marsh Road, Willow Road</li> </ul>
Palo Alto	95 University Avenue, Palo Alto, CA 94301	<ul style="list-style-type: none"> <li>• SamTrans: ECR, 280, 281, 297, 397,</li> <li>• VTA Bus: 22, 35, 522</li> <li>• AC Transit: U, Dumbarton Express</li> <li>• Public Shuttles: Deer Creek, Stanford Marguerite, Crosstown/Embarcadero, East Palo Alto Community</li> </ul>
California Ave	780 Stockton Avenue, San Jose, CA 95126	<ul style="list-style-type: none"> <li>• VTA Bus: 22, 89, 522</li> <li>• AC Transit: Dumbarton Express</li> <li>• Public Shuttles: Deer Creek, Stanford Marguerite</li> </ul>
San Antonio	190 Showers Drive, Mountain View, CA 94040	<ul style="list-style-type: none"> <li>• VTA Bus: 32, 34, 35, 40</li> <li>• Public Shuttles: Deer Creek, Stanford Marguerite</li> </ul>
Mountain View	600 W. Evelyn Avenue, Mountain View, CA 94041	<ul style="list-style-type: none"> <li>• VTA Bus: 34, 35, 51, 52, 902</li> <li>• VTA Light Rail: Mountain View – Winchester</li> <li>• Public Shuttles: Duane Ave., Mary/Moffett, North Bayshore, Shoreline</li> </ul>
Sunnyvale	121 W. Evelyn Avenue, Sunnyvale, CA 94086	<ul style="list-style-type: none"> <li>• VTA Bus: 32, 53, 54, 55, 304</li> </ul>
Lawrence	137 San Zeno Way, Sunnyvale, CA 94086	<ul style="list-style-type: none"> <li>• Public Shuttles: Bowers-Walsh, Duane Ave., Mission</li> </ul>
Santa Clara	1001 Railroad Avenue, Santa Clara, CA 95050	<ul style="list-style-type: none"> <li>• VTA Bus: 10, Airport Flyer, 22, 32, 60, 81, 522</li> <li>• ACE</li> </ul>
College Park	780 Stockton Avenue, San Jose, CA 95126	<ul style="list-style-type: none"> <li>• VTA Bus: 22, 61, 62, 522</li> </ul>



**TABLE 2-6  
STUDY AREA WEEKDAY TRANSIT CONNECTIONS, BY STATION (2013)**

Station	Station Address	Transit Connections (Provider, Route)
San Jose Diridon	65 Cahill Street, San Jose, CA 95110	<ul style="list-style-type: none"> <li>• Altamont Commuter Express (ACE)</li> <li>• Amtrak: Coast Starlight</li> <li>• Capitol Corridor</li> <li>• VTA Bus: 22, 63, 64, 65, 68, 81, 180, 181, 522</li> <li>• VTA Light Rail: Mountain View – Winchester</li> <li>• Santa Cruz Metropolitan Transit District: Highway 17 Express</li> <li>• MST: 55</li> <li>• Public Shuttles: DASH (Downtown Area Shuttle)</li> </ul>
Tamien	1355 Lick Avenue, San Jose, CA 95110	<ul style="list-style-type: none"> <li>• VTA Bus: 25, 82</li> <li>• VTA Light Rail: Ohlone/Chynoweth –Almaden, Alum Rock – Santa Theresa</li> </ul>

Sources: caltrain.com, bart.gov, mtc.ca.gov, vta.org, acerail.com, dumbartonexpress.com

Note: Only stations with existing weekday service are listed (excludes Broadway and Atherton Stations)



## 2.3.6 PUBLIC AND PRIVATE SHUTTLE CONNECTIONS

Shuttles connecting to Caltrain include a broad range of transportation services that are both publically and privately provided by transit agencies, community organizations, employers, and academic and cultural organizations. Shuttle vehicles range from mini-vans to full-sized motor coaches (San Francisco County Transportation Authority, 2011). Most public shuttles operate fixed routes between Caltrain stations and employment sites. The majority of shuttles listed in Table 2-6 are funded by the Bay Area Air Quality Management District Transportation Fund for Cleaner Air, JPB, San Mateo County Transportation Authority, and participating employers. Some shuttles charge a nominal fare of under \$5.00; others are free (San Mateo County Transit District, 2013).

Recently, there has been substantial growth of shuttle operations in the San Francisco Bay Area, especially private employer-provided regional shuttles which provide direct service to employment sites either from residential neighborhood stops, or from major transit hubs, including Caltrain stations. Major employers offering such services include a number of technology industry companies based throughout the San Francisco Bay Area. Employers provide shuttles for a range of purposes, including: employee retention, filling transit service gaps, reducing commute times, environmental stewardship, discouraging driving, and on-site parking.

Figure 2-20 illustrates the estimated frequency of public and private shuttles arriving between 7:00 and 9:00 AM on weekdays by station. Currently, the Palo Alto Station experiences the highest frequency of shuttles with about 75 shuttles each morning, followed by the Millbrae Station and Mountain View stations.



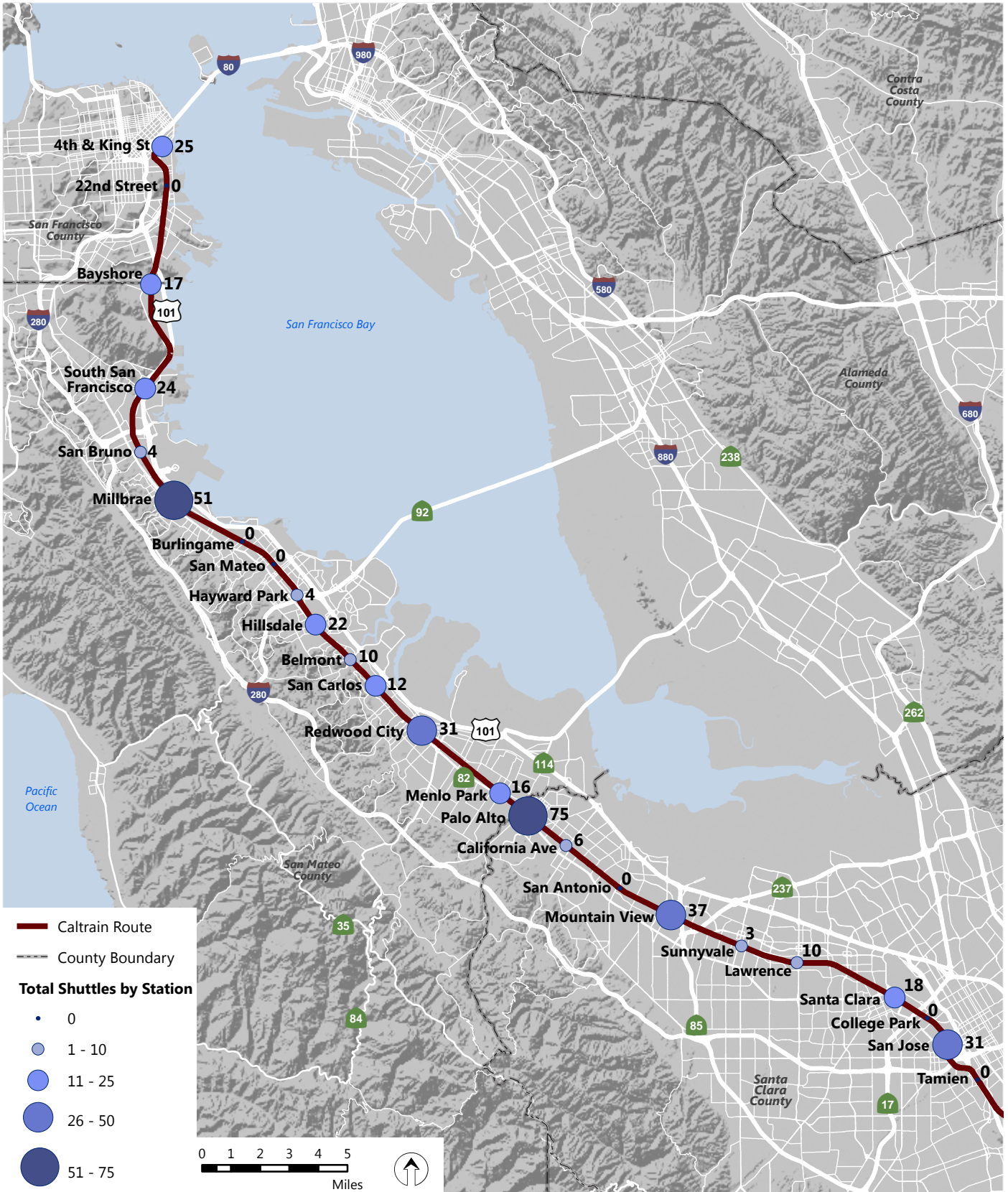


Figure 2-20

**Frequency of AM Public and Private Shuttles at Caltrain Stations (2013)**

Document Path: N:\Projects\SJ13\_Projects\SJ13\_1440\_Caltrain\_Electrification\Graphics  
 Date: December, 2013



## 2.4 REGIONAL PLANNING CONTEXT: BACKGROUND PROJECTS AND PLANS

This section provides an overview of other regional and local projects and plans in the Study Area. Jurisdictions along the Caltrain corridor are currently engaged in a number of infrastructure projects, land use improvements, and planning studies of various scopes; these projects and plans present potential land use and transportation implications for this project.

Currently, a number of inter-regional and city-level infrastructure improvement projects are in progress in the Study Area. On the state-level, the California High Speed Rail Authority (CHSRA) is bringing together numerous jurisdictions to plan high-speed rail in the state, in addition to implementing a Blended Operations Plan with Caltrain, discussed in Section 2.4.1. Bus rapid transit improvement projects are underway in Santa Clara and San Francisco counties. In addition, upcoming phases of the BART Silicon Valley extension is planned to connect to Caltrain at the San Jose Diridon and Santa Clara Stations.

### 2.4.1 CALIFORNIA HIGH-SPEED RAIL AND BLENDED OPERATIONS WITH CALTRAIN

The California High-speed Rail Project proposes to provide intercity high-speed rail service along more than 800 miles of track, connecting the Sacramento, the San Francisco Bay Area, the Central Valley, Los Angeles, the Inland Empire (Riverside County), Orange County, and San Diego. CHSRA previously prepared a final program-level environmental analysis of a statewide HSR system (CHSRA 2005). The program-level analysis included an evaluation of various alignments for high-speed service. In 2008, CHSRA issued a final program-level environmental analysis of the Bay Area to Central Valley alignments. This analysis identified the Pacheco Pass and the Caltrain alignment as its preferred alternative. There were several legal challenges to the final program-level environmental analysis of the environmental analysis for the Bay Area to Central Valley alignments that resulted in court orders to make certain revisions to the Final Program EIR. Revisions to the Final Program EIR were completed in 2010 and 2012. Subsequent to certification of the 2012 revisions, CHSRA confirmed that the selected route for the California HSR system is the Pacheco Pass alignment from the Central Valley to the Bay Area and the Caltrain corridor for the Bay Area segment from San Jose to San Francisco.

In 2009, CHSRA began project-level analysis of a grade-separated, four-track system from San Jose to San Francisco, including an alternatives analysis and a supplemental alternatives analysis. The four-track proposals by CHSRA were controversial along the Peninsula corridor, with a diversity of opinions about the project. Taking into account these concerns, CHSRA decided in 2012 to change its approach for the Peninsula corridor and embrace a Blended Service concept in which Caltrain and CHSRA would share operations on the corridor and CHSRA would primarily be located within the Caltrain right of way.

Blended Service would consist of electrified Caltrain trains and HSR trains mostly using the same tracks from San Francisco to San Jose, with a section of passing tracks for scenarios with up to four HSR trains per peak hour per direction (pphpd).<sup>3</sup> There would be no Blended Service south of Santa Clara. Caltrain

---

<sup>3</sup> The Peninsula Corridor Electrification Project would replace approximately 75 percent of the revenue service fleet with EMUs for service from San Francisco to San Jose. Additional funding would need to be secured beyond that



and CHSRA have engaged in planning level studies of Blended Service to demonstrate its viability. The details of Blended Service are not available at this time. Additional planning and design will be done later and evaluated in a separate environmental evaluation of Blended Service by the CHSRA.

Since 2009, the JPB, the California High-Speed Rail Authority (CHSRA) the California Legislature, the Metropolitan Transportation Commission (MTC) and other parties have worked together to develop a vision of a "blended system" whereby both Caltrain and HSR would utilize the existing Caltrain Peninsula Corridor. This vision for implementing blended service was included in the *Revised 2012 Business Plan* that the CHSRA Board adopted in April 2012 for the California High-Speed Rail System.

The JPB and CHSRA are committed to advancing a blended system concept. This local vision was developed with stakeholders interested in the corridor. The blended system would remain substantially within the existing Caltrain ROW and accommodate future high-speed rail and modernized Caltrain service by primarily utilizing the existing track configuration. The blended system will be primarily a two-track system shared by Caltrain, high-speed rail, and existing tenant passenger and freight rail operators. As discussed below concerning the cumulative analysis, a blended system may require passing tracks at certain locations in the Peninsula corridor.

Based on the blended system vision, the Caltrain Peninsula Corridor has been designated to receive an initial investment of Proposition 1A bond funds that would benefit Caltrain and its modernization program in the short term and HSR in the long run. The JPB, CHSRA and seven other San Francisco Bay Area agencies (City and County of San Francisco, San Francisco County Transportation Authority, Transbay Joint Powers Authority, San Mateo County Transportation Authority, Santa Clara Valley Transportation Authority, City of San Jose, and MTC) have approved a Memorandum of Understanding (MOU) to pursue shared use of the corridor between San Jose and San Francisco to provide blended service of both Caltrain commuter rail service and HSR intercity service. Corridor improvements identified in the MOU include the following:

- **Advanced Signal System (CBOSS PTC or CBOSS):** CBOSS stands for Communications Based Overlay Signal System and PTC stands for Positive Train Control. Currently in construction, this project will increase the operating performance of the current signal system, improve the efficiency of grade crossing warning functions, and automatically stop a train when there is violation of speed or route. This project, which includes implementation of safety improvements mandated by federal law, is scheduled to be operational by 2015 as mandated by the Federal Railroad Administration (FRA).
- **Corridor Electrification:** The JPB decided to prepare this new EIR for the corridor electrification due to the changes in existing conditions<sup>4</sup> that have occurred along the corridor since the prior EIR analyses were conducted, to update the environmental analysis, and to update the cumulative analysis of blended service and other cumulative developments along the corridor. Completion of a new EIR will also allow public agencies, stakeholders, the public and decision-maker's the opportunity to review and comment on the project's environmental effects in light of current

---

available for the Proposed Project to provide sufficient rolling stock to have 100 percent electrified service from San Francisco to San Jose. Diesel service would continue from Gilroy to San Jose under all scenarios.



information and analyses. The Proposed Project includes 114 trains per day between San Jose and San Francisco.

- **Blended Service:** The JPB, CHSRA, and the MOU partners have agreed on shared use of the Caltrain corridor for use of up to 6 Caltrain trains per peak hour per direction and up to 4 HSR trains per peak hour per direction. The operational feasibility of blended service has been studied, but this project is presently only at the conceptual planning phase. The potential addition of HSR service to this corridor will be subject of a separate environmental review process that will be undertaken subsequent to the environmental process for the Peninsula Corridor Electrification Project (Project). Based on the current CHSRA *Revised 2012 Business Plan*, blended service along the Corridor is scheduled to commence sometime between 2026 and 2029.

## 2.4.2 TRANSBAY TRANSIT CENTER AND DISTRICT PROJECTS

The new Transbay Transit Center, currently under construction in San Francisco, will serve as a regional transit hub for the region and state, connecting California High-speed Rail, Caltrain, AC Transit, BART, Golden Gate Transit, Greyhound, Muni, SamTrans, WestCAT Lynx, and Amtrak (Transbay Joint Powers Authority, 2013). The Center will be located at the site of the former Transbay Terminal at First and Mission Streets. This section summarizes the interrelated projects in the Transbay Transit Center area, including the Transbay Transit Center, the Transbay Redevelopment Plan, the Caltrain Transbay Extension, and the 4<sup>th</sup> and King Street Railyards Study.

### 2.4.2.1 Transbay Transit Center and the Caltrain Downtown Extension

The Transbay Transit Center will be located in downtown San Francisco in the area bounded by Main, Mission, 2<sup>nd</sup>, and Harrison Streets. The project is comprised of three interrelated infrastructure enhancement elements: 1) Replacing the former Transbay Terminal with an entirely new, five-story structure to accommodate multiple bus and rail services, as well as passenger amenities; 2) Extending Caltrain and California High-speed Rail underground from Caltrain's current northern terminus at 4<sup>th</sup> and King Streets into the new Transit Center; and 3) Creating neighborhood housing, office, parks and retail in the area surrounding the Transit Center. Following the demolition of the former Transbay Terminal in 2011, the Transbay Temporary Terminal was constructed to provide temporary bus facilities during the reconstruction of the new terminal.

The construction of the Transbay Transit Center is divided into two phases. The first phase is the construction of the new Transit Center, including above-grade bus terminal, and two below grade rail levels serving Caltrain and California High-speed Rail. Bus ramps will be constructed connecting the Transit Center to the San Francisco-Oakland Bay Bridge and an off-site bus storage facility. Construction has commenced, and the project is scheduled to be completed by 2017. The second phase of the project will complete the two-mile extension of the Caltrain rail line from the 4th and King Station underground into the Transbay Transit Center. As part of this project, the 4<sup>th</sup> and King Station would be modified to accommodate platforms for both Caltrain and high-speed rail. Phase 2 is currently in planning stages and is partially funded (San Francisco County Transportation Authority, 2013). Also related to the Caltrain Downtown Extension is the 4<sup>th</sup> and King Street Railyards Study completed in 2012. The purpose of the 4<sup>th</sup> and King Street Railyards Study was to examine existing facilities, capacity, and air-rights development at the Station in order to better understand how the Caltrain Downtown Extension, Caltrain Electrification, and High-speed Rail can be accommodated on the site (San Francisco Planning Department, 2012).



### **2.4.2.2 Transit Center District Plan**

The Transit Center District Plan builds upon the City and County of San Francisco's Urban Design Element and the 1985 Downtown Plan to enhance the downtown core. The District area is defined by Market, Main, Tehama, and New Montgomery Streets. Visioning and planning for the District closely aligned with related projects co-located in the area.

### **2.4.3 TRANSIT SERVICE IMPROVEMENTS**

This section describes currently planned or under-construction transit service improvements by county.

#### **2.4.3.1 Santa Clara County**

##### *2.4.3.1.1 Bus Rapid Transit Projects*

In Santa Clara County, three BRT projects are underway by VTA: the Santa Clara-Alum Rock BRT Project, The El Camino Real BRT Project, and the Stevens Creek BRT Project. The Santa Clara/Alum Rock Bus Rapid Transit Project will provide Limited-stop rapid transit service for 7.2 miles at 11 planned stations, from the Eastridge Transit Center to the Arena Station in downtown San Jose using Capitol Expressway, Alum Rock Avenue, and Santa Clara Street. Construction is set to begin in early 2014 with project completion by fall 2015 (Santa Clara Valley Transportation Authority, "Santa Clara Alum Rock" 2013).

The El Camino Real Bus Rapid Transit Project would upgrade the current VTA 522 bus route on El Camino Real to a bus rapid transit system. Transit improvements potentially include dedicated BRT lanes with either median or curbside stations. About 26 stations would be served along the corridor between the Palo Alto Transit Center and the Eastridge Transit Center in San Jose. This project is currently in the planning stages and is targeted to be operational by fall 2018 (Santa Clara Valley Transportation Authority, "El Camino Real" 2013).

The Stevens Creek BRT Project will upgrade the current VTA Limited 323 bus route that travels along Stevens Creek Boulevard and San Carlos Street between De Anza College in Cupertino and the Downtown San Jose Transit Mall in San Jose. Once operational, the BRT vehicles will travel from De Anza College to downtown San Jose and then east to the Eastridge Transit Center along the Santa Clara-Alum Rock corridor. This project is currently in the planning stages and is planned to be operational by fall 2017 (Santa Clara Valley Transportation Authority, "Stevens Creek" 2013).

##### *2.4.3.1.2 BART Silicon Valley*

BART is in the process of extending service from Fremont to San Jose, via the BART Silicon Valley Project. In partnership with VTA, the 15.4-mile corridor is being implemented in two extensions. Extension 1 connects the existing Fremont BART Station to the new Warm Springs BART Station about five miles south. This extension is slated to be completed in 2015. Extension 2, Phase 1, or the Berryessa Extension Project, will connect Warm Springs to new stations in Milpitas and Berryessa – a total of ten miles of track slated to be completed by 2017. Phase 2 of Extension 2, would directly intersect with the Caltrain Electrification Study Area. This phase would run from Berryessa through downtown San Jose with connections at the San Jose Diridon and Santa Clara Caltrain Stations. The environmental clearance process for Extension 2, Phase 2 began in late 2013.





### 2.4.3.2 San Mateo County

SamTrans is conducting a 16-month study of the potential for BRT service along El Camino Real corridor from Daly City to the Palo Alto Transit Center. The purpose of the study is to develop a phasing plan that will identify how existing bus operations in the corridor can be enhanced to incorporate rapid and BRT-type amenities over time, commensurate with population and employment densities and ridership demand. A major goal of the study is to identify enhancements in the short-term and long-term that could improve the passenger experience for existing riders and attract new riders.

### 2.4.3.3 San Francisco County

#### 2.4.3.3.1 Bus Rapid Transit Projects

The SFCTA in partnership with SFMTA is currently implementing two BRT projects in San Francisco: Geary Corridor BRT and Van Ness Corridor BRT. The Geary BRT Project would bring BRT features, such as dedicated bus lanes and enhanced shelters along the Geary Boulevard corridor in North San Francisco. This project is currently in the Environmental Analysis phase, with a target completion timeframe of 2019-2020 (San Francisco County Transportation Authority, "Geary Corridor" 2013).

The Van Ness Bus Rapid Transit Project will implement a median-running dedicated BRT lane with ten stations between Mission Street and Union Street on Van Ness Blvd. Other project features include: pedestrian safety enhancements; all-door, level boarding; transit signal priority, and transit signal optimization. The target date for project completion is 2018 (San Francisco County Transportation Authority, "Van Ness Corridor" 2013). The SFCTA is also beginning a feasibility study looking at a potential BRT connection along Geneva Avenue and Harney Way, connecting the Balboa Park BART Station with new development in the Candlestick Point and Hunter's Point Shipyard areas of the City.

#### 2.4.3.3.2 Rail Projects

The Central Subway Project in San Francisco entails the construction of a new 1.7-mile extension of MUNI's T Third light rail transit line. The project is the second phase of the SFMTA's Third Street Light Rail Transit Project, which originally opened in 2007. The Central Subway phase will extend the T Third line from the 4th and King Caltrain Station to Chinatown. In front of the 4<sup>th</sup> and King Station the tracks will be at-grade, though the majority of the extension will run underground. Four new stations will be built along the 1.7-mile alignment. Central Subway construction began in 2012, and the extension is expected to open by 2019.

## 2.4.4 STATION AREA AND DOWNTOWN PLANS

A number of downtown and station area plans near Caltrain stations in the Study Area have been adopted or implemented in the past decade, or are currently in-progress. In general, these plans are overseen by municipalities along the Study Area. Table details station area and downtown area plans in the Study Area completed since 2005 or currently in-progress. Some station area plans involve both public and private involvement and/or investment. In addition, some plans listed in Table 2-7 are part the Grand Boulevard Initiative, a multi-jurisdictional, regional planning effort focused on the El Camino Real Corridor from San Francisco to San Jose. The Grand Boulevard Initiative is currently in-progress.



**TABLE 2-7  
DOWNTOWN AND STATION AREA PLANS IN THE STUDY AREA (2000 – 2013)**

<b>Project/Study</b>	<b>Lead Jurisdiction/Agency</b>	<b>County</b>	<b>Status of Project/Study</b>	<b>Relevancy to PCEP</b>
<b>DOWNTOWN PLANS</b>				
Burlingame Downtown Specific Plan	City of Burlingame	San Mateo	Adopted, 2010	Circulation Plan encourages increased ridership at Burlingame Station
Redwood City Downtown Precise Plan*	City of Redwood City	San Mateo	Completed, 2011; Amended 2013	Circulation plan identifies PCEP as a planned improvement per Caltrain's Short-Range Transit Plan (2008-2017), Includes policies addressing acceptable levels of traffic congestion in downtown area
El Camino Real/Downtown Specific Plan	City of Menlo Park	San Mateo	Currently in-progress	Circulation Plan proposes pedestrian and parking enhancements dependent upon future configuration of Caltrain ROW
Palo Alto Downtown Cap Study	Palo Alto	Santa Clara	Currently in-progress	Ongoing downtown parking and land use study near Palo Alto Station
<b>STATION AREA PLANS</b>				
4th and King Street Railyards Study	City and County of San Francisco	San Francisco	Completed, 2012	Study evaluates potential TOD opportunities at railyard located at 4 <sup>th</sup> & King Station
Bayshore Intermodal Station Access Study	SFCTA	San Francisco/San Mateo	Adopted, 2012	Study evaluates alternatives for station relocation and improved intermodal connections to Bayshore Station
South San Francisco Downtown Station Plan	City of South San Francisco	South San Francisco	Currently in-progress	Plan encourages TOD and improved multi-modal connectivity to the South San Francisco Station
Millbrae Station Transit-Oriented Development	BART/City of Millbrae	Multi-county	Currently in-progress	Ongoing study of TOD near Millbrae Station
Rail Corridor Transit-Oriented Development Plan (Hayward Park and Hillsdale Stations)	City of San Mateo	San Mateo	FEIR certified, 2005	Plan encourages TOD and improved multi-modal connectivity to the Hayward Park and Hillsdale Stations
Station Park Green (Hayward Station)	City of San Mateo	San Mateo	Adopted, 2011	Plan encourages TOD/redevelopment of large site north of Hayward Station
San Carlos Transit Village	City of San Carlos	San Mateo	Approved, 2013	Plan encourages TOD near San Carlos Station



**TABLE 2-7  
DOWNTOWN AND STATION AREA PLANS IN THE STUDY AREA (2000 – 2013)**

Project/Study	Lead Jurisdiction/Agency	County	Status of Project/Study	Relevancy to PCEP
California Avenue Concept Plan	City of Palo Alto	Santa Clara	Draft Plan in circulation, 2013.	Plan supports policies for increased shuttle connectivity to employment sites near California Avenue Station and improved bike/pedestrian connections in station area
The Crossings at San Antonio Caltrain Station	City of Mountain View	Santa Clara	Currently in-progress	Ongoing TOD study near San Antonio Station
Lawrence Station Area Plan	City of Sunnyvale	Santa Clara	Currently in-progress, expected Plan and EIR adoption in 2014	Ongoing study with focus on multi-modal connectivity near Lawrence Station
Santa Clara Station Area Plan	VTA, City of Santa Clara, City of San Jose	Santa Clara	Adopted, included in Santa Clara 2010-2035 General Plan	Plan encourages TOD and improved multi-modal connectivity at Santa Clara Station
Diridon Station Area Plan	City of San Jose	Santa Clara	DEIR released, 2013	Ongoing study of TOD and improved multi-modal connectivity to San Jose Diridon Station
Tamien Joint Development Plan	VTA	Santa Clara	Currently in-progress	Ongoing study to encourage TOD near Tamien Station

## 2.4.5 SPECIFIC PLANS, GENERAL PLAN UPDATES, AND OTHER RECENT PLANNING STUDIES

In addition to the downtown and station area plans in the Study Area, specific plan and general plan updates are also in-progress or have been recently adopted by jurisdictions along the corridor, listed in Table 2-8 also includes short summaries of master plans, short-range transportation plans and long-range transportation plans in the Study Area.

## 2.4.6 CALTRAIN PLANS AND POLICIES

Caltrain has several plans relevant to this impact analysis which are described below

### 2.4.6.1 Caltrain Comprehensive Access Policy Program Statement

Caltrain adopted its Comprehensive Access Program Policy Statement in May 2010. The access guiding principles are as follows (Caltrain 2010):

- Increase access capacity to support ridership growth.



- Prioritize sustainable (“green”) access.
- More effectively manage land and capital assets.
- Prioritize cost-effective access modes.
- Enhance customer satisfaction.
- Solidify partnerships to implement improvements.

Based on these guiding principles, the system-wide access mode of transportation priority is as follows: (1) Walk; (2) Transit; (3) Bike; and (4) Auto.

While the overall focus of capital investments at the system-wide level support walking, riding transit and bicycling, access mode prioritization at the station level will need to vary. Land uses and densities around the Caltrain stations vary from urban to suburban. Access strategies in an urban station area will differ from that of a suburban station area. Caltrain’s access program prioritizes alternative modes of access at Transit Center stations (such as the 4th and King Station), Intermodal Connectivity stations (such as the Millbrae Station), and Neighborhood Circulator stations (such as the Menlo Park Station) and auto access at Auto-Oriented stations (such as the Tamien Station). Transportation investments need to be tied to land use decisions to result in context-sensitive solutions and maximize return on investment.

The Policy Statement requires the development of an Access Strategic Plan and a Capital Improvement Plan, as the next steps in developing a comprehensive access program.

The following are example access strategies by mode. They are the types of capital investments that can be made throughout the Caltrain system to shift our access mode of transportation away from auto to walk, transit and bike. These strategies are considered in the development of Caltrain’s Access Strategic Plan and the Capital Investment Plan, the next key steps in developing the Comprehensive Access Program.

- All Modes: real-time information; signage/ wayfinding; lighting; security; universal design (Americans with Disabilities Act (ADA) requirements); pedestrian/bicycle crossing signal priority; demand-based pricing strategies; and inviting public spaces;
- Walk: transit-oriented development (TOD); direct circulation; platform circulation management; traffic controls; traffic calming; timed transfers; transit; enhanced service frequency and capacity; platform proximity; and bike routes/lanes/paths.
- Bike: on-board accommodations; bike parking and stations; E-lockers; and bike sharing
- Auto: reserved parking; shared parking; car sharing; dedicated drop-off spaces (kiss-n-ride, taxis, ADA); and parking fees/permits.

#### **2.4.6.2 Caltrain Bicycle Access and Parking Plan**

The Caltrain Bicycle Access and Parking Plan complements Caltrain’s bikes on board program. The Caltrain Bicycle Access and Parking Plan (Caltrain, 2008) proposes to increase the number of passengers who bicycle to Caltrain stations by making improvements to access bike parking throughout the system. The plan identifies specific improvements at the top 10 stations which account for 75 percent of the system’s cyclist-passenger volumes: San Francisco, 22nd Street, Millbrae, Hillsdale, San Mateo, Redwood City, Palo



Alto, Mountain View, Sunnyvale and San Jose Diridon. The plan also prescribes system wide guidelines and best practices for improving bicycle facilities throughout the Caltrain system.

Caltrain's strategy is to provide a range of options to accommodate passengers' various needs for the bicycle portion of their Caltrain trip. Plan recommendations include:

- Cyclist-specific customer service and marketing
- Cyclist focused safety and security improvements
- Increasing overall bicycle parking supply
- Providing a mix of bike parking for different user needs
- Improving station access for passengers with bikes
- Working with cities to improve station bike access

Studying innovative station-side concepts such as real-time bicycle capacity information, bike sharing, and subsidies for folding bikes.

The Caltrain Bicycle Access and Parking Plan contains Bicycle Parking and Access Guidelines to supplement existing Caltrain Design Criteria and Standards. Plan recommendations are implemented based on the timing of available funding.



**TABLE 2-8  
SPECIFIC PLANS, GENERAL PLAN UPDATES, AND OTHER RECENT PLANNING STUDIES IN THE  
STUDY AREA (2000 – 2013)**

<b>Project/Study</b>	<b>Lead Jurisdiction/Agency</b>	<b>County</b>	<b>Status of Project/Study</b>	<b>Relevancy to PCEP</b>
<b>SPECIFIC PLANS</b>				
Rincon Hill Area Plan	City and County of San Francisco	San Francisco	Adopted, 2010	Plan encourages significant growth in housing near future Transbay Terminal
San Bruno Transit Corridors Specific Plan*	City San Bruno	San Mateo	Approved, 2013	Plan encourages TOD and improved multi-modal connectivity to San Bruno Station
Palo Alto Arts and Innovation District	City of Palo Alto	Santa Clara	Currently in-progress	Ongoing study of TOD and economic development near Palo alto Station
Palo Alto Comprehensive Plan Update	City of Palo Alto	Santa Clara	Currently in-progress	Update in progress on land use and development near Palo Alto Station
Downtown Sunnyvale Specific Plan	City of Sunnyvale	Santa Clara	Adopted, 2003	Plan encourages improving pedestrian and transit connections to Sunnyvale Station
Vision North San Jose	City of San Jose	Santa Clara	Adopted, 2012	Updated land use policy in North San Jose promoting long term viability, livability and economic activity.
<b>GENERAL PLAN UPDATES</b>				
San Francisco General Plan Transportation Element	City and County of San Francisco	San Francisco	Most recently amended and adopted 2010	Includes policies for integrating future rail transit lines with existing Caltrain stations and supporting the future Transbay Terminal as a multi-modal facility
San Bruno General Plan	City of San Bruno	San Mateo	Adopted, 2009	Plan will encourage TOD and improved multi-modal connectivity to San Bruno Station
San Carlos 2030 General Plan and Climate Action Plan	City of San Carlos	San Mateo	Adopted, 2009	Plan supports pedestrian/bicycle connectivity across Caltrain ROW during future track reconstruction

