Report

North Lane Highway-Rail Crossing Pedestrian Safety Study

Prepared for the
Mission Bay Development Group
and the
California Public Utilities Commission –
Rail Crossing Section

Adavant Consulting

April 19, 2010

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Prepared for the

Mission Bay Development Group
255 Channel Street
San Francisco, CA 94158

and the

California Public Utilities Commission
Rail Crossing Section
505 Van Ness Avenue
San Francisco, CA 94102

Prepared by

Adavant Consulting
200 Francisco Street, Second Floor
San Francisco, CA 94133
Tel: (415) 362-3552

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NORTH LANE HIGHWAY-RAIL CROSSING PEDESTRIAN SAFETY STUDY

1. INTRODUCTION AND PURPOSE

This report describes and documents the work performed by Adavant Consulting, in cooperation with Wilbur Smith Associates and the A&S Company, to assess pedestrian compliance with warning and regulatory devices at a highway-rail crossing on North Lane in the City of Burlingame, California. The purpose of the monitoring effort was to evaluate the effectiveness of new fencing and channelization in conjunction with automatic gate arms and manual emergency exit swing gates through the collection of pedestrian behavior data both before and after installation of such improvements. This document is being submitted by Adavant Consulting to the California Public Utilities Commission[1] (CPUC) staff as part of an agreement between the CPUC and the Mission Bay Development Group (MBDG), who was responsible for the funding and administration of the study.

The study was conducted at the North Lane highway-rail crossing at the Burlingame Station on the Peninsula Rail Corridor (Caltrain) line. Pedestrian behavior data was video monitored during approximately one week to provide a comparison of the number of pedestrian violations observed before and after the Installation of pedestrian improvements at the crossing. A first data collection effort was conducted at the end of May 2007, prior to the implementation of pedestrian improvements at the crossing ("before" conditions), while a second data collection effort was conducted in May 2009, approximately one year after the reconstruction of the crossing and the Burlingame Station Renovation Project was completed ("after" conditions).

2. BACKGROUND

2.1 CALTRAIN RAIL SERVICE

Caltrain provides rail service at 29 stations between San Francisco and San Jose plus weekday commute-hour service to Gilroy (Figure 1), with an average weekday ridership of approximately 39,000[2] passengers. Caltrain currently operates 90 trains each weekday, with 22 of them Baby Bullet express trains stopping only at major stations such as San Jose, Mountain View, Palo Alto, Redwood City, Hillsdale, Millbrae and San Francisco. Local service during the peak-hours is provided with timed transfers at the Redwood City Station. During off-peak hours, local trains run from San Francisco to San Jose, serving all regular stop stations. Faster limited-stop train service is also provided.

2.2 BURLINGAME TRAIN STATION

The Burlingame Caltrain Station (Figure 2) is located approximately 16 miles south of San Francisco and first opened for service in 1894. It was built in the Mission-Revival style and is listed on the National Register of Historic Places (Figure 3).

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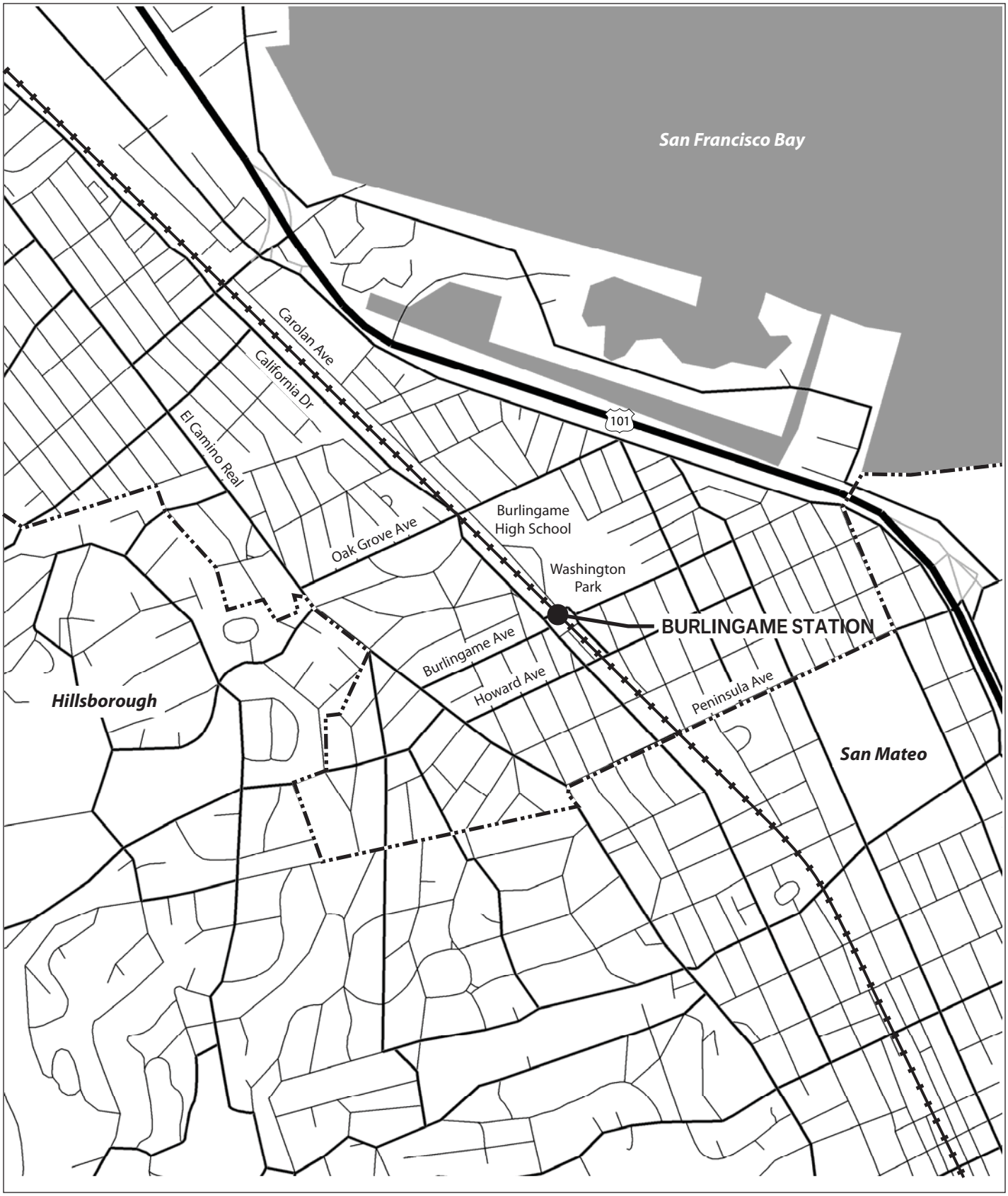
[1] The California Public Utilities Commission (CPUC) has jurisdiction over the safety of highway-rail crossings in California.

[2] Caltrain Year 2009 Ridership Statistics.

FIGURE 1
Caltrain System Map



BURLINGAME CALTRAIN STATION LOCATION
FIGURE 2

FIGURE 3
Burlingame Caltrain Station

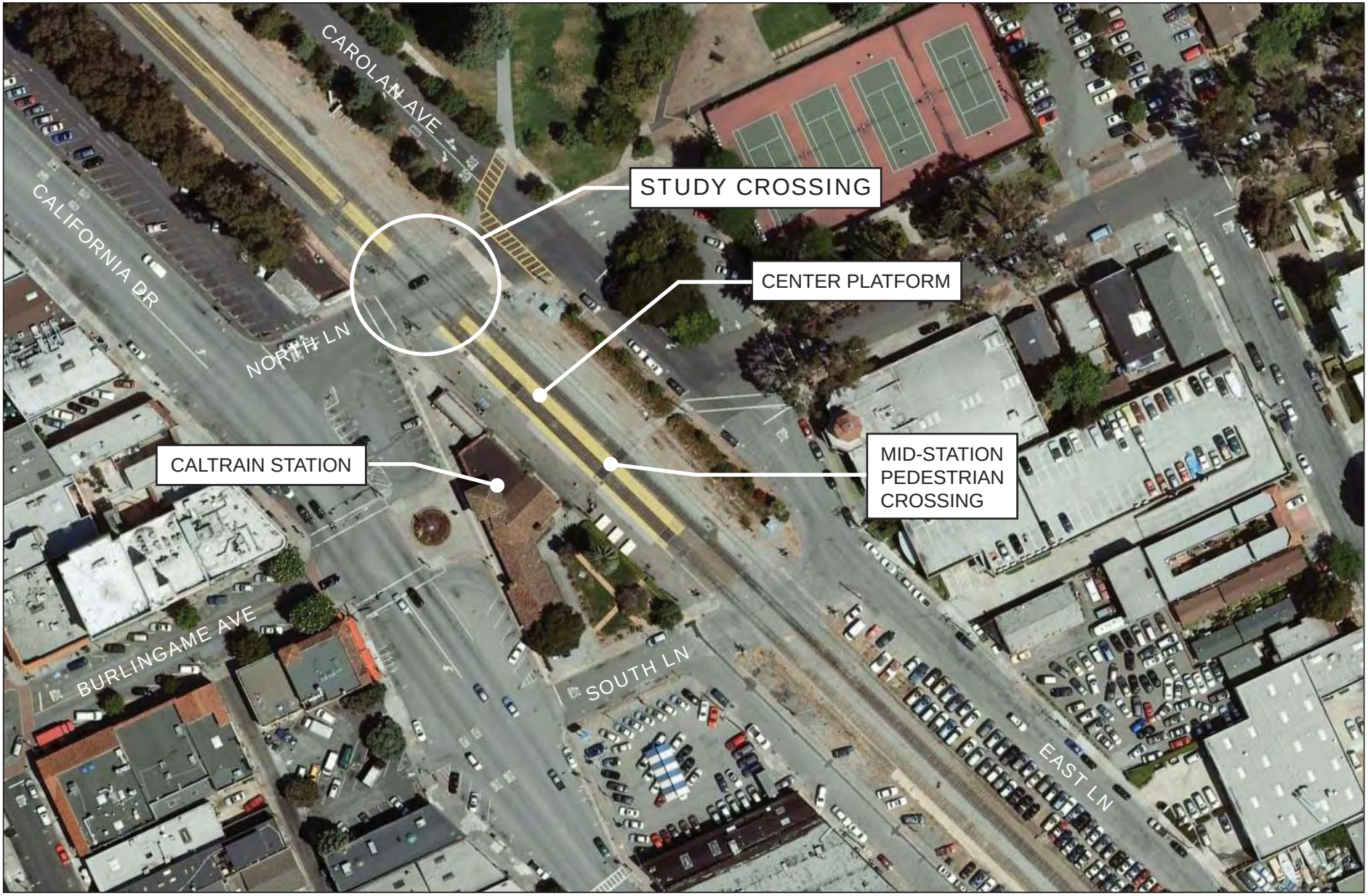
Average weekday passenger activity at the Burlingame Station for the past four years is summarized in Table 1; more detailed ridership information from Caltrain is included in Appendix A. As shown in the table, passenger boardings at the Burlingame Station have been growing steadily at approximately two percent annually over the past few years. The station has consistently been ranked 15 out of the 29 in the system over the past five years, based on total daily passenger boardings.

Table 1
Average Weekday Passenger Activity at the Burlingame Caltrain Station
All Day Counts

Year	Northbound		Southbound		Total		
	On	Off	On	Off	On	Off	Total
2006	275	324	312	252	588	576	1,164
2007	294	309	316	276	610	585	1,195
2008	293	347	353	267	646	614	1,260
2009	324	390	403	316	727	706	1,433

Source: Caltrain

Prior to the reconstruction and renovation in 2007-08, the Burlingame Station extended from north of the North Lane highway-rail crossing to the South Lane highway-rail crossing (Figure 4) and had a center boarding platform that did not allow two trains to enter the station at the same time. For passenger safety reasons, one train would have to stop ahead of the station if another train were stopped for passengers on one of the platform (hold-out rule), which caused service delays and required vehicles at adjacent crossings to wait for a prolonged period of time while passengers boarded and alighted the trains. Due to the location of the platforms across North Lane, trains would block the North Lane highway-rail crossing for a considerable amount when boarding and alighting passengers.



BURLINGAME CALTRAIN STATION - AERIAL VIEW BEFORE IMPROVEMENTS - MAY 2007

FIGURE 4

2.3 BURLINGAME CALTRAIN STATION RENOVATION PROJECT

Caltrain began construction at the Burlingame Station in June 2007 to enhance safety, pedestrian access and make train service more efficient. The project included numerous safety measures and improvements to the historic station. The operations at the station were converted from a centerboard platform to an outboard platform with inter-track fencing, improving the gated vehicle and pedestrian crossings at both ends of the platform, track reconstruction, drainage improvements and upgrading the station to current standards.

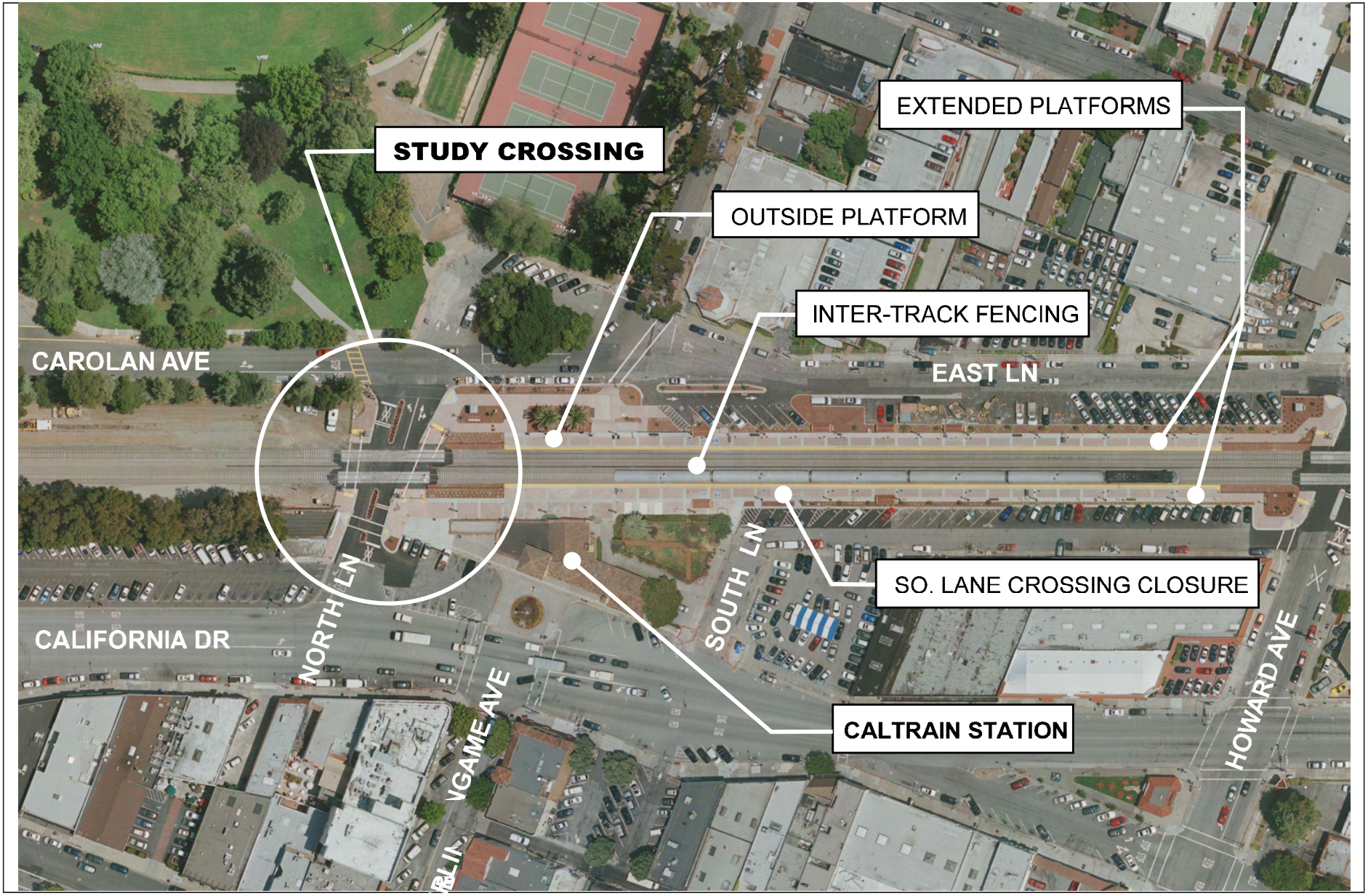
As part of the project, the South Lane highway-rail crossing was eliminated, the two platforms were extended to Howard Avenue, and the pedestrian crossing at North Lane was channelized, improved and expanded (Figures 5 through 9). A new fence was installed between the two tracks to prevent pedestrians from crossing the tracks except at designated locations. As a result, northbound passengers now cross from one platform to another at either the North Lane or the Howard Avenue highway-rail crossing, which are both protected with pedestrian automatic gates. The new platforms are equipped with ticket vending machines, ticket validators, electronic messaging signs and a new public address system. The design also included a new pedestrian plaza on the east side of the tracks, enhanced landscaping, wider sidewalks, and new station fencing. As part of the construction project, seven passenger shelters were built to resemble the style of the historic station. In addition, the pedestrian-only rail crossing at Morrell Avenue, about one third of a mile to the north of the station, was reconstructed for improved accessibility.

The total budget for the construction project was $20.5 million, which included design, utilities, construction, project management and administrative overhead costs. Construction was completed in June 2008. Once the project was completed, trains started operating through the Burlingame Station on both tracks at the same time. As part of the safety campaign for the project, Caltrain prepared and distributed fliers alerting passengers and pedestrians that not all trains would stop at the station, that a train could be stopped for passengers on one platform while another train passes through the station on the other track, and to always expect a train when around tracks (Figure 10).

2.4 PEDESTRIAN EMERGENCY EXIT SWING GATES

The design of a pedestrian-only rail crossing is only effective if pedestrians actually cross at the designated point by taking a path that allows them clear observation of the warning devices. Pedestrians at these locations are led towards the crossing by the placement of fencing, signage, markings, and gates.

An automatic pedestrian gate (Figure 11) is a type of channelizing device that provides an active positive barrier to discourage pedestrians from entering the railroad right-of-way during train movements. When pedestrian automatic gates are used, CPUC requires that the design also includes a clearly marked escape path that minimizes the possibility of trapping pedestrians in the railroad right-of-way. An emergency exit swing gate can be used for this purpose (Figure 12), designated for use only as an escape route for a pedestrian that may remain between the track and a lowered automatic pedestrian gate. In addition, Caltrain posts a sign noting a $271 fine for improper usage of the gate (using the emergency exit swing gate to enter the crossing when rail crossing automatic warning and regulatory devices are activated) to improve compliance (Figure 13).



BURLINGAME CALTRAIN STATION - AERIAL VIEW AFTER IMPROVEMENTS - MAY 2009

FIGURE 5

FIGURE 6
North Lane Highway-Rail Crossing: Northbound View
Before Improvements – May 2007

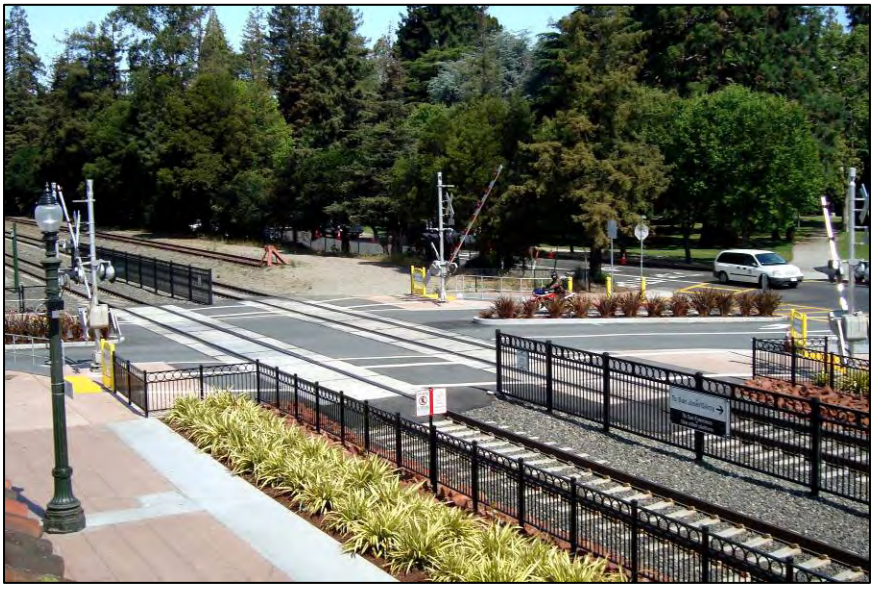
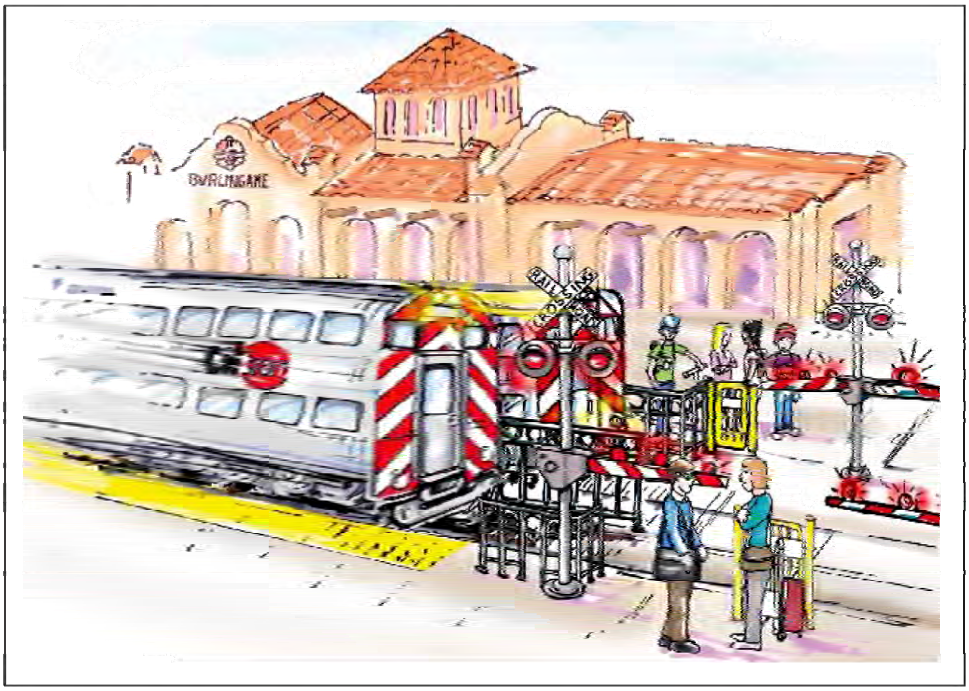


FIGURE 7
North Lane Highway-Rail Crossing: Northbound View
After Improvements – May 2009

FIGURE 8
North Lane Highway-Rail Crossing: Eastbound View
Before Improvements – May 2007

FIGURE 9
North Lane Highway-Rail Crossing: Eastbound View
After Improvements – May 2009

Wait for the Gate!



Beginning June 17, trains will operate through the Burlingame station on both tracks at the same time.

Not all trains stop at the station, and those that bypass the station don't slow down. A train may stop for passengers on one platform while another train passes through the station on the other track. To prevent passengers from crossing when it's not safe to do so, Caltrain has installed a fence between the tracks and pedestrian crossing arms, bells and lights.

Observe these important safety rules:

- Cross tracks ONLY at designated crossings and only when it's safe to do do.
- Watch for a second train.
- Never go around a lowered crossing gate.
- Trains can operate on either track at any time.

If a train passes in one direction, do not assume it is safe to cross. Another train may be coming on the other track.

LOOK, LISTEN AND LIVE!

Caltrain

6/5/08

FIGURE 10
Caltrain Safety Flier for the Burlingame Train Station

FIGURE 11
Example of Pedestrian Automatic Gate

FIGURE 12
Example of Emergency Exit Push Gate in Combination with a Pedestrian Automatic Gate

FIGURE 13
Fines for Misuse of the Emergency Exit Swing gate

3. BASIS FOR THE STUDY

The monitoring effort conducted at the North Lane highway-rail crossing at the Burlingame Station included the following major tasks:

- Definition of pedestrian behavior safety performance measures,
- Pedestrian monitoring at the North Lane highway-rail crossing prior to and after the installation of fencing/channelization and pedestrian emergency exit swing gates,
- Data processing and analysis of results, and
- Documentation.

The following sections describe each of these tasks in detail.

3.1 DEFINITION OF SAFETY PERFORMANCE MEASURES

The specific safety performance measures of pedestrian behavior used to compare the original warning and regulatory system ("before" conditions) to those supplemented by fencing/ channelization and emergency exit swing gates ("after" conditions) at the North Lane highway-rail crossing were developed by the CPUC in coordination with Adavant Consulting. These were defined as follows:

- Non-compliant pedestrian behavior, which occurs when:
  1. A pedestrian enters the highway-rail crossing between the period of initial activation of the warning and regulatory devices and the gate arm reaching the horizontal position,
  2. A pedestrian remains on the track side of the gate arm and waits there until the train passes,
  3. A pedestrian enters the highway-rail crossing while the gate arm is rising to the fully vertical position, or
  4. For the "after" conditions only, a pedestrian exits the crossing without using the emergency exit swing gate after the pedestrian gate arm begins descending.
- Pedestrian crossing violations, which are considered to occur when:
  1. A pedestrian enters the crossing by walking around or under the lowered automatic gates during the period in which the warning and regulatory devices are activated,
  2. A pedestrian circumvents/bypasses the gate system by walking on the motor vehicle roadway, whether or not it happens during the warning and regulatory devices activation period, or
  3. For the "after" conditions only, a pedestrian uses the emergency exit swing gate to enter the crossing at any time.

3.2 PEDESTRIAN MONITORING

A pedestrian video monitoring program was conducted by A&S Company from May 27 through June 15, 2007, and from May 18 through June 1, 2009, to record the "before" and "after" improvements conditions at the North Lane highway-rail crossing, respectively. After a field meeting with CPUC staff, and with Caltrain's approval, a high-resolution wide-angle camera was installed in a protected environment under the roof of the Burlingame Station main building (Figures 14 and 15); the images were then digitally transmitted by wire into a computerized DVD recording system located inside the building (Figure 16). Both pieces of equipment were permanently powered from an electrical outlet located in close proximity. The camera was mounted at an angle so that it had a clear view of the entire area approach to and through the highway-rail crossing on the north and south sides of the road approaching the gates, and on both sides of the tracks (all four quadrants of the highway-rail crossing).

A continuous video recording was performed over a period of 18 ("before") and 16 ("after") consecutive days, each one of which included two weekends. A test copy of the digital files was analyzed for proof after the first day of recording. In addition, the equipment was checked regularly during the monitoring period to ensure that all the components were working correctly.

A series of time-stamped DVDs were generated by the recording system, each holding 12 to 24 hours of video data. The disks were readable on a regular computer by means of video replay software that allowed moving forward or backward a single timeframe at a time.

3.3 DATA PROCESSING

Close to 100 hours of video data were reviewed and tabulated by Wilbur Smith Associates for this study, from approximately 6 am to 8 pm Monday through Friday, and from 10 am to 5 pm Saturday and Sunday. Not all of the data initially collected was deemed usable for the purposes of the study due to special events taking place in the City of Burlingame, such as street fairs or parades. In all, seven complete days worth of data (five different weekdays, plus one Saturday and one Sunday) were assembled to represent typical "before" and "after" conditions at the North Lane highway-rail crossing.

For both the "before" and "after" conditions, the following information was extracted from the two datasets:

- Number of events observed – An event is defined to start when the automatic gate arm begins descending from the upright position, and to end when the gate arm returns to its vertical position. The following data was recorded from the observed events, t:
    1. The number of events where no pedestrians are present,
    2. Number of trains observed during each event,
    3. Average total duration of the event, and
    4. Average time between activation of the automatic gates and flashers and arrival of the train.

FIGURE 14
Installation of Video Monitoring Equipment

FIGURE 15
High-resolution Wide-angle Camera

FIGURE 16
Video Recording System

- The number of pedestrians using the highway-rail crossing over the observed period, classified as:
  1. Regular pedestrians, including those who walk their bikes,
  2. Pedestrians riding skateboards or scooters,
  3. Pedestrians pushing baby strollers or carts,
  4. Pedestrians in wheelchairs, and
  5. Bicyclists riding on the sidewalk.
- Pedestrian behavior during an event, including:
  1. Number of pedestrians going under a descending or horizontal gate arm to enter or exit the crossing,
  2. Number of pedestrians walking onto street to avoid pedestrian gates,
  3. Number of pedestrians using the emergency exit swing gate to enter the track area,
  4. Number of pedestrians who do not use the emergency exit swing gate to exit the track area after the pedestrian gate arm begins descending, and
  5. Number of pedestrians who remain in the track area.
- Pedestrian behavior between events[3], including:
  1. Number of pedestrians walking onto street to avoid pedestrian gates, and
  2. Number of pedestrians using the emergency exit swing gate to enter the track area.
- Any observed problems with individuals in wheelchairs, senior citizens, or individuals pushing strollers while trying to open the emergency exit swing gate.
- Number of acts of vandalism to the pedestrian automatic gates or the emergency exit swing gates.

A data-recording sheet was developed in MS Access format for staff to code information collected from the video images. In addition, a survey form was also created to properly summarize the data. These forms are included in Appendix B.

[3] Without activation of the warning and regulatory devices

4. DATA ANALYSIS

This section provides tabulation summaries of the pedestrian behavior and train operations observations conducted at the North Lane highway-rail crossing in May/June 2007 and May/ June 2009.

4.1 TRAIN OPERATIONS

Table 2 summarizes the scheduled and actual number trains traveling through the Burlingame Station for the "before" and "after" conditions. As indicated in the table, the number of local and express trains scheduled to travel through the station in 2007 and 2009, the "before" and "after" conditions, respectively, did not change. The detailed Caltrain schedules for both years are included in Appendix A.

Table 2
Number of Daily Trains Traveling through the Burlingame Station

Date	Number of Scheduled Daily Caltrain Trains May/June 2007 and 2009			Average Number of Daily Trains Surveyed			
				May/June 2007			May/June 2009
	Stop	No Stop	Total	Stop	No Stop	Total	Total [a]
Weekday 6 am-8 pm	43	34	77	55	31	86	86
Weekend 10 am-5 pm	14 [b]	0	14 [b]	14	0	14	18

Notes:
- [a] Because of the change in passenger boarding operations, non-stopping trains cannot be identified from the crossing observations.
- [b] Weekend northbound trains are scheduled to stop at the Burlingame Station every hour on the hour; either the first (10 am) or last (5 pm) train of the period is assumed to be outside the study interval.

Source: Caltrain, Adavant Consulting

Table 2 shows that the number of trains surveyed at the crossing relates well with those in the Caltrain schedule. The same average number of total daily weekday trains (86) were surveyed during the "before" and "after" study conditions, while four additional total weekend trains (18 vs. 14) were surveyed during the "after" conditions. The total number of surveyed trains is generally higher than the number of scheduled Caltrain trains, possibly reflecting additional unscheduled railroad services such as Caltrain deadhead operations traveling through the station during the survey periods. The number of trains that do not stop at the Burlingame Station represent about one third of the total.

4.2 NUMBER AND DURATION OF EVENTS

Table 3 summarizes the number of events that took place during the two survey periods. An event is defined as the interval between the instance when the automatic gate arm starts descending from the upright position until the moment when the gate arm returns to its vertical position.

Table 3
Number of Events at the North Lane Highway-Rail Crossing [a]

Day	Before	After	Difference	Percent Change
Weekday	395	508	113	29%
Weekend Day	28	56	28	100%
Total	**423**	**564**	**141**	**33%**
Avg. per Weekday	79	102	23	29%
Avg. per Weekend Day	14	28	14	100%

Note:
[a] An event is defined to start when the automatic gate arm begins descending from the upright position and to end when the gate arm returns to its vertical position.
Source: Adavant Consulting

As shown in Table 3, the number of events increases substantially between the "before" and "after" conditions. The number of events increases by approximately one third on a weekday, and doubles on a weekend day. This apparently unusual increase in the number of events can be explained by looking at the changes in the number of events with and without a train being present at the crossing, as shown in Table 4.

Table 4
Number of Events at the North Lane Highway-Rail Crossing
Classified by the Presence of a Train

Day	Before		After		Difference		Percent Change	
	Train Present	No Train Present	Train Present	No Train Present	Train Present	No Train Present	Train Present	No Train Present
Weekday	386	9	398	110	12	101	3%	1122%
Weekend Day	28	0	36	20	8	20	29%	
Total	**414**	**9**	**434**	**130**	**20**	**121**	**5%**	**1344%**
Avg. per Weekday	77	2	80	22	3	20	4%	1000%
Avg. per Weekend Day	14	0	18	10	4	10	29%	

Source: Adavant Consulting

As shown in Table 4, there is a minimal difference between the "before" and "after" conditions in the number of events where a train arrives at the crossing, the average increase being only about three or four events a day. On the other hand, there is a substantial difference in the number of events where no trains arrive at the crossing, which increases by 20 and 10 events per day for the average weekday and weekend conditions, respectively. This increase in the number of no-train events in the "after" conditions is due to the operational modifications made by Caltrain at the North Lane highway-rail crossing as part of the station improvements.

As shown in Figure 17, due to the location of the platform across North Lane, trains at the Burlingame Station used to stop on the highway-rail crossing under the "before" conditions to board and alight passengers. One of the key elements of the station renovation project was the elimination of the South Lane highway-rail crossing, which in turn allowed the relocation of the two passenger platforms and their extension by approximately 450 feet south, towards Howard Avenue.

FIGURE 17
Passenger Boarding at the North Lane Highway-Rail Crossings
Before Burlingame Station Renovation Project – May 2007

Under the "before" conditions, a northbound train approaching the Burlingame Station would activate the railroad warning and regulatory devices and close the North Lane highway-rail crossings, and would then, travel through (if an express train) or stop and block the crossing (if a local train) while passengers got on and off the train. The same situation occurs for express trains under the "after" conditions. Local trains, on the other hand, still activate the railroad warning and regulatory system at North Lane[4], but then stop at the platform a few feet short of the crossing.

[4] Both local and express northbound trains activate the railroad warning and regulatory devices and close the North Lane highway-rail crossings because the advance detection system is not able to differentiate between them. Shortly after an approaching northbound train is detected, the highway-rail crossing is closed to vehicles and pedestrians under the conservative (safer) assumption that the train will not stop at the station.

In such instances, after approximately 30 seconds of the crossing remaining closed without the train being detected, the gates rise and the crossing is reopened (time out mechanism). Once the train is ready for departure, the engineer blows the locomotive horn, which automatically engages the warning and regulatory devices and closes the North Lane highway-rail crossing.

Thus, although the total number of trains did not change substantially during the "before" and "after" conditions, the total number of events (instances when the North Lane highway-rail crossing is closed) increased by a third (weekdays) and doubled (weekend days). This is due to the substantial (three to six times) increase in crossing closures without a train arriving at the crossing, which are triggered by northbound local trains stopping at the Burlingame Station.

Although the number of times when the North Lane highway-rail crossing is closed has increased under the "after" conditions, the total amount of time that the crossing remains closed has decreased, since now trains do not block the crossing while stopped at the station. As shown in Table 5, the length of each event has been reduced by more than 40 percent, while the overall length of time that the crossing is closed throughout the day has been reduced by more than 20 percent.

Table 5
Average Duration of an Event at the North Lane Highway-Rail Crossing
(minutes : seconds)

Gate Position	Before	After	Difference	Percent Change
Start activation to horizontal [a]	0:13	0:14	0:01	8%
Gate stays down	1:33	0:46	-0:47	-51%
Start rising to vertical [a]	0:09	0:08	-0:01	-11%
Total	**1:55**	**1:08**	**-0:47**	**-41%**
Avg. length of time when crossing is closed during the day (minutes)	115	91	-25	-22%

Note:
[a] The one-second differences in the duration of the "start activation" and "start rising" gate phases for the "before" and "after" conditions can be attributed to differences in the survey coders' reaction times.
Source: Adavant Consulting

Table 6 summarizes the number of events during which two trains were observed to enter the North Lane highway-rail crossing. No instances were observed where more than two trains entered the crossing during the same event.

Table 6
Number of Events with Two Trains Entering the North Lane Highway-Rail Crossing [a]

Day	Before	After	Difference	Percent Change
Weekday	43	31	12	-28%
Weekend Day	0	0	0	0%
Total	**43**	**31**	**12**	**-28%**
Percentage of all events	10%	5%	-5%	-46%
Percentage of events where trains are present	10%	7%	-3%	-31%
Avg. per Weekday	9	6	3	-28%
Avg. per Weekend Day	0	0	0	0%

Note:
[a] No instances were observed where more than two trains entered the crossing during the same event.
Source: Adavant Consulting

The table indicates that the number of events where more than one train enters the crossing represents approximately five to ten percent of the total, and that they occur only on weekdays. As also shown in the table, there is a one third reduction in the number of two-train events in the "after" conditions.

Table 7 summarizes the average duration of the interval between the gate reaching the horizontal position and the arrival of the train, as well as the interval between the arrival of the first train and the arrival of the second train, for those instances where two trains entered the crossing during the same event. As shown, there is a reduction in the average duration of both intervals, which could be attributed to operational changes implemented as part of the station renovation project.

Table 7
Average Duration between Crossing Activation and Train Arrival at the North Lane Highway-Rail Crossing (minutes : seconds)

Interval	Before	After	Difference	Percent Change
Gate horizontal to arrival of 1st train	0:28	0:20	-0:09	-30%
Arrival of 1st train to arrival of 2nd train [a]	1:13	0:23	-0:49	-68%

Note:
[a] No instances were observed where more than two trains entered the crossing during the same event.
Source: Adavant Consulting

4.3 PEDESTRIAN FLOW

Table 8 presents the numbers of pedestrians who walked across the North Lane highway-rail crossing during the observed periods.

Table 8
Total Number of Pedestrians Entering the North Lane Highway-Rail Crossing

Date	Entering during an event		Entering while crossing is open		Total		
	Before	After	Before	After	Before	After	Percent Change
Weekday	385	1,228	2,835	7,724	3,220	8,952	178%
Weekend Day	73	89	1,947	1,912	2,020	2,001	-1%
Total	**458**	**1,317**	**4,782**	**9,636**	**5,240**	**10,953**	**109%**
Average per Weekday	77	246	567	1,545	644	1,790	178%
Average per Weekend Day	37	45	974	956	1,011	1,001	-1%
Percentage of Total	9%	12%	91%	88%	100%	100%	

Source: Adavant Consulting

As shown in the table, the number of pedestrian traversing the crossing on a weekday increases substantially in the "after" conditions, almost tripling the value of the "before" conditions. Since Caltrain's ridership at the Burlingame Station has not changed substantially, as previously shown in Table 1, and there are no known changes in nearby land uses that would justify these differences, the observed increase in pedestrians at the crossing can only be explained by changes due to the station renovation project.

As explained before in this report, the extension of the two train platforms mandated the closure of the South Lane highway-rail crossing and the elimination of three mid-station pedestrian-only crossings. Thus, Caltrain riders are now directed towards the improved crossings at the two ends of the platforms, North Lane and Howard Avenue, resulting in the pedestrian volume increases reflected in Table 8 above.

Table 9 summarizes the composition of those pedestrians entering the North Lane highway-rail crossing approaching from either direction. The classification shown in the table only includes those individuals who entered the crossing using the sidewalk while it was open, which represents about 80 to 85 percent of all of those who walked across the tracks at this location. As shown in the table, there are no substantial changes in the distribution of the pedestrian categories between the "before" and "after" conditions. Those pedestrians in wheelchairs, with strollers or with carts represent about six to seven percent of the total.

Table 9
Number of Pedestrians Entering
the North Lane Highway-Rail Crossing by Type [a]

Date	Regular pedestrians [b]		On scooters or skateboards		With strollers or carts		In wheelchairs		Riding bicycles [c]	
	Before	After	Before	After	Before	After	Before	After	Before	After
Weekday	1,972	6,610	17	31	174	377	7	3	225	406
Weekend Day	1,485	1,528	21	5	109	203	8	1	71	101
Total	3,457	8,138	38	36	283	580	15	4	296	507
Average per Weekday	394	1,322	3	6	35	75	1	1	45	81
Average per Weekend Day	743	764	11	3	55	102	4	1	36	51
Percentage of Total	84.5%	87.8%	0.9%	0.4%	6.9%	6.3%	0.4%	0.0%	7.2%	5.5%

Note:
[a] Pedestrians walking on the sidewalks and approaching the highway-rail crossing from either side while the highway-rail crossing is open.
[b] Including those who walk their bicycles.
[c] On the sidewalks.
Source: Adavant Consulting

Table 10 summarizes the utilization of the emergency exit swing gates by pedestrians at the crossing, which represent less than one percent of the total number of pedestrians using the crossing.

Table 10
Number of Pedestrians Using the Emergency Exit Swing Gates
at the North Lane Highway-Rail Crossing

Date	**To Enter [a]**					**To Exit**				
	Start to lower	Gates down	Start rising	Gates open	Total	Start to lower	Gates down	Start rising	Gates open	Total
Weekday	0	0	14	2	16	21	36	7	3	67
Weekend Day	0	0	2	0	2	0	1	0	2	3
Total	**0**	**0**	**16**	**2**	**18**	**21**	**37**	**7**	**5**	**70**
Average per Weekday	0.0	0.0	2.8	0.4	3.2	4.2	7.2	1.4	0.6	13.4
Average per Weekend Day	0.0	0.0	1.0	0.0	1.0	0.0	0.5	0.0	1.0	1.5

Note:
[a] As discussed in Section 3.1, the use of the emergency exit swing gates to enter the crossing at any time is considered a crossing violation.
Source: Adavant Consulting

As previously discussed in Section 3.1 and indicated in the table, the use of the swing gates to enter the crossing at any time is considered a crossing violation. This topic is discussed in more detail in the next section of this report.

No pedestrians in wheelchairs were observed using the emergency exit swing gate at any time. Similarly, no acts of vandalism to the swing gates were observed during the study.

5. SAFETY PERFORMANCE ANALYSIS

This section provides a comparison on the effects of the changes to the warning and regulatory equipment implemented at the North Lane highway-rail crossing in Burlingame. As presented in Section 2.3, these included, among other improvements, pedestrian channelization, installation of emergency exit swing gates, new fencing between the tracks, and elimination of three mid-station pedestrian-only crossings. A safety campaign was also implemented by Caltrain at the Burlingame Station following the completion of the project.

The analysis used the safety performance measures defined in Section 3.1 to determine if the installation of fencing and emergency exit swing gates for channelization purposes has had any effect on the observed pedestrian behavior at the crossing.

As noted before in this report, one of the effects of the increased fencing and channelization was that the number of observed pedestrians at the North Lane crossing almost tripled on weekdays. For this reason, the rates developed to quantify the different safety performance measures had to be normalized so that the "before" and "after" conditions could be compared on an equal basis. This was accomplished by proportioning the number of pedestrians in a given category over the total number of pedestrians using the crossing for either the "before" or ""after" conditions. For example, for a hypothetical performance measure PM_1, the following equations would be used:

$$\text{Normalized Ratio for } PM_1 \text{ (before)} = \frac{\text{Number of cases for } PM_1 \text{ (before)}}{\text{Total no. of pedestrians using the crossing (before)}} \times 100$$

$$\text{Normalized Ratio for } PM_1 \text{ (after)} = \frac{\text{Number of cases for } PM_1 \text{ (after)}}{\text{Total no. of pedestrians using the crossing (after)}} \times 100$$

$$\text{Observed change in } PM_1 = \frac{\text{Normalized Ratio for } PM_1 \text{ (before)}}{\text{Normalized Ratio for } PM_1 \text{ (after)}}$$

5.1 NON-COMPLIANT PEDESTRIAN BEHAVIOR

Table 11 summarizes the observed non-compliant pedestrian behavior, as previously defined in Section 3.1, at the North Lane highway-rail crossing for the "before" and "after" conditions. More detailed tabulations of the non-compliant pedestrian data can be found in Appendix C.

Table 11
Observed Non-Compliant Pedestrian Behavior
at the North Lane Highway-Rail Crossing

Date	Enters during gate lowering [a]		Enters during gate rising [a]		Does not use swing gates to exit [b]	Total		
	Before	After	Before	After		Before	After	Change
Weekday	27	104	330	1,099	140	357	1,343	276%
Weekend Day	7	7	48	79	16	55	102	85%
Total	**34**	**111**	**378**	**1,178**	**156**	**412**	**1,445**	**251%**
Average per Weekday	5	21	66	220	28	71	269	276%
Average per Weekend Day	4	4	24	40	8	28	51	85%
Normalized ratio for Weekday [c]	0.84	1.16	10.25	12.28	1.56	11.09	15.00	35%
Normalized ratio for Weekend Day [c]	0.35	0.35	2.38	3.95	0.80	2.72	5.10	87%

Note:
- [a] Doe not include those who enter the crossing by circumventing the gate system, which is considered a pedestrian violation (see Section 5.2)
- [b] During the period in which the warning and regulatory devices are activated. The use of the emergency exit swing gates only applies to the "after" conditions.
- [c] The normalized ratio represents the proportion of pedestrians in a given category over the total number of pedestrians using the crossing for the "before" or ""after" conditions.

Source: Adavant Consulting

Table 11 indicates that there has been a 35 percent increase in the observed non-compliance pedestrian behavior ratio on weekdays, and almost a 90 percent increase on weekends at the North Lane highway-rail crossing, as a result of the changes implemented as part of the Burlingame Station Renovation Project.

One possible explanation for the observed increase in non-compliant pedestrian behavior could be theoretically attributable to the substantial increase in the number of events (crossing closures) when no trains entered the crossing under the "after" conditions. As described in Section 2.2 and shown in Table 4, there has been an average increase of 20 and 10 events per day for the average weekday and weekend conditions, respectively, in the "after" condition compared with the "before" conditions. One could expect that the increase in the number of events without a train could favor pedestrians to become more non-compliant. However, as shown in Table 12, this does not appear to be the case.

Table 12
Observed Non-Compliant Pedestrian Behavior vs. the Presence of a Train at the North Lane Highway-Rail Crossing

Date	No Train Present during Event		Train Present during Event		Total	
	Before	After	Before	After	Before	After
NUMBER OF EVENTS						
Average per Weekday	2	22	77	80	79	102
Average per Weekend Day	0	10	14	18	14	28
NUMBER OF NON-COMPLIANT PEDESTRIANS						
Average per Weekday	0	44	71	225	71	269
Average per Weekend Day	0	15	28	36	28	51
NON-COMPLIANT PEDESTRIANS PER EVENT						
Average per Weekday	0.1	2.0	0.9	2.8	0.9	2.6
Average per Weekend Day	0.0	1.5	2.0	2.0	2.0	1.8

Source: Adavant Consulting

Table 12 shows the number of events and non-compliant pedestrians classified according to the presence of a train during the event. As shown in the table, the number of non-compliant pedestrians per event when a train is present during the event is higher for both weekday and weekend days, when compared to those cases where no trains arrived during the event. Therefore, the increase in the number of crossing activations without a train present in the "after" conditions does not appear detrimental to the expected compliance of pedestrians with the warning and regulatory devices.

Thus, a likely explanation for the results shown in Table 11 is that they need to be tempered by the fact that the analysis only focuses on pedestrian activity at the North Lane crossing, without taking into consideration what happened elsewhere at the station during the "before" conditions. As previously described, prior to the completion of the Burlingame Station Renovation Project, pedestrians were able to cross the tracks at three uncontrolled pedestrian-only crossings located in front of the station buildings and at the South Lane highway-rail crossing. These movements have since been eliminated with the installation of inter-track fencing and the closure of the South Lane highway-rail crossing, and pedestrians are now being channelized towards the two remaining highway-rail crossings at North Lane and Howard Avenue. As such, the non-compliant pedestrian behavior that had previously taken place at these locations is not included in the "before" conditions data summarized in Table 11.

In addition, the possibility of bypassing the gate system altogether by walking in the roadway instead of staying on the sidewalk, which was easier under the "before" conditions due to the lack of channelization, is not included in Table 11, since this behavior is considered a pedestrian violation, rather than a non-compliant action, and is, therefore, discussed in the next section of the report.

The observed data seem to indicate that those individuals previously using the mid-station crossings, who most likely were regular Caltrain riders, tend to behave in a more non-compliant manner (with a rate of about one and a half times higher) than the general public using the North Lane crossing to traverse the tracks only. The data also shows that those pedestrians traversing the North Lane crossing on weekends are typically better behaved than those who walk on weekdays, with a non-compliant pedestrian behavior rate that is about three to four times lower.

5.2 PEDESTRIAN VIOLATIONS

Table 13 summarizes the observed pedestrian violations, as previously defined in Section 3.1, at the North Lane highway-rail crossing for the "before" and "after" conditions. More detailed tabulations of the pedestrian violations data can be found in Appendix C.

Table 13
Observed Pedestrians Violations
at the North Lane Highway-Rail Crossing

Date	Walks around or under a horizontal gate		Circumvents the gate system [a]				Uses swing gates to enter [b]	Total		
			Devices are activated		Crossing is open					
	Before	After	Before	After	Before	After		Before	After	Change
Weekday	14	22	14	3	440	297	16	468	338	-28%
Weekend Day	3	3	15	0	253	74	2	271	79	-71%
Total	17	25	29	3	693	371	18	739	417	-44%
Average per Weekday	3	4	3	1	88	59	3	94	68	-28%
Average per Weekend Day	2	2	8	0	127	37	1	136	40	-71%
Normalized ratio for Weekday [c]	0.43	0.25	0.43	0.03	13.66	3.32	0.18	14.53	3.78	-74%
Normalized ratio for Weekend Day [c]	0.15	0.15	0.74	0.00	12.52	3.70	0.10	13.42	3.95	-71%

Note:
- [a] Walks on the motor vehicle roadway or in the immediate vicinity of the crossing, away from the designated paths.
- [b] The use of the emergency exit swing gates only applies to the "after" conditions.
- [c] The normalized ratio represents the proportion of pedestrians in a given category over the total number of pedestrians using the crossing for the "before" or ""after" conditions.

Source: Adavant Consulting

Table 13 indicates that there has been an over 70 percent decrease in the observed pedestrian violation ratio on weekdays and weekends at the North Lane highway-rail crossing, as a result of the changes implemented as part of the Burlingame Station Renovation Project and its associated safety campaign.

The largest reduction, about of 76 percent on an average weekday and 72 percent on a weekend day, has been observed in the ratio of the number of pedestrians who used to circumvent the gate system by walking in the roadway, instead of staying on the sidewalk, which has been greatly diminished by means of fencing and channelization. A substantial reduction, over 40 percent, has also been accomplished in the number of pedestrians who used to walk around or under a lowered gate on weekdays, also as a result of the new fencing.

Table 13 also shows that both weekday and weekend pedestrians at the North Lane highway-rail crossing had, and still have, similar overall crossing violation rates, although the number of pedestrians who walk around or under the gates on weekdays is about two to three times higher than those who walk around or under the gates on weekends, indicating a higher disregard of the crossing warning and regulatory devices by the weekday users, most likely commuters, compared to the weekend users.

6. Conclusions and Next Steps

Based on the comparison of pedestrian activity at the North Lane highway-rail crossing before and after the implementation of the Burlingame Station Renovation Project improvements, the following conclusions can be drawn on the effects that the changes to the crossing warning and regulatory system may have had on the pedestrian behavior at the crossing.

- The closure of the South Lane highway-rail crossing and the installation of mid-track fencing at the station has resulted in almost tripling the number of pedestrians using the North Lane highway-rail crossing on a typical weekday; the volume of pedestrians on a weekend has remained the same.
- The changes in train operation procedures have increased the number of crossing closures by about one third (29 percent) on weekdays and double (100 percent) on weekend days.
- Although the number of crossing closures has increased, the average total length of time that the crossing is closed throughout the day has been reduced by 22 percent, because the average closure duration is now about 40% shorter.
- The number of instances where two trains would enter the crossing during the same crossing closure on weekdays has been reduced by almost 30 percent. No two-train events have occurred on weekends during either “before’ or “after” conditions. No events have been observed with more than two trains.
- The reconfiguration of the northbound station platform and related changes to northbound train operations has substantially increased the number of events where the crossing is closed but no trains arrive; these have increased from two to 22 on an average weekday, and from none to 10 on a weekend day.

- On average, weekday crossing users tend to disregard the crossing warning and regulatory devices at the North Lane highway-rail crossing more often than weekend users; this has been observed during both "before' and "after" conditions.
- The ratio of pedestrians exhibiting non-compliant behavior[5] with the highway-rail crossing warning and regulatory system has increased by 35 percent on an average weekday and 87 percent on a weekend day. The increase is likely attributable to the larger number of pedestrians who use the crossing to get on or off Caltrain, and who previously used the three uncontrolled mid-station pedestrian-only crossings that have since been eliminated.
- The increase in non-compliant behavior appears to be unrelated to the increase in the number of events when the crossing is closed but no trains arrive.
- The ratio of observed overall pedestrian violations[6] of the highway-rail crossing warning and regulatory system has decreased by more than 70 percent as a result of the new pedestrian fencing and channelization.
- The increased fencing and channelization has been most effective in reducing the number of pedestrians who used to circumvent the gate system at the crossing, with an approximate reduction in the observed ratio of 76 percent on an average weekday and 72 percent on a weekend day.
- A substantial reduction, over 40 percent, has also been accomplished in the number of pedestrians who used to walk around or under a lowered gate on weekdays, also as a result of the new fencing.
- The emergency exit swing gates are used for the most part in their intended manner, to exit the crossing after the warning and regulatory devices are activated, although on average only about one in four of those who should use the gates to exit the crossing do so, with the other three choosing instead to walk under a lowering gate.
- No acts of vandalism to the emergency exit swing gates have been observed.
- No people in wheelchairs or individuals pushing strollers have been observed to use the emergency exit swing gates.
- No operational malfunctions of the emergency exit swing gates have been observed during either "before' or "after" conditions.
- No pedestrians have been observed to remain inside the crossing during the "before' or "after" conditions while the warning and regulatory devices were activated.

[5] Number of pedestrians observed exhibiting non-compliant behavior as a percentage of the total number of pedestrians entering the North Lane highway-rail crossing.

[6] Number of observed pedestrian violations as a percentage of the total number of pedestrians entering the North Lane highway-rail crossing.

Additional efforts, outside of the current scope of work and budget for this study and MBDG's agreement with the CPUC, could be undertaken in the future to further assess pedestrian compliance with warning and regulatory devices at a highway-rail crossing, among them:

- Conduct additional monitoring of pedestrians at the North Lane highway-rail crossing to identify any potential long-term changes in behavior,
- Perform additional tabulations and analyses of the new data and compare the results with those presented in this report,
- Survey individuals at the Burlingame Caltrain Station to identify their perception of the new design at the North Lane highway-rail crossing,
- Survey Caltrain locomotive engineers and conductors to ascertain their assessment about the effectiveness of increased fencing/channelization and emergency exit swing gates at high-way rail crossings, and
- Monitor and analyze "before" and "after" pedestrians behavior at other highway-rail crossings where installation of new fencing/channelization and emergency exit swing gates is being proposed.

APPENDICES

APPENDIX A
CALTRAIN RIDERSHIP AND SCHEDULES

2009 ANNUAL COUNT
CALTRAIN AVERAGE WEEKDAY PASSENGER BOARDINGS

STATION	Oct. '92	Feb. '95	Mar. '96	Feb. '97	Feb. '98	Feb. '99	Feb. '00	Feb. '01	Feb. '02	Feb. '03	Feb. '04	Feb. '05	Feb. '06	Feb. '07	Feb. '08	Feb. '09	% change (Feb '08 vs. Feb '09)	difference (Feb '08 vs. Feb '09)	
San Francisco	6,280	5,303	5,536	6,126	6,302	5,898	6,602	6,807	6,180	5,846	5,065	5,910	7,155	7,672	8,306	8,646	4.4%	340	San Francisco
22nd Street	208	235	297	397	517	510	574	673	524	456	382	545	797	836	872	927	6.7%	56	22nd Street
Paul Avenue	52	37	37	17	20	6	11	10	25	9	6	1	-	-	-	-	-	0	Paul Avenue
Bayshore	169	170	241	316	402	403	458	513	463	403	344	247	166	171	166	153	-7.5%	-13	Bayshore
So. San Francisco	418	392	398	521	509	517	549	621	597	510	472	487	521	548	373	353	-3.6%	-20	So. San Francisco
San Bruno	454	529	578	650	694	704	723	844	762	659	505	488	412	414	450	458	1.8%	8	San Bruno
Millbrae	501	549	543	618	698	655	782	870	776	657	1,148	1,507	1,816	1,917	2,425	2,724	15.6%	299	Millbrae
Broadway	336	392	377	430	464	423	495	567	492	433	333	205	-	-	-	-	-	0	Broadway
Burlingame	546	618	638	674	686	755	842	985	884	726	645	604	588	610	646	727	13.3%	81	Burlingame
San Mateo	589	633	719	845	905	957	1,105	1,389	1,302	1,084	1,004	1,062	1,238	1,300	1,441	1,436	-0.4%	-5	San Mateo
Hayward Park	211	198	216	299	275	320	381	607	565	447	417	347	244	231	210	237	11.8%	27	Hayward Park
Bay Meadows	127	2	134	180	167	154	62	67	70	57	65	71	10	-	-	-	-	0	Bay Meadows
Hillsdale	920	961	1,038	1,156	1,193	1,163	1,278	1,318	1,193	1,065	1,080	1,487	1,815	1,850	1,957	1,941	-0.9%	-16	Hillsdale
Belmont	554	529	554	506	548	590	648	892	770	629	568	518	435	412	426	457	7.7%	32	Belmont
San Carlos	620	749	716	835	878	865	1,028	1,216	987	848	816	836	867	860	928	1,006	9.1%	78	San Carlos
Redwood City	764	778	874	1,142	1,286	1,331	1,597	1,804	1,597	1,356	1,360	1,423	1,870	1,934	2,154	2,187	1.7%	33	Redwood City
Atherton	299	240	230	250	206	225	266	260	246	198	182	122	-	-	-	-	-	0	Atherton
Menlo Park	859	863	847	1,017	1,133	1,104	1,174	1,321	1,194	1,034	1,055	1,009	1,171	1,224	1,393	1,446	4.3%	53	Menlo Park
Palo Alto	1,020	1,162	1,242	1,610	1,706	1,693	1,960	2,249	2,016	1,880	1,849	2,425	3,054	3,307	3,672	3,962	8.8%	290	Palo Alto
Stanford	-	-	-	-	18	14	12	11	-	-	-	-	-	-	-	-	-	0	Stanford
California Ave.	881	974	950	1,125	1,163	1,211	1,280	1,376	1,225	1,026	976	839	822	825	917	901	-2.0%	-17	California Ave.
San Antonio	-	-	-	-	-	-	550	841	694	644	697	610	488	525	551	648	18.4%	97	San Antonio
Castro	276	263	236	246	281	271	111	-	-	-	-	-	-	-	-	-	-	0	Castro
Mountain View	962	1,023	1,162	1,369	1,477	1,478	1,640	2,200	1,854	1,644	1,519	2,423	2,764	2,999	3,137	3,455	10.6%	318	Mountain View
Sunnyvale	814	828	1,001	1,204	1,214	1,230	1,363	1,427	1,222	1,020	1,149	970	1,342	1,508	1,825	1,916	6.0%	91	Sunnyvale
Lawrence	601	558	687	822	965	981	1,124	1,309	956	773	593	534	514	544	565	636	13.0%	70	Lawrence
Santa Clara	558	579	554	770	809	863	1,031	1,124	991	853	798	706	657	663	673	741	10.3%	68	Santa Clara
College Park	161	150	154	167	197	178	206	185	180	184	192	133	97	98	97	108	11.8%	12	College Park
San Jose Diridon	1,352	1,092	1,197	1,486	1,616	1,492	1,454	1,747	1,421	1,244	1,183	1,906	2,270	2,422	2,750	2,983	9.6%	233	San Jose Diridon
Tamien	287	382	468	492	531	526	676	821	634	520	480	343	446	532	610	652	7.9%	42	Tamien
Capitol	-	33	39	54	76	63	95	121	82	67	56	57	29	36	34	34	0.0%	0	Capitol
Blossom Hill	52	84	91	128	148	119	161	177	136	130	101	99	77	69	67	64	-4.9%	-3	Blossom Hill
Morgan Hill	138	128	151	195	318	297	387	437	340	276	194	191	151	129	143	123	-15.2%	-20	Morgan Hill
San Martin	-	63	51	95	170	175	200	252	164	158	91	78	72	63	57	45	-20.2%	-13	San Martin
Gilroy	112	198	182	300	394	420	468	569	421	357	226	210	141	144	149	156	4.9%	7	Gilroy
TOTAL	***21,121***	***20,695***	***22,138***	***26,043***	***27,967***	***27,591***	***31,291***	***35,609***	***30,961***	***27,191***	***25,550***	***28,393***	***32,031***	***33,841***	***36,993***	***39,122***	5.8%	2,129	
			6.97%	***17.64%***	***7.39%***	***-1.35%***	***13.41%***	***13.80%***	***-13.05%***	***-12.18%***	***-6.03%***	***11.13%***	***12.81%***	***5.65%***	***9.32%***	***5.76%***			
Gilroy Extension	302	506	514	773	1,107	1,074	1,311	1,555	1,143	987	667	636	471	441	450	421	-6.4%	-29	
		67.55%	***1.58%***	***50.39%***	***43.18%***	***-2.96%***	***22.07%***	***18.64%***	***-26.53%***	***-13.62%***	***-32.41%***	***-4.74%***	***-25.87%***	***-6.49%***	***2.18%***	***-6.40%***			
San Francisco	6,709	5,745	6,111	6,856	7,241	6,817	7,646	8,004	7,191	6,714	5,797	6,703	8,118	8,678	9,344	9,727	4.1%	383	
San Mateo	7,198	7,433	7,862	9,123	9,644	9,763	10,928	12,760	11,433	9,701	9,650	10,166	10,987	11,299	12,403	12,973	4.6%	570	
Santa Clara (Inc. Gilroy)	7,214	7,517	8,165	10,065	11,082	11,011	12,717	14,845	12,337	10,776	10,103	11,524	12,926	13,863	15,247	16,423	7.7%	1,176	
San Francisco	31.8%	27.8%	27.6%	26.3%	25.9%	24.7%	24.4%	22.5%	23.2%	24.7%	22.7%	23.6%	25.3%	25.6%	25.3%	24.9%			
San Mateo	34.1%	35.9%	35.5%	35.0%	34.5%	35.4%	34.9%	35.8%	36.9%	35.7%	37.8%	35.8%	34.3%	33.4%	33.5%	33.2%			
Santa Clara (Inc. Gilroy)	34.2%	36.3%	36.9%	38.6%	39.6%	39.9%	40.6%	41.7%	39.8%	39.6%	39.5%	40.6%	40.4%	41.0%	41.2%	42.0%			

February 2006 Caltrain Annual Counts
AVERAGE WEEKDAY PASSENGER ACTIVITY - ALL DAY

	NORTHBOUND		SOUTHBOUND		TOTAL	
STATION	On	Off	On	Off	On	Off
San Francisco	0	7061	7155	0	7155	7061
22nd Street	11	782	786	16	797	798
Bayshore	23	148	143	28	166	176
South SF	140	381	382	153	521	534
San Bruno	160	236	252	166	412	402
Millbrae	418	1470	1398	389	1816	1859
Burlingame	275	324	312	252	588	576
San Mateo	553	662	685	541	1238	1203
Hayward Park	128	112	115	137	244	249
Bay Meadows	7	12	3	1	10	13
Hillsdale	1078	637	737	1096	1815	1733
Belmont	245	182	190	226	435	408
San Carlos	432	449	435	433	867	882
Redwood City	1145	624	725	1136	1870	1760
Menlo Park	664	514	507	753	1171	1267
Palo Alto	1981	1105	1073	2083	3054	3188
California Ave.	509	290	313	505	822	795
San Antonio	385	99	103	388	488	486
Mountain View	2441	307	323	2448	2764	2754
Sunnyvale	1223	111	119	1222	1342	1333
Lawrence	402	119	112	416	514	535
Santa Clara	591	73	67	649	657	722
College Park	60	45	38	101	97	146
San Jose Diridon	2163	63	107	2235	2270	2298
Tamien	428	88	19	354	446	442
Capitol	25	5	4	22	29	27
Blossom Hill	68	14	9	55	77	69
Morgan Hill	149	5	2	127	151	131
San Martin	72	0	0	49	72	49
Gilroy	141	0	0	135	141	135
TOTAL	15916	15916	16114	16114	32031	32031

February 2006 Caltrain Annual Counts
STATION RANK BY ALL DAY PASSENGER BOARDINGS

STATION	TOTAL ON	% OF TOTAL	2006 RANK	2005 RANK
San Francisco	7155	22.34%	1	1
Palo Alto	3054	9.53%	2	2
Mountain View	2764	8.63%	3	3
San Jose Diridon	2270	7.09%	4	4
Redwood City	1870	5.84%	5	7
Millbrae	1816	5.67%	6	5
Hillsdale	1815	5.67%	7	6
Sunnyvale	1342	4.19%	8	10
San Mateo	1238	3.87%	9	8
Menlo Park	1171	3.66%	10	9
San Carlos	867	2.71%	11	12
California Ave.	822	2.57%	12	11
22nd Street	797	2.49%	13	16
Santa Clara	657	2.05%	14	13
Burlingame	588	1.83%	15	15
South SF	521	1.63%	16	20
Lawrence	514	1.60%	17	17
San Antonio	488	1.52%	18	14
Tamien	446	1.39%	19	22
Belmont	435	1.36%	20	18
San Bruno	412	1.29%	21	19
Hayward Park	244	0.76%	22	21
Bayshore	166	0.52%	23	23
Morgan Hill	151	0.47%	24	26
Gilroy	141	0.44%	25	24
College Park	97	0.30%	26	27
Blossom Hill	77	0.24%	27	29
San Martin	72	0.23%	28	30
Capitol	29	0.09%	29	32
Bay Meadows	10	0.03%	30	31
TOTAL	32031	100.00%		

February 2007 Caltrain Annual Counts
AVERAGE WEEKDAY PASSENGER ACTIVITY - ALL DAY

STATION	NORTHBOUND		SOUTHBOUND		TOTAL	
	On	Off	On	Off	On	Off
San Francisco	0	7784	7672	0	7672	7784
22nd Street	10	845	826	16	836	861
Bayshore	24	139	147	27	171	166
South SF	136	443	412	156	548	599
San Bruno	153	236	262	150	414	386
Millbrae	419	1630	1498	391	1917	2021
Burlingame	294	309	316	276	610	585
San Mateo	584	676	716	575	1300	1251
Hayward Park	121	104	110	129	231	233
Bay Meadows	0	0	0	0	0	0
Hillsdale	1172	661	678	1114	1850	1775
Belmont	221	185	190	204	412	389
San Carlos	449	459	411	462	860	921
Redwood City	1239	666	695	1199	1934	1865
Menlo Park	704	513	520	732	1224	1245
Palo Alto	2173	1191	1134	2213	3307	3405
California Ave.	534	283	291	515	825	798
San Antonio	417	114	108	391	525	505
Mountain View	2671	315	329	2619	2999	2934
Sunnyvale	1391	100	117	1366	1508	1466
Lawrence	437	122	107	432	544	554
Santa Clara	602	61	61	595	663	656
College Park	66	50	32	104	98	154
San Jose Diridon	2310	73	112	2342	2422	2415
Tamien	514	85	18	389	532	474
Capitol	30	7	6	25	36	32
Blossom Hill	59	10	10	54	69	65
Morgan Hill	128	4	1	111	129	115
San Martin	63	0	0	46	63	46
Gilroy	144	0	0	142	144	142
TOTAL	17063	17063	16777	16777	33841	33841

February 2007 Caltrain Annual Counts
STATION RANK BY ALL DAY PASSENGER BOARDINGS

STATION	TOTAL ON	% OF TOTAL	2007 RANK	2006 RANK
San Francisco	7672	22.67%	1	1
Palo Alto	3307	9.77%	2	2
Mountain View	2999	8.86%	3	3
San Jose Diridon	2422	7.16%	4	4
Redwood City	1934	5.71%	5	5
Millbrae	1917	5.66%	6	6
Hillsdale	1850	5.47%	7	7
Sunnyvale	1508	4.46%	8	8
San Mateo	1300	3.84%	9	9
Menlo Park	1224	3.62%	10	10
San Carlos	860	2.54%	11	11
22nd Street	836	2.47%	12	13
California Ave.	825	2.44%	13	12
Santa Clara	663	1.96%	14	14
Burlingame	610	1.80%	15	15
South SF	548	1.62%	16	16
Lawrence	544	1.61%	17	17
Tamien	532	1.57%	18	19
San Antonio	525	1.55%	19	18
San Bruno	414	1.22%	20	21
Belmont	412	1.22%	21	20
Hayward Park	231	0.68%	22	22
Bayshore	171	0.50%	23	23
Gilroy	144	0.42%	24	25
Morgan Hill	129	0.38%	25	24
College Park	98	0.29%	26	26
Blossom Hill	69	0.20%	27	27
San Martin	63	0.19%	28	28
Capitol	36	0.11%	29	29
Bay Meadows	0	0.00%	30	30
TOTAL	33841	100.00%		

February 2008 Caltrain Annual Counts
AVERAGE WEEKDAY PASSENGER ACTIVITY - ALL DAY

	NORTHBOUND		SOUTHBOUND		TOTAL	
STATION	On	Off	On	Off	On	Off
San Francisco	0	8,329	8,306	0	8,306	8,329
22nd Street	11	871	861	10	872	881
Bayshore	22	136	144	18	166	154
South SF	119	267	254	132	373	400
San Bruno	175	235	275	169	450	404
Millbrae	405	2,165	2,020	411	2,425	2,576
Burlingame	293	347	353	267	646	614
San Mateo	633	740	808	612	1,441	1,352
Hayward Park	121	111	89	123	210	235
Hillsdale	1,187	728	770	1,225	1,957	1,953
Belmont	210	188	216	210	426	398
San Carlos	474	495	454	498	928	993
Redwood City	1,356	751	798	1,355	2,154	2,106
Menlo Park	755	626	638	796	1,393	1,422
Palo Alto	2,441	1,303	1,231	2,550	3,672	3,853
California Ave.	621	291	296	550	917	841
San Antonio	450	93	101	444	551	537
Mountain View	2,759	352	378	2,815	3,137	3,167
Sunnyvale	1,670	127	155	1,537	1,825	1,664
Lawrence	471	102	94	458	565	561
Santa Clara	616	62	57	607	673	669
College Park	65	57	31	124	97	181
San Jose Diridon	2,649	69	101	2,697	2,750	2,766
Tamien	597	74	13	467	610	541
Capitol	29	5	4	26	34	31
Blossom Hill	60	6	7	55	67	61
Morgan Hill	140	4	2	128	143	131
San Martin	57	2	0	41	57	43
Gilroy	149	0	0	131	149	131
TOTAL	18,536	18,536	18,457	18,457	36,993	36,993

February 2008 Caltrain Annual Counts
STATION RANK BY ALL DAY PASSENGER BOARDINGS

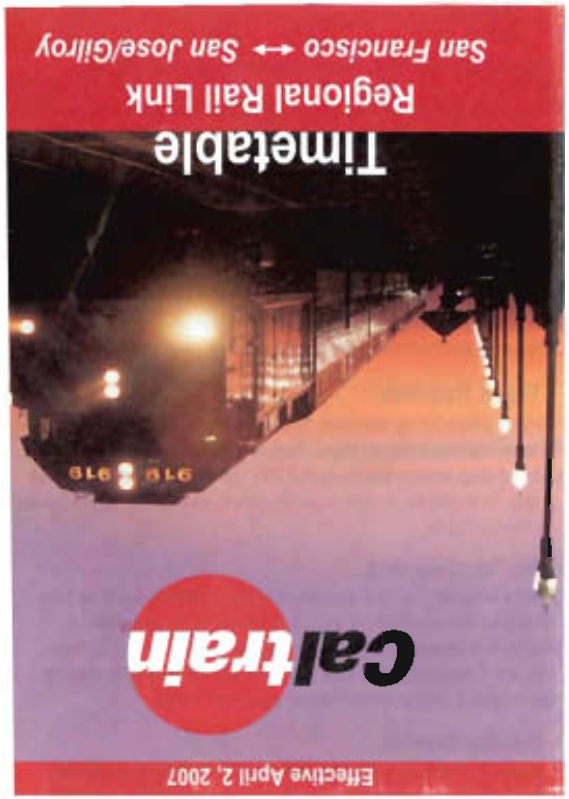
STATION	TOTAL ON	% OF TOTAL	2008 RANK	2007 RANK
San Francisco	8,306	22.45%	1	1
Palo Alto	3,672	9.93%	2	2
Mountain View	3,137	8.48%	3	3
San Jose Diridon	2,750	7.43%	4	4
Millbrae	2,425	6.56%	5	6
Redwood City	2,154	5.82%	6	5
Hillsdale	1,957	5.29%	7	7
Sunnyvale	1,825	4.93%	8	8
San Mateo	1,441	3.89%	9	9
Menlo Park	1,393	3.77%	10	10
San Carlos	928	2.51%	11	11
California Ave.	917	2.48%	12	13
22nd Street	872	2.36%	13	12
Santa Clara	673	1.82%	14	14
Burlingame	646	1.75%	15	15
Tamien	610	1.65%	16	18
Lawrence	565	1.53%	17	17
San Antonio	551	1.49%	18	19
San Bruno	450	1.22%	19	20
Belmont	426	1.15%	20	21
South SF	373	1.01%	21	16
Hayward Park	210	0.57%	22	22
Bayshore	166	0.45%	23	23
Gilroy	149	0.40%	24	24
Morgan Hill	143	0.39%	25	25
College Park	97	0.26%	26	26
Blossom Hill	67	0.18%	27	27
San Martin	57	0.16%	28	28
Capitol	34	0.09%	29	29
TOTAL	36,993	100.00%		

February 2009 Caltrain Annual Counts
AVERAGE WEEKDAY PASSENGER ACTIVITY - ALL DAY

	NORTHBOUND		SOUTHBOUND		TOTAL	
STATION	On	Off	On	Off	On	Off
San Francisco	0	8,554	8,646	0	8,646	8,554
22nd Street	9	916	918	12	927	928
Bayshore	17	141	136	23	153	163
South SF	126	229	227	130	353	359
San Bruno	188	329	270	186	458	515
Millbrae	386	2,422	2,339	385	2,724	2,807
Burlingame	324	390	403	316	727	706
San Mateo	647	709	789	675	1,436	1,384
Hayward Park	121	128	116	125	237	253
Hillsdale	1,167	758	774	1,204	1,941	1,962
Belmont	216	213	242	219	457	433
San Carlos	503	542	503	519	1,006	1,060
Redwood City	1,378	831	809	1,416	2,187	2,247
Menlo Park	802	661	644	913	1,446	1,574
Palo Alto	2,551	1,435	1,411	2,734	3,962	4,169
California Ave.	588	327	313	574	901	901
San Antonio	535	118	113	401	648	520
Mountain View	3,061	378	394	3,067	3,455	3,445
Sunnyvale	1,774	137	142	1,675	1,916	1,812
Lawrence	524	111	111	520	636	631
Santa Clara	674	65	67	631	741	697
College Park	65	46	43	104	108	150
San Jose Diridon	2,882	45	101	2,834	2,983	2,879
Tamien	643	79	9	515	652	593
Capitol	27	8	6	28	34	36
Blossom Hill	57	10	7	48	64	59
Morgan Hill	122	2	1	115	123	117
San Martin	45	2	0	29	45	31
Gilroy	156	0	0	138	156	138
TOTAL	19,587	19,587	19,535	19,535	39,122	39,122

February 2009 Caltrain Annual Counts
STATION RANK BY ALL DAY PASSENGER BOARDINGS

STATION	TOTAL ON	% OF TOTAL	2009 RANK	2008 RANK
San Francisco	8,646	22.10%	1	1
Palo Alto	3,962	10.13%	2	2
Mountain View	3,455	8.83%	3	3
San Jose Diridon	2,983	7.62%	4	4
Millbrae	2,724	6.96%	5	5
Redwood City	2,187	5.59%	6	6
Hillsdale	1,941	4.96%	7	7
Sunnyvale	1,916	4.90%	8	8
Menlo Park	1,446	3.70%	9	10
San Mateo	1,436	3.67%	10	9
San Carlos	1,006	2.57%	11	11
22nd Street	927	2.37%	12	13
California Ave.	901	2.30%	13	12
Santa Clara	741	1.90%	14	14
Burlingame	727	1.86%	15	15
Tamien	652	1.67%	16	16
San Antonio	648	1.66%	17	18
Lawrence	636	1.62%	18	17
San Bruno	458	1.17%	19	19
Belmont	457	1.17%	20	20
South SF	353	0.90%	21	21
Hayward Park	237	0.61%	22	22
Gilroy	156	0.40%	23	24
Bayshore	153	0.39%	24	23
Morgan Hill	123	0.31%	25	25
College Park	108	0.28%	26	26
Blossom Hill	64	0.16%	27	27
San Martin	45	0.11%	28	28
Capitol	34	0.09%	29	29
TOTAL	39,122	100.00%		



Caltrain – Regional Rail Link

1.800.660.4287
(TTY 650.508.6448)
www.caltrain.com

Connecting transit services

ACE: 1.800.411.7245
Amtrak: 1.800.872.7245
BART: 650.992 2278
Dumbarton Express: 511
Marguerite shuttle: 650.723.9362
SF Muni: 415.673.6864
SamTrans: 1.800.660.4287
VTA: 408.321.2300 or 1.800.894.9908
(650 area code and South Santa Clara County)

Regional transit info: 511 or 510-817-1717

Reading the timetable

1. Locate the box for weekday or weekend trains and the direction you want to travel (northbound or southbound).
2. Find the station where you wish to board. Then read to the right for departure times and choose when you wish to ride.
3. From the departure time you have chosen, read down in the column for the station where you wish to get off the train. The time shown is when you will arrive.

Example: The 5:25 a.m. train leaving San Francisco on weekdays arrives in San Carlos at 6:08 a.m.

Note: - (dash) means that the train bypasses the station.

Caltrain

Administrative Office
1250 San Carlos Ave.
San Carlos, CA 94070
650.508.6200

02/2007 - 200M - RJC - F

GILROY / SAN JOSE to SAN FRANCISCO - Northbound

Train #	101	103	305	207	309	211	313	215	217	319	221	323	225	227	329	231	233	135	237	139	241	143	245	147
Gilroy									6:07		6:30			7:05										
San Martin									6:16		6:39			7:14										
Morgan Hill									6:22		6:45			7:20										
Blossom Hill									6:35		6:58			7:33										
Capitol									6:41		7:04			7:39										
Tamien	-	4:58	-	5:50	5:56	-	-	-	6:49	6:56	7:12	-	-	7:47	7:56	-	8:33	-	9:33	-	10:33	-	11:33	-
San Jose Diridon	4:30	5:05	5:45	5:57	6:03	6:22	6:45	6:50	6:57	7:03	7:20	7:45	7:50	7:55	8:03	8:22	8:40	9:10	9:40	10:10	10:40	11:10	11:40	12:10
College Park	-	-	-	-	-	-	-	-	-	-	-	-	-	7:58	-	-	-	-	-	-	-	-	-	-
Santa Clara	4:35	5:10	-	6:02	-	6:27	-	-	7:02	-	7:25	-	-	8:02	-	8:27	8:45	9:15	9:45	10:15	10:45	11:15	11:45	12:15
Lawrence	4:40	5:15	-	6:12	-	-	-	-	7:12	-	7:30	-	-	8:12	-	-	8:50	9:20	9:50	10:20	10:50	11:20	11:50	12:20
Sunnyvale	4:44	5:19	-	6:18	6:13	-	-	7:00	7:18	7:13	-	-	8:00	8:18	8:13	-	8:54	9:24	9:54	10:24	10:54	11:24	11:54	12:24
Mountain View	4:49	5:24	5:57	6:23	-	6:37	6:57	7:05	7:23	-	7:37	7:57	8:05	8:23	-	8:37	8:59	9:29	9:59	10:29	10:59	11:29	11:59	12:29
San Antonio	4:53	5:28	-	6:27	-	-	-	-	7:27	-	-	-	-	8:27	-	-	9:03	9:33	10:03	10:33	11:03	11:33	12:03	12:33
California Avenue	4:57	5:32	-	6:31	-	-	-	7:11	7:31	-	-	-	8:11	8:31	-	-	9:07	9:37	10:07	10:37	11:07	11:37	12:07	12:37
Palo Alto	5:01	5:36	6:05	6:36	6:23	-	7:05	7:16	7:36	7:23	-	8:05	8:16	8:36	8:23	-	9:11	9:41	10:11	10:41	11:11	11:41	12:11	12:41
Menlo Park	5:04	5:39	-	6:39	-	6:45	-	-	7:39	-	7:45	-	-	8:39	-	8:45	9:14	9:44	10:14	10:44	11:14	11:44	12:14	12:44
Redwood City	5:09	5:44	-	6:45	6:30	6:51	-	-	7:45	7:30	7:51	-	-	8:45	8:30	8:51	9:19	9:49	10:19	10:49	11:19	11:49	12:19	12:49
San Carlos	5:13	5:48	-	-	-	6:55	-	7:24	-	-	7:55	-	8:24	-	-	8:55	9:23	9:53	10:23	10:53	11:23	11:53	12:23	12:53
Belmont	5:16	5:51	-	-	-	6:58	-	-	-	-	7:58	-	-	-	-	8:58	9:26	9:56	10:26	10:56	11:26	11:56	12:26	12:56
Hillsdale	5:19	5:54	6:16	6:51	-	7:02	7:16	7:28	7:51	-	8:02	8:16	8:28	8:51	-	9:02	9:29	9:59	10:29	10:59	11:29	11:59	12:29	12:59
Hayward Park	5:22	5:57	-	-	-	7:05	-	-	-	-	8:05	-	-	-	-	9:05	-	10:02	-	11:02	-	12:02	-	1:02
San Mateo	5:25	6:00	-	-	6:39	7:08	-	7:32	-	7:39	8:08	-	8:32	-	8:39	9:08	9:33	10:05	10:33	11:05	11:33	12:05	12:33	1:05
Burlingame	5:28	6:03	-	-	-	7:11	-	7:35	-	-	8:11	-	8:35	-	-	9:11	9:36	10:08	10:36	11:08	11:36	12:08	12:36	1:08
Millbrae	5:33	6:08	6:24	6:59	6:45	7:17	7:24	-	7:59	7:45	8:17	8:24	-	8:59	8:45	9:17	9:41	10:13	10:41	11:13	11:41	12:13	12:41	1:13
San Bruno	5:37	6:12	-	-	-	7:21	-	7:42	-	-	8:21	-	8:42	-	-	9:21	9:45	10:17	10:45	11:17	11:45	12:17	12:45	1:17
So. San Francisco	5:41	6:16	-	7:05	-	7:25	-	-	8:05	-	8:25	-	-	9:05	-	9:25	-	10:21	-	11:21	-	12:21	-	1:21
Bayshore	5:47	6:22	-	-	-	7:33	-	-	-	-	8:33	-	-	-	-	9:31	-	10:27	-	11:27	-	12:27	-	1:27
22nd Street	5:52	6:27	-	-	-	7:40	-	-	-	-	8:40	-	-	-	-	9:37	-	10:32	-	11:32	-	12:32	-	1:32
San Francisco	6:01	6:36	6:42	7:19	7:02	7:48	7:42	7:57	8:19	8:02	8:48	8:42	8:57	9:19	9:02	9:45	10:02	10:41	11:02	11:41	12:02	12:41	1:02	1:41

AM

Last two digits of train numbers are pc

SAN FRANCISCO to SAN JOSE / GILROY - Southbound

Train #	102	104	206	208	210	312	314	216	218	220	322	324	226	228	230	332	134	236	138	240	142	244	146	248
San Francisco	4:55	5:25	6:11	6:24	6:44	6:59	7:14	7:19	7:24	7:44	7:59	8:14	8:19	8:24	8:44	8:59	9:07	9:37	10:07	10:37	11:07	11:37	12:07	12:37
22nd Street	5:00	5:30	6:16	6:29	6:49	7:04	7:19	-	7:29	7:49	8:04	8:19	-	8:29	8:49	9:04	9:12	-	10:12	-	11:12	-	12:12	-
Bayshore	5:05	5:35	-	6:34	-	-	-	-	7:34	-	-	-	-	8:34	-	-	9:17	-	10:17	-	11:17	-	12:17	-
So San Francisco	5:11	5:41	-	6:40	-	-	-	-	7:40	-	-	-	-	8:40	-	-	9:23	-	10:23	-	11:23	-	12:23	-
San Bruno	5:15	5:45	-	6:44	-	-	-	7:33	7:44	-	-	-	8:33	8:44	-	-	9:27	9:51	10:27	10:51	11:27	11:51	12:27	12:51
Millbrae	5:19	5:49	6:29	6:48	7:01	7:17	7:32	-	7:48	8:01	8:17	8:32	-	8:48	9:01	9:17	9:31	9:55	10:31	10:55	11:31	11:55	12:31	12:55
Burlingame	5:23	5:53	6:33	6:52	-	-	-	7:38	7:52	-	-	-	8:38	8:52	-	-	9:35	9:59	10:35	10:59	11:35	11:59	12:35	12:59
San Mateo	5:26	5:56	6:36	6:55	7:07	-	-	7:42	7:55	8:07	-	-	8:42	8:55	9:07	-	9:38	10:02	10:38	11:02	11:38	12:02	12:38	1:02
Hayward Park	5:29	5:59	-	6:58	-	-	-	-	7:58	-	-	-	-	8:58	-	-	9:41	-	10:41	-	11:41	-	12:41	-
Hillsdale	5:32	6:02	6:40	7:01	-	-	7:40	7:48	8:01	-	-	8:40	8:46	9:01	-	-	9:44	10:06	10:44	11:06	11:44	12:06	12:44	1:06
Belmont	5:35	6:05	-	7:04	-	-	-	-	8:04	-	-	-	-	9:04	-	-	9:47	10:09	10:47	11:09	11:47	12:09	12:47	1:09
San Carlos	5:38	6:08	6:44	7:07	7:13	-	-	7:50	8:07	8:13	-	-	8:50	9:07	9:13	-	9:50	10:12	10:50	11:12	11:50	12:12	12:50	1:12
Redwood City	5:43	6:13	6:49	7:12	7:18	7:30	-	-	8:12	8:18	8:30	-	-	9:12	9:18	9:30	9:56	10:17	10:55	11:17	11:55	12:17	12:55	1:17
Menlo Park	5:48	6:18	6:54	-	7:23	7:35	-	7:58	-	8:23	8:35	-	8:58	-	9:23	9:35	10:00	10:22	11:00	11:22	12:00	12:22	1:00	1:22
Palo Alto	5:51	6:21	6:57	7:18	7:26	-	7:51	8:01	8:18	8:26	-	8:51	9:01	9:18	9:26	-	10:03	10:25	11:03	11:25	12:03	12:25	1:03	1:25
California Avenue	5:55	6:25	7:01	-	7:30	-	-	-	-	8:30	-	-	-	-	9:30	-	10:07	10:29	11:07	11:29	12:07	12:29	1:07	1:29
San Antonio	5:59	6:29	-	-	7:34	-	-	-	-	8:34	-	-	-	-	9:34	-	10:11	10:33	11:11	11:33	12:11	12:33	1:11	1:33
Mountain View	6:03	6:33	7:07	-	7:38	7:44	7:58	8:09	-	8:38	8:44	8:58	9:09	-	9:38	9:44	10:15	10:37	11:15	11:37	12:15	12:37	1:15	1:37
Sunnyvale	6:08	6:38	-	-	7:43	-	-	-	-	8:43	-	-	-	-	9:43	-	10:20	10:42	11:20	11:42	12:20	12:42	1:20	1:42
Lawrence	6:12	6:42	7:12	-	7:49	-	-	8:16	-	8:49	-	-	9:16	-	9:49	-	10:24	10:46	11:24	11:46	12:24	12:46	1:24	1:46
Santa Clara	6:17	6:47	-	7:34	7:56	-	-	-	8:34	8:56	-	-	-	9:34	9:56	-	10:29	10:51	11:29	11:51	12:29	12:51	1:29	1:51
College Park	-	-	-	-	7:59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
San Jose Diridon	6:26	6:56	7:24	7:43	8:06	7:58	8:13	8:28	8:43	9:05	8:58	9:13	9:28	9:43	10:05	9:58	10:38	11:00	11:38	12:00	12:38	1:00	1:38	2:00
Tamien	-	7:03	-	7:50	8:13	-	-	-	8:50	9:12	-	-	-	9:50	10:12	-	-	11:07	-	12:07	-	1:07	-	2:07
Capitol																								
Blossom Hill																								
Morgan Hill																								
San Martin																								
Gilroy																								

AM PM

Local | Limited | Baby Bullet | Timed Transfer | + Train may leave up

WEEKDAY SERVICE

139	241	143	245	147	249	151	253	155	257	159	261	263	365	267	369	271	373	275	277	379	281	383	285	287	189	191	193	*195	
					PM																								Gilroy San Martin Morgan Hill
																													Blossom Hill Capitol
-	10:33	-	11:33	-	12:33	-	1:33	-	2:33	-	3:37	3:58	-	4:32	-	4:58	-	-	5:32	-	5:58	-	6:24	-	-	8:03	9:03	-	Tamien
10:10	10:40	11:10	11:40	12:10	12:40	1:10	1:40	2:10	2:40	3:05	3:44	4:05	4:25	4:39	4:45	5:05	5:25	5:31	5:39	5:45	6:05	6:25	6:31	6:45	6:50	8:10	9:10	10:30	San Jose Diridon
-	-	-	-	-	-	-	-	-	-	3:08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	College Park
10:15	10:45	11:15	11:45	12:15	12:45	1:15	1:45	2:15	2:45	3:12	3:49	4:10	-	4:44	-	5:10	-	-	5:44	-	6:10	-	-	-	6:55	8:15	9:15	10:35	Santa Clara
10:20	10:50	11:20	11:50	12:20	12:50	1:20	1:50	2:20	2:50	3:17	3:54	-	-	4:52	-	-	-	5:39	5:52	-	-	-	6:39	6:53	7:00	8:20	9:20	10:40	Lawrence
10:24	10:54	11:24	11:54	12:24	12:54	1:24	1:54	2:24	2:54	3:21	3:58	-	-	4:58	-	-	-		5:58	-	-	-			7:04	8:24	9:24	10:44	Sunnyvale
10:29	10:59	11:29	11:59	12:29	12:59	1:29	1:59	2:29	2:59	3:26	4:03	-	4:37	5:03	4:58	-	5:37	5:46	6:03	5:58	-	6:37	6:46	7:00	7:09	8:29	9:29	10:49	Mountain View
10:33	11:03	11:33	12:03	12:33	1:03	1:33	2:03	2:33	3:03	3:30	4:07	-	-	5:07	-	-	-	-	6:07	-	-	-	-	-	7:13	8:33	9:33	10:53	San Antonio
10:37	11:07	11:37	12:07	12:37	1:07	1:37	2:07	2:37	3:07	3:34	4:11	-	-	5:11	-	-	-	-	6:11	-	-	-	-	7:06	7:17	8:37	9:37	10:57	California Avenue
10:41	11:11	11:41	12:11	12:41	1:11	1:41	2:11	2:41	3:11	3:38	4:16	4:24	-	5:16	5:06	5:24	-	5:54	6:16	6:06	6:24	-	6:54	7:10	7:21	8:41	9:41	11:01	Palo Alto
10:44	11:14	11:44	12:14	12:44	1:14	1:44	2:14	2:44	3:14	3:41	4:19	-	4:46	5:19	-	-	5:46	5:57	6:19	-	-	6:46	6:57	7:13	7:24	8:44	9:44	11:04	Menlo Park
10:49	11:19	11:49	12:19	12:49	1:19	1:49	2:19	2:49	3:19	3:46	4:25	4:31	4:52	5:25	-	5:31	5:52	-	6:25	-	6:31	6:52		7:19	7:29	8:49	9:49	11:09	Redwood City
10:53	11:23	11:53	12:23	12:53	1:23	1:53	2:23	2:53	3:23	3:50	4:29	4:35	-	5:29	-	5:35	-	6:04	6:29	-	6:35	-	7:04	7:23	7:33	8:53	9:53	11:13	San Carlos
10:56	11:26	11:56	12:26	12:56	1:26	1:56	2:26	2:56	3:26	3:53	-	4:38	-	-	-	5:38	-	-	-	-	6:38	-	-	-	7:36	8:56	9:56	11:16	Belmont
10:59	11:29	11:59	12:29	12:59	1:29	1:59	2:29	2:59	3:29	3:56	-	4:42	-	-	5:17	5:42	-	6:08	-	6:17	6:42	-	7:08	7:28	7:39	8:59	9:59	11:19	Hillsdale
11:02	-	12:02	-	1:02	-	2:02	-	3:02	-	3:59	-	4:45	-	-	-	5:45	-	-	-	-	6:45	-			7:42	9:02	10:02	11:22	Hayward Park
11:05	11:33	12:05	12:33	1:05	1:33	2:05	2:33	3:05	3:33	4:02	4:36	4:48	-	5:36	-	5:48	-	6:12	6:36	-	6:48	-	7:12	7:32	7:45	9:05	10:05	11:25	San Mateo
11:08	11:36	12:08	12:36	1:08	1:36	2:08	2:36	3:08	3:36	4:05		4:51	-	-	-	5:51	-	6:15	-	-	6:51	-	7:15	7:35	7:48	9:08	10:08	11:28	Burlingame
11:13	11:41	12:13	12:41	1:13	1:41	2:13	2:41	3:13	3:41	4:10	4:43	4:57	5:05	5:43	5:25	5:57	6:05	-	6:43	6:25	6:57	7:05	-	7:41	7:53	9:13	10:13	11:33	Millbrae
11:17	11:45	12:17	12:45	1:17	1:45	2:17	2:45	3:17	3:45	4:14	-	5:01	-	-	-	6:01	-	6:22	-	-	7:01	-	7:22	-	7:57	9:17	10:17	11:37	San Bruno
11:21	-	12:21	-	1:21	-	2:21	-	3:21	-	4:18	-	5:05	-	-	-	6:05	-	-	-	-	7:05	-	-	-	8:01	9:21	10:21	11:41	So. San Francisco
11:27	-	12:27	-	1:27	-	2:27	-	3:27	-	4:24	-	5:13*	-	-	-	6:13*	-	-	-	-	7:13*	-	-	-	8:07	9:27	10:27	11:47	Bayshore
11:32	-	12:32	-	1:32	-	2:32	-	3:32	-	4:29	4:55	5:21*	5:17	5:55	5:37	6:21*	6:17	-	6:55	6:37	7:21*	7:17	-	7:53	8:12	9:32	10:32	11:52	22nd Street
11:41	12:02	12:41	1:02	1:41	2:02	2:41	3:02	3:41	4:02	4:38	5:03	5:29	5:24	6:02	5:44	6:29	6:24	6:39	7:02	6:44	7:29	7:24	7:39	8:00	8:21	9:41	10:41	12:01	San Francisco

umbers are posted next to locomotive or front cab car

WEEKDAY SERVICE

240	142	244	146	248	150	252	154	256	158	260	362	264	266	368	270	372	274	276	378	280	382	284	386	288	190	192	194	196	
10:37	11:07	11:37	12:07	12:37	1:07	1:37	2:07	2:37	3:07	3:37	4:09	4:19	4:27	4:33	4:56	5:14	5:20	5:27	5:33	5:56	6:14	6:27	6:33	6:56	7:20	8:25	10:00	12:01	San Francisco
-	11:12	-	12:12	-	1:12	-	2:12	-	3:12	-	-	-	4:32	-	-	-	-	5:32	-	-	-	6:32	-	-	7:25	8:30	10:05	12:06	22nd Street
-	11:17	-	12:17	-	1:17	-	2:17	-	3:17	-	-	-	4:40	-	-	-	-	5:40	-	-	-	6:40	-	-	7:30	8:35	10:10	12:11	Bayshore
-	11:23	-	12:23	-	1:23	-	2:23	-	3:23	-	-	-	4:48	-	5:08	-	-	5:48	-	6:08	-	6:48	-	7:08	7:36	8:41	10:16	12:17	So. San Francisco
10:51	11:27	11:51	12:27	12:51	1:27	1:51	2:27	2:51	3:27	3:51	-	4:33	4:52	-	-	-	5:34	5:52	-	-	-	6:52	-	-	7:40	8:45	10:20	12:21	San Bruno
10:55	11:31	11:55	12:31	12:55	1:31	1:55	2:31	2:55	3:31	3:55	4:25	-	4:56	4:49	5:14	5:30	-	5:56	5:49	6:14	6:30	6:56	6:49	7:14	7:44	8:49	10:24	12:25	Millbrae
10:59	11:35	11:59	12:35	12:59	1:35	1:59	2:35	2:59	3:35	3:59	-	4:38	5:00	-	-	-	5:39	6:00	-	-	-	7:00	-	-	7:48	8:53	10:28	12:29	Burlingame
11:02	11:38	12:02	12:38	1:02	1:38	2:02	2:38	3:02	3:38	4:02	-	4:42	5:04	4:57	-	-	5:43	6:04	5:57	-	-	7:04	6:57	-	7:51	8:56	10:31	12:32	San Mateo
-	11:41	-	12:41	-	1:41	-	2:41	-	3:41	-	-	-	5:07	-	-	-	-	6:07	-	-	-	7:07	-	-	7:54	8:59	10:34	12:35	Hayward Park
11:06	11:44	12:06	12:44	1:06	1:44	2:06	2:44	3:06	3:44	4:06	4:33	4:47	5:11	-	5:22	5:38	5:48	6:11	-	6:22	6:38	7:11	-	7:22	7:57	9:02	10:37	12:38	Hillsdale
11:09	11:47	12:09	12:47	1:09	1:47	2:09	2:47	3:09	3:47	4:09	-	-	5:14	-	-	-	-	6:14	-	-	-	7:14	-	-	8:00	9:05	10:40	12:41	Belmont
11:12	11:50	12:12	12:50	1:12	1:50	2:12	2:50	3:12	3:50	4:12	-	4:51	5:18	-	-	-	5:52	6:18	-	-	-	7:18	-	-	8:03	9:08	10:43	12:44	San Carlos
11:17	11:55	12:17	12:55	1:17	1:55	2:17	2:55	3:17	3:55	4:17	-	-	5:22	5:06	5:28	-	-	6:22	6:06	6:28	-	7:22	7:06	7:28	8:08	9:13	10:48	12:49	Redwood City
11:22	12:00	12:22	1:00	1:22	2:00	2:22	3:00	3:22	4:00	4:22	-	-	5:28	-	5:34	-	-	6:28	-	6:34	-	7:28	-	7:34	8:13	9:18	10:53	12:54	Menlo Park
11:25	12:03	12:25	1:03	1:25	2:03	2:25	3:03	3:25	4:03	4:25	4:44	5:01	-	5:12	5:38	5:49	6:02	-	6:12	6:38	6:49	-	7:12	7:38	8:16	9:21	10:56	12:57	Palo Alto
11:29	12:07	12:29	1:07	1:29	2:07	2:29	3:07	3:29	4:07	4:29	-	5:05	-	-	5:42	-	6:06	-	-	6:42	-	-	-	7:42	8:20	9:25	11:00	1:01	California Avenue
11:33	12:11	12:33	1:11	1:33	2:11	2:33	3:11	3:33	4:11	4:33	-	-	-	-	5:46	-	-	-	-	6:46	-	-	-	7:46	8:24	9:29	11:04	1:05	San Antonio
11:37	12:15	12:37	1:15	1:37	2:15	2:37	3:15	3:37	4:15	4:37	4:51	5:11	5:36	-	5:50	5:56	6:12	6:36	-	6:50	6:56	7:36	-	7:50	8:28	9:33	11:08	1:09	Mountain View
11:42	12:20	12:42	1:20	1:42	2:20	2:42	3:20	3:42	4:20	4:42	-	5:16	-	5:21	5:55	-	6:17		6:21	6:55	-	-	7:21	7:55	8:33	9:38	11:13	1:14	Sunnyvale
11:46	12:24	12:46	1:24	1:46	2:24	2:46	3:24	3:46	4:24	4:46	-	-	-	-	6:01*	-	-	6:43	-	7:01*	-	-	-	7:59	8:37	9:42	11:17	1:18	Lawrence
11:51	12:29	12:51	1:29	1:51	2:29	2:51	3:29	3:51	4:29	4:51	-	-	5:47	-	6:08*	-	-	6:48	-	7:08*	-	7:47	-	8:04	8:42	9:47	11:22	1:23	Santa Clara
-	-	-	-	-	-	-	-	-	4:32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	College Park
12:00	12:38	1:00	1:38	2:00	2:38	3:00	3:38	4:00	4:39	5:00	5:06	5:27	5:55	5:32	6:16	6:11	6:28	6:56	6:32	7:16	7:11	7:55	7:32	8:12	8:51	9:56	11:31	1:32	San Jose Diridon
12:07	-	1:07	-	2:07	-	3:07	-	4:07	4:45	5:07	-	-	-	5:39	6:22	-	-	7:02	6:39	7:23	-	-	7:39	8:19	-	10:03	11:38	-	Tamien
									4:52						6:29			7:09											Capitol
									4:58						6:35			7:15											Blossom Hill
									5:11						6:48			7:28											Morgan Hill
									5:17						6:54			7:34											San Martin
									5:30						7:07			7:47											Gilroy
					PM																								

Transfer * Train may leave up to 5 minutes early. - Train bypasses station. * Train departure may be delayed up to 15 minutes after Sharks games.

WEEKEND SERVICE - Northbound

Saturday and Sunday

	Train Number	SAT ONLY 421	423	425	427	429	431	433	435	437	439	441	443	445	447	449	SAT ONLY 451
	Shuttle Bus Departs: Tamien	-	7:31	8:31	9:31	10:31	11:31	12:31	1:31	2:31	3:31	4:31	5:31	6:31	7:31	-	-
	Arrives: San Jose Diridon	-	7:45	8:45	9:45	10:45	11:45	12:45	1:45	2:45	3:45	4:45	5:45	6:45	7:45	-	-
47.5	San Jose Diridon	7:00	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:30
44.7	Santa Clara	7:05	8:05	9:05	10:05	11:05	12:05	1:05	2:05	3:05	4:05	5:05	6:05	7:05	8:05	9:05	10:35
40.8	Lawrence	7:10	8:10	9:10	10:10	11:10	12:10	1:10	2:10	3:10	4:10	5:10	6:10	7:10	8:10	9:10	10:40
38.8	Sunnyvale	7:14	8:14	9:14	10:14	11:14	12:14	1:14	2:14	3:14	4:14	5:14	6:14	7:14	8:14	9:14	10:44
36.1	Mountain View	7:19	8:19	9:19	10:19	11:19	12:19	1:19	2:19	3:19	4:19	5:19	6:19	7:19	8:19	9:19	10:49
34.1	San Antonio	7:23	8:23	9:23	10:23	11:23	12:23	1:23	2:23	3:23	4:23	5:23	6:23	7:23	8:23	9:23	10:53
31.8	California Avenue	7:27	8:27	9:27	10:27	11:27	12:27	1:27	2:27	3:27	4:27	5:27	6:27	7:27	8:27	9:27	10:57
30.1	Palo Alto	7:31	8:31	9:31	10:31	11:31	12:31	1:31	2:31	3:31	4:31	5:31	6:31	7:31	8:31	9:31	11:01
28.9	Menlo Park	7:34	8:34	9:34	10:34	11:34	12:34	1:34	2:34	3:34	4:34	5:34	6:34	7:34	8:34	9:34	11:04
27.8	Atherton	7:37	8:37	9:37	10:37	11:37	12:37	1:37	2:37	3:37	4:37	5:37	6:37	7:37	8:37	9:37	11:07
25.4	Redwood City	7:41	8:41	9:41	10:41	11:41	12:41	1:41	2:41	3:41	4:41	5:41	6:41	7:41	8:41	9:41	11:11
23.2	San Carlos	7:45	8:45	9:45	10:45	11:45	12:45	1:45	2:45	3:45	4:45	5:45	6:45	7:45	8:45	9:45	11:15
21.9	Belmont	7:48	8:48	9:48	10:48	11:48	12:48	1:48	2:48	3:48	4:48	5:48	6:48	7:48	8:48	9:48	11:18
20.3	Hillsdale	7:51	8:51	9:51	10:51	11:51	12:51	1:51	2:51	3:51	4:51	5:51	6:51	7:51	8:51	9:51	11:21
19.1	Hayward Park	7:54	8:54	9:54	10:54	11:54	12:54	1:54	2:54	3:54	4:54	5:54	6:54	7:54	8:54	9:54	11:24
17.9	San Mateo	7:57	8:57	9:57	10:57	11:57	12:57	1:57	2:57	3:57	4:57	5:57	6:57	7:57	8:57	9:57	11:27
16.3	Burlingame	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:30
15.2	Broadway	8:03	9:03	10:03	11:03	12:03	1:03	2:03	3:03	4:03	5:03	6:03	7:03	8:03	9:03	10:03	11:33
13.7	Millbrae	8:08	9:08	10:08	11:08	12:08	1:08	2:08	3:08	4:08	5:08	6:08	7:08	8:08	9:08	10:08	11:38
11.6	San Bruno	8:12	9:12	10:12	11:12	12:12	1:12	2:12	3:12	4:12	5:12	6:12	7:12	8:12	9:12	10:12	11:42
9.3	South San Francisco	8:17	9:17	10:17	11:17	12:17	1:17	2:17	3:17	4:17	5:17	6:17	7:17	8:17	9:17	10:17	11:47
5.2	Bayshore	8:23	9:23	10:23	11:23	12:23	1:23	2:23	3:23	4:23	5:23	6:23	7:23	8:23	9:23	10:23	11:53
1.9	22nd Street	8:28	9:28	10:28	11:28	12:28	1:28	2:28	3:28	4:28	5:28	6:28	7:28	8:28	9:28	10:28	11:58
0.2	San Francisco	8:36	9:36	10:36	11:36	12:36	1:36	2:36	3:36	4:36	5:36	6:36	7:36	8:36	9:36	10:36	12:00
	AM: Morning PM: Afternoon / Evening				AM	PM											AM

On weekends, a shuttle bus connects the Tamien and Diridon stations. Caltrain fare policies apply.

* Train departure may be delayed up to 15 minutes after Sharks games.

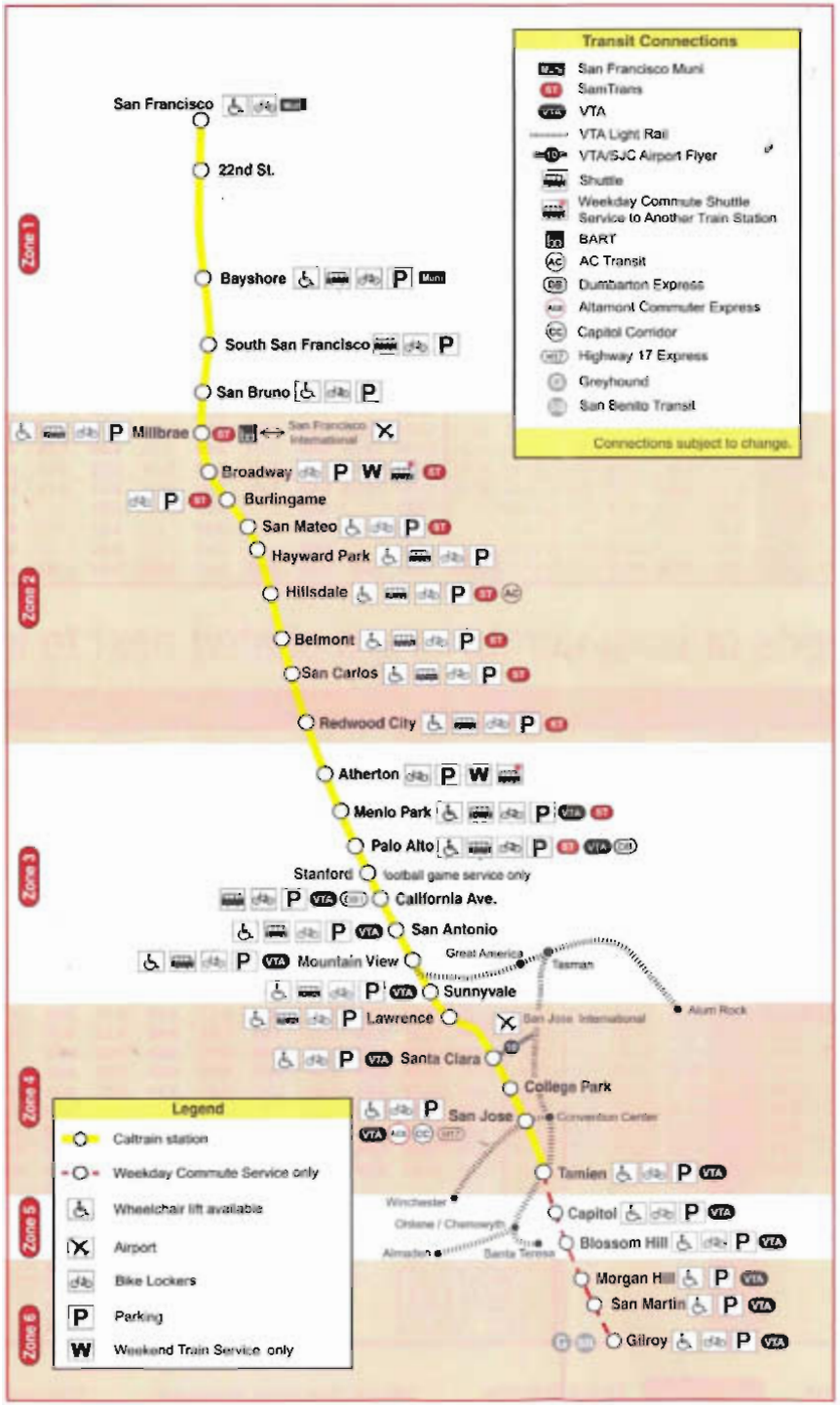
Timetable subject to change without notice.

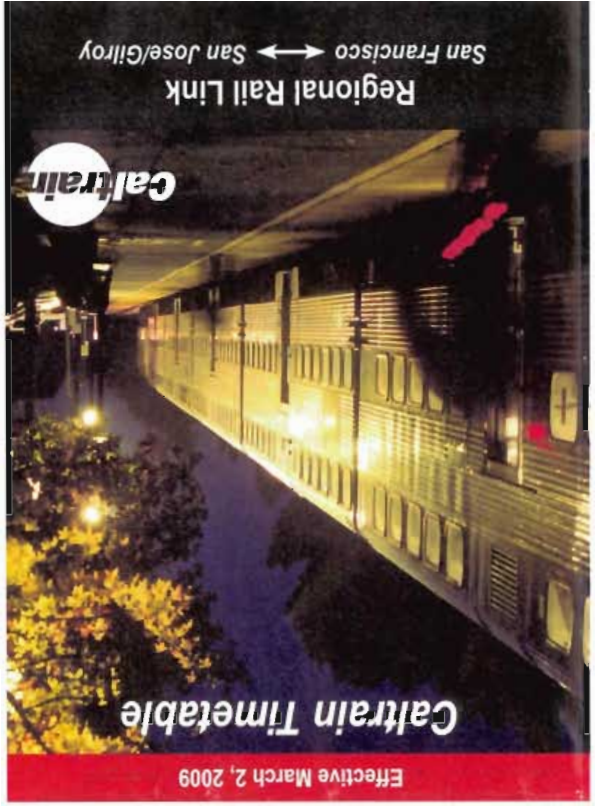
WEEKEND SERVICE - Southbound

Saturday and Sunday

	Train Number	422	424	426	428	430	432	434	436	438	440	442	444	446	448	SAT ONLY 450	454
	AM: Morning PM: Afternoon / Evening				AM	PM											AM
0.2	San Francisco	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	12:01
1.9	22nd Street	8:05	9:05	10:05	11:05	12:05	1:05	2:05	3:05	4:05	5:05	6:05	7:05	8:05	9:05	10:05	12:06
5.2	Bayshore	8:10	9:10	10:10	11:10	12:10	1:10	2:10	3:10	4:10	5:10	6:10	7:10	8:10	9:10	10:10	12:11
9.3	South San Francisco	8:16	9:16	10:16	11:16	12:16	1:16	2:16	3:16	4:16	5:16	6:16	7:16	8:16	9:16	10:16	12:17
11.6	San Bruno	8:20	9:20	10:20	11:20	12:20	1:20	2:20	3:20	4:20	5:20	6:20	7:20	8:20	9:20	10:20	12:21
13.7	Millbrae	8:24	9:24	10:24	11:24	12:24	1:24	2:24	3:24	4:24	5:24	6:24	7:24	8:24	9:24	10:24	12:25
15.2	Broadway	8:28	9:28	10:28	11:28	12:28	1:28	2:28	3:28	4:28	5:28	6:28	7:28	8:28	9:28	10:28	12:29
16.3	Burlingame	8:30	9:30	10:30	11:30	12:30	1:30	2:30	3:30	4:30	5:30	6:30	7:30	8:30	9:30	10:30	12:31
17.9	San Mateo	8:34	9:34	10:34	11:34	12:34	1:34	2:34	3:34	4:34	5:34	6:34	7:34	8:34	9:34	10:34	12:35
19.1	Hayward Park	8:37	9:37	10:37	11:37	12:37	1:37	2:37	3:37	4:37	5:37	6:37	7:37	8:37	9:37	10:37	12:38
20.3	Hillsdale	8:40	9:40	10:40	11:40	12:40	1:40	2:40	3:40	4:40	5:40	6:40	7:40	8:40	9:40	10:40	12:41
21.9	Belmont	8:43	9:43	10:43	11:43	12:43	1:43	2:43	3:43	4:43	5:43	6:43	7:43	8:43	9:43	10:43	12:44
23.2	San Carlos	8:46	9:46	10:46	11:46	12:46	1:46	2:46	3:46	4:46	5:46	6:46	7:46	8:46	9:46	10:46	12:47
25.4	Redwood City	8:52	9:52	10:52	11:52	12:52	1:52	2:52	3:52	4:52	5:52	6:52	7:52	8:52	9:52	10:52	12:53
27.8	Atherton	8:56	9:56	10:56	11:56	12:56	1:56	2:56	3:56	4:56	5:56	6:56	7:56	8:56	9:56	10:56	12:57
28.9	Menlo Park	8:59	9:59	10:59	11:59	12:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	1:00
30.1	Palo Alto	9:02	10:02	11:02	12:02	1:02	2:02	3:02	4:02	5:02	6:02	7:02	8:02	9:02	10:02	11:02	1:03
31.8	California Avenue	9:06	10:06	11:06	12:06	1:06	2:06	3:06	4:06	5:06	6:06	7:06	8:06	9:06	10:06	11:06	1:07
34.1	San Antonio	9:10	10:10	11:10	12:10	1:10	2:10	3:10	4:10	5:10	6:10	7:10	8:10	9:10	10:10	11:10	1:11
36.1	Mountain View	9:14	10:14	11:14	12:14	1:14	2:14	3:14	4:14	5:14	6:14	7:14	8:14	9:14	10:14	11:14	1:15
38.8	Sunnyvale	9:19	10:19	11:19	12:19	1:19	2:19	3:19	4:19	5:19	6:19	7:19	8:19	9:19	10:19	11:19	1:20
40.8	Lawrence	9:23	10:23	11:23	12:23	1:23	2:23	3:23	4:23	5:23	6:23	7:23	8:23	9:23	10:23	11:23	1:24
44.7	Santa Clara	9:28	10:28	11:28	12:28	1:28	2:28	3:28	4:28	5:28	6:28	7:28	8:28	9:28	10:28	11:28	1:29
47.5	San Jose Diridon	9:36	10:36	11:36	12:36	1:36	2:36	3:36	4:36	5:36	6:36	7:36	8:36	9:36	10:36	11:36	1:37
	Shuttle Bus Departs: San Jose Diridon	9:50	10:50	11:50	12:50	1:50	2:50	3:50	4:50	5:50	6:50	7:50	8:50	9:50	-	-	-
	Arrives: Tamien	9:58	10:58	11:58	12:58	1:58	2:58	3:58	4:58	5:58	6:58	7:58	8:58	9:58	-	-	-

CALTRAIN SYSTEM MAP





Caltrain – Regional Rail Link

1.800.660.4287 (TTY 650.508.6448)

www.caltrain.com

Connecting transit services

ACE: 1.800.411.7245
Amtrak: 1.800.872.7245
BART: 650.992.2278
Dumbarton Express: 511
Marguerite shuttle: 650.723.9362
SFMTA (Muni): 415.673.6864
SamTrans: 1.800.660.4287
VTA: 408.321.2300 or 1.800.894.9908
(650 area code and South Santa Clara County)

Regional transit info: 511 or 510.817.1717 (www.511.org)

Reading the timetable

1. Locate the box for weekday or weekend trains and the direction you want to travel (northbound or southbound).
2. Find the station where you wish to board. Then read to the right for departure times and choose when you wish to ride.
3. From the departure time you have chosen, read down in the column for the station where you wish to get off the train. The time shown is when you will arrive.

   Example: The 5:25 a.m. train leaving San Francisco on weekdays arrives in San Carlos at 6:08 a.m.

   Note: - (dash) means that the train bypasses the station.

Caltrain
Administrative Office
1250 San Carlos Ave. • San Carlos, CA 94070
650.508.6200
3/09 - 200K - RJC - F

GILROY / SAN JOSE to SAN FRANCISCO - Northbound

	Train #	101	103	305	207	309	211	313	215	217	319	221	323	225	227	329	231	233	135	237	139	241	143	245	147
	Gilroy	AM								6:07		6:30			7:05									AM	
Zone 6	San Martin									6:16		6:39			7:14										
	Morgan Hill									6:22		6:45			7:20										
Zone 5	Blossom Hill									6:35		6:58			7:33										
	Capitol									6:41		7:04			7:39										
	Tamien	-	4:58		5:50	5:56				6:49	6:56	7:12			7:47	7:56		8:33		9:35		10:35		11:35	
	San Jose Diridon	4:30	5:05	5:45	5:57	6:03	6:22	6:45	6:50	6:57	7:03	7:20	7:45	7:50	7:55	8:03	8:22	8:40	9:10	9:40	10:10	10:40	11:10	11:40	12:10
	College Park	-	-	-	-	-	-	-	-	-	-	-	-	-	7:58	-	-	-	-	-	-	-	-	-	-
Zone 4	Santa Clara	4:35	5:10	-	6:02	-	6:27	-	-	7:02	-	7:25	-	-	8:02	-	8:27	8:45	9:15	9:45	10:15	10:45	11:15	11:45	12:15
	Lawrence	4:40	5:15	-	6:12	-	-	-	-	7:12	-	7:30	-	-	8:12	-	-	8:50	9:20	9:50	10:20	10:50	11:20	11:50	12:20
	Sunnyvale	4:44	5:19	-	6:18	6:13	-	-	7:00	7:18	7:13	-	-	8:00	8:18	8:13	-	8:54	9:24	9:54	10:24	10:54	11:24	11:54	12:24
	Mountain View	4:49	5:24	5:57	6:23	-	6:37	6:57	7:05	7:23	-	7:37	7:57	8:05	8:23	-	8:37	8:59	9:29	9:59	10:29	10:59	11:29	11:59	12:29
	San Antonio	4:53	5:28	-	6:27	-	-	-	-	7:27	-	-	-	-	8:27	-	-	9:03	9:33	10:03	10:33	11:03	11:33	12:03	12:33
	California Avenue	4:57	5:32	-	6:31	-	-	-	7:11	7:31	-	-	-	8:11	8:31	-	-	9:07	9:37	10:07	10:37	11:07	11:37	12:07	12:37
Zone 3	Palo Alto	5:01	5:36	6:05	6:36	6:23	-	7:05	7:16	7:36	7:23	-	8:05	8:16	8:36	8:23	-	9:11	9:41	10:11	10:41	11:11	11:41	12:11	12:41
	Menlo Park	5:04	5:39	-	6:39	-	6:45	-	-	7:39	-	7:45	-	-	8:39	-	8:45	9:14	9:44	10:14	10:44	11:14	11:44	12:14	12:44
	Redwood City	5:09	5:44	-	6:45	6:30	6:51	-	-	7:45	7:30	7:51	-	-	8:45	8:30	8:51	9:19	9:49	10:19	10:49	11:19	11:49	12:19	12:49
	San Carlos	5:13	5:48	-	-	-	6:55	-	7:24	-	-	7:55	-	8:24	-	-	8:55	9:23	9:53	10:23	10:53	11:23	11:53	12:23	12:53
	Belmont	5:16	5:51	-	-	-	6:58	-	-	-	-	7:58	-	-	-	-	8:58	9:26	9:56	10:26	10:56	11:26	11:56	12:26	12:56
	Hillsdale	5:19	5:54	6:16	6:51	-	7:02	7:16	7:28	7:51	-	8:02	8:16	8:28	8:51	-	9:02	9:29	9:59	10:29	10:59	11:29	11:59	12:29	12:59
	Hayward Park	5:22	5:57	-	-	-	7:05	-	-	-	-	8:05	-	-	-	-	9:05	-	10:02	-	11:02	-	12:02	-	1:02
	San Mateo	5:25	6:00	-	-	6:39	7:08	-	7:32	-	7:39	8:08	-	8:32	-	8:39	9:08	9:33	10:05	10:33	11:05	11:33	12:05	12:33	1:05
	,Burlingame	5:28	6:03	-	-	-	7:11	-	7:35	-	-	8:11	-	8:35	-	-	9:11	9:36	10:08	10:36	11:08	11:36	12:08	12:36	1:08
Zone 2	Millbrae	5:33	6:08	6:24	6:59	6:45	7:17	7:24	-	7:59	7:45	8:17	8:24	-	8:59	8:45	9:17	9:41	10:13	10:41	11:13	11:41	12:13	12:41	1:13
	San Bruno	5:37	6:12	-	-	-	7:21	-	7:42	-	-	8:21	-	8:42	-	-	9:21	9:45	10:17	10:46	11:17	11:45	12:17	12:45	1:17
	So. San Francisco	5:41	6:16	-	7:05	-	7:25	-	-	8:05	-	8:25	-	-	9:05	-	9:25	-	10:21	-	11:21	-	12:21	-	1:21
	Bayshore	5:47	6:22	-	-	-	7:33+	-	-	-	-	8:33+	-	-	-	-	9:31	-	10:27	-	11:27	-	12:27	-	1:27
	22nd Street	5:52	6:27	-	-	-	7:40+	-	-	-	-	8:40+	-	-	-	-	9:37	-	10:32	-	11:32	-	12:32	-	1:32
Zone 1	San Francisco	6:01	6:36	6:42	7:19	7:02	7:48	7:42	7:57	8:19	8:02	8:48	8:42	8:57	9:19	9:02	9:45	10:02	10:41	11:02	11:41	12:02	12:41	1:02	1:41

Last two digits of train numbers are

SAN FRANCISCO to SAN JOSE / GILROY - Southbound

	Train #	102	104	206	208	210	312	314	216	218	220	322	324	226	228	230	332	134	236	138	240	142	244	146	248
Zone 1	San Francisco	4:55	5:25	6:11	6:24	6:44	6:59	7:14	7:19	7:24	7:44	7:59	8:14	8:19	8:24	8:44	8:59	9:07	9:37	10:07	10:37	11:07	11:37	12:07	12:37
	22nd Street	5:00	5:30	6:16	6:29	6:49	7:04	7:19	-	7:29	7:49	8:04	8:19	-	8:29	8:49	9:04	9:12	-	10:12	-	11:12	-	12:12	-
	Bayshore	5:05	5:35	-	6:34	-	-	-	-	7:34	-	-	-	-	8:34	-	-	9:17	-	10:17	-	11:17	-	12:17	-
	So. San Francisco	5:11	5:41	-	6:40	-	-	-	-	7:40	-	-	-	-	8:40	-	-	9:23	-	10:23	-	11:23	-	12:23	-
	San Bruno	5:15	5:45	-	6:44	-	-	-	7:33	7:44	-	-	-	8:33	8:44	-	-	9:27	9:51	10:27	10:51	11:27	11:51	12:27	12:51
Zone 2	Millbrae	5:19	5:49	6:29	6:48	7:01	7:17	7:32	-	7:48	8:01	8:17	8:32	-	8:48	9:01	9:17	9:31	9:55	10:31	10:55	11:31	11:55	12:31	12:55
	Burlingame	5:23	5:53	6:33	6:52	-	-	-	7:38	7:52	-	-	-	8:38	8:52	-	-	9:35	9:59	10:35	10:59	11:35	11:59	12:35	12:59
	San Mateo	5:26	5:56	6:36	6:55	7:07	-	-	7:42	7:55	8:07	-	-	8:42	8:55	9:07	-	9:38	10:02	10:38	11:02	11:38	12:02	12:38	1:02
	Hayward Park	5:29	5:59	-	6:58	-	-	-	-	7:58	-	-	-	-	8:58	-	-	9:41	-	10:41	-	11:41	-	12:41	-
	Hillsdale	5:32	6:02	6:40	7:01	-	-	7:40	7:46	8:01	-	-	8:40	8:46	9:01	-	-	9:44	10:06	10:44	11:06	11:44	12:06	12:44	1:06
	Belmont	5:35	6:05	-	7:04	-	-	-	-	8:04	-	-	-	-	9:04	-	-	9:47	10:09	10:47	11:09	11:47	12:09	12:47	1:09
	San Carlos	5:38	6:08	6:44	7:07	7:13	-	-	7:50	8:07	8:13	-	-	8:50	9:07	9:13	-	9:50	10:12	10:50	11:12	11:50	12:12	12:50	1:12
	Redwood City	5:43	6:13	6:49	7:12 ▶ 7:18		7:30	-	-	8:12 ▶ 8:18		8:30	-	-	9:12 ▶ 9:18		9:30	9:55	10:17	10:55	11:17	11:55	12:17	12:55	1:17
Zone 3	Menlo Park	5:48	6:18	6:54	-	7:23	7:35	-	7:58	-	8:23	8:35	-	8:58	-	9:23	9:35	10:00	10:22	11:00	11:22	12:00	12:22	1:00	1:22
	Palo Alto	5:51	6:21	6:57	7:16	7:26	-	7:51	8:01	8:16	8:26	-	8:51	9:01	9:16	9:26	-	10:03	10:25	11:03	11:25	12:03	12:25	1:03	1:25
	California Avenue	5:55	6:25	7:01	-	7:30	-	-	-	-	8:30	-	-	-	-	9:30	-	10:07	10:29	11:07	11:29	12:07	12:29	1:07	1:29
	San Antonio	5:59	6:29	-	-	7:34	-	-	-	-	8:34	-	-	-	-	9:34	-	10:11	10:33	11:11	11:33	12:11	12:33	1:11	1:33
	Mountain View	6:03	6:33	7:07	-	7:38	7:44	7:58	8:09	-	8:38	8:44	8:58	9:09	-	9:38	9:44	10:15	10:37	11:15	11:37	12:15	12:37	1:15	1:37
	Sunnyvale	6:08	6:38	-	-	7:43	-	-	-	-	8:43	-	-	-	-	9:43	-	10:20	10:42	11:20	11:42	12:20	12:42	1:20	1:42
Zone 4	Lawrence	6:12	6:42	7:12	-	7:48+	-	-	8:16	-	8:49+	-	-	9:16	-	9:49+	-	10:24	10:46	11:24	11:46	12:24	12:46	1:24	1:46
	Santa Clara	6:17	6:47	-	7:34	7:56+	-	-	-	8:34	8:56+	-	-	-	9:34	9:56+	-	10:29	10:51	11:29	11:51	12:29	12:51	1:29	1:51
	College Park	-	-	-	-	7:59+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	San Jose Diridon	6:26	6:56	7:24	7:43	8:06	7:58	8:13	8:28	8:43	9:05	8:58	9:13	9:28	9:43	10:05	9:58	10:38	11:00	11:38	12:00	12:38	1:00	1:38	2:00
	Tamien		7:03		7:50	8:13				8:50	9:12				9:50	10:12			11:07		12:07		1:07		2:07
Zone 5	Capitol																								
	Blossom Hill																								
Zone 6	Morgan Hill																								
	San Martin	AM																			PM				
	Gilroy																								

Local | Limited | Baby Bullet | 6:45 ▶ 6:51, 7:12 ▶ 7:18 Timed Transfers | + Train may leave up to 5 min

WEEKDAY SERVICE - Northbound

139	241	143	245	147	249	151	253	155	257	NORTHBOUND	159	261	263	365	267	369	271	373	275	277	379	281	383	285	287	189	191	193	195	*197	Train #
			AM		PM					Gilroy																				PM	Gilroy
										San Martin																					San Martin
										Morgan Hill																					Morgan Hill
										Blossom Hill																					Blossom Hill
										Capitol																					Capitol
	10:33		11:33		12:33		1:33		2:33	Tamien		3:37	3:58		4:32		4:58			5:32		5:58		6:24				8:23	9:23		Tamien
10:10	10:40	11:10	11:40	12:10	12:40	1:10	1:40	2:10	2:40	San Jose Diridon	3:05	3:44	4:05	4:25	4:39	4:45	5:05	5:25	5:31	5:39	5:45	6:05	6:25	6:31	6:45	6:50	7:30	8:30	9:30	10:30	San Jose Diridon
-	-	-	-	-	-	-	-	-	-	College Park	3:08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	College Park
10:15	10:45	11:15	11:45	12:15	12:45	1:15	1:45	2:15	2:45	Santa Clara	3:12	3:49	4:10	-	4:44	-	5:10	-	-	5:44	-	6:10	-	-	-	6:55	7:35	8:35	9:35	10:35	Santa Clara
10:20	10:50	11:20	11:50	12:20	12:50	1:20	1:50	2:20	2:50	Lawrence	3:17	3:54	-	-	4:52	-	-	-	5:39	5:52	-	-	-	6:39	6:53	7:00	7:40	8:40	9:40	10:40	Lawrence
10:24	10:54	11:24	11:54	12:24	12:54	1:24	1:54	2:24	2:54	Sunnyvale	3:21	3:58	-	-	4:58	-	-	-	-	5:58	-	-	-	-	-	7:04	7:44	8:44	9:44	10:44	Sunnyvale
10:29	10:59	11:29	11:59	12:29	12:59	1:29	1:59	2:29	2:59	Mountain View	3:26	4:03	-	4:37	5:03	4:58	-	5:37	5:46	6:03	5:58	-	6:37	6:46	7:00	7:09	7:49	8:49	9:49	10:49	Mountain View
10:33	11:03	11:33	12:03	12:33	1:03	1:33	2:03	2:33	3:03	San Antonio	3:30	4:07	-	-	5:07	-	-	-	-	6:07	-	-	-	-	-	7:13	7:53	8:53	9:53	10:53	San Antonio
10:37	11:07	11:37	12:07	12:37	1:07	1:37	2:07	2:37	3:07	California Avenue	3:34	4:11	-	-	5:11	-	-	-	-	6:11	-	-	-	-	7:06	7:17	7:57	8:57	9:57	10:57	California Avenue
10:41	11:11	11:41	12:11	12:41	1:11	1:41	2:11	2:41	3:11	Palo Alto	3:38	4:16	4:24	-	5:16	5:06	5:24	-	5:54	6:16	6:06	6:24	-	6:54	7:10	7:21	8:01	9:01	10:01	11:01	Palo Alto
10:44	11:14	11:44	12:14	12:44	1:14	1:44	2:14	2:44	3:14	Menlo Park	3:41	4:19	-	4:46	5:19	-	-	5:46	5:57	6:19	-	-	6:46	6:57	7:13	7:24	8:04	9:04	10:04	11:04	Menlo Park
10:49	11:19	11:49	12:19	12:49	1:19	1:49	2:19	2:49	3:19	Redwood City	3:46	4:25	4:31	4:52	5:25	-	5:31	5:52	-	6:25	-	6:31	6:52	-	7:19	7:29	8:09	9:09	10:09	11:09	Redwood City
10:53	11:23	11:53	12:23	12:53	1:23	1:53	2:23	2:53	3:23	San Carlos	3:50	4:29	4:35	-	5:29	-	5:35	-	6:04	6:29	-	6:35	-	7:04	7:23	7:33	8:13	9:13	10:13	11:13	San Carlos
10:56	11:26	11:56	12:26	12:56	1:26	1:56	2:26	2:56	3:26	Belmont	3:53	-	4:38	-	-	-	5:38	-	-	-	-	6:38	-	-	-	7:36	8:16	9:16	10:16	11:16	Belmont
10:59	11:29	11:59	12:29	12:59	1:29	1:59	2:29	2:59	3:29	Hillsdale	3:56	-	4:42	-	-	5:17	5:42	-	6:08	-	6:17	6:42	-	7:08	7:28	7:39	8:19	9:19	10:19	11:19	Hillsdale
11:02	-	12:02	-	1:02	-	2:02	-	3:02	-	Hayward Park	3:59	-	4:45	-	-	-	5:45	-	-	-	-	6:45	-	-	-	7:42	8:22	9:22	10:22	11:22	Hayward Park
11:05	11:33	12:05	12:33	1:05	1:33	2:05	2:33	3:05	3:33	San Mateo	4:02	4:36	4:48	-	5:36	-	5:48	-	6:12	6:36	-	6:48	-	7:12	7:32	7:45	8:25	9:25	10:25	11:25	San Mateo
11:08	11:36	12:08	12:36	1:08	1:36	2:08	2:36	3:08	3:36	Burlingame	4:05	-	4:51	-	-	-	5:51	-	6:15	-	-	6:51	-	7:15	7:35	7:48	8:28	9:28	10:28	11:28	Burlingame
11:13	11:41	12:13	12:41	1:13	1:41	2:13	2:41	3:13	3:41	Millbrae	4:10	4:43	4:57	5:05	5:43	5:25	5:57	6:05	-	6:43	6:25	6:57	7:05	-	7:41	7:53	8:33	9:33	10:33	11:33	Millbrae
11:17	11:45	12:17	12:45	1:17	1:45	2:17	2:45	3:17	3:45	San Bruno	4:14	-	5:01	-	-	-	6:01	-	6:22	-	-	7:01	-	7:22	-	7:57	8:37	9:37	10:37	11:37	San Bruno
11:21	-	12:21	-	1:21	-	2:21	-	3:21	-	So. San Francisco	4:18	-	5:05	-	-	-	6:05	-	-	-	-	7:05	-	-	-	8:01	8:41	9:41	10:41	11:41	So. San Francisco
11:27	-	12:27	-	1:27	-	2:27	-	3:27	-	Bayshore	4:24	-	5:13+	-	-	-	6:13+	-	-	-	-	7:13+	-	-	-	8:07	8:47	9:47	10:47	11:47	Bayshore
11:32	-	12:32	-	1:32	-	2:32	-	3:32	-	22nd Street	4:29	4:55	5:21+	5:17	5:55	5:37	6:21+	6:17	-	6:55	6:37	7:21+	7:17	-	7:53	8:12	8:52	9:52	10:52	11:52	22nd Street
11:41	12:02	12:41	1:02	1:41	2:02	2:41	3:02	3:41	4:02	San Francisco	4:38	5:03	5:29	5:24	6:02	5:44	6:29	6:24	6:39	7:02	6:44	7:29	7:24	7:39	8:00	8:21	9:01	10:01	11:01	12:01	San Francisco

numbers are posted next to locomotive or front cab car

WEEKDAY SERVICE - Southbound

240	142	244	146	248	150	252	154	256	158	SOUTHBOUND	260	362	264	266	368	270	372	274	276	378	280	382	284	386	288	190	192	194	196	198	Train #
10:37	11:07	11:37	12:07	12:37	1:07	1:37	2:07	2:37	3:07	San Francisco	3:37	4:09	4:19	4:27	4:33	4:56	5:14	5:20	5:27	5:33	5:56	6:14	6:27	6:33	6:56	7:30	8:40	9:40	10:40	12:01	San Francisco
-	11:12	-	12:12	-	1:12	-	2:12	-	3:12	22nd Street	-	-	-	4:32	-	-	-	-	5:32	-	-	-	6:32	-	-	7:35	8:45	9:45	10:45	12:06	22nd Street
-	11:17	-	12:17	-	1:17	-	2:17	-	3:17	Bayshore	-	-	-	4:40	-	-	-	-	5:40	-	-	-	6:40	-	-	7:40	8:50	9:50	10:50	12:11	Bayshore
-	11:23	-	12:23	-	1:23	-	2:23	-	3:23	So. San Francisco	-	-	-	4:48	-	5:08	-	-	5:48	-	6:08	-	6:48	-	7:08	7:46	8:56	9:56	10:56	12:17	So. San Francisco
10:51	11:27	11:51	12:27	12:51	1:27	1:51	2:27	2:51	3:27	San Bruno	3:51	-	4:33	4:52	-	-	-	5:34	5:52	-	-	-	6:52	-	-	7:50	9:00	10:00	11:00	12:21	San Bruno
10:55	11:31	11:55	12:31	12:55	1:31	1:55	2:31	2:55	3:31	Millbrae	3:55	4:25	-	4:56	4:49	5:14	5:30	-	5:56	5:49	6:14	6:30	6:56	6:49	7:14	7:54	9:04	10:04	11:04	12:25	Millbrae
10:59	11:35	11:59	12:35	12:59	1:35	1:59	2:35	2:59	3:35	Burlingame	3:59	-	4:38	5:00	-	-	-	5:39	6:00	-	-	-	7:00	-	-	7:58	9:08	10:08	11:08	12:29	Burlingame
11:02	11:38	12:02	12:38	1:02	1:38	2:02	2:38	3:02	3:38	San Mateo	4:02	-	4:42	5:04	4:57	-	-	5:43	6:04	5:57	-	-	7:04	6:57	-	8:01	9:11	10:11	11:11	12:32	San Mateo
-	11:41	-	12:41	-	1:41	-	2:41	-	3:41	Hayward Park	-	-	-	5:07	-	-	-	-	6:07	-	-	-	7:07	-	-	8:04	9:14	10:14	11:14	12:35	Hayward Park
11:06	11:44	12:06	12:44	1:06	1:44	2:06	2:44	3:06	3:44	Hillsdale	4:06	4:33	4:47	5:11	-	5:22	5:38	5:48	6:11	-	6:22	6:38	7:11	-	7:22	8:07	9:17	10:17	11:17	12:38	Hillsdale
11:09	11:47	12:09	12:47	1:09	1:47	2:09	2:47	3:09	3:47	Belmont	4:09	-	-	5:14	-	-	-	-	6:14	-	-	-	7:14	-	-	8:10	9:20	10:20	11:20	12:41	Belmont
11:12	11:50	12:12	12:50	1:12	1:50	2:12	2:50	3:12	3:50	San Carlos	4:12	-	4:51	5:18	-	-	-	5:52	6:18	-	-	-	7:18	-	-	8:13	9:23	10:23	11:23	12:44	San Carlos
11:17	11:55	12:17	12:55	1:17	1:55	2:17	2:55	3:17	3:55	Redwood City	4:17	-	-	5:22	5:06	5:28	-	-	6:22	6:06	6:28	-	7:22	7:06	7:28	8:18	9:28	10:28	11:28	12:49	Redwood City
11:22	12:00	12:22	1:00	1:22	2:00	2:22	3:00	3:22	4:00	Menlo Park	4:22	-	-	5:28	-	5:34	-	-	6:28	-	6:34	-	7:28	-	7:34	8:23	9:33	10:33	11:33	12:54	Menlo Park
11:25	12:03	12:25	1:03	1:25	2:03	2:25	3:03	3:25	4:03	Palo Alto	4:25	4:44	5:01	-	5:12	5:38	5:49	6:02	-	6:12	6:38	6:49	-	7:12	7:38	8:26	9:36	10:36	11:36	12:57	Palo Alto
11:29	12:07	12:29	1:07	1:29	2:07	2:29	3:07	3:29	4:07	California Avenue	4:29	-	5:05	-	-	5:42	-	6:06	-	-	6:42	-	-	-	7:42	8:30	9:40	10:40	11:40	1:01	California Avenue
11:33	12:11	12:33	1:11	1:33	2:11	2:33	3:11	3:33	4:11	San Antonio	4:33	-	-	-	-	5:46	-	-	-	-	6:46	-	-	-	7:46	8:34	9:44	10:44	11:44	1:05	San Antonio
11:37	12:15	12:37	1:15	1:37	2:15	2:37	3:15	3:37	4:15	Mountain View	4:37	4:51	5:11	5:36	-	5:50	5:56	6:12	6:36	-	6:50	6:56	7:36	-	7:50	8:38	9:48	10:48	11:48	1:09	Mountain View
11:42	12:20	12:42	1:20	1:42	2:20	2:42	3:20	3:42	4:20	Sunnyvale	4:42	-	5:16	-	5:21	5:55	-	6:17	-	6:21	6:55	-	-	7:21	7:55	8:43	9:53	10:53	11:53	1:14	Sunnyvale
11:46	12:24	12:46	1:24	1:46	2:24	2:46	3:24	3:46	4:24	Lawrence	4:46	-	-	-	-	6:01+	-	-	6:43	-	7:01+	-	-	-	7:59	8:47	9:57	10:57	11:57	1:18	Lawrence
11:51	12:29	12:51	1:29	1:51	2:29	2:51	3:29	3:51	4:29	Santa Clara	4:51	-	-	5:47	-	6:08+	-	-	6:48	-	7:08+	-	7:47	-	8:04	8:52	10:02	11:02	12:02	1:23	Santa Clara
	-	-	-	-	-	-	-	-	4:32	College Park	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	College Park
12:00	12:38	1:00	1:38	2:00	2:38	3:00	3:38	4:00	4:39	San Jose Diridon	5:00	5:06	5:27	5:55	5:32	6:16	6:11	6:28	6:56	6:32	7:16	7:11	7:55	7:32	8:12	9:01	10:11	11:11	12:11	1:32	San Jose Diridon
12:07		1:07		2:07		3:07		4:07	4:45	Tamien	5:07				5:39	6:22			7:02	6:39	7:23			7:39	8:19		10:18	11:18				Tamien
									4:52	Capitol						6:29			7:09												Capitol
									4:58	Blossom Hill						6:35			7:15												Blossom Hill
PM									5:11	Morgan Hill						6:48			7:28										AM		Morgan Hill
									5:17	San Martin						6:54			7:34												San Martin
									5:30	Gilroy						7:07			7:47									PM			Gilroy

+ Train may leave up to 5 minutes early. - Train bypasses station

* Train departure may be delayed up to 15 minutes after Sharks games.

WEEKEND SERVICE - Northbound - SAN JOSE to SAN FRANCISCO

Saturday and Sunday

Mile Post	Train #	SAT ONLY 421	423	425	427	429	431	433	435	437	439	441	443	445	447	449	SAT ONLY *451
	Shuttle Bus						AM	PM									
	Departs: Tamien	-	7:31	8:31	9:31	10:31	11:31	12:31	1:31	2:31	3:31	4:31	5:31	6:31	7:31	-	-
	Arrives SJ Diridon	-	7:45	8:45	9:45	10:45	11:45	12:45	1:45	2:45	3:45	4:45	5:45	6:45	7:45	-	-
47.5	San Jose Diridon	7:00	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:30
44.7	Santa Clara	7:05	8:05	9:05	10:05	11:05	12:05	1:05	2:05	3:05	4:05	5:05	6:05	7:05	8:05	9:05	10:35
40.8	Lawrence	7:10	8:10	9:10	10:10	11:10	12:10	1:10	2:10	3:10	4:10	5:10	6:10	7:10	8:10	9:10	10:40
38.8	Sunnyvale	7:14	8:14	9:14	10:14	11:14	12:14	1:14	2:14	3:14	4:14	5:14	6:14	7:14	8:14	9:14	10:44
36.1	Mountain View	7:19	8:19	9:19	10:19	11:19	12:19	1:19	2:19	3:19	4:19	5:19	6:19	7:19	8:19	9:19	10:49
34.1	San Antonio	7:23	8:23	9:23	10:23	11:23	12:23	1:23	2:23	3:23	4:23	5:23	6:23	7:23	8:23	9:23	10:53
31.8	California Avenue	7:27	8:27	9:27	10:27	11:27	12:27	1:27	2:27	3:27	4:27	5:27	6:27	7:27	8:27	9:27	10:57
30.1	Palo Alto	7:31	8:31	9:31	10:31	11:31	12:31	1:31	2:31	3:31	4:31	5:31	6:31	7:31	8:31	9:31	11:01
28.9	Menlo Park	7:34	8:34	9:34	10:34	11:34	12:34	1:34	2:34	3:34	4:34	5:34	6:34	7:34	8:34	9:34	11:04
27.8	Atherton	7:37	8:37	9:37	10:37	11:37	12:37	1:37	2:37	3:37	4:37	5:37	6:37	7:37	8:37	9:37	11:07
25.4	Redwood City	7:41	8:41	9:41	10:41	11:41	12:41	1:41	2:41	3:41	4:41	5:41	6:41	7:41	8:41	9:41	11:11
23.2	San Carlos	7:45	8:45	9:45	10:45	11:45	12:45	1:45	2:45	3:45	4:45	5:45	6:45	7:45	8:45	9:45	11:15
21.9	Belmont	7:48	8:48	9:48	10:48	11:48	12:48	1:48	2:48	3:48	4:48	5:48	6:48	7:48	8:48	9:48	11:18
20.3	Hillsdale	7:51	8:51	9:51	10:51	11:51	12:51	1:51	2:51	3:51	4:51	5:51	6:51	7:51	8:51	9:51	11:21
19.1	Hayward Park	7:54	8:54	9:54	10:54	11:54	12:54	1:54	2:54	3:54	4:54	5:54	6:54	7:54	8:54	9:54	11:24
17.9	San Mateo	7:57	8:57	9:57	10:57	11:57	12:57	1:57	2:57	3:57	4:57	5:57	6:57	7:57	8:57	9:57	11:27
16.3	Burlingame	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:30
15.2	Broadway	8:03	9:03	10:03	11:03	12:03	1:03	2:03	3:03	4:03	5:03	6:03	7:03	8:03	9:03	10:03	11:33
13.7	Millbrae	8:08	9:08	10:08	11:08	12:08	1:08	2:08	3:08	4:08	5:08	6:08	7:08	8:08	9:08	10:08	11:38
11.6	San Bruno	8:12	9:12	10:12	11:12	12:12	1:12	2:12	3:12	4:12	5:12	6:12	7:12	8:12	9:12	10:12	11:42
9.3	So. San Francisco	8:17	9:17	10:17	11:17	12:17	1:17	2:17	3:17	4:17	5:17	6:17	7:17	8:17	9:17	10:17	11:47
5.2	Bayshore	8:23	9:23	10:23	11:23	12:23	1:23	2:23	3:23	4:23	5:23	6:23	7:23	8:23	9:23	10:23	11:53
1.9	22nd Street	8:28	9:28	10:28	11:28	12:28	1:28	2:28	3:28	4:28	5:28	6:28	7:28	8:28	9:28	10:28	11:58
0.2	San Francisco	8:36	9:36	10:36	11:36	12:36	1:36	2:36	3:36	4:36	5:36	6:36	7:36	8:36	9:36	10:36	12:06

On weekends, a shuttle bus connects the Tamien and Diridon stations. Caltrain fare policies apply. Timetable subject to change without notice.

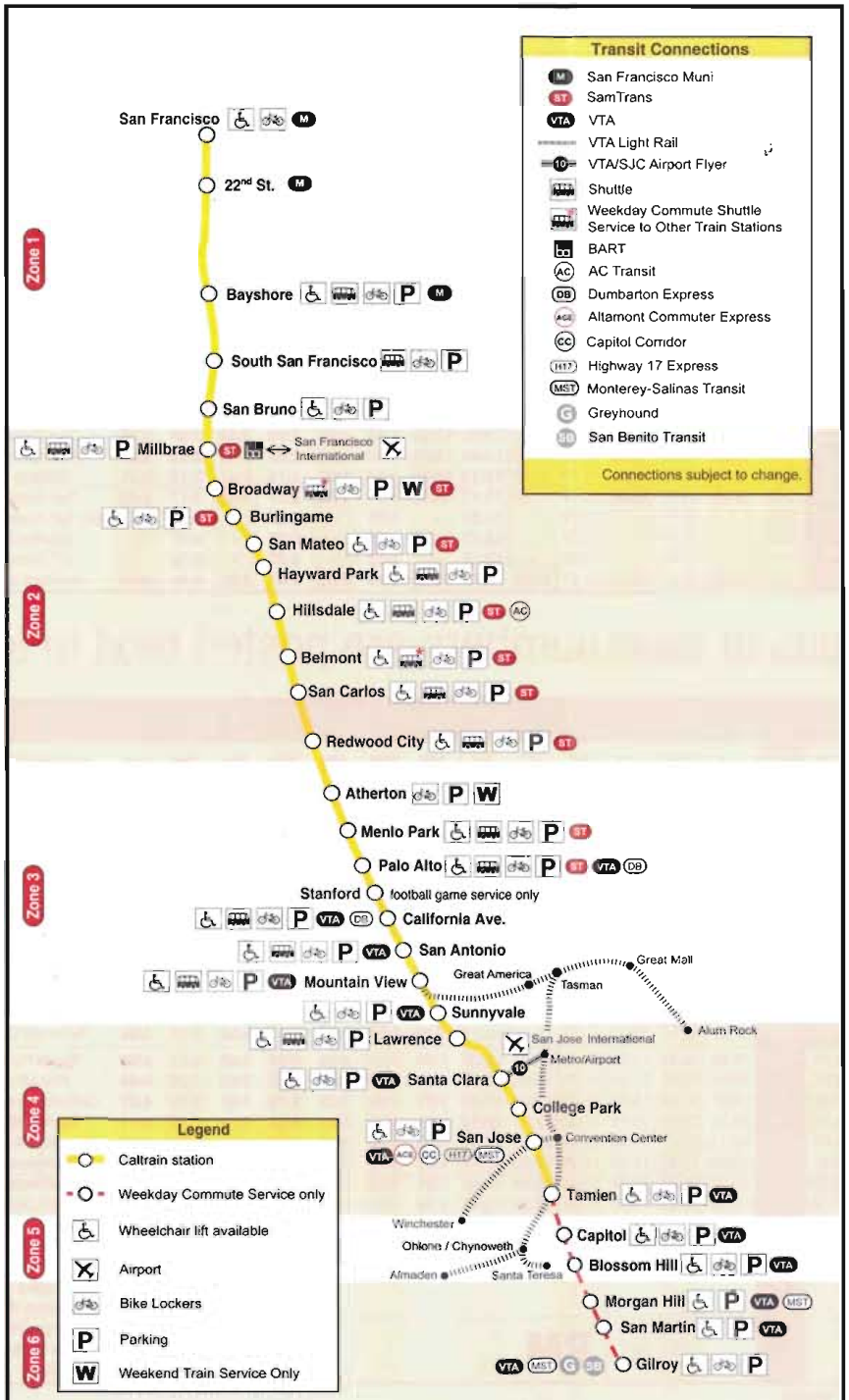
* Train departure may be delayed up to 15 minutes after Sharks games.

WEEKEND SERVICE - Southbound - SAN FRANCISCO to SAN JOSE

Saturday and Sunday

Mile Post	Train #	422	424	426	428	430	432	434	436	438	440	442	444	446	448	SAT ONLY 450	SAT ONLY 454
0.2	San Francisco	8:15	9:15	10:15	11:15	12:15	1:15	2:15	3:15	4:15	5:15	6:15	7:15	8:15	9:15	10:15	12:01
1.9	22nd Street	8:20	9:20	10:20	11:20	12:20	1:20	2:20	3:20	4:20	5:20	6:20	7:20	8:20	9:20	10:20	12:06
5.2	Bayshore	8:25	9:25	10:25	11:25	12:25	1:25	2:25	3:25	4:25	5:25	6:25	7:25	8:25	9:25	10:25	12:11
9.3	So. San Francisco	8:31	9:31	10:31	11:31	12:31	1:31	2:31	3:31	4:31	5:31	6:31	7:31	8:31	9:31	10:31	12:17
11.6	San Bruno	8:35	9:35	10:35	11:35	12:35	1:35	2:35	3:35	4:35	5:35	6:35	7:35	8:35	9:35	10:35	12:21
13.7	Millbrae	8:39	9:39	10:39	11:39	12:39	1:39	2:39	3:39	4:39	5:39	6:39	7:39	8:39	9:39	10:39	12:25
15.2	Broadway	8:43	9:43	10:43	11:43	12:43	1:43	2:43	3:43	4:43	5:43	6:43	7:43	8:43	9:43	10:43	12:29
16.3	Burlingame	8:45	9:45	10:45	11:45	12:45	1:45	2:45	3:45	4:45	5:45	6:45	7:45	8:45	9:45	10:45	12:31
17.9	San Mateo	8:49	9:49	10:49	11:49	12:49	1:49	2:49	3:49	4:49	5:49	6:49	7:49	8:49	9:49	10:49	12:35
19.1	Hayward Park	8:52	9:52	10:52	11:52	12:52	1:52	2:52	3:52	4:52	5:52	6:52	7:52	8:52	9:52	10:52	12:38
20.3	Hillsdale	8:55	9:55	10:55	11:55	12:55	1:55	2:55	3:55	4:55	5:55	6:55	7:55	8:55	9:55	10:55	12:41
21.9	Belmont	8:58	9:58	10:58	11:58	12:58	1:58	2:58	3:58	4:58	5:58	6:58	7:58	8:58	9:58	10:58	12:44
23.2	San Carlos	9:01	10:01	11:01	12:01	1:01	2:01	3:01	4:01	5:01	6:01	7:01	8:01	9:01	10:01	11:01	12:47
25.4	Redwood City	9:07	10:07	11:07	12:07	1:07	2:07	3:07	4:07	5:07	6:07	7:07	8:07	9:07	10:07	11:07	12:53
27.8	Atherton	9:11	10:11	11:11	12:11	1:11	2:11	3:11	4:11	5:11	6:11	7:11	8:11	9:11	10:11	11:11	12:57
28.9	Menlo Park	9:14	10:14	11:14	12:14	1:14	2:14	3:14	4:14	5:14	6:14	7:14	8:14	9:14	10:14	11:14	1:00
30.1	Palo Alto	9:17	10:17	11:17	12:17	1:17	2:17	3:17	4:17	5:17	6:17	7:17	8:17	9:17	10:17	11:17	1:03
31.8	California Avenue	9:21	10:21	11:21	12:21	1:21	2:21	3:21	4:21	5:21	6:21	7:21	8:21	9:21	10:21	11:21	1:07
34.1	San Antonio	9:25	10:25	11:25	12:25	1:25	2:25	3:25	4:25	5:25	6:25	7:25	8:25	9:25	10:25	11:25	1:11
36.1	Mountain View	9:29	10:29	11:29	12:29	1:29	2:29	3:29	4:29	5:29	6:29	7:29	8:29	9:29	10:29	11:29	1:15
38.8	Sunnyvale	9:34	10:34	11:34	12:34	1:34	2:34	3:34	4:34	5:34	6:34	7:34	8:34	9:34	10:34	11:34	1:20
40.8	Lawrence	9:38	10:38	11:38	12:38	1:38	2:38	3:38	4:38	5:38	6:38	7:38	8:38	9:38	10:38	11:38	1:24
44.7	Santa Clara	9:43	10:43	11:43	12:43	1:43	2:43	3:43	4:43	5:43	6:43	7:43	8:43	9:43	10:43	11:43	1:29
47.5	San Jose Diridon	9:51	10:51	11:51	12:51	1:51	2:51	3:51	4:51	5:51	6:51	7:51	8:51	9:51	10:51	11:51	1:37
	Shuttle Bus		AM	PM													AM
	Departs SJ Diridon	10:05	11:05	12:05	1:05	2:05	3:05	4:05	5:05	6:05	7:05	8:05	9:05	10:05	-	-	-
	Arrives: Tamien	10:13	11:13	12:13	1:13	2:13	3:13	4:13	5:13	6:13	7:13	8:13	9:13	10:13	-	-	-

CALTRAIN SYSTEM MAP



APPENDIX B
DATA ENTRY FORMS

'BEFORE' Conditions

ID: **Day of Week:** ○ Monday ○ Tuesday ○ Wednesday ○ Thursday ○ Friday ○ Saturday ○ Sunday

EVENT NUMBER	GATE POSITION	TIME	PEDESTRIANS WHO ENTER THE TRACK SIDE AREA WALKING							PEDESTRIANS REMAIN IN TRACK SIDE AREA		PEDESTRIANS WHO EXIT THE TRACK SIDE AREA WALKING						TIME OF ARRIVAL OF TRAIN	NOTES/COMMENTS
			On the sidewalk				On the roadway		Outside the crossing area			On the sidewalk				On the roadway		Outside the crossing area	
			around the ped. gate arm	under the ped. gate arm			around the auto gate arm	under the auto gate arm		to get on / off the train	other	around the ped gate arm	under the ped. gate arm			around the auto gate arm	under the auto gate arm		
	Start activation																		No train present ☐	
	Reach horizontal position																		First train	☐ Train 1 did not stop
	Start rising																		Second train	☐ Train 2 did not stop
	Reach vertical position																		Third train	☐ Train 3 did not stop

Gates raised in vertical position	Regular Pedestrian (including those who walk their bikes)	Skateboarding / With scooter	With baby stroller / cart	On a wheelchair	Riding bike on sidewalk	Pedestrian uses push gate		Pedestrian walks across the roadway inside the crossing	Pedestrian walks on roadway when entering crossing	Pedestrian walks outside the crossing area	NOTES/COMMENTS
						to enter	to exit				

'AFTER' Conditions

ID: **Day of Week:** ○ Monday ○ Tuesday ○ Wednesday ○ Thursday ○ Friday ○ Saturday ○ Sunday

EVENT NUMBER	GATE POSITION	TIME	PEDESTRIANS WHO ENTER THE TRACK SIDE AREA WALKING							PEDESTRIANS REMAIN IN TRACK SIDE AREA		PEDESTRIANS WHO EXIT THE TRACK SIDE AREA WALKING						TIME OF ARRIVAL OF TRAIN	NOTES/COMMENTS
			On the sidewalk				On the roadway		Outside the crossing area			On the sidewalk				On the roadway		Outside the crossing area	
			around the ped. gate arm	under the ped. gate arm	use push gate		around the auto gate arm	under the auto gate arm			other	around the ped. gate arm	under the ped. gate arm	use push gate		around the auto gate arm	under the auto gate arm		
					Able	In wheelchair/ with stroller								Able	In wheelchair/ with stroller				
	Start activation																		No train present ☐	
	Reach horizontal position																		First train	☐ Train 1 did not stop
	Start rising																		Second train	☐ Train 2 did not stop
	Reach vertical position																		Third train	☐ Train 3 did not stop

Gates raised in vertical position	Regular Pedestrian (including those who walk their bikes)	Skateboarding / With scooter	With baby stroller / cart	On a wheelchair	Riding bike on sidewalk	Pedestrian uses push gate		Pedestrian walks across the roadway inside the crossing	Pedestrian walks on roadway when entering crossing	Pedestrian walks outside the crossing area	NOTES/COMMENTS
						to enter	to exit				

APPENDIX C
SURVEY TABULATIONS

Railroad Crossing Pedestrian Safety Study — **Weekdays plus Weekends**

North Lane Road, Burlingame - CA — **All Events**

BEFORE	GATE POSITION	AVERAGE TIME (hh:mm:ss)	PEDESTRIANS WHO ENTER THE TRACK SIDE AREA WALKING									PEDESTRIANS REMAIN IN TRACK SIDE AREA	
			On the sidewalk					On the roadway			Outside the crossing area		
			around the ped. gate arm	under the ped. gate arm	use push gate		Total peds on sidewalk	around the auto gate arm	under the auto gate arm	Total peds on roadway		to get on / off the train	other
					Able	In wheelchair/ with stroller							
423 events	Start activation to horiz	0:00:13	11	23	Not applic.	Not applic.	34	4	0	4	0	0	0
	Gate stays down	0:01:33	16	1	Not applic.	Not applic.	17	0	0	0	4	0	0
	Start rising to vertical	0:00:09	258	120	Not applic.	Not applic.	378	18	2	20	1	0	0
	TOTAL	0:01:55	285	144			429	22	2	24	5	0	0

Gates raised in vertical position	Regular Pedestrian (incl. those who walk bikes)	Skateboarding / With scooter	With baby stroller / cart	On a wheelchair	Riding bike on sidewalk	Total Pedestrians
Avg. Time: 0:10:01	3,457 85%	38 1%	283 7%	15 0%	296 7%	4,089 100%

AFTER	GATE POSITION	AVERAGE TIME (hh:mm:ss)	PEDESTRIANS WHO ENTER THE TRACK SIDE AREA WALKING									PEDESTRIANS REMAIN IN TRACK SIDE AREA	
			On the sidewalk					On the roadway			Outside the crossing area		
			around the ped. gate arm	under the ped. gate arm	use push gate		Total peds on sidewalk	around the auto gate arm	under the auto gate arm	Total peds on roadway		to get on / off the train	other
					Able	In wheelchair/ with stroller							
564 events	Start activation to horiz	0:00:14	2	109	0	0	111	1	1	2	0	Not applic.	0
	Gate stays down	0:00:46	0	25	0	0	25	1	0	1	0	Not applic.	0
	Start rising to vertical	0:00:08	32	1,130	16	0	1,178	0	0	0	0	Not applic.	0
	TOTAL	0:01:08	34	1,264	16	0	1,314	2	1	3	0		0

Gates raised in vertical position	Regular Pedestrian (incl. those who walk bikes)	Skateboarding / With scooter	With baby stroller / cart	On a wheelchair	Riding bike on sidewalk	Total Pedestrians
Avg. Time: 0:07:38	8,138 88%	36 0%	580 6%	4 0%	507 5%	9,265 100%

Weekdays plus Weekends

All Events

PEDESTRIANS WHO EXIT THE TRACK SIDE AREA WALKING									Number of trains	
On the sidewalk					On the roadway			Outside the crossing area		
around the ped. gate arm	under the ped. gate arm	use push gate		Total peds on sidewalk	around the auto gate arm	under the auto gate arm	Total peds on roadway		Average time (hh:mm:ss)	
		Able	In wheelchair/ with stroller							
18	18	Not applic.	Not applic.	36	1	0	1	0	No train present	9
24	2	Not applic.	Not applic.	26	4	0	4	3	Trains do not stop	157
38	6	Not applic.	Not applic.	44	0	0	0	0	Gate horiz to 1st train	0:00:28
80	26			106	5	0	5	3	1st train to 2nd train	0:01:13

Pedestrian uses push gate			Pedestrian walks across the roadway inside the crossing	Pedestrian walks on roadway when entering crossing	Pedestrian walks outside the crossing area	Total
to enter	to exit	Total				
Not applic.	Not applic.		586 85%	35 5%	72 10%	693 100%

PEDESTRIANS WHO EXIT THE TRACK SIDE AREA WALKING									Number of trains	
On the sidewalk					On the roadway			Outside the crossing area		
around the ped. gate arm	under the ped. gate arm	use push gate		Total peds on sidewalk	around the auto gate arm	under the auto gate arm	Total peds on roadway		Average time (hh:mm:ss)	
		Able	In wheelchair/ with stroller							
12	99	21	0	132	7	0	7	0	No train present	130
8	37	37	0	82	3	2	5	0	Trains do not stop	Not available
2	15	7	0	24	0	0	0	0	Gate horiz to 1st train	0:00:20
22	151	65	0	238	10	2	12	0	1st train to 2nd train	0:00:23

Pedestrian uses push gate			Pedestrian walks across the roadway inside the crossing	Pedestrian walks on roadway when entering crossing	Pedestrian walks outside the crossing area	Total
to enter	to exit	Total				
2	5	7	352 95%	17 5%	2 1%	371 100%

	Number of Events				Events without Train Present				Events with Train Present				Number of T1		T1 does not stop	
Day_of_Week	Before	After	Diff	%	Before	After	Diff	%	Before	After	Diff	%	Before	After	Before	After
1 Monday	84	94	10	12%	1	20	19	1900%	83	74	-9	-11%	83	74	33	N/A
2 Tuesday	78	103	25	32%	5	23	18	360%	73	80	7	10%	73	80	28	N/A
3 /ednesday	75	105	30	40%	0	23	23		75	82	7	9%	75	82	29	N/A
4 Thursday	79	103	24	30%	0	22	22		79	81	2	3%	79	81	32	N/A
5 Friday	79	103	24	30%	3	22	19	633%	76	81	5	7%	76	81	25	N/A
6 Saturday	13	27	14	108%	0	10	10		13	17	4	31%	13	17	0	N/A
7 Sunday	15	29	14	93%	0	10	10		15	19	4	27%	15	19	0	N/A
Total	**423**	**564**	**141**	**33%**	**9**	**130**	**121**	**1344%**	**414**	**434**	**20**	**5%**	**414**	**434**	**147**	**0**
Weekday	395	508	113	29%	9	110	101	1122%	386	398	12	3%	386	398	147	0
Weekend	28	56	28	100%	0	20	20		28	36	8	29%	28	36	0	0
Total	**423**	**564**	**141**	**33%**	**9**	**130**	**121**	**1344%**	**414**	**434**	**20**	**5%**	**414**	**434**	**147**	**0**
Avg. per weekday	79	102	23	29%	2	22	20	1122%	77	80	2	3%	77	80	29	0
Avg. per weekend	14	28	14	100%	0	10	10		14	18	4	29%	14	18	0	0
Avg. per day	**60**	**81**	**20**	**33%**	**1**	**19**	**17**	**1344%**	**59**	**62**	**3**	**5%**	**59**	**62**	**21**	**0**

Day_of_Week	Number of T2				T2 does not stop		Total Number of Trains (T1+T2)				Total Trains that do not Stop		
	Before	After	Diff	%	Before	After	Before	After	Diff	%	Before		After
1 Monday	4	7	3	75%	0	N/A	87	81	-6	-7%	33	38%	N/A
2 Tuesday	13	7	-6	-46%	4	N/A	86	87	1	1%	32	37%	N/A
3 /ednesday	11	4	-7	-64%	3	N/A	86	86	0	0%	32	37%	N/A
4 Thursday	7	7	0	0%	2	N/A	86	88	2	2%	34	40%	N/A
5 Friday	8	6	-2	-25%	1	N/A	84	87	3	4%	26	31%	N/A
6 Saturday	0	0	0		0	N/A	13	17	4	31%	0	0%	N/A
7 Sunday	0	0	0		0	N/A	15	19	4	27%	0	0%	N/A
Total	**43**	**31**	**-12**	**-28%**	**10**	**0**	**457**	**465**	**8**	**2%**	**157**	**34%**	**0**
Weekday	43	31	-12	-28%	10	0	429	429	0	0%	157	37%	0
Weekend	0	0	0		0	0	28	36	8	29%	0	0%	0
Total	**43**	**31**	**-12**	**-28%**	**10**	**0**	**457**	**465**	**8**	**2%**	**157**	**34%**	**0**
Avg. per weekday	9	6	-2	-28%	2	0	86	86	0	0%	31	37%	0
Avg. per weekend	0	0	0		0	0	14	18	4	29%	0	0%	0
Avg. per day	**6**	**4**	**-2**	**-28%**	**1**	**0**	**65**	**66**	**1**	**2%**	**22**	**34%**	**0**

PEDESTRIANS ENTERING CROSSING DURING EVENT

	Walking on Sidewalk								Walking on Roadway							
	Start Activation		Gate Down		Start Rising		Subtotal		Start Activation		Gate Down		Start Rising		Subtotal	
Day_of_Week	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After
Monday	9	16	0	0	77	189	86	205	0	1	0	1	0	0	0	2
Tuesday	12	31	6	1	83	270	101	302	3	0	0	0	1	0	4	0
Wednesday	1	8	5	3	72	192	78	203	0	1	0	0	0	0	0	1
Thursday	3	18	2	10	80	235	85	263	0	0	0	0	0	0	0	0
Friday	2	31	1	8	18	213	21	252	0	0	0	0	6	0	6	0
Saturday	0	6	3	3	11	76	14	85	1	0	0	0	13	0	14	0
Sunday	7	1	0	0	37	3	44	4	0	0	0	0	0	0	0	0
Total	**34**	**111**	**17**	**25**	**378**	**1,178**	**429**	**1,314**	**4**	**2**	**0**	**1**	**20**	**0**	**24**	**3**
Weekday	27	104	14	22	330	1,099	371	1,225	3	2	0	1	7	0	10	3
Weekend	7	7	3	3	48	79	58	89	1	0	0	0	13	0	14	0
Total	**34**	**111**	**17**	**25**	**378**	**1,178**	**429**	**1,314**	**4**	**2**	**0**	**1**	**20**	**0**	**24**	**3**
Avg. per weekday	5	21	3	4	66	220	74	245	1	0	0	0	1	0	2	1
Avg. per weekend	4	4	2	2	24	40	29	45	1	0	0	0	7	0	7	0
Avg. per day	**5**	**16**	**2**	**4**	**54**	**168**	**61**	**188**	**1**	**0**	**0**	**0**	**3**	**0**	**3**	**0**

PEDESTRIANS EXITING CROSSING DURING EVENT

	Walking on Sidewalk								Walking on Roadway							
	Start Activation		Gate Down		Start Rising		Subtotal		Start Activation		Gate Down		Start Rising		Subtotal	
Day_of_Week	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After
Monday	8	46	1	5	1	0	10	51	0	0	0	1	0	0	0	1
Tuesday	13	53	5	17	7	0	25	70	0	0	1	1	0	0	1	1
Wednesday	2	5	5	4	23	4	30	13	0	0	0	1	0	0	0	1
Thursday	3	11	2	14	11	5	16	30	0	0	0	1	0	0	0	1
Friday	3	3	8	39	2	15	13	57	1	0	0	0	0	0	1	0
Saturday	0	3	0	2	0	0	0	5	0	0	3	0	0	0	3	0
Sunday	7	11	5	1	0	0	12	12	0	7	0	1	0	0	0	8
Total	**36**	**132**	**26**	**82**	**44**	**24**	**106**	**238**	**1**	**7**	**4**	**5**	**0**	**0**	**5**	**12**
Weekday	29	118	21	79	44	24	94	221	1	0	1	4	0	0	2	4
Weekend	7	14	5	3	0	0	12	17	0	7	3	1	0	0	3	8
Total	**36**	**132**	**26**	**82**	**44**	**24**	**106**	**238**	**1**	**7**	**4**	**5**	**0**	**0**	**5**	**12**
Avg. per weekday	6	24	4	16	9	5	19	44	0	0	0	1	0	0	0	1
Avg. per weekend	4	7	3	2	0	0	6	9	0	4	2	1	0	0	2	4
Avg. per day	**5**	**19**	**4**	**12**	**6**	**3**	**15**	**34**	**0**	**1**	**1**	**1**	**0**	**0**	**1**	**2**

PEDESTRIANS ENTERING CROSSING DURING EVENT

	Outside the Crossing Area											
	Start Activation		Gate Down		Start Rising		Subtotal		TOTAL			
Day_of_Week	Before	After	Before	After	Before	After	Before	After	Before	After	Diff	%
Monday	0	0	0	0	0	0	0	0	86	207	121	141%
Tuesday	0	0	1	0	0	0	1	0	106	302	196	185%
Wednesday	0	0	0	0	0	0	0	0	78	204	126	162%
Thursday	0	0	0	0	0	0	0	0	85	263	178	209%
Friday	0	0	3	0	0	0	3	0	30	252	222	740%
Saturday	0	0	0	0	1	0	1	0	29	85	56	193%
Sunday	0	0	0	0	0	0	0	0	44	4	-40	-91%
Total	**0**	**0**	**4**	**0**	**1**	**0**	**5**	**0**	**458**	**1,317**	**859**	**188%**
Weekday	0	0	4	0	0	0	4	0	385	1,228	843	219%
Weekend	0	0	0	0	1	0	1	0	73	89	16	22%
Total	**0**	**0**	**4**	**0**	**1**	**0**	**5**	**0**	**458**	**1,317**	**859**	**188%**
Avg. per weekday	0	0	1	0	0	0	1	0	77	246	169	219%
Avg. per weekend	0	0	0	0	1	0	1	0	37	45	8	22%
Avg. per day	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**65**	**188**	**123**	**188%**

PEDESTRIANS EXITING CROSSING DURING EVENT

	Outside the Crossing Area											
	Start Activation		Gate Down		Start Rising		Subtotal		TOTAL			
Day_of_Week	Before	After	Before	After	Before	After	Before	After	Before	After	Diff	%
Monday	0	0	0	0	0	0	0	0	10	52	42	420%
Tuesday	0	0	1	0	0	0	1	0	27	71	44	163%
Wednesday	0	0	0	0	0	0	0	0	30	14	-16	-53%
Thursday	0	0	0	0	0	0	0	0	16	31	15	94%
Friday	0	0	2	0	0	0	2	0	16	57	41	256%
Saturday	0	0	0	0	0	0	0	0	3	5	2	67%
Sunday	0	0	0	0	0	0	0	0	12	20	8	67%
Total	**0**	**0**	**3**	**0**	**0**	**0**	**3**	**0**	**114**	**250**	**136**	**119%**
Weekday	0	0	3	0	0	0	3	0	99	225	126	127%
Weekend	0	0	0	0	0	0	0	0	15	25	10	67%
Total	**0**	**0**	**3**	**0**	**0**	**0**	**3**	**0**	**114**	**250**	**136**	**119%**
Avg. per weekday	0	0	1	0	0	0	1	0	20	45	25	127%
Avg. per weekend	0	0	0	0	0	0	0	0	8	13	5	67%
Avg. per day	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**16**	**36**	**19**	**119%**

	PEDESTRIANS ENTERING WHEN GATES RAISED IN THE VERTICAL POSITION													
	Regular Peds.		Skate/Scoot.		Stroller/Cart		Wheelchair		Riding Bike		TOTAL			
	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Diff	%
Day_of_Week														
Monday	392	955	1	11	32	57	1	0	66	34	492	1,057	565	115%
Tuesday	417	1,136	0	6	35	85	0	0	67	39	519	1,266	747	144%
Wednesday	392	1,277	5	2	25	84	3	1	44	93	469	1,457	988	211%
Thursday	414	1,907	0	10	56	75	3	1	44	112	517	2,105	1,588	307%
Friday	357	1,335	11	2	26	76	0	1	4	128	398	1,542	1,144	287%
Saturday	781	839	2	3	51	106	1	1	5	101	840	1,050	210	25%
Sunday	704	689	19	2	58	97	7	0	66	0	854	788	-66	-8%
Total	**3,457**	**8,138**	**38**	**36**	**283**	**580**	**15**	**4**	**296**	**507**	**4,089**	**9,265**	**5,176**	**127%**
Weekday	1,972	6,610	17	31	174	377	7	3	225	406	2,395	7,427	5,032	210%
Weekend	1,485	1,528	21	5	109	203	8	1	71	101	1,694	1,838	144	9%
Total	**3,457**	**8,138**	**38**	**36**	**283**	**580**	**15**	**4**	**296**	**507**	**4,089**	**9,265**	**5,176**	**127%**
Avg. per weekday	394	1,322	3	6	35	75	1	1	45	81	479	1,485	1,006	210%
Avg. per weekend	743	764	11	3	55	102	4	1	36	51	847	919	72	9%
Avg. per day	**494**	**1,163**	**5**	**5**	**40**	**83**	**2**	**1**	**42**	**72**	**584**	**1,324**	**739**	**127%**
Percent of Total	85%	88%	1%	0%	7%	6%	0%	0%	7%	5%	100%	100%		

	PEDESTRIANS USING EMERGENCY EXIT SWING GATE										
	TO ENTER					TO EXIT					
	Start Activ.	Gate Down	Start Rising	Gates Raised	Sub Total	Start Activ.	Gate Down	Start Rising	Gates Raised	Sub Total	Total
Day_of_Week											
Monday	0	0	0	0	0	13	4	0	1	18	18
Tuesday	0	0	4	0	4	2	14	0	2	18	22
Wednesday	0	0	0	0	0	0	0	0	0	0	0
Thursday	0	0	0	0	0	4	4	0	0	8	8
Friday	0	0	10	2	12	2	14	7	0	23	35
Saturday	0	0	2	0	2	0	0	0	0	0	2
Sunday	0	0	0	0	0	0	1	0	2	3	3
Total	**0**	**0**	**16**	**2**	**18**	**21**	**37**	**7**	**5**	**70**	**88**
Weekday	0	0	14	2	16	21	36	7	3	67	83
Weekend	0	0	2	0	2	0	1	0	2	3	5
Total	**0**	**0**	**16**	**2**	**18**	**21**	**37**	**7**	**5**	**70**	**88**
Avg. per weekday	0.0	0.0	2.8	0.4	3.2	4.2	7.2	1.4	0.6	13.4	16.6
Avg. per weekend	0.0	0.0	1.0	0.0	1.0	0.0	0.5	0.0	1.0	1.5	2.5
Avg. per day	**0.0**	**0.0**	**2.3**	**0.3**	**2.6**	**3.0**	**5.3**	**1.0**	**0.7**	**10.0**	**12.6**

	PEDESTRIANS ENTERING WHEN GATES RAISED IN THE VERTICAL POSITION									
	Walk Across Rdwy		On Roadway		Outside Xing		Total			
	Before	After	Before	After	Before	After	Before	After	Diff	%
Day_of_Week										
Monday	64	55	0	3	16	0	80	58	-22	-28%
Tuesday	43	76	2	2	16	0	61	78	17	28%
Wednesday	54	49	0	0	2	0	56	49	-7	-13%
Thursday	51	64	0	3	10	0	61	67	6	10%
Friday	132	45	30	0	20	0	182	45	-137	-75%
Saturday	170	23	3	0	6	0	179	23	-156	-87%
Sunday	72	40	0	9	2	2	74	51	-23	-31%
Total	**586**	**352**	**35**	**17**	**72**	**2**	**693**	**371**	**-322**	**-46%**
Weekday	344	289	32	8	64	0	440	297	-143	-33%
Weekend	242	63	3	9	8	2	253	74	-179	-71%
Total	**586**	**352**	**35**	**17**	**72**	**2**	**693**	**371**	**-322**	**-46%**
Avg. per weekday	69	58	6	2	13	0	88	59	-29	-33%
Avg. per weekend	121	32	2	5	4	1	127	37	-90	-71%
Avg. per day	**84**	**50**	**5**	**2**	**10**	**0**	**99**	**53**	**-46**	**-46%**
Percent of Total										

	PEDESTRIANS ENTERING CROSSING											
	During Event				While Gates are Raised				Total			
	Before	After	Diff	%	Before	After	Diff	%	Before	After	Diff	%
Day_of_Week												
Monday	86	207	121	141%	572	1,115	543	95%	658	1,322	664	101%
Tuesday	106	302	196	185%	580	1,344	764	132%	686	1,646	960	140%
Wednesday	78	204	126	162%	525	1,506	981	187%	603	1,710	1,107	184%
Thursday	85	263	178	209%	578	2,172	1,594	276%	663	2,435	1,772	267%
Friday	30	252	222	740%	580	1,587	1,007	174%	610	1,839	1,229	201%
Saturday	29	85	56	193%	1,019	1,073	54	5%	1,048	1,158	110	10%
Sunday	44	4	-40	-91%	928	839	-89	-10%	972	843	-129	-13%
Total	**458**	**1,317**	**859**	**188%**	**4,782**	**9,636**	**4,854**	**102%**	**5,240**	**10,953**	**5,713**	**109%**
Weekday	385	1,228	843	219%	2,835	7,724	4,889	172%	3,220	8,952	5,732	178%
Weekend	73	89	16	22%	1,947	1,912	-35	-2%	2,020	2,001	-19	-1%
Total	**458**	**1,317**	**859**	**188%**	**4,782**	**9,636**	**4,854**	**102%**	**5,240**	**10,953**	**5,713**	**109%**
Avg. per weekday	77	246	169	219%	567	1,545	978	172%	644	1,790	1,146	178%
Avg. per weekend	37	45	8	22%	974	956	-18	-2%	1,010	1,001	-10	-1%
Avg. per day	**65**	**188**	**123**	**188%**	**683**	**1,377**	**693**	**102%**	**749**	**1,565**	**816**	**109%**
	9%	12%			91%	88%						

	PEDESTRIANS ENTERING CROSSING DURING EVENT															
	During Start of Activation								Gates Are Down							
	At Crossing		On Roadway		Outside Xing		Subtotal		At Crossing		On Roadway		Outside Xing		Subtotal	
Day_of_Week	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After
Monday	9	16	0	1	0	0	9	17	0	0	0	1	0	0	0	1
Tuesday	12	31	3	0	0	0	15	31	6	1	0	0	1	0	7	1
Wednesday	1	8	0	1	0	0	1	9	5	3	0	0	0	0	5	3
Thursday	3	18	0	0	0	0	3	18	2	10	0	0	0	0	2	10
Friday	2	31	0	0	0	0	2	31	1	8	0	0	3	0	4	8
Saturday	0	6	1	0	0	0	1	6	3	3	0	0	0	0	3	3
Sunday	7	1	0	0	0	0	7	1	0	0	0	0	0	0	0	0
Total	**34**	**111**	**4**	**2**	**0**	**0**	**38**	**113**	**17**	**25**	**0**	**1**	**4**	**0**	**21**	**26**
Weekday	27	104	3	2	0	0	30	106	14	22	0	1	4	0	18	23
Weekend	7	7	1	0	0	0	8	7	3	3	0	0	0	0	3	3
Total	**34**	**111**	**4**	**2**	**0**	**0**	**38**	**113**	**17**	**25**	**0**	**1**	**4**	**0**	**21**	**26**
Avg. per weekday	5	21	1	0	0	0	6	21	3	4	0	0	1	0	4	5
Avg. per weekend	4	4	1	0	0	0	4	4	2	2	0	0	0	0	2	2
Avg. per day	**5**	**16**	**1**	**0**	**0**	**0**	**5**	**16**	**2**	**4**	**0**	**0**	**1**	**0**	**3**	**4**
Normalized weekday	0.84	1.16	0.09	0.02	0.00	0.00	0.93	1.18	0.43	0.25	0.00	0.01	0.12	0.00	0.56	0.26
Normalized weekend	0.35	0.35	0.05	0.00	0.00	0.00	0.40	0.35	0.15	0.15	0.00	0.00	0.00	0.00	0.15	0.15
Normalized day	**0.65**	**1.01**	**0.08**	**0.02**	**0.00**	**0.00**	**0.73**	**1.03**	**0.32**	**0.23**	**0.00**	**0.01**	**0.08**	**0.00**	**0.40**	**0.24**

	NON COMPLIANT PEDESTRAIN BEHAVIOR									
	Enter During Start Activation		Enter During Gate Rising		No Use of Gate to Exit		Total			
Day_of_Week	Before	After	Before	After	Before	After	Before	After	Diff	%
Monday	9	16	77	189		34	86	239	153	178%
Tuesday	12	31	83	270		54	95	355	260	274%
Wednesday	1	8	72	192		9	73	209	136	186%
Thursday	3	18	80	235		17	83	270	187	225%
Friday	2	31	18	213		26	20	270	250	1250%
Saturday	0	6	11	76		5	11	87	76	691%
Sunday	7	1	37	3		11	44	15	-29	-66%
Total	**34**	**111**	**378**	**1,178**		**156**	**412**	**1,445**	**1,033**	**251%**
Weekday	27	104	330	1,099		140	357	1,343	986	276%
Weekend	7	7	48	79		16	55	102	47	85%
Total	**34**	**111**	**378**	**1,178**		**156**	**412**	**1,445**	**1,033**	**251%**
Avg. per weekday	5	21	66	220		28	71	269	197	276%
Avg. per weekend	4	4	24	40		8	28	51	24	85%
Avg. per day	**5**	**16**	**54**	**168**		**22**	**59**	**206**	**148**	**251%**
Normalized weekday	0.84	1.16	10.25	12.28		1.56	11.09	15.00	3.92	35%
Normalized weekend	0.35	0.35	2.38	3.95		0.80	2.72	5.10	2.37	87%
Normalized day	**0.65**	**1.01**	**7.21**	**10.76**		**1.42**	**7.86**	**13.19**	**5.33**	**68%**

PEDESTRIANS ENTERING CROSSING DURING EVENT

	Gates Start Rising											
	At Crossing		On Roadway		Outside Xing		Subtotal		Total			
Day_of_Week	Before	After	Before	After	Before	After	Before	After	Before	After	Diff	%
Monday	77	189	0	0	0	0	77	189	86	207	121	141%
Tuesday	83	270	1	0	0	0	84	270	106	302	196	185%
Wednesday	72	192	0	0	0	0	72	192	78	204	126	162%
Thursday	80	235	0	0	0	0	80	235	85	263	178	209%
Friday	18	213	6	0	0	0	24	213	30	252	222	740%
Saturday	11	76	13	0	1	0	25	76	29	85	56	193%
Sunday	37	3	0	0	0	0	37	3	44	4	-40	-91%
Total	**378**	**1,178**	**20**	**0**	**1**	**0**	**399**	**1,178**	**458**	**1,317**	**859**	**188%**
Weekday	330	1,099	7	0	0	0	337	1,099	385	1,228	843	219%
Weekend	48	79	13	0	1	0	62	79	73	89	16	22%
Total	**378**	**1,178**	**20**	**0**	**1**	**0**	**399**	**1,178**	**458**	**1,317**	**859**	**188%**
Avg. per weekday	66	220	1	0	0	0	67	220	77	246	169	219%
Avg. per weekend	24	40	7	0	1	0	31	40	37	45	8	22%
Avg. per day	**54**	**168**	**3**	**0**	**0**	**0**	**57**	**168**	**65**	**188**	**123**	**188%**
Normalized weekday	10.25	12.28	0.22	0.00	0.00	0.00	10.47	12.28	11.96	13.72	1.76	15%
Normalized weekend	2.38	3.95	0.64	0.00	0.05	0.00	3.07	3.95	3.61	4.45	0.83	23%
Normalized day	**7.21**	**10.76**	**0.38**	**0.00**	**0.02**	**0.00**	**7.61**	**10.76**	**8.74**	**12.02**	**3.28**	**38%**

PEDESTRAIN CROSSING VIOLATIONS

	Walks Around		Circumvents the Crossing				Uses Gate					
	or Under Gate		Gates Activated		Gates Open		to Enter		Total			
Day_of_Week	Before	After	Before	After	Before	After	Before	After	Before	After	Diff	%
Monday	0	0	0	2	80	58		0	80	60	-20	-25%
Tuesday	6	1	5	0	61	78		4	72	83	11	15%
Wednesday	5	3	0	1	56	49		0	61	53	-8	-13%
Thursday	2	10	0	0	61	67		0	63	77	14	22%
Friday	1	8	9	0	182	45		12	192	65	-127	-66%
Saturday	3	3	15	0	179	23		2	197	28	-169	-86%
Sunday	0	0	0	0	74	51		0	74	51	-23	-31%
Total	**17**	**25**	**29**	**3**	**693**	**371**		**18**	**739**	**417**	**-322**	**-44%**
Weekday	14	22	14	3	440	297		16	468	338	-130	-28%
Weekend	3	3	15	0	253	74		2	271	79	-192	-71%
Total	**17**	**25**	**29**	**3**	**693**	**371**		**18**	**739**	**417**	**-322**	**-44%**
Avg. per weekday	3	4	3	1	88	59		3	94	68	-26	-28%
Avg. per weekend	2	2	8	0	127	37		1	136	40	-96	-71%
Avg. per day	**2**	**4**	**4**	**0**	**99**	**53**		**3**	**106**	**60**	**-46**	**-44%**
Normalized weekday	0.43	0.25	0.43	0.03	13.66	3.32		0.18	14.53	3.78	-10.76	-74%
Normalized weekend	0.15	0.15	0.74	0.00	12.52	3.70		0.10	13.42	3.95	-9.47	-71%
Normalized day	**0.32**	**0.23**	**0.55**	**0.03**	**13.23**	**3.39**		**0.16**	**14.10**	**3.81**	**-10.30**	**-73%**