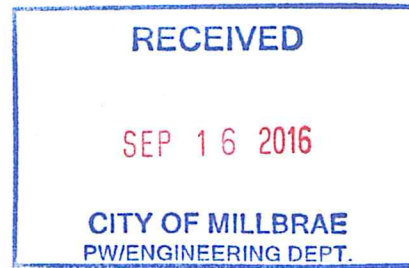**DEPARTMENT OF TRANSPORTATION**
111 GRAND AVENUE
P.O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-5900
FAX (510) 286-5903
TTY 711
www.dot.ca.gov

RECEIVED

SEP 1 6 2016

CITY OF MILLBRAE
PW/ENGINEERING DEPT.

Serious Drought.
Serious drought.
Help save water!

September 9, 2016

04-SM-82
PM 15.9
0416-NSN1018

Khee Lim
City of Millbrae
621 Magnolia Avenue
Millbrae, CA 94030

Dear Ms. Lim:

This letter is regarding your encroachment permit application dated May 4, 2016 to comply with Traffic Operations Policy Directive 14-01 Revision 1 for ARLES at the El Camino Real and Millbrae Avenue intersection, on State Highway 04-SM-82, Post Mile 15.9, in the City of Millbrae.

We have not received your response to our comment letter dated July 7, 2016. To completely process your permit application, your response is required. If no response is received within thirty (30) days from the date of this letter, your encroachment permit application will be cancelled.

Please direct all questions and inquiries regarding your application status to Markus Lansdowne at (510) 286-4419, or email at markus.lansdowne@dot.ca.gov. Reference permit application number 0416-NSN1018 with all correspondence.

Sincerely,

AMJAD NASEER
Senior Permit Engineer

ANNE OLIVA
Mayor

REUBEN D. HOLOBER
Vice Mayor

GINA PAPAN
Councilwoman

ANN SCHNEIDER
Councilwoman

WAYNE J. LEE
Councilman

October 5, 2016

Mr. Amjad Naseer
Department of Transportation
111 Grand Avenue
PO Box 23660
Oakland, CA 94623-0660

Subject: 04-SM-82/PM 15.9/0416-NSN1018
             04-SM-101/PM17.9/0416-NSN1019

Dear Mr. Naseer:

Attached is the revised traffic study/report for the two ARLES locations in the City of Millbrae.

Please let me know if you have any questions regarding the revised study/report.

Thank you.

Sincerely,

Khee Lim
City Engineer

MEMORANDUM

DATE: September 30, 2016

TO: **Khee Lim, PE, City of Millbrae**

FROM: Kenny Jeong, PE, DKS Associates

SUBJECT: Millbrae Automated Red Light Enforcement – Traffic Engineering Study   P#16015--000

The purpose of this memorandum is to document the findings of a study into the effectiveness of two traffic signals with automated red light enforcement (ARLE) in the City of Millbrae, CA on California Department of Transportation (Caltrans)-operated State Highways. Specifically, the study sought to evaluate the effect of the ARLE system on crash rates and the issuance of citations at the two study intersections.

BACKGROUND

On August 5, 2015 (effective January 1, 2016), Caltrans issued Traffic Operations Policy Directive TR-0011, Number 14-01, Revision 1, requiring all municipalities that operate one or more ARLE-equipped traffic signal on State Highways to evaluate the safety performance of such ARLE systems once every five years. The Policy Directive directs municipalities to consider the following aspects of safety performance at and near the study intersections equipped with ARLE:

•   Collision rates;
•   Citation rates for through movement, left turn, and, where prohibited, right turn on red infractions;
•   Site conditions, current signal operation, and driver behavior; and
•   Perceptions of parties familiar with the intersection(s) regarding traffic safety.

In 2006, the Millbrae City Council approved the use of ARLE cameras given increased vehicle traffic, roadway congestion and traffic collisions in the Millbrae Avenue traffic corridor. Red light safety cameras are located at three intersections with a total of seven cameras. Along with being very congested and well-traveled, these intersections are among the largest in the city and include multiple lanes. The existing roadway geometry does not provide for a safe space to pull violators over for enforcement at any of the intersections. To rely solely on traditional enforcement efforts in these areas present extreme challenges in achieving law enforcement objectives and enhancing safety for the public.

Despite the size and amount of daily traffic, collision statistics are low. The level of awareness associated with the ARLE program has contributed to maintain the low frequency of collisions at these intersections.

Since the program began, the ARLE program has resulted in the issuance of between 250 and 1200 citations per month. This process is administered by the San Mateo County Sheriff's Department. Approximately 96% of the citations issued as a result of the ARLE program are upheld in the local court system. Repeat violations are rare which indicates success in changing driving behavior.

STUDY AREA

The City of Millbrae operates ARLE at three intersections along Millbrae Avenue:

1. El Camino Real (State Route 82) / Millbrae Avenue;
2. Rollins Road / Millbrae Avenue; and
3. Southbound US101 Off-ramp / Millbrae Avenue.

Because these intersections are closely spaced, they are managed as a single system. As such, many of the program metrics are reported as a system instead of as individual intersections. Since the intersections of Rollins Road / Millbrae Avenue is not within the State-governed right-of-way, it is not directly included as part of this study. However, because the records of the three intersections are reported as a single system, the records for this intersection cannot be separated from the others and will therefore be included indirectly as part of the study. The study area showing the locations of each intersection are provided in **Figure 1**.

ARLE is equipped for the southbound left-turn at the intersection of El Camino Real / Millbrae Avenue and for the all southbound movements at the intersection of US101 Southbound Off-ramp / Millbrae Avenue. The ARLE system at the intersections of El Camino Real / Millbrae Avenue and US101 Southbound Off-ramp / Millbrae Avenue was installed and activated in November 2009. Photos of the ARLE equipment at each study intersection are provided in **Appendix A**.

Within the study area, the following roadway facilities are of note:

El Camino Real (SR-82) is a six-lane arterial that runs north-south through the study area and is parallel to US 101. The posted speed limit along this portion of El Camino Real is 35 MPH.

Millbrae Avenue is a primarily six-lane, east-west arterial that provides access between US 101 and El Camino Real. The posted speed limit of Millbrae Avenue is 35 MPH. The Millbrae Intermodal BART-Caltrain Station is located just north of Millbrae Avenue and uses the Rollins Road intersection as its primary access point.

FIGURE 1: STUDY AREA

Source: Bing Maps (Microsoft Corporation)

○ Study Intersection
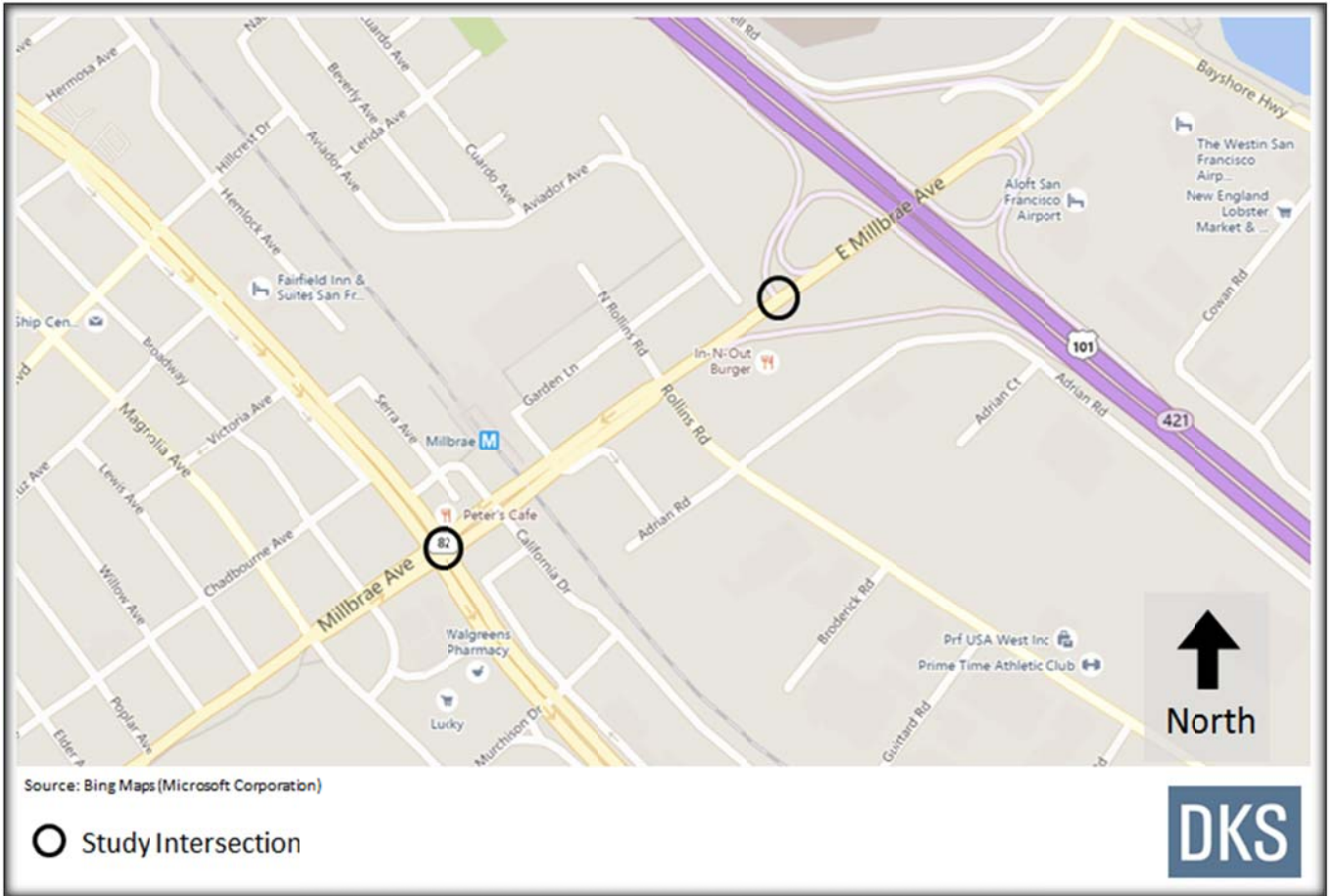
ORIGINAL SIGNAL WARRANT

The study intersections at El Camino Real / Millbrae Avenue and US101 Southbound Off-ramp/Millbrae Avenue have been signalized for many decades. Because the intersections were signalized so many years ago, both governing agencies (The City of Millbrae or Caltrans) were not able to produce a copy of the original signal warrant.

SIGNAL TIMING

Signal timing sheets for the study intersections were provided by Caltrans District 4 staff and are included in **Appendix B**.

Determination of Yellow Change Interval

Observed yellow change intervals for the ARLE-equipped intersection approaches (southbound left at El Camino Real/Millbrae Avenue and southbound approach at US101 Southbound Off-ramp/Millbrae

Ave) were determined from a video survey of signal operation, taken during a recent weekday afternoon field visit conducted on March 8, 2016. These observed intervals were averaged and then compared with the required intervals, as specified by Section 4D.10 and Table 4D-102 in the California Edition of the Manual on Uniform Traffic Control Devices (CaMUTCD). **Table 1** summarizes this comparison for the relevant approaches at both study intersections.

TABLE 1: SUMMARY OF YELLOW CHANGE INTERVAL

Intersection and Approach	Observed Average Yellow Change Interval by Approach	Required Yellow Change Interval [1]
El Camino Real and Millbrae Ave (southbound left-turn)	3.9	3.6
US101 Southbound Off-ramp and Millbrae Ave (southbound left, right-turn)	3.6	3.6

[1] Posted speed limit along departure street was the controlling factor in determining the required yellow change interval.

Based on a review of the video survey, DKS confirms that the observed yellow change interval for both ARLE installed movements satisfies the required yellow change intervals specified by the California MUTCD.

SAFETY PERFORMANCE

The City of Millbrae provided historical traffic counts along Millbrae Avenue for a multiday period in April 1999. DKS conducted new counts at the same location as the April 1999 counts on March 22, 2016. Using these two count sources, DKS estimated the Annual Average Daily Traffic and Vehicle Miles Traveled along Millbrae Avenue for each year between 1999 and 2015.

Crash history records were obtained from both the San Mateo County Sheriff's Department and California Department of Transportation (Caltrans). Using crash history provided by the San Mateo County Sheriff's Department for the years 2000 through 2015, DKS estimated the crash rate for the study segment (including each ARLE equipped intersection). These are summarized in **Figures 2** and **3** with **Figure 2** illustrating the number of total crashes and **Figure 3** showing the yearly estimated crash rate. Summary of recorded crashes and traffic counts used are provided in **Appendices C** and **D**, respectively.

FIGURE 2: SUMMARY OF TOTAL CRASHES ALONG MILLBRAE AVENUE BETWEEN EL CAMINO REAL AND US101)
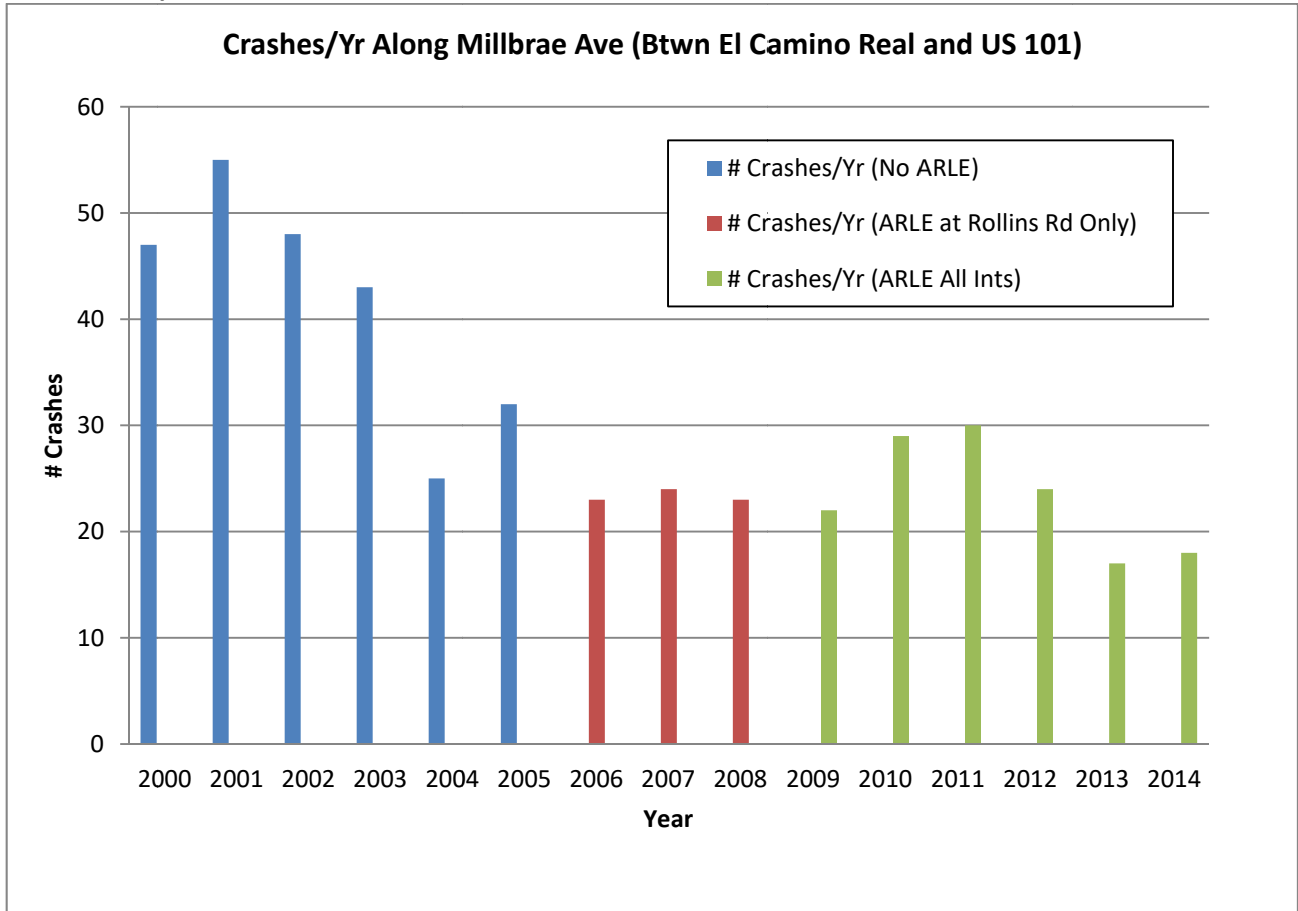
Source: City of Millbrae, San Mateo County Sheriff's Department, DKS, 2016.

FIGURE 3: SUMMARY OF CRASH RATE ALONG MILLBRAE AVENUE BETWEEN EL CAMINO REAL AND US101)
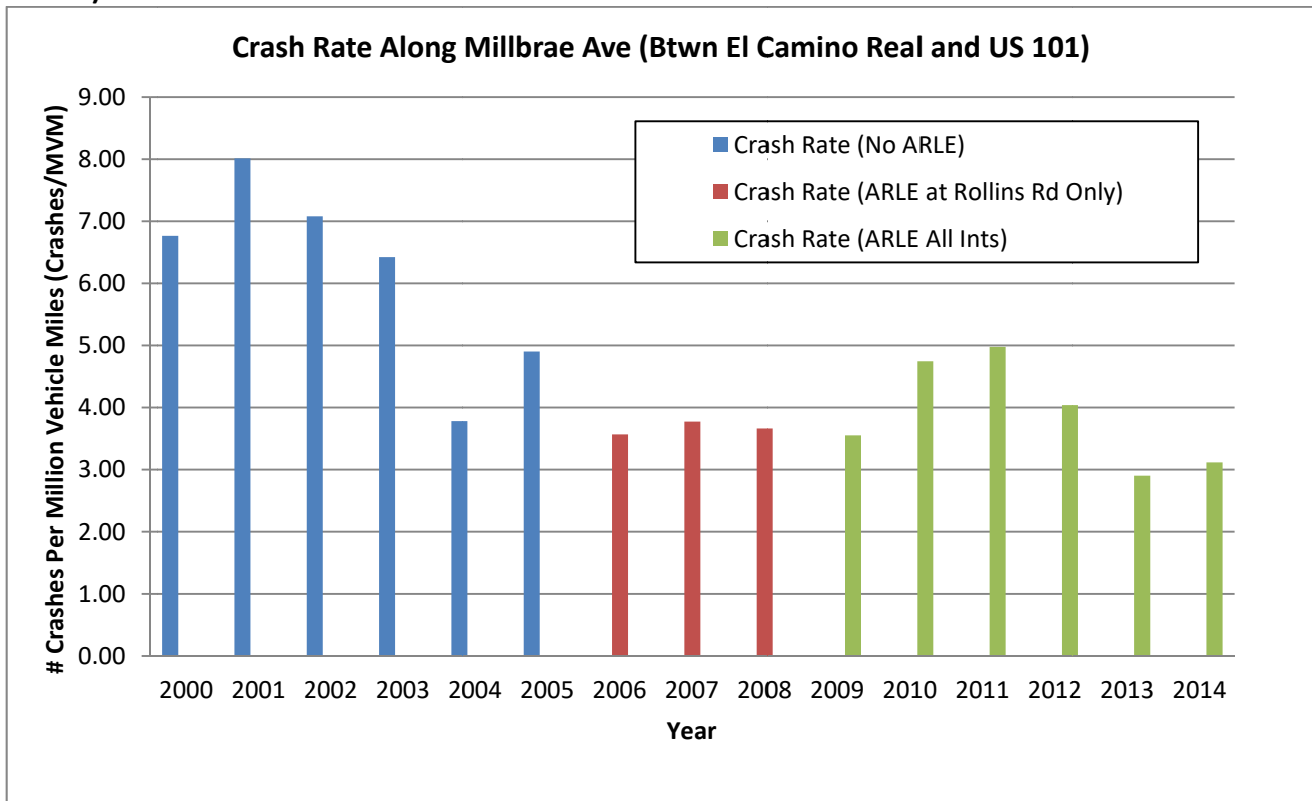
Source: City of Millbrae, San Mateo County Sheriff's Department, DKS, 2016.

The overall number of crashes per year are generally lower with the ARLE program in operation (years 2006 to 2014) than without the ARLE program (2000 to 2006). The average number of crashes per year for the six year period between 2000 and 2005 is 41.7 crashes per year. With the introduction of the ARLE system at the Rollins Road intersection (years 2006 to 2008), the average number of crashes per year lowers to 23.3 crashes per year. This number is lowered yet again with the addition of the intersections at El Camino Real and Southbound US101 off-ramp to an average of 21.1 crashes per year.

Similarly the average crash rate has generally decreased from 6.16 crashes per million-vehicle-miles without the ARLE program to 3.89 crashes per million-vehicle-miles with the ARLE program in operation. This is a higher rate than the reported statewide average rate of 1.48 as published by Caltrans in the 2012 Collision Data on California State Highways.

Unfortunately, the crash records system used by the County Sheriff for the ARLE program only documents the number of crashes and does not provide specific information on each crash event, such

as whether the crash involved a rear-end or broadside collision. To include this level of detail on each crash event, another data source was used. Using Traffic Accident Surveillance and Analysis System (TASAS) and TASAS Selective Record Retrieval (TSAR) data provided by Caltrans for the years 2004 to October 31, 2014, DKS prepared a summary of crash types at each intersection by year. This is shown in **Tables 3** and **4**. Copies of the TASAS and TSAR reports are provided in **Appendix C**.

It is noteworthy to mention that the crash records provided by County Sheriff and Caltrans may have different limitations and reporting capabilities. These differences may also explain that the total number of crashes in any given year may not perfectly match when comparing each source with the other.

TABLE 3 – SUMMARY OF CRASHES (BY TYPE) AT MILLBRAE AVE / EL CAMINO REAL INTERSECTION

ARLE Active? (Y/N)	Year	Number of Collisions By Type								Total
		Head On	Sideswipe	Rear End	Broadside	Hit Object	Overturn	Auto-Ped	Other	
N	2004				1					1
N	2005		1	1	1					3
N	2006						1			1
N	2007			1					1	2
N	2008		1		1				1	3
Y	2009			1	1					2
Y	2010		1	1	2					4
Y	2011	1		2	1					4
Y	2012			1	1	1				3
Y	2013									0
Y	2014 [1]									0

Source: Caltrans TASAS, TSAR, 2016
Note: 1) January 1 to October 31, 2014 Only.

TABLE 4 – SUMMARY OF CRASHES (BY TYPE) AT MILLBRAE AVE / US101 SB OFF-RAMP INTERSECTION

ARLE Active? (Y/N)	Year	Number of Collisions By Type								Total
		Head On	Sideswipe	Rear End	Broadside	Hit Object	Overturn	Auto-Ped	Other	
N	2004	1	3	4		1				9
N	2005	1		3	4	1		1		10
N	2006			4	1	1				6
N	2007		5	2	1					8
N	2008		2	4	1	2				9
Y	2009		2	4				1		7
Y	2010			2	2	1		1		6
Y	2011	1	2	1	2	4				10
Y	2012			3	1					4
Y	2013		1	1	1					3
Y	2014 [1]			3						3

Source: Caltrans TASAS, TSAR, 2016
Note: 1) January 1 to October 31, 2014 Only.

CONTACTING PARTIES FAMILIAR WITH THE INTERSECTION

DKS conducted a telephone interview with Deputy James Aboud from the San Mateo County Sheriff's Department regarding the operation and safety performance of the ARLE system along Millbrae Avenue. Deputy Aboud is a long-time current employee of the police department who has been on staff since the years prior to ARLE activation. According to Deputy Aboud, the activation of the ARLE system has contributed to greater lawfulness at these intersections. His personal observation is that since the ARLE program was activated in 2006/2009 that drivers are more cautious when driving along Millbrae Avenue and that he personally believes that the system has contributed to lower number of traffic violations as well as crashes.

FIELD REVIEW

DKS visited the study area during the afternoon of March 8, 2016. During this visit, DKS observed that drivers would approach each intersection normally without abrupt stopping to avoid a red light violation. At the intersection of the southbound US101 Off-ramp and Millbrae Avenue, DKS staff did observe some vehicles failing to come to a complete stop for the southbound right turn onto Millbrae Avenue. These "rolling stops" are a violation of California Vehicle Code (CVC) 21453c and may result in a citation being issued to the driver.

IDENTIFICATION AND EVALUATION OF PREVIOUS COUNTERMEASURES

A study commissioned by the Millbrae Police Department and conducted by American Traffic Solutions (ATS) showed that there were high rates of red light violations at the study intersections. Unfortunately, all copies of this report were lost when the Millbrae Police Department was merged with the San Mateo County Sheriff's Department in March 2012.

In an attempt to reduce the number of violations, the San Mateo County Sheriff's Department considered a traditional approach to improve safety by reducing traffic violations by increasing the presence of uniformed officers along the corridor. However, this was difficult to accomplish because this segment of Millbrae Avenue is rather constrained with narrow lanes and no shoulder. There are no places to safely pull violators over for traditional enforcement at any of the ARLE equipped intersections. To rely on traditional enforcement efforts in these areas present challenges in achieving law enforcement objectives and enhancing the safety for the motoring public.

The San Mateo County Sheriff's Department concluded that it would not be feasible for law enforcement to continuously monitor the intersections as effectively as the ARLE system does today. Even if it were possible to provide the same level of enforcement through traditional enforcement efforts, associated court appearances would make it difficult to staff daily patrol shifts. The cost to the

city to transition from automated to staffed enforcement would likely be extremely high. Even then, the current level of enforcement could not be maintained.

EVALUATION OF CITATIONS

The San Mateo County Sheriff's Department provided the citation records from the ARLE system. Citation records prior to 2009 were unavailable. All violation events are logged into the ARLE system and then reviewed by a trained San Mateo County Sheriff's Department Police Officer before citation is issued.

Table 5 below summarizes the total number of violation events vs actual citations issued for the study intersections ARLE system. A copy of the citation summary report is provided in **Appendix E.**

TABLE 5 – SUMMARY OF CITATIONS

Year	El Camino Real at Millbrae Avenue		Southbound US101 Off-ramp at Millbrae Avenue	
	Number of Violation Events	Number of Citations Issued	Number of Violation Events	Number of Citations Issued
2009	646	317	1,921	1,006
2010	3,692	1,976	4,851	2,769
2011	2,989	1,743	6,969	2,368
2012	1,249	817	7,554	2,179
2013	1,935	1,377	4,860	1,121
2014	2,408	1,700	7,400	3,891
2015	2,847	1,710	7,885	4,418

Source: San Mateo County Sheriff's Department, 2016

Appendix A

Field Photos

Taken: March 2016

El Camino Real / Millbrae Avenue

Southbound US101 Off-ramp / Millbrae Avenue

RIGHT
TURN ON
RED
PERMITTED
AFTER STOP
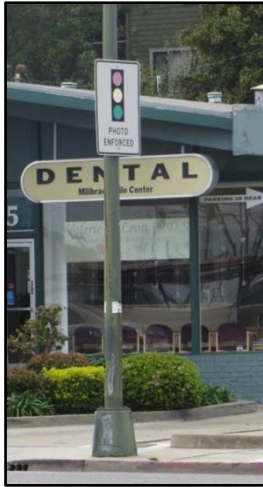
Appendix B

Signal Timing Sheets

Location: MILLBRAE AVE & EL CAMINO REAL   **Designed By:**

System: **District:**   **Installed By:**

Master At: **I/C:**   **Service Info:**

Timing Change: **Date Start:**   **Date End:**   **Designed:**   **Installed:**

Intersection Layou

FLASH

1)	[R]
P 2)	[R]
H 3)	[R]
A 4)	[R]
S 5)	[R]
E 6)	[R]
7)	[R]
8)	[R]

O A)	[ ]
V B)	[ ]
R C)	[ ]
L D)	[ ]
A E)	[ ]
P F)	[ ]

OL(5)   OL(7)

El Camino Real

N

Millbrae   3 8
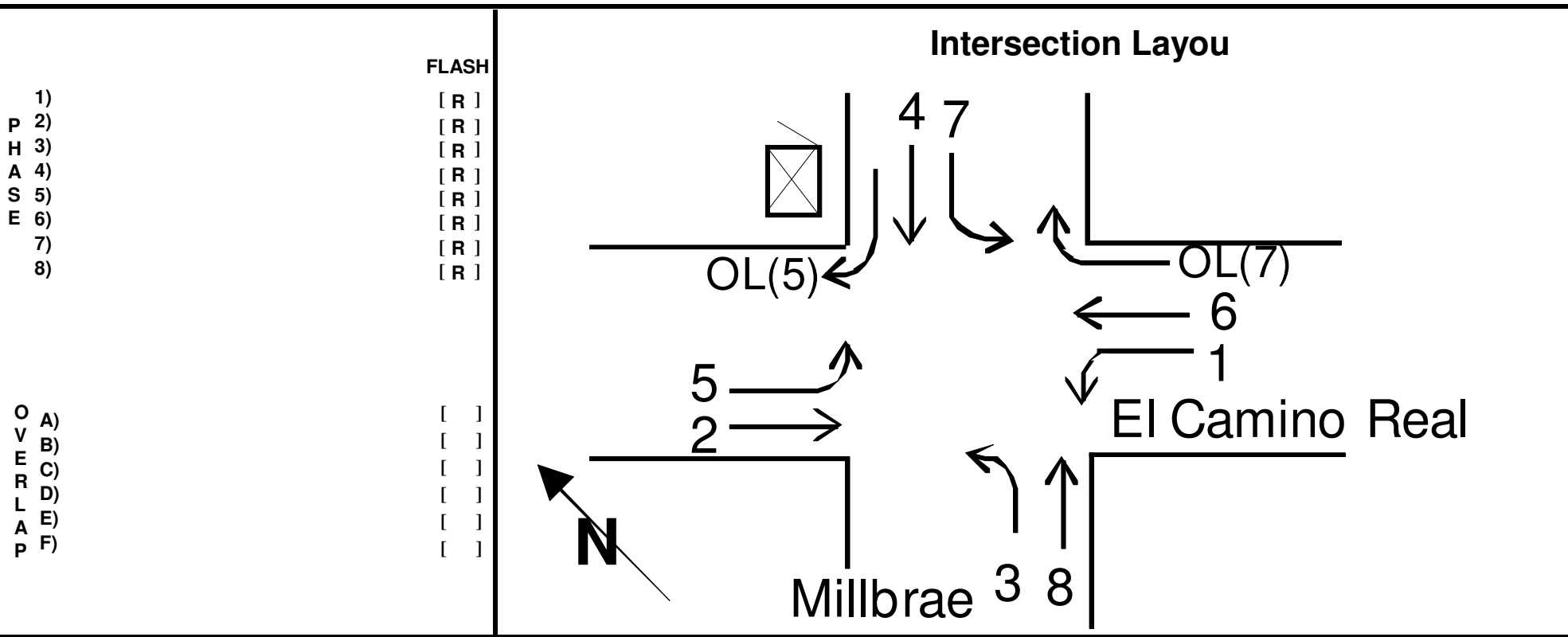
Comments and Notes:
TSCP 2.20 (BUILD 120) - 12/24/2014
Connected to Central Systems via Network Port thru Actelis ML684 (Port 4)

RAM Checksum

Page 2:	636C	Page 8:	85AF
Page 3:	1B0E	Page 9:	B205
Page 4:	F29E	Page 10:	DCF0
Page 5:	191A	Page 11:	C3CB
Page 6:	191A	Page 12:	8D98
Page 7:	AE27	Page 13:	86F7

CONFIGURATION PHASE FLAGS

Phases (2-1-1-1)

Permitted	1 2 3 4 5 6 7 8
Restricted	. . . .

Phase Recalls (2-1-1-2)

Vehicle Min	. 2 . . . 6 . .
Vehicle Max	. . . .
Pedestrian	. . . .
Bicycle	. . . .

Phase Locks (2-1-1-3)

Red	. . . .
Yellow	. . . .
Force/Max	. . . .

Phase Features (2-1-1-4)

Double Entry	. 2 . 4 . 6 . 8
Rest In Walk	. . . .
Rest In Red	. . . .
Walk 2	. . . .
Max Green 2	. . . .
Max Green 3	. . . .

Startup (2-1-1-5)

First Green Phases	. 2 . . . 6 . .
Yellow Start Phases	. . . .
Vehicle Calls	1 2 3 4 5 6 7 8
Pedestrian Calls	. 2 . 4 . 6 . 8
Yellow Start Overlaps	. . . . . .
Startup All-Red	5.0

Call To Phase (2-1-2-1)   Omit On Green

1	. . . .	1	. . . .
2	. . . .	2	. . . .
3	. . . .	3	. . . .
4	. . . .	4	. . . .
5	. . . .	5	. . . .
6	. . . .	6	. . . .
7	. . . .	7	. . . .
8	. . . .	8	. . . .

Flashing Colors (2-1-2-2)

Yellow Flash Phases	. . . .
Yellow Flash Overlap	. . . . . .
Flash In Red Phases	. . . .
Flash In Red Overlap	. . . . . .

Special Operation (2-1-2-3)

Single Exit Phase	. . . .
Driveway Signal Phases	. . . .
Driveway Signal Overlaps	. . . . . .
Leading Ped Phases	. . . .

Protected Permissive (2-1-2-4)

Protected Permissive	. . . .

Pedestrian (2-1-3)

P1	. . . .
P2	. 2 . . . . . .
P3	. . . .
P4	. . . 4 . . . .
P5	. . . .
P6	. . . . . 6 . .
P7	. . . .
P8	 8

Overlap (2-1-4)

Overlap	Parent	Omit	No Start	Not
A	. . . .	. . . .	. . . .	. . . .
B	. . . .	. . . .	. . . .	. . . .
C	. . . .	. . . .	. . . .	. . . .
D	. . . .	. . . .	. . . .	. . . .
E	. . . .	. . . .	. . . .	. . . .
F	. . . .	. . . .	. . . .	. . . .

P H A S E   T I M I N G

Phase (2-2)	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
--- Walk 1 ---	0	5	0	5	0	5	0	5
Flash Don't Walk	0	23	0	37	0	33	0	34
Minimum Green	5	10	5	8	8	10	5	8
Det Limit	0	20	0	0	0	20	0	0
Max Initial	0	0	0	0	0	0	0	0
Max Green 1	13	25	15	25	25	25	25	25
Max Green 2	50	50	50	50	45	50	45	50
Max Green 3	50	50	50	50	50	50	50	50
Extension	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum Gap	2.0	4.0	2.0	2.0	2.0	4.0	2.0	2.0
Minimum Gap	1.0	3.0	1.2	1.2	1.0	3.0	1.0	1.0
Add Per Vehicle	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reduce Gap By	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Reduce Every	1.0	1.2	1.0	1.0	1.0	1.0	1.0	1.0
Yellow	3.0	4.0	3.0	3.6	3.6	4.0	3.0	3.6
All-Red	0.0	0.5	0.5	0.5	2.0	0.5	1.5	0.5
Ped/Bike (2-3)	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
--- Walk 2 ---	0	0	0	0	0	0	0	0
Delay/Early Walk	0	0	0	0	0	0	0	0
Solid Don't Walk	0	0	0	0	0	0	0	0
Bike Green	0	0	0	0	0	0	0	0
Bike All-Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

OVERLAP TIMING

Overlap (2-4)	A	B	C	D	E	F
Green	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	5.0	5.0	5.0	5.0
Red	0.0	0.0	0.0	0.0	0.0	0.0

Red Revert

Red Revert (2-5)	
Time	2.0

All-Red Sec/Min (2-6)	
All-Red Sec/Min:	SEC

Max 2 Extension

Max/Gap Out (2-7)	
Max Cnt	0
Gap Cnt	0

Local Plan 1...9 (7-1) TIMING DATA   COORDINATION

[Offsets]   Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 1	Green Factor														
Plan 2	Green Factor														
Plan 3	Green Factor														
Plan 4	Green Factor														
Plan 5	Green Factor														
Plan 6	Green Factor														
Plan 7	Green Factor														
Plan 8	Green Factor														
Plan 9	Green Factor														

Master Timer Sync (7-A)

Enable in Plans	
1-9	. . . .
11-19	. . . .
21-29	. . . .

Master Sub Master	
Input	
Output	

FREE PLAN PHASE FLAGS

(7-E) Free	
Lag	**Omit**
. 2 . 4 . 6 . 8	. . . .
Veh Min	**Veh Max**
. 2 . . . 6 . .	. . . .
Ped	**Bike**
. . . .	. . . .
Cond	**Cond Grn**
. . . .	10

Local Plan 1...9 (7-1) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 1	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 2	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 3	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 4	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 5	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 6	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 7	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 8	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 9	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .

MANUAL COMMANDS

Manual Plan (4-1)		*Plan: 1-9*
Plan	**OffSet**	*15 or 254 = Flash*
	A	*14 or 255 = Free*
		Offset A, B, or C

Special Function Override (4-2)			
#	**Control**	**#**	**Control**
1	NORMAL	3	NORMAL
2	NORMAL	4	NORMAL

Detector Reset	(4-3)
Local Manual (4-4)	OFF

Local Plan 11...19 (7-2) TIMING DATA   COORDINATION

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 11	Green Factor														
Plan 12	Green Factor														
Plan 13	Green Factor														
Plan 14	Green Factor														
Plan 15	Green Factor														
Plan 16	Green Factor														
Plan 17	Green Factor														
Plan 18	Green Factor														
Plan 19	Green Factor														

Above columns A, B, C are headed [Offsets]; columns -1- through -8- are headed Green Factors or Press [F] to Select Force-Off

Local Plan 11...19 (7-2) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 11	....	....	....	....	....	....	....	....
Plan 12	....	....	....	....	....	....	....	....
Plan 13	....	....	....	....	....	....	....	....
Plan 14	....	....	....	....	....	....	....	....
Plan 15	....	....	....	....	....	....	....	....
Plan 16	....	....	....	....	....	....	....	....
Plan 17	....	....	....	....	....	....	....	....
Plan 18	....	....	....	....	....	....	....	....
Plan 19	....	....	....	....	....	....	....	....

Local Plan 21...29 (7-3) TIMING DATA   COORDINATION

[Offsets]   Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 21	Green Factor														
Plan 22	Green Factor														
Plan 23	Green Factor														
Plan 24	Green Factor														
Plan 25	Green Factor														
Plan 26	Green Factor														
Plan 27	Green Factor														
Plan 28	Green Factor														
Plan 29	Green Factor														

Local Plan 21...29 (7-3) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 21	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 22	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 23	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 24	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 25	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 26	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 27	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 28	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 29	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .

DETECTORS

Detector Attributes (5-1)

Det	Type	Phases	Lock	Slot
1	COUNT+CALL+EXTEND	1.......	NO	I1U
2	COUNT+CALL+EXTEND	1.......	NO	I1L
3	COUNT+CALL+EXTEND	.2......	NO	I2U
4	COUNT+CALL+EXTEND	.2......	NO	I2L
5	COUNT+CALL+EXTEND	.2......	NO	I3U
6	CALL+EXTEND	.2......	NO	I3L
7	LIMITED	.2......	NO	I4U
8	COUNT+CALL+EXTEND	.2......	NO	I4L
9	COUNT+CALL+EXTEND	..3.....	NO	I5U
10	COUNT+CALL+EXTEND	..3.....	NO	I5L
11	COUNT+CALL+EXTEND	...4....	NO	I6U
12	COUNT+CALL+EXTEND	...4....	NO	I6L
13	COUNT+CALL+EXTEND	....5...	NO	I7U
14	CALL+EXTEND	....5...	NO	I7L
15	CALL+EXTEND	...4....	NO	I8U
16	COUNT+CALL+EXTEND	...4....	NO	I8L
17	COUNT+CALL+EXTEND	1.......	NO	I9U
18	COUNT+CALL+EXTEND	..3.....	NO	I9L
19	COUNT+CALL+EXTEND	.2......	NO	I10U
20	COUNT+CALL+EXTEND	...4....	NO	I10L
21	COUNT+CALL+EXTEND	....5...	NO	J1U
22	COUNT+CALL+EXTEND	....5...	NO	J1L
23	COUNT+CALL+EXTEND	.....6..	NO	J2U
24	COUNT+CALL+EXTEND	.....6..	NO	J2L
25	COUNT+CALL+EXTEND	.....6..	NO	J3U
26	CALL+EXTEND	......7.	NO	J3L
27	LIMITED	.....6..	NO	J4U
28	COUNT+CALL+EXTEND	.....6..	NO	J4L
29	COUNT+CALL+EXTEND	......7.	NO	J5U
30	COUNT+CALL+EXTEND	......7.	NO	J5L
31	COUNT+CALL+EXTEND	8	NO	J6U
32	COUNT+CALL+EXTEND	8	NO	J6L
33	COUNT+CALL+EXTEND	8	NO	J7U
34	CALL+EXTEND	8	NO	J7L
35	LIMITED	8	NO	J8U
36	COUNT+CALL+EXTEND	8	NO	J8L
37	COUNT+CALL+EXTEND	....5...	NO	J9U
38	COUNT+CALL+EXTEND	....5...	NO	J9L
39	COUNT+CALL+EXTEND	.....6..	NO	J10U
40	COUNT+CALL+EXTEND	8	NO	J10L
41	PEDESTRIAN	.2......	NO	I12U
42	PEDESTRIAN	...4....	NO	I12L
43	PEDESTRIAN	.....6..	NO	I13U
44	PEDESTRIAN	8	NO	I13L

Detector Configuration (5-2)

Det	Delay	Extend	Recall	Port
1			10	3.2
2			10	7.2
3			10	1.1
4			10	1.5
5			10	4.5
6			10	6.2
7			10	2.1
8			10	7.4
9			10	3.4
10			10	7.6
11		0.5	10	1.3
12		0.5	10	1.7
13		1.0	10	4.7
14		1.0	10	6.4
15			10	2.3
16			10	7.8
17			10	3.6
18			10	3.8
19			10	4.1
20			10	4.2
21			10	3.1
22			10	7.1
23		0.8	10	1.2
24		0.8	10	1.6
25		0.8	10	4.6
26			10	6.3
27			10	2.2
28			10	7.3
29			10	3.3
30			10	7.5
31		0.5	10	1.4
32		0.5	10	1.8
33			10	4.8
34	15		10	6.5
35			10	2.4
36			10	7.7
37			10	3.5
38			10	3.7
39			10	4.3
40			10	4.4
41			10	5.1
42			10	5.3
43			10	5.2
44			10	5.4

Failure Times (5-3)

	Minutes
Maximum On Time	
Fail Reset Time	

Failure Override (5-4)

Detectors 1-8	. . . .
Detectors 9-16	. . . .
Detectors 17-24	. . . .
Detectors 25-32	. . . .
Detectors 33-40	. . . .
Detectors 41-44	. . . .

System Detector Assignment (5-5)

Sys Det	1	2	3	4	5	6	7	8
Det Nu								
Sys Det	9	10	11	12	13	14	15	16
Det Nu								

CIC Operation (5-6-1)

Enable in Plans	. . . .

CIC Values (5-6-2)

	Volume	Occupancy	Demand
Smoothing	0.66	0.66	0.66
Multiplier	4.0	0.33	
Exponent	0.50	1.00	

Detector-to-Phase Assignment (5-6-3)

Sys Det	1	2	3	4	5	6	7	8
Phase								
Sys Det	9	10	11	12	13	14	15	16
Phase								

Input File Port-Bit Assignments

332 Cabinet - For Reference Only

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
I-	3.2	1.1	4.5	2.1	3.4	1.3	4.7	2.3	3.6	4.1	6.6	5.1	5.2	6.7
	7.2	1.5	6.2	7.4	7.6	1.7	6.4	7.8	3.8	4.2	2.7	5.3	5.4	6.8
J-	3.1	1.2	4.6	2.2	3.3	1.4	4.8	2.4	3.5	4.3	2.8	5.5	5.6	2.5
	7.1	1.6	6.3	7.3	7.5	1.8	6.5	7.7	3.7	4.4	6.1	5.7	5.8	2.6

TOD SCHEDULE

Table 1 (8-2-1)			Table 2 (8-2-2)			Table 3 (8-2-3)			Table 4 (8-2-4)			Table 5 (8-2-5)			Table 6 (8-2-6)		
Time	Plan	OS	Time	Plan	OS	Time	Plan	OS	Time	Plan	OS	Time	Plan	OS	Time	Plan	OS
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A

WEEKDAY ASSIGNMENT

Weekday Table Assignments (8-2-7)						
Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	1	1	1	1	2	2

HOLIDAY TABLES

Floating Holiday Table (8-2-8)

#	Mnth	Week	DOW	Table
1			....	
2			....	
3			....	
4			....	
5			....	
6			....	
7			....	
8			....	
9			....	
10			....	
11			....	
12			....	
13			....	
14			....	
15			....	
16			....	

Fixed Holiday Table (8-2-9)

#	Mnth	Day	DOW	Table
1			....	
2			....	
3			....	
4			....	
5			....	
6			....	
7			....	
8			....	
9			....	
10			....	
11			....	
12			....	
13			....	
14			....	
15			....	
16			....	

Solar Clock Data (8-4)

North Latitude	34
West Longitude	118
Local Time Zone	8

Sabbatical Clock (8-5)

Hebrew	Ped Recall
Sabbath	....
Holiday	....

Daylight Saving (8-6)

Enabled	YES

TOD FUNCTIONS

TOD Functions (8-3)

#	Start	End	DOW	Action	Phases
1	0700	1900	M T W T F S S	17	. . . . 5 . 7 .
2			....		....
3			....		....
4			....		....
5			....		....
6			....		....
7			....		....
8			....		....
9			....		....
10			....		....
11			....		....
12			....		....
13			....		....
14			....		....
15			....		....
16			....		....

Action Codes:
0. None
1. Permitted
2. Restricted
4. Veh Min Recall
5. Veh Max Recall
6. Ped Recall
7. Bike Recall
8. Red Lock
9. Yellow Lock
10. Force/Max Lock
11.Double Entry
12. Y-Coord C
13. Y-Coord D
14. Free
15. Flashing
16. Walk 2
17. Max Green 2

18. Max Green 3
19. Rest in Walk
20. Rest in Red
21. Free Lag Phases
22. Special Functions
23. Truck Preempt
24. Conditional Service
25. Conditional Service
26. Leading Ped
27. Traffic Actuated Max 2
41. Protected Permissive
42. Protected Permissive

Action Code = Phases added to normal setting

100+Action Code = Phases removed

200+Action Code = Phases replaced

COMMUNICATIONS

C2 (6-1-1)	
Address	3
Protocol	AB3418
Limit Access	0
Baud	9600
Parity	NONE
Data Bits	8
Stop Bits	1
RTS On Time	20
RTS Off Time	20
Handshaking	NORMAL

C20 (6-1-2)	
Address	
Protocol	AB3418
Limit Access	0
Baud	1200
Parity	NONE
Data Bits	8
Stop Bits	1
RTS On Time	20
RTS Off Time	20
Handshaking	NORMAL

C21 (6-1-3)	
Address	
Protocol	AB3418
Limit Access	0
Baud	1200
Parity	NONE
Data Bits	8
Stop Bits	1
RTS On Time	20
RTS Off Time	20
Handshaking	NORMAL

Limit Access:

0-None

1-Status Only

2-Status, Set Pattern, Time

3-Status, Set Pattern, Time, Manual Plan

SOFT LOGIC

Soft Logic (6-2)						
#	Data	OP	Data	OP	Data	OP	Data
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						

*Refer to User's Manual for Data and OP Codes

CALLBACK NUMBERS

Callback Numbers (6-3...3)	
Line Out	
Local Toll	
Long Distance	
Delay	10
Area Code	
Phone Number	

Line Out	
Local Toll	
Long Distance	
Delay	10
Area Code	
Phone Number	

Line Out	
Local Toll	
Long Distance	
Delay	10
Area Code	
Phone Number	

NETWORK

Network (6-4)				
Address	1			
Protocol	AB3418			
Port	27000			
IP Mode	STATIC			
IP Address	172	22	8	41
Netmask	255	255	255	0
Broadcast	0	0	0	254
Gateway	172	22	8	1

RAILROAD PREEMPTION

RR 1

(3-1-1)	Timing	Phase Flags (3-1-2)			Pedestrian Flags (3-1-3)			Overlap Flags (3-1-4)		
		Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
Delay										
Clear 1	10	. 2 . . 5 . . .	. . . .	. . . .	. . . .	. . . .	. 2 . 4 . 6 . 8	. . . . . .	. . . . . .	. . . . . .
Clear 2		. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . . . .	. . . . . .	. . . . . .
Clear 3		. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . . . .	. . . . . .	. . . . . .
Hold		. . . .	. . . .	1 2 3 4 5 6 7 8	. . . .	. . . .	. . . .	. . . . . .	. . . . . .	A B C D E F
Exit										
Min Grn										
Ped Clr										

Exit Parameters (3-1-5)

Phase Green	Overlap Green	Vehicle Call	Ped Call
. . . .	. . . . . .	1 2 3 4 5 6 7 8	. 2 . 4 . 6 . 8

Configuration (3-1-6)

Port	Gate Port	Latching	Power-Up
2.5	0.0	YES	FLASHING

RR 2

(3-2-1)	Timing	Phase Flags (3-2-2)			Pedestrian Flags (3-2-3)			Overlap Flags (3-2-4)		
		Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
Delay										
Clear 1	10	. . . 4 . . 7 .	. . . .	. . . .	. . . .	. . . .	. 2 . 4 . 6 . 8	. . . . . .	. . . . . .	. . . . . .
Clear 2		. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . . . .	. . . . . .	. . . . . .
Clear 3		. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . . . .	. . . . . .	. . . . . .
Hold		1 2 3 . . 6 . .	. . . .	. . . .	. 2 . . . 6 . .	. . . .	. . . 4 . . . 8	. . . . . .	. . . . . .	. . . . . .
Exit										
Min Grn										
Ped Clr										

Exit Parameters (3-2-5)

Phase Green	Overlap Green	Vehicle Call	Ped Call
. . . .	. . . . . .	. . . 4 . . 7 .	. . . .

Configuration (3-2-6)

Port	Gate Port	Latching	Power-up
2.6	0.0	YES	DARK

EMERGENCY VEHICLE PREEMPTION

EVA (3-A)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	. 2 . . 5 . . .	. . . . . .

Port	Latching	Phase Termination
5.5	NO	ADVANCE

EVB (3-B)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	. . . 4 . . 7 .	. . . . . .

Port	Latching	Phase Termination
5.6	NO	ADVANCE

EVC (3-C)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	1 . . . . 6 . .	. . . . . .

Port	Latching	Phase Termination
5.7	NO	ADVANCE

EVD (3-D)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	. . 3 8	. . . . . .

Port	Latching	Phase Termination
5.8	NO	ADVANCE

INPUTS

7 Wire I/C (2-1-5-1)				
	Input	Port	Input	Port
Enable	NO	R1	3.8	Free	3.6
Max ON		R2	3.5	D2	2.8
Max OFF		R3	3.7	D3	6.1

Manual Control (2-1-5-2)	
Input	Port
Manual Advance	6.6
Advance Enable	6.6

Cabinet Status (2-1-5-3)	
Input	Port
Flash Bus	
Door Ajar	
Flash Sense	6.7
Stop Time	6.8

Special Function (2-1-5-4)	
Input	Port
1	
2	
3	
4	

Battery Backup (2-1-5-5)	
Port	Operation
	NORMAL

Y-Coordination (2-1-5-6)	
Port C	Port D
6.1	2.8

- -

OUTPUTS

Loadswitch Assignments (2-1-6)						+
A	1	2	22	3	4	24	9
B	5	6	26	7	8	28	10
X	13	14	0	11	12	0	0

Loadswitch Codes:
- 0 Unused (no output)
- 1-8 Vehicle 1-8
- 9-14 Overlap A-F
- 21-28 Ped 1-8
- 41-47 Special Functions
- 41 Protected Permissive Flashing Phase 1
- 43 Protected Permissive Flashing Phase 3
- 45 Protected Permissive Flashing Phase 5
- 47 Protected Permissive Flashing Phase 7

- 51-57 Special Functions
- 71-72 Seven Wire I/C

+ middle output of
loadswitches 3 and 6
Channel 9 and 10

TRANSIT PRIORITY

Local Plans (3-E) 1...9 11...19		Early Green	Green Extend	Inhibit Cycles	Phase 1 Minimum	Phase 2 Minimum	Phase 3 Minimum	Phase 4 Minimum	Phase 5 Minimum	Phase 6 Minimum	Phase 7 Minimum	Phase 8 Minimum
Plan 1	Green Factor											
Plan 2	Green Factor											
Plan 3	Green Factor											
Plan 4	Green Factor											
Plan 5	Green Factor											
Plan 6	Green Factor											
Plan 7	Green Factor											
Plan 8	Green Factor											
Plan 9	Green Factor											
Plan 11	Green Factor											
Plan 12	Green Factor											
Plan 13	Green Factor											
Plan 14	Green Factor											
Plan 15	Green Factor											
Plan 16	Green Factor											
Plan 17	Green Factor											
Plan 18	Green Factor											
Plan 19	Green Factor											

Transit Priority Configuration (3-E-A) / Indicator Output

Enable in Plans	Input	Type	Stop	Go
Plan 1-9	. . . .	0.0	OPT	0	0
Plan 11-19	. . . .	0.0	OPT	0	0

Queue Jump (3-E-B)

Grn Hold	Hold Phase
	. . . .
	. . . .

Free Plans (3-E-E)

Max Grn Hold	Hold Phase
	. . . .

Access Utilities (9-5)

Password	***
Timeout	30

YELLOW YIELD COORDINATION

Y-Coord Plans (7-C,D)	Long Grn	No Grn	Offset	Perm	Force-Offs -1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	Coord	Lag	Min Recall	Restricted
Plan C													. 2 . . . 6 . .	. 2 . 4 . 6 . 8	. . . .	. . . .
Plan D													. 2 . . . 6 . .	. 2 . 4 . 6 . 8	. . . .	. . . .

TRUCK PRIORITY

Truck Priority (3-F)	Passage	CarryOver	Clearance	Next Priority	Phase Green	Det 2 Port	Det 3 Port	Det 4 Port	Sign Output	Slave Input	Slave Output
					. . . .	0.0	0.0	0.0	0	0.0	0

Location: MILLBRAE AVE & RTE 101 SB RAMPS   **Designed By:**

  System: **District: 04**   **Installed By:**

Master At: **I/C:**   **Service Info:**

Timing Change: **Date Start:**   **Date End:**   **Designed:**   **Installed:**

Intersection Layou

FLASH

1)	[ ]
P 2)	[R]
H 3)	[ ]
A 4)	[R]
S 5)	[ ]
E 6)	[R]
7)	[ ]
8)	[ ]

O A)	[ ]
V B)	[ ]
E C)	[ ]
R D)	[ ]
L E)	[ ]
A F)	[ ]
P	

2

6

N

SB ON

4

SB OFF

MILLBRAE AVE
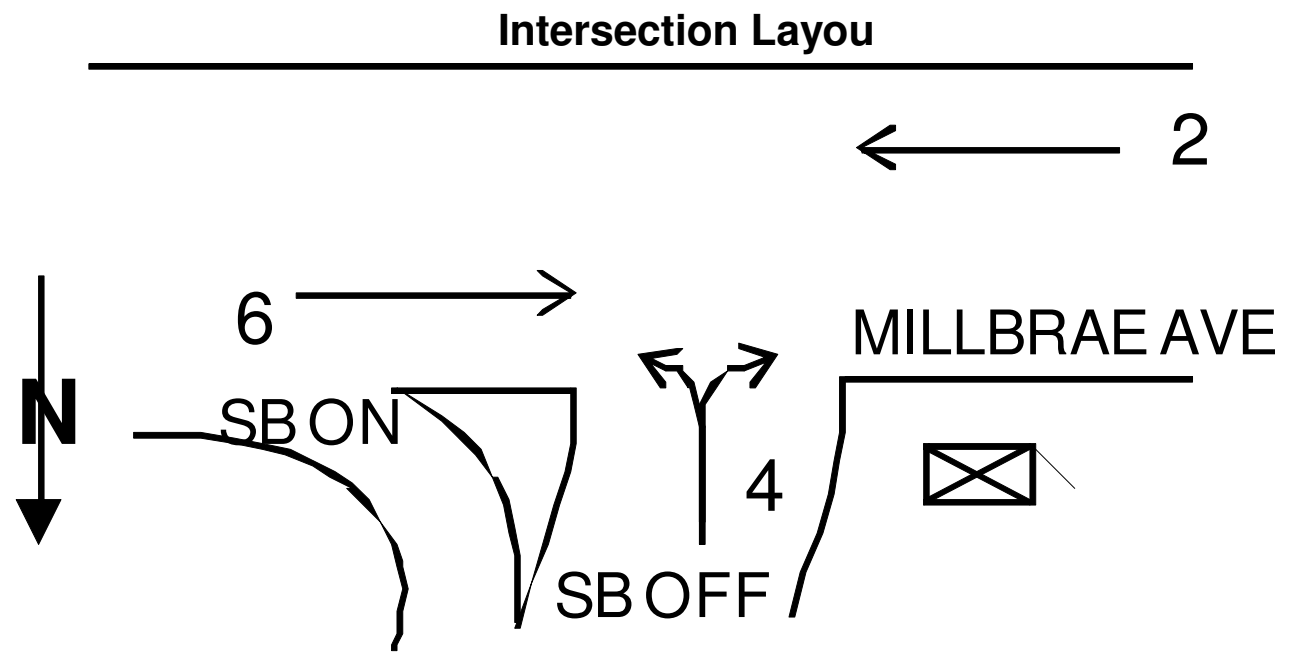
Comments and Notes:
TSCP 2.20 (BUILD 120) – 07/21/2015
Connected to Central Systems Via Network Port thru Hirschman Switch (Port 8)

RAM Checksum

Page 2: 2502	**Page 8: 85AF**
Page 3: 3F2C	**Page 9: 1F3A**
Page 4: F29E	**Page 10: 9619**
Page 5: 191A	**Page 11: D4E0**
Page 6: 191A	**Page 12: EF20**
Page 7: 8796	**Page 13: 33F6**

CONFIGURATION PHASE FLAGS

Phases (2-1-1-1)

Permitted	. 2 . 4 . 6 . .
Restricted	. . . .

Phase Recalls (2-1-1-2)

Vehicle Min	. 2 . . . 6 . .
Vehicle Max	. . . .
Pedestrian	. . . .
Bicycle	. . . .

Phase Locks (2-1-1-3)

Red	. . . .
Yellow	. . . .
Force/Max	. . . .

Phase Features (2-1-1-4)

Double Entry	. 2 . . . 6 . .
Rest In Walk	. . . .
Rest In Red	. . . .
Walk 2	. . . .
Max Green 2	. . . .
Max Green 3	. . . .

Startup (2-1-1-5)

First Green Phases	. 2 . . . 6 . .
Yellow Start Phases	. . . .
Vehicle Calls	. 2 . 4 . 6 . .
Pedestrian Calls	. . . .
Yellow Start Overlaps	. . . . . .
Startup All-Red	5.0

Call To Phase (2-1-2-1)   Omit On Green

#	Call To Phase	#	Omit On Green
1	. . . .	1	. . . .
2	. . . .	2	. . . .
3	. . . .	3	. . . .
4	. . . .	4	. . . .
5	. . . .	5	. . . .
6	. . . .	6	. . . .
7	. . . .	7	. . . .
8	. . . .	8	. . . .

Flashing Colors (2-1-2-2)

Yellow Flash Phases	. . . .
Yellow Flash Overlap	. . . . . .
Flash In Red Phases	. . . .
Flash In Red Overlap	. . . . . .

Special Operation (2-1-2-3)

Single Exit Phase	. . . .
Driveway Signal Phases	. . . .
Driveway Signal Overlaps	. . . . . .
Leading Ped Phases	. . . .

Protected Permissive (2-1-2-4)

Protected Permissive	. . . .

Pedestrian (2-1-3)

P1	. . . .
P2	. . . .
P3	. . . .
P4	. . . .
P5	. . . .
P6	. . . .
P7	. . . .
P8	. . . .

Overlap (2-1-4)

Overlap	Parent	Omit	No Start	Not
A	. . . .	. . . .	. . . .	. . . .
B	. . . .	. . . .	. . . .	. . . .
C	. . . .	. . . .	. . . .	. . . .
D	. . . .	. . . .	. . . .	. . . .
E	. . . .	. . . .	. . . .	. . . .
F	. . . .	. . . .	. . . .	. . . .

P H A S E **T I M I N G**

Phase (2-2)	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
--- Walk 1 ---	0	10	0	10	0	10	0	10
Flash Don't Walk	0	10	0	10	0	10	0	10
Minimum Green	10	10	10	6	10	10	10	10
Det Limit	10	16	10	0	10	16	10	10
Max Initial	10	0	10	0	10	0	10	10
Max Green 1	50	30	50	24	50	30	50	50
Max Green 2	50	50	50	50	50	50	50	50
Max Green 3	50	50	50	50	50	50	50	50
Extension	5.0	0.0	5.0	0.0	5.0	0.0	5.0	5.0
Maximum Gap	5.0	3.5	5.0	2.0	5.0	3.5	5.0	5.0
Minimum Gap	5.0	2.5	5.0	1.0	5.0	2.5	5.0	5.0
Add Per Vehicle	1.0	0.0	1.0	0.0	1.0	0.0	1.0	1.0
Reduce Gap By	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0
Reduce Every	1.0	1.2	1.0	0.8	1.0	1.2	1.0	1.0
Yellow	5.0	4.0	5.0	3.6	5.0	4.0	5.0	5.0
All-Red	1.0	0.0	1.0	0.0	1.0	0.0	1.0	1.0
Ped/Bike (2-3)	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
--- Walk 2 ---	0	0	0	0	0	0	0	0
Delay/Early Walk	0	0	0	0	0	0	0	0
Solid Don't Walk	0	0	0	0	0	0	0	0
Bike Green	0	0	0	0	0	0	0	0
Bike All-Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

OVERLAP TIMING

Overlap (2-4)	A	B	C	D	E	F
Green	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	5.0	5.0	5.0	5.0
Red	0.0	0.0	0.0	0.0	0.0	0.0

Red Revert

Red Revert (2-5)	
Time	2.0
All-Red Sec/Min (2-6)	
All-Red Sec/Min:	SEC

Max 2 Extension

Max/Gap Out (2-7)	
Max Cnt	0
Gap Cnt	0

Local Plan 1...9 (7-1) TIMING DATA   COORDINATION

[Offsets]   Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 1	Green Factor														
Plan 2	Green Factor														
Plan 3	Green Factor														
Plan 4	Green Factor														
Plan 5	Green Factor														
Plan 6	Green Factor														
Plan 7	Green Factor														
Plan 8	Green Factor														
Plan 9	Green Factor														

Local Plan 1...9 (7-1) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 1	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 2	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 3	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 4	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 5	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 6	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 7	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 8	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 9	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .

Master Timer Sync (7-A)

Enable in Plans	
1-9	. . . .
11-19	. . . .
21-29	. . . .

Master Sub Master	
Input	
Output	

FREE PLAN PHASE FLAGS

(7-E) Free	
Lag	Omit
. 2 . 4 . 6 . 8	. . . .
Veh Min	Veh Max
. 2 . . . 6 . .	. . . .
Ped	Bike
. . . .	. . . .
Cond	Cond Grn
. . . .	10

MANUAL COMMANDS

Manual Plan (4-1)		*Plan: 1-9*
Plan	**OffSet**	*15 or 254 = Flash*
	A	*14 or 255 = Free*
		Offset A, B, or C

Special Function Override (4-2)			
#	Control	#	Control
1	NORMAL	3	NORMAL
2	NORMAL	4	NORMAL

Detector Reset	(4-3)
Local Manual (4-4)	OFF

Local Plan 11...19 (7-2) TIMING DATA   COORDINATION

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
					[Offsets]			Green Factors or Press [F] to Select Force-Off							
Plan 11	Green Factor														
Plan 12	Green Factor														
Plan 13	Green Factor														
Plan 14	Green Factor														
Plan 15	Green Factor														
Plan 16	Green Factor														
Plan 17	Green Factor														
Plan 18	Green Factor														
Plan 19	Green Factor														

Local Plan 11...19 (7-2) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 11	....	....	....	....	....	....	....	....
Plan 12	....	....	....	....	....	....	....	....
Plan 13	....	....	....	....	....	....	....	....
Plan 14	....	....	....	....	....	....	....	....
Plan 15	....	....	....	....	....	....	....	....
Plan 16	....	....	....	....	....	....	....	....
Plan 17	....	....	....	....	....	....	....	....
Plan 18	....	....	....	....	....	....	....	....
Plan 19	....	....	....	....	....	....	....	....

Local Plan 21...29 (7-3) TIMING DATA   COORDINATION

[Offsets]   Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 21	Green Factor														
Plan 22	Green Factor														
Plan 23	Green Factor														
Plan 24	Green Factor														
Plan 25	Green Factor														
Plan 26	Green Factor														
Plan 27	Green Factor														
Plan 28	Green Factor														
Plan 29	Green Factor														

Local Plan 21...29 (7-3) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 21	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 22	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 23	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 24	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 25	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 26	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 27	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 28	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Plan 29	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .

DETECTORS

Detector Attributes (5-1)

Det	Type	Phases	Lock
1	COUNT+CALL+EXTEND	1.......	NO
2	COUNT+CALL+EXTEND	1.......	NO
3	COUNT+CALL+EXTEND	.2......	NO
4	COUNT+CALL+EXTEND	.2......	NO
5	COUNT+CALL+EXTEND	.2......	NO
6	LIMITED	.2......	NO
7	LIMITED	.2......	NO
8	COUNT+CALL+EXTEND	.2......	NO
9	COUNT+CALL+EXTEND	..3.....	NO
10	COUNT+CALL+EXTEND	..3.....	NO
11	COUNT+CALL+EXTEND	...4....	NO
12	COUNT+CALL+EXTEND	...4....	NO
13	COUNT+CALL+EXTEND	...4....	NO
14	CALL+EXTEND	...4....	NO
15	CALL+EXTEND	...4....	NO
16	COUNT+CALL+EXTEND	...4....	NO
17	COUNT+CALL+EXTEND	1.......	NO
18	COUNT+CALL+EXTEND	..3.....	NO
19	COUNT+CALL+EXTEND	.2......	NO
20	COUNT+CALL+EXTEND	...4....	NO
21	COUNT+CALL+EXTEND	....5...	NO
22	COUNT+CALL+EXTEND	....5...	NO
23	COUNT+CALL+EXTEND	.....6..	NO
24	COUNT+CALL+EXTEND	.....6..	NO
25	COUNT+CALL+EXTEND	.....6..	NO
26	LIMITED	.....6..	NO
27	LIMITED	.....6..	NO
28	COUNT+CALL+EXTEND	.....6..	NO
29	COUNT+CALL+EXTEND	......7.	NO
30	COUNT+CALL+EXTEND	......7.	NO
31	COUNT+CALL+EXTEND	8	NO
32	COUNT+CALL+EXTEND	8	NO
33	COUNT+CALL+EXTEND	8	NO
34	CALL+EXTEND	8	NO
35	LIMITED	8	NO
36	COUNT+CALL+EXTEND	8	NO
37	COUNT+CALL+EXTEND	....5...	NO
38	COUNT+CALL+EXTEND	......7.	NO
39	COUNT+CALL+EXTEND	.....6..	NO
40	COUNT+CALL+EXTEND	8	NO
41	PEDESTRIAN	.2......	NO
42	PEDESTRIAN	...4....	NO
43	PEDESTRIAN	.....6..	NO
44	PEDESTRIAN	8	NO

Slot / Detector Configuration (5-2)

Slot	Det	Delay	Extend	Recall	Port
I1U	1			10	3.2
I1L	2			10	7.2
I2U	3			10	1.1
I2L	4			10	1.5
I3U	5			10	4.5
I3L	6		0.5	10	6.2
I4U	7		0.5	10	2.1
I4L	8			10	7.4
I5U	9			10	3.4
I5L	10			10	7.6
I6U	11		1.5	10	1.3
I6L	12		1.5	10	1.7
I7U	13		1.5	10	4.7
I7L	14			10	6.4
I8U	15			10	2.3
I8L	16			10	7.8
I9U	17			10	3.6
I9L	18			10	3.8
I10U	19			10	4.1
I10L	20			10	4.2
J1U	21			10	3.1
J1L	22			10	7.1
J2U	23			10	1.2
J2L	24			10	1.6
J3U	25			10	4.6
J3L	26		0.5	10	6.3
J4U	27		0.5	10	2.2
J4L	28			10	7.3
J5U	29			10	3.3
J5L	30			10	7.5
J6U	31			10	1.4
J6L	32			10	1.8
J7U	33			10	4.8
J7L	34			10	6.5
J8U	35			10	2.4
J8L	36			10	7.7
J9U	37			10	3.5
J9L	38			10	3.7
J10U	39			10	4.3
J10L	40			10	4.4
I12U	41			10	5.1
I12L	42			10	5.3
I13U	43			10	5.2
I13L	44			10	5.4

Failure Times (5-3)

	Minutes
Maximum On Time	
Fail Reset Time	

Failure Override (5-4)

Detectors 1-8	....
Detectors 9-16	....
Detectors 17-24	....
Detectors 25-32	....
Detectors 33-40	....
Detectors 41-44	....

System Detector Assignment (5-5)

Sys Det	1	2	3	4	5	6	7	8
Det Nu								
Sys Det	9	10	11	12	13	14	15	16
Det Nu								

CIC Operation (5-6-1)

Enable in Plans	....

CIC Values (5-6-2)

	Volume	Occupancy	Demand
Smoothing	0.66	0.66	0.66
Multiplier	4.0	0.33	
Exponent	0.50	1.00	

Detector-to-Phase Assignment (5-6-3)

Sys Det	1	2	3	4	5	6	7	8
Phase								
Sys Det	9	10	11	12	13	14	15	16
Phase								

Input File Port-Bit Assignments

332 Cabinet - For Reference Only

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
I-	3.2	1.1	4.5	2.1	3.4	1.3	4.7	2.3	3.6	4.1	6.6	5.1	5.2	6.7
	7.2	1.5	6.2	7.4	7.6	1.7	6.4	7.8	3.8	4.2	2.7	5.3	5.4	6.8
J-	3.1	1.2	4.6	2.2	3.3	1.4	4.8	2.4	3.5	4.3	2.8	5.5	5.6	2.5
	7.1	1.6	6.3	7.3	7.5	1.8	6.5	7.7	3.7	4.4	6.1	5.7	5.8	2.6

TOD SCHEDULE

Table 1 (8-2-1)			Table 2 (8-2-2)			Table 3 (8-2-3)			Table 4 (8-2-4)			Table 5 (8-2-5)			Table 6 (8-2-6)		
Time	Plan	OS	Time	Plan	OS	Time	Plan	OS	Time	Plan	OS	Time	Plan	OS	Time	Plan	OS
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A

WEEKDAY ASSIGNMENT

Weekday Table Assignments (8-2-7)						
Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	1	1	1	1	2	2

HOLIDAY TABLES

Floating Holiday Table (8-2-8)

#	Mnth	Week	DOW	Table
1			. . . .	
2			. . . .	
3			. . . .	
4			. . . .	
5			. . . .	
6			. . . .	
7			. . . .	
8			. . . .	
9			. . . .	
10			. . . .	
11			. . . .	
12			. . . .	
13			. . . .	
14			. . . .	
15			. . . .	
16			. . . .	

Fixed Holiday Table (8-2-9)

#	Mnth	Day	DOW	Table
1			. . . .	
2			. . . .	
3			. . . .	
4			. . . .	
5			. . . .	
6			. . . .	
7			. . . .	
8			. . . .	
9			. . . .	
10			. . . .	
11			. . . .	
12			. . . .	
13			. . . .	
14			. . . .	
15			. . . .	
16			. . . .	

Solar Clock Data (8-4)

North Latitude	34
West Longitude	118
Local Time Zone	8

Sabbatical Clock (8-5)

Hebrew	Ped Recall
Sabbath	. . . .
Holiday	. . . .

Daylight Saving (8-6)

Enabled	YES

TOD FUNCTIONS

TOD Functions (8-3)

#	Start	End	DOW	Action	Phases
1	0700	1900	M T W T F . .	17	. . . 4 . . . .
2	0700	1900	M T W T F . .	13	. . . .
3			. . . .		. . . .
4			. . . .		. . . .
5			. . . .		. . . .
6			. . . .		. . . .
7			. . . .		. . . .
8			. . . .		. . . .
9			. . . .		. . . .
10			. . . .		. . . .
11			. . . .		. . . .
12			. . . .		. . . .
13			. . . .		. . . .
14			. . . .		. . . .
15			. . . .		. . . .
16			. . . .		. . . .

Action Codes:

0. None
1. Permitted
2. Restricted
4. Veh Min Recall
5. Veh Max Recall
6. Ped Recall
7. Bike Recall
8. Red Lock
9. Yellow Lock
10. Force/Max Lock
11. Double Entry
12. Y-Coord C
13. Y-Coord D
14. Free
15. Flashing
16. Walk 2
17. Max Green 2

18. Max Green 3
19. Rest in Walk
20. Rest in Red
21. Free Lag Phases
22. Special Functions
23. Truck Preempt
24. Conditional Service
25. Conditional Service
26. Leading Ped
27. Traffic Actuated Max 2
41. Protected Permissive
42. Protected Permissive

Action Code = Phases added to normal setting

100+Action Code = Phases removed

200+Action Code = Phases replaced

COMMUNICATIONS

C2 (6-1-1)	
Address	
Protocol	AB3418
Limit Access	0
Baud	1200
Parity	NONE
Data Bits	8
Stop Bits	1
RTS On Time	20
RTS Off Time	20
Handshaking	NORMAL

C20 (6-1-2)	
Address	
Protocol	AB3418
Limit Access	0
Baud	1200
Parity	NONE
Data Bits	8
Stop Bits	1
RTS On Time	20
RTS Off Time	20
Handshaking	NORMAL

C21 (6-1-3)	
Address	
Protocol	AB3418
Limit Access	0
Baud	1200
Parity	NONE
Data Bits	8
Stop Bits	1
RTS On Time	20
RTS Off Time	20
Handshaking	NORMAL

Limit Access:

0-None

1-Status Only

2-Status, Set Pattern, Time

3-Status, Set Pattern, Time, Manual Plan

SOFT LOGIC

Soft Logic (6-2)						
#	Data	OP	Data	OP	Data	OP	Data
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						

*Refer to User's Manual for Data and OP Codes

CALLBACK NUMBERS

Callback Numbers (6-3...3)	
Line Out	
Local Toll	
Long Distance	
Delay	10
Area Code	
Phone Number	

Line Out	
Local Toll	
Long Distance	
Delay	10
Area Code	
Phone Number	

Line Out	
Local Toll	
Long Distance	
Delay	10
Area Code	
Phone Number	

NETWORK

Network (6-4)				
Address	1			
Protocol	AB3418			
Port	27000			
IP Mode	STATIC			
IP Address	172	22	8	97
Netmask	255	255	255	0
Broadcast	0	0	0	254
Gateway	172	22	8	1

RAILROAD PREEMPTION

RR 1

(3-1-1)	Timing	Phase Flags (3-1-2)			Pedestrian Flags (3-1-3)			Overlap Flags (3-1-4)		
		Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
Delay										
Clear 1	10	. 2 . . 5 . . .	. . . .	. . . .	. . . .	. . . .	. 2 . 4 . 6 . 8	. . . . . .	. . . . . .	. . . . . .
Clear 2		. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . . . .	. . . . . .	. . . . . .
Clear 3		. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . . . .	. . . . . .	. . . . . .
Hold		. . . .	. . . .	1 2 3 4 5 6 7 8	. . . .	. . . .	. . . .	. . . . . .	. . . . . .	A B C D E F
Exit										
Min Grn										
Ped Clr										

Exit Parameters (3-1-5)

Phase Green	Overlap Green	Vehicle Call	Ped Call
. . . .	. . . . . .	1 2 3 4 5 6 7 8	. 2 . 4 . 6 . 8

Configuration (3-1-6)

Port	Gate Port	Latching	Power-Up
2.5	0.0	YES	FLASHING

RR 2

(3-2-1)	Timing	Phase Flags (3-2-2)			Pedestrian Flags (3-2-3)			Overlap Flags (3-2-4)		
		Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
Delay										
Clear 1	10	. . . 4 . . 7 .	. . . .	. . . .	. . . .	. . . .	. 2 . 4 . 6 . 8	. . . . . .	. . . . . .	. . . . . .
Clear 2		. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . . . .	. . . . . .	. . . . . .
Clear 3		. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . . . .	. . . . . .	. . . . . .
Hold		1 2 3 . . 6 . .	. . . .	. . . .	. 2 . . . 6 . .	. . . .	. . . 4 . . . 8	. . . . . .	. . . . . .	. . . . . .
Exit										
Min Grn										
Ped Clr										

Exit Parameters (3-2-5)

Phase Green	Overlap Green	Vehicle Call	Ped Call
. . . .	. . . . . .	. . . 4 . . 7 .	. . . .

Configuration (3-2-6)

Port	Gate Port	Latching	Power-up
2.6	0.0	YES	DARK

EMERGENCY VEHICLE PREEMPTION

EVA (3-A)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	5	35	. 2 . . 5 . . .	. . . . . .

Port	Latching	Phase Termination
5.5	NO	ADVANCE

EVB (3-B)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	5	35	. . . 4 . . 7 .	. . . . . .

Port	Latching	Phase Termination
5.6	NO	ADVANCE

EVC (3-C)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	5	35	1 . . . . 6 . .	. . . . . .

Port	Latching	Phase Termination
5.7	NO	ADVANCE

EVD (3-D)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	5	35	. . 3 8	. . . . . .

Port	Latching	Phase Termination
5.8	NO	ADVANCE

INPUTS

7 Wire I/C (2-1-5-1)

		Input	Port	Input	Port
Enable	NO	R1	3.8	Free	3.6
Max ON		R2	3.5	D2	2.8
Max OFF		R3	3.7	D3	6.1

Manual Control (2-1-5-2)

Input	Port
Manual Advance	6.6
Advance Enable	6.6

Cabinet Status (2-1-5-3)

Input	Port
Flash Bus	
Door Ajar	
Flash Sense	6.7
Stop Time	6.8

Special Function (2-1-5-4)

Input	Port
1	
2	
3	
4	

Battery Backup (2-1-5-5)

Port	Operation
2.7	FLASHING

Y-Coordination (2-1-5-6)

Port C	Port D
6.1	2.8

OUTPUTS

Loadswitch Assignments (2-1-6)   +

A	1	2	22	3	4	24	9
B	5	6	26	7	8	28	10
X	13	14	0	11	12	0	0

Loadswitch Codes:
- 0   Unused (no output)
- 1-8   Vehicle 1-8
- 9-14 Overlap A-F
- 21-28 Ped 1-8
- 41-47 Special Functions
- 41 Protected Permissive Flashing Phase 1
- 43 Protected Permissive Flashing Phase 3
- 45 Protected Permissive Flashing Phase 5
- 47 Protected Permissive Flashing Phase 7

51-57 Special Functions
71-72 Seven Wire I/C

+ middle output of
loadswitches 3 and 6
Channel 9 and 10

TRANSIT PRIORITY

Local Plans (3-E) 1...9 11...19		Early Green	Green Extend	Inhibit Cycles	Phase 1 Minimum	Phase 2 Minimum	Phase 3 Minimum	Phase 4 Minimum	Phase 5 Minimum	Phase 6 Minimum	Phase 7 Minimum	Phase 8 Minimum
Plan 1	Green Factor											
Plan 2	Green Factor											
Plan 3	Green Factor											
Plan 4	Green Factor											
Plan 5	Green Factor											
Plan 6	Green Factor											
Plan 7	Green Factor											
Plan 8	Green Factor											
Plan 9	Green Factor											
Plan 11	Green Factor											
Plan 12	Green Factor											
Plan 13	Green Factor											
Plan 14	Green Factor											
Plan 15	Green Factor											
Plan 16	Green Factor											
Plan 17	Green Factor											
Plan 18	Green Factor											
Plan 19	Green Factor											

Transit Priority Configuration (3-E-A)		Indicator Output			
Enable in Plans	Input	Type	Stop	Go	
Plan 1-9	....	0.0	OPT	0	0
Plan 11-19	....	0.0	OPT	0	0

Queue Jump (3-E-B)	
Grn Hold	Hold Phase
	....
	....

Free Plans (3-E-E)	
Max Grn Hold	Hold Phase
	....

Access Utilities (9-5)	
Password	***
Timeout	30

YELLOW YIELD COORDINATION

Y-Coord Plans (7-C,D)	Long Grn	No Grn	Offset	Perm	Force-Offs -1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	Coord	Lag	Min Recall	Restricted
Plan C													.2...6..	.2.4.6.8	....	....
Plan D	75	140	13					60					.2...6..	.2.4.6.8	....	....

TRUCK PRIORITY

Truck Priority (3-F)	Passage	CarryOver	Clearance	Next Priority	Phase Green	Det 2 Port	Det 3 Port	Det 4 Port	Sign Output	Slave Input	Slave Output
					....	0.0	0.0	0.0	0	0.0	0

Appendix C

Crash Summary

Accident report statistics, taken at red light camera intersections (El Camino/Millbrae Ave., Millbrae Ave/Rollins Rd., s/b Hwy 101/E Millbrae Ave).

Year	# Accidents	
2000	47	
2001	55	
2002	48	
2003	43	
2004	25	
2005	32	
2006	23	
2007	24	
2008	23	
2009	22	
2010	29	
2011	30	
2012	24	
2013	17	
2014	18	
2015	8	(1/1/2015 thru 6/30/2015)

California Department of Transportation

OTM22131

Table B Accident Records

California Department of Transportation

OTM22131

Table B Accident Records

Report Parameters:

REPORT DATE: 08/25/2016

REFERENCE DATE: 08/25/2016

SUBMITTOR: T4CHO

REPORT TITLE: Intersection

EVENT ID: 3847600

Total Accidents Retrieved

75

OTM22131
08/25/2016
12:00 AM

Table B Accident Records

Page#   1
Event ID   3847600

```
                          I S D  ACCIDENT           COMMON        P ENVIR       R T NO   P D V S PERSON O L O L O L O L OA M SD
REQUEST-          P POST  P F R O A DATE       TIME ACCIDENT      C COND    R W O MTR   T I H I   K    I S O S O S O S O F O P
  & LINE    ARS   P MILE  S T L H Y MM-DD-YY   HHMM NUMBER        F W L S C C C VEH     R I         P C O C O C O C 1 2 O V 1 2

  1   1   04 SM 082   015.940   H - S 7  02-23-08   1848  411000113   1 C C B H A C 03   A S 1 C 00 00 V2D V3D --- --- 5< H B<
                                                                                        D S 1 C 00 00 V1D --- --- --- N< H A<
                                                                                        A S 1 C 00 00 --- V1J --- --- N< A A<
  1   1   04 SM 082   015.940   H - N 1  04-12-09   1304  411000101   6 A A A H D C 03   A N 1 C 00 01 V2G --- --- --- N< B <I
                                                                                        A < 1 < 00 00 V1G V3G --- --- << O H<
                                                                                        A < 1 < 00 00 --- V2G --- --- << O H<
  1   1   04 SM 082   015.940   H - N 5  03-10-11   1348  411000103   C A A A H A E 01   A N 2 C 00 00 18H 10F --- --- K< D A<
  1   1   04 SM 082   015.940   H - N 7  03-19-11   0042  411000115   4 C C B H D E 01   A W 1 C 00 00 17H --- --- --- 4L E A<
  1   1   04 SM 082   015.940   H - N 4  02-08-12   1605  411000147   5 A A A H A C 02   A N 1 C 00 01 V2D --- --- --- N< H A<
                                                                                        A N 1 C 00 00 V1D --- --- --- N< B A<
  1   1   04 SM 082   015.940   H - S 4  01-02-13   1625  410017220   4 A A A H A B 02   A S 1 D 00 00 V2F --- --- --- << J A<
                                                                                        A S 1 D 00 00 V1F --- --- --- << B A<
  1   1   04 SM 082   015.946   I 6 S 3  01-06-04   2010  411000005   1 C C B H A E 01   E W 2 D 00 00 19J 10J --- --- 5< D <E
  1   1   04 SM 082   015.946   I 5 S 5  01-08-04   2159  411000011   1 A C A H A B 02   A S 1 < 00 00 V2E --- --- --- 6< B B<
                                                                                        A W 2 < 00 00 V1A --- --- --- N< D A<
  1   1   04 SM 082   015.946   I 6 N 6  04-16-04   1415  411000004   6 A A A D A B 02   D W 1 C 00 00 V2F --- --- --- N< J G<
                                                                                        A W 1 C 00 00 V1E --- --- --- N< B A<
  1   1   04 SM 082   015.946   I 6 N 1  08-08-04   1803  411000011   5 A A A H A C 02   A N 2 < 00 00 V2J --- --- --- N< B A<
                                                                                        A N 2 < 00 01 V1J --- --- --- 6< A A<
  1   1   04 SM 082   015.946   I 5 S 1  08-15-04   1955  411000011   4 A A A H A A 01   A E 1 < 00 00 10J 13J --- --- N< E A<
  1   1   04 SM 082   015.946   I 6 N 1  10-17-04   1542  411000002   5 C A B H A C 02   A W 2 < 00 00 V2J --- --- --- N< H A<
                                                                                        A W 2 < 00 00 V1J --- --- --- N< A A<
  1   1   04 SM 082   015.946   I 6 N 1  03-27-05   2016  411000010   5 C C B H A A 01   A W 2 < 00 00 19J 13J --- --- N< D A<
  1   1   04 SM 082   015.946   I 5 N 5  07-21-05   0147  411000004   1 A C A H A D 02   A N 1 D 00 00 V2F --- --- --- 6< B B<
                                                                                        A E 2 D 00 01 V1D --- --- --- N< B A<
  1   1   04 SM 082   015.946   I 5 S 1  09-04-05   0733  411000014   6 A A A H A D 02   A S 1 < 00 01 V2E --- --- --- N< B A<
                                                                                        A E 2 < 00 01 V1D --- --- --- N< B A<
  1   1   04 SM 082   015.946   I 6 N 3  09-20-05   1547  411000012   5 B A B H A D 03   A E 1 < 00 00 V2A V3A --- --- N< E A<
                                                                                        A E 1 < 00 00 V1A --- --- --- N< E A<
                                                                                        A E 2 < 00 02 --- V1F --- --- N< A A<
  1   1   04 SM 082   015.946   I 6 N 3  10-18-05   1237  411000001   5 A A A H A C 03   A W 2 < 00 00 V2F --- --- --- N< B A<
                                                                                        A W 2 < 00 00 V1F V3F --- --- N< H A<
                                                                                        A W 2 < 00 00 --- V2F --- --- N< H A<
  1   1   04 SM 082   015.946   I 6 N 7  10-29-05   0200  411000769   1 C C B H A E 01   D W 2 < 00 00 19J 10J --- --- 5< P B<
  1   1   04 SM 082   015.946   I 6 N 1  11-13-05   1715  411000017   4 A B A H A C 02   A N 1 < 00 00 V2F --- --- --- N< B G<
                                                                                        A N 1 < 00 00 V1F --- --- --- N< A A<
  1   1   04 SM 082   015.946   I 5 N 7  12-31-05   1822  411000013   6 A C A H A D 02   A N 1 < 00 00 V2E --- --- --- N< B A<
                                                                                        A W 2 < 00 02 V1D --- --- --- N< B A<
  1   1   04 SM 082   015.946   I 6 S 6  05-04-07   1518  411000113   6 A A A D A B 02   A E 2 C 00 00 V2G --- --- --- N< I A<
                                                                                        A E 2 C 00 00 V1F --- --- --- N< H A<
  1   1   04 SM 082   015.946   I 5 S 3  06-12-07   2318  411000112   4 A C A H D B 02   A W 1 C 00 00 V2H --- --- --- 5< J A<
                                                                                        A W 2 C 00 01 V1D --- --- --- N< B A<
  1   1   04 SM 082   015.946   I 5 S 3  07-03-07   1134  411000113   6 A A A H A D 02   A W 2 C 00 00 V2D --- --- --- N< E A<
                                                                                        J E 2 C 00 00 V1F --- --- --- N< B A<
  1   1   04 SM 082   015.946   I 5 S 7  11-10-07   1501  411000101   6 C A B H A B 02   A S 1 < 00 00 V2J --- --- --- N< E A<
                                                                                        F S 1 < 00 00 V1J --- --- --- N< E A<
```

Table B Accident Records

```
                              I S D  ACCIDENT         COMMON        P ENVIR          R T NO    P D V S PERSON  O L   O L   O L   O L   OA  M SD
REQUEST-             P POST  P F R O A DATE     TIME  ACCIDENT      C COND      R W O MTR     T I H I    K    I   S O   S O   S O   S O    F  O P
  & LINE      ARS    P MILE  S T L H Y MM-DD-YY HHMM  NUMBER        F W L S C C C VEH        R   I        P C   O C   O C   O C   O C   1 2  V 1 2

 1  1   04 SM 082   015.946  I 5 S 7 01-26-08  2248  411000108   4 C C B H A E  01   A E 1 C 00 01 10B  ---  ---  ---  1<  E B<
 1  1   04 SM 082   015.946  I 5 N 7 10-04-08  0752  411000101   C C A D G A E  01   A N 2 C 00 00 18H  28H  ---  ---  N<  D A<
 1  1   04 SM 082   015.946  I 5 N 4 01-07-09  1030  411000103   4 A A A H A B  02   D S 1 C 00 00 V2F  ---  ---  ---  N<  D A<
                                                                                     A S 1 C 00 00 V1F  ---  ---  ---  N<  D A<
 1  1   04 SM 082   015.946  I 6 S 5 03-12-09  1151  411000101   5 A A A H A C  02   A E 2 C 00 00 V2F  ---  ---  ---  N<  B A<
                                                                                     A E 2 C 00 01 V1F  ---  ---  ---  N<  A A<
 1  1   04 SM 082   015.946  I 5 N 5 04-02-09  2250  411000167   6 A C A H A B  02   A S 1 C 00 00 V2A  ---  ---  ---  N<  E A<
                                                                                     A N 1 C 00 01 V1F  ---  ---  ---  N<  B A<
 1  1   04 SM 082   015.946  I 6 N 4 05-20-09  1250  411000103   6 A A A H A G  01   U W - C 00 01 V2-  ---  ---  ---  N<  2 A<
                                                                                     A W 2 C 00 00 V1F  ---  ---  ---  N<  D A<
 1  1   04 SM 082   015.946  I 5 S 2 01-04-10  1417  411000101   3 A A A H A D  02   A E 2 C 00 01 V2A  ---  ---  ---  F<  E A<
                                                                                     A W 2 C 00 00 V1F  ---  ---  ---  N<  B A<
 1  1   04 SM 082   015.946  I 5 S 5 05-06-10  2229  411000165   6 A C A H A G  01   A S 1 C 00 00 V2D  ---  ---  ---  N<  B A<
                                                                                     U W - C 00 01 V1-  ---  ---  ---  N<  2 A<
 1  1   04 SM 082   015.946  I 5 N 3 07-06-10  1439  411000180   3 A A A H A D  02   A S 1 C 00 00 V2A  ---  ---  ---  N<  E A<
                                                                                     A N 1 C 00 00 V1F  ---  ---  ---  N<  B A<
 1  1   04 SM 082   015.946  I 5 N 2 08-30-10  1337  411000101   5 A A A H A C  02   A W 2 C 00 00 V2J  ---  ---  ---  N<  B A<
                                                                                     A W 2 C 00 01 V1J  ---  ---  ---  N<  H A<
 1  1   04 SM 082   015.946  I 5 S 2 12-06-10  0648  411000101   5 B B B H A E  01   A E 1 C 00 00 18A  17A  ---  ---  N<  E A<
 1  1   04 SM 082   015.946  I 5 N 4 01-19-11  1509  411000180   6 A A A H A B  02   A N 1 C 00 00 V2J  ---  ---  ---  <<  I A<
                                                                                     G N 1 C 00 00 V1J  ---  ---  ---  <<  D A<
 1  1   04 SM 082   015.946  I 5 S 3 04-12-11  2154  411000167   6 A C A H A D  03   A W 2 C 00 00 V2F  ---  ---  ---  N<  B A<
                                                                                     A S 1 C 00 00 V1E  V3E  ---  ---  N<  B A<
                                                                                     A S 1 C 00 00 ---  V2F  ---  ---  N<  B A<
 1  1   04 SM 082   015.946  I 6 N 2 05-23-11  1414  411000101   6 A A A H A B  02   A E 1 C 00 00 V2J  ---  ---  ---  N<  E A<
                                                                                     G E 1 C 00 00 V1J  ---  ---  ---  N<  E A<
 1  1   04 SM 082   015.946  I 5 S 4 07-13-11  0716  411000167   4 C A B H A E  01   A E 1 C 00 00 10B  ---  ---  ---  N<  E A<
 1  1   04 SM 082   015.946  I 6 N 4 09-07-11  0828  411000101   6 A A A H A D  02   D E 1 C 00 00 V2H  ---  ---  ---  N<  I A<
                                                                                     I E 1 C 00 01 V1H  ---  ---  ---  N<  D A<
 1  1   04 SM 082   015.946  I 5 S 2 01-30-12  0631  411000101   D A E A H A D  02   D W 2 C 00 00 V2J  ---  ---  ---  N<  E A<
                                                                                     A W 2 C 00 00 V1J  ---  ---  ---  N<  E A<
 1  1   04 SM 082   015.946  I 6 N 1 04-21-13  0945  410018630   5 A A A H A C  02   A W 2 C 00 00 V2D  ---  ---  ---  N<  B G<
                                                                                     A W 2 C 00 00 V1D  ---  ---  ---  <<  A A<
 1  1   04 SM 082   015.946  I 6 N 4 10-02-13  1000  410018930   3 A A A H A D  02   A N 1 C 00 01 V2B  ---  ---  ---  N<  B A<
                                                                                     A E 2 C 00 00 V1F  ---  ---  ---  N<  E A<
 1  1   04 SM 082   015.946  I 5 S 2 02-03-14  1847  410017300   2 A C A H A C  02   A S 1 C 00 00 V2J  ---  ---  ---  2G  B A<
                                                                                     A S 1 C 00 00 V1J  ---  ---  ---  F<  A A<
 1  1   04 SM 082   015.946  I 5 S 1 08-03-14  1300  410019840   4 A A A D A C  02   A S 1 C 00 00 V2J  ---  ---  ---  N<  B D<
                                                                                     A S 1 C 00 00 V1J  ---  ---  ---  N<  A G<
 1  1   04 SM 082   015.950  H - N 4 04-12-06  1655  411000101   5 B A B H A D  02   A N 1 C 00 00 V2D  ---  ---  ---  N<  D A<
                                                                                     A N 1 C 00 01 V1D  ---  ---  ---  N<  B A<
 1  1   04 SM 082   015.950  H - S 3 06-15-10  2305  411000176   5 A C A H A C  02   A < 1 < 00 00 V2J  ---  ---  ---  <<  B <<
                                                                                     D S 1 C 00 00 V1J  ---  ---  ---  <<  A A<
 1  1   04 SM 082   015.950  H - S 2 02-14-11  1101  411000101   5 C A B H A A  02   A E 2 C 00 00 V2A  ---  ---  ---  N<  E A<
                                                                                     A N 1 B 00 01 V1E  ---  ---  ---  N<  A A<
```

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08/25/2016
12:00 AM

Table B Accident Records

Page# 3

Event ID 3847600

```
                                 I S D  ACCIDENT                COMMON      P  ENVIR    R T NO   P D V S  PERSON  O  L   O  L   O  L   O  L   OA  M  SD
REQUEST-                  P POST  P F R O A  DATE       TIME    ACCIDENT    C  COND     R W O  MTR   T I H I    K    I  S  O  S  O  S  O  S  O   F  O   P
  & LINE        ARS       P MILE  S T L H Y  MM-DD-YY   HHMM    NUMBER      F  W L S    C C C VEH   R I         P  C  O  C  O  C  O  C  O  C   1 2  V  1 2

  1   1     04 SM 082     015.960  H - N 4  03-03-04   2204    411000005   4  A C A H D B  02   A N 1 C  00  00  V2H  ---  ---  ---  N<  D  A<
                                                                                               C N 1 C  00  00  V1F  44F  ---  ---  N<  P  A<
  1   1     04 SM 082     015.960  H - N 5  09-23-04   1738    411000008   2  A A A G A C  02   A N 1 <  00  01  V2J  ---  ---  ---  GH  B  A<
                                                                                               A N 1 <  00  02  V1J  ---  ---  ---  GH  H  A<
  1   1     04 SM 082     015.960  H - S 3  10-12-04   2359    411000011   2  A C A H A C  02   A S 1 <  00  00  V2J  ---  ---  ---  5<  B  A<
                                                                                               A S 1 <  00  00  V1J  ---  ---  ---  N<  B  A<
  1   1     04 SM 082     015.960  H - S 3  08-09-05   0118    411000004   5  A C A H A C  02   A S 1 <  00  00  V2J  ---  ---  ---  6<  B  G<
                                                                                               A S 1 <  00  00  V1J  ---  ---  ---  N<  A  A<
  1   1     04 SM 082     015.960  H - S 1  03-05-06   1824    411000110   5  C C B H A C  02   A S 1 <  00  00  V2E  ---  ---  ---  N<  B  A<
                                                                                               A S 1 <  00  00  V1E  ---  ---  ---  N<  A  A<
  1   1     04 SM 082     015.960  H - N 2  04-17-06   1630    411000108   5  A A A H A C  02   A N 1 C  00  00  V2F  ---  ---  ---  5G  E  A<
                                                                                               A N 1 C  00  00  V1F  ---  ---  ---  N<  A  A<
  1   1     04 SM 082     015.960  H - S 5  06-22-06   1430    411000114   5  A A A H A C  03   A S 1 <  00  00  V2D  ---  ---  ---  5<  B  A<
                                                                                               A S 1 <  00  00  V1D  V3D  ---  ---  N<  A  H<
                                                                                               A S 1 <  00  01  ---  V1D  ---  ---  N<  A  A<
  1   1     04 SM 082     015.960  H - S 4  10-25-06   1612    411000131   D  < A A H A C  02   A S 1 C  00  00  V2F  ---  ---  ---  N<  B  H<
                                                                                               M S 1 <  00  00  V1F  ---  ---  ---  <<  B  G<
  1   1     04 SM 082     015.960  H - S 3  12-12-06   0515    411000101   4  B C B H A E  01   M S 1 <  00  00  18B  10B  ---  ---  4<  E  G<
  1   1     04 SM 082     015.960  H - S 5  05-24-07   0907    411000117   5  A A A H A C  02   I S 1 C  00  00  V2J  ---  ---  ---  N<  B  H<
                                                                                               D S 1 C  00  00  V1J  ---  ---  ---  N<  A  A<
  1   1     04 SM 082     015.960  H - S 7  11-03-07   1025    411000101   5  A A A H A B  02   A < 1 <  00  00  V2J  ---  ---  ---  N<  I  D<
                                                                                               A S 1 <  00  00  V1J  ---  ---  ---  N<  A  A<
  1   1     04 SM 082     015.960  H - S 7  11-03-07   1026    411000101   6  A A A H A B  02   A S 1 <  00  00  V2J  ---  ---  ---  N<  J  A<
                                                                                               A S 1 <  00  00  V1J  ---  ---  ---  N<  B  A<
  1   1     04 SM 082     015.960  H - S 1  02-03-08   1430    411000128   6  A A A H D B  02   D S 1 C  00  00  V2F  ---  ---  ---  N<  J  G<
                                                                                               A S 1 C  00  00  V1E  ---  ---  ---  N<  B  A<
  1   1     04 SM 082     015.960  H - N 5  02-21-08   1058    411000101   6  C A < H D C  02   A N 1 C  00  00  V2F  ---  ---  ---  N<  H  A<
                                                                                               D N 1 C  00  00  V1F  ---  ---  ---  2<  B  A<
  1   1     04 SM 082     015.960  H - N 5  02-28-08   1222    411000101   5  A A A H A C  02   A N 1 C  00  00  V2F  ---  ---  ---  N<  B  A<
                                                                                               A N 1 C  00  00  V1F  ---  ---  ---  6<  B  A<
  1   1     04 SM 082     015.960  H - S 2  04-28-08   1350    411000114   5  A A A H A C  02   A S 1 C  00  00  V2D  ---  ---  ---  N<  B  A<
                                                                                               A S 1 C  00  02  V1D  ---  ---  ---  N<  A  A<
  1   1     04 SM 082     015.960  H - S 4  10-07-09   1323    411000101   6  A A A H A C  02   A S 1 C  00  00  V2D  ---  ---  ---  6<  J  A<
                                                                                               D S 1 C  00  00  V1D  ---  ---  ---  N<  B  A<
  1   1     04 SM 082     015.960  H - N 4  10-14-09   1400    411000165   5  A A A H A C  02   D N 1 C  00  00  V2F  ---  ---  ---  N<  B  A<
                                                                                               A N 1 C  00  01  V1F  ---  ---  ---  N<  A  A<
  1   1     04 SM 082     015.960  H - S 2  07-25-11   1315    411000183   4  A A A H A E  01   A S 1 C  00  00  18B  10B  ---  ---  4N  F  A<
  1   1     04 SM 082     015.960  H - N 4  10-19-11   0744    411000114   5  A A A H D C  02   D N 1 C  00  00  V2D  ---  ---  ---  N<  B  A<
                                                                                               A N 1 C  00  01  V1D  ---  ---  ---  N<  H  A<
  1   1     04 SM 082     015.960  H - S 2  06-04-12   0050    411001613   5  A C A H A C  02   M < 1 <  00  00  V2J  ---  ---  ---  <<  <  <<
                                                                                               D S 1 C  00  00  V1J  ---  ---  ---  N<  A  A<
  1   1     04 SM 082     015.960  H - S 3  12-04-12   0828    411018630   5  B A A H A C  02   A S 1 C  00  00  V2F  ---  ---  ---  N<  B  A<
                                                                                               A S 1 C  00  02  V1F  ---  ---  ---  N<  A  A<
  1   1     04 SM 082     015.960  H - S 5  08-14-14   0101    410017940   5  A C A H A C  03   A S 1 C  00  01  V2F  ---  ---  ---  N<  B  AI
                                                                                               A S 1 C  00  01  V1F  V3F  ---  ---  N<  A  A<
                                                                                               A S 1 C  00  01  ---  V2F  ---  ---  N<  A  A<
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08/25/2016
12:00 AM

Table B Accident Records

REQUEST & LINE	ARS	P P	POST MILE	I / P S	F T	S / R L	D / O H	A Y	ACCIDENT DATE MM-DD-YY	TIME HHMM	COMMON ACCIDENT NUMBER	P C F	ENVIR COND W	L	S	R / R C	T / W C	O C	NO MTR VEH	P T R	D I	V H I	S I	PERSON K	PERSON I	O L	O L	O L	O L	OA F 1 2	M O V	SD P 1 2
1 1	04 SM 082		015.970	H	-	S	6		07-08-05	2058	411000023	6	A	C	A	H	D	G	01	A	S	1	<	00	00	V2J	---	---	---	N<	4	A<
																				U	E	-	<	00	01	V1-	---	---	---	N<	4	A<
1 1	04 SM 082		015.970	H	-	S	3		12-04-07	1330	411000103	5	B	A	A	H	A	C	02	A	S	1	C	00	01	V2F	---	---	---	N<	B	A<
																				A	S	1	C	00	00	V1F	---	---	---	N<	A	A<
1 1	04 SM 082		015.970	H	-	N	1		03-23-08	0035	411000165	1	A	C	A	H	D	B	03	A	N	1	C	00	00	18H	28H	V2H	V3H	4<	E	B<
																				A	N	2	<	00	00	---	V1J	---	---	N<	O	H<
																				A	S	2	<	00	00	---	V1J	---	---	N<	O	H<
1 1	04 SM 082		015.970	H	-	S	7		07-19-08	1218	411000103	6	A	A	A	H	D	D	02	A	E	2	C	00	00	V2F	---	---	---	N<	G	A<
																				D	S	1	C	00	00	V1J	---	---	---	N<	B	A<

California Department of Transportation

OTM22200

TSAR - ACCIDENT DETAIL

Policy controlling the use of Traffic Accident Surveillance and Analysis System (TASAS) - Transportation Systems Network (TSN) Reports

1. TASAS - TSN has officially replaced the TASAS - "Legacy" database.

2. Reports from TSN are to be used and interpreted by the California Department of Transportation (Caltrans) officials or authorized representative.

3. Electronic versions of these reports may be emailed between Caltrans' employees only using the State computer system.

4. The contents of these reports shall be considered confidential and may be privileged pursuant to 23 U.S.C. Section 409, and are for the sole use of the intended recipient(s). Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message. Do not print, copy or forward.

California Department of Transportation

OTM22200

TSAR - ACCIDENT DETAIL

REPORT PARAMETERS: **Total Accidents Retrieved:**

      REPORT DATE   : 08/25/2016   23

      REFERENCE DATE   : 08/25/2016

      SUBMITTOR   : T4CHO

      REPORT TITLE   : ' 101/SB OFF TO MILLBRAE (WITH AREA 4

      EVENT ID   : ONLY) '

                           3847589

LOCATION CRITERIA:

  FROM: 04-SM-101 018.038   TO: 04-SM-101 018.039

SELECTION CRITERIA:

    1 1 AND 508 - FILE TYPE = R
    1 2 AND 515 - INTRS/RAMP ACC LOC IN 4

Accidents Date Range:

  From -- 01/01/2004 To -- 10/31/2014

OTM22200
08/25/2016
08:59 AM

TASAS SELECTIVE RECORD RETRIEVAL
TSAR - ACCIDENT DETAIL
' 101/SB OFF TO MILLBRAE (WITH AREA 4 ONLY) '

Page#   1

Event ID :   3847589

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                          -------HIGHWAY------- I S D ACCIDENT              COMMON      P ENVIR     R T NO      D V S PERSON O L O L O L O L OA M SD
      RTE S          P     H A M B   LANES R F R O A DATE        TIME    ACCIDENT    C COND     R W O MTR     P I H I K  I S O S O S O S O  F O  P
        U            R POST G C T A  LT RT U T L H Y MM-DD-YY    HHMM    NUMBER      F W L S C C C VEH       T R I       P C O C O C O C 12 V 12
   DI NO F CO        E MILE

   04 101  SM     018.038   D F H E 04 04 U R 4 S 3 01-13-04     0549    411000001   3 A C A H A D 01       A W 1 < 00 00 V2 E ---- ---- ---- H< D A<
                                                                                                           L W 2 < 00 00 V1 F ---- ---- ---- 6< B A<
                                                                                                           L < 2 < 00 00 ---- ---- ---- ---- << < <<

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   04 101  SM     018.038   D F H E 04 04 U R 4 S 6 12-09-05     1019    411000017   6 A A A H A D 02       D W 2 < 00 01 V2 D 18 B 13 B 44 D N< B A<
                                                                                                           A S 1 < 00 00 V1 D ---- ---- ---- N< E A<

   04 101  SM     018.038   D F H E 04 04 U R 4 S 6 12-23-05     1716    411000777   6 B B A H A B 02       D E 2 < 00 00 V2 D ---- ---- ---- 6< J G<
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                                                                                                           A W 2 C 00 01 V1 E V3 E ---- ---- << A A<
                                                                                                           A W 2 C 00 00 ---- V2 E ---- ---- << A A<

   04 101  SM     018.038   D F H E 04 04 U R 4 S 4 02-20-08     0823    411000101   5 C A B H A H 01       A E 1 C 00 00 18 B ---- ---- ---- N< E A<

   04 101  SM     018.038   D F H E 04 04 U R 4 S 7 08-09-08     0628    411000111   3 A A A H A B 02       A W 2 C 00 01 V2 F ---- ---- ---- N< P A<
                                                                                                           I W 2 C 00 00 V1 E ---- ---- ---- N< J A<

   04 101  SM     018.038   D F H E 04 04 U R 4 S 4 11-05-08     1453    411000103   1 A A A H A D 02       A S 1 C 00 01 V2 F 13 H 28 H ---- M< D B<
                                                                                                           D W 2 C 00 01 V1 F ---- ---- ---- N< B A<

   04 101  SM     018.038   D F H E 04 04 U R 4 S 6 04-10-09     1243    411000165   5 A A A H A C 02       A W 2 C 00 01 V2 D ---- ---- ---- F< B A<
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   04 101  SM     018.038   D F H E 04 04 U R 4 S 5 06-24-10     2049    411000101   6 E C B H A C 02       A E 2 C 00 00 V2 F ---- ---- ---- N< B A<
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                                                                                                           A W 2 C 00 00 ---- V2 D ---- ---- N< A A<
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OTM22200
08/25/2016
08:59 AM

TASAS SELECTIVE RECORD RETRIEVAL
TSAR - ACCIDENT DETAIL
' 101/SB OFF TO MILLBRAE (WITH AREA 4 ONLY) '

Page#   2

Event ID :   3847589

```
                      -------HIGHWAY------- I S D ACCIDENT              COMMON     P ENVIR     R T NO      D V S PERSON O L O L O L O L OA M SD
       RTE S      P              H A M B    LANES R F R O A DATE    TIME ACCIDENT   C COND    R W O MTR   P I H I  K  I S O S O S O S O  F O  P
         U        R POST         G C T A  LT RT U T L H Y MM-DD-YY  HHMM NUMBER     F W L S C C C VEH    T R I        P C O C O C O C 12 V 12
    DI NO  F  CO  E MILE

    04 101  SM   018.038  D F H E 04 04 U R 4 S 3 12-14-10 1230 411000183  5 C A B H A D 02   D S 2 C 00 00 16 B V2 D ---- ---- 5 H E A<
                                                                                              A W 2 C 00 00 ---- V1 D ---- ---- N< A A<

    04 101  SM   018.038  D F H E 04 04 U R 4 S 3 01-11-11 1705 411000101  5 C C B H A C 02   F E 2 C 00 00 V2 F ---- ---- ---- N< B A<
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    04 101  SM   018.038  D F H E 04 04 U R 4 S 2 03-28-11 0600 411000101  6 A C A H A D 02   A W 2 C 00 00 V2 D ---- ---- ---- << B A<
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    04 101  SM   018.038  D F H E 04 04 U R 4 S 3 04-19-11 1831 411000176  6 A A A H A A 02   A W 2 C 00 00 V2 D ---- ---- ---- N< B A<
                                                                                              A S 1 C 00 00 V1 E ---- ---- ---- N< E A<

    04 101  SM   018.038  D F H E 04 04 U R 4 S 1 05-08-11 1620 411000103  5 A A A H A C 02   A S 1 C 00 00 V2 F ---- ---- ---- N< D A<
                                                                                              A S 1 C 00 00 V1 F ---- ---- ---- N< A A<

    04 101  SM   018.038  D F H E 04 04 U R 4 S 2 10-01-12 1915 411019130  5 A C A H A E 01   A S 1 C 00 00 18 J 27 J ---- ---- << B G<

    04 101  SM   018.038  D F H E 04 04 U R 4 S 4 11-21-12 1128 411018870  6 A A A H A D 02   A < 1 C 00 01 V2 F ---- ---- ---- N< B A<
                                                                                              A < 2 C 00 00 V1 F ---- ---- ---- N< D A<

    04 101  SM   018.038  D F H E 04 04 U R 4 S 6 12-28-12 1916 410018860  5 B C A H A C 02   A E 2 C 00 00 V2 F ---- ---- ---- N< B A<
                                                                                              A E 2 C 00 00 V1 F ---- ---- ---- N< A A<


                                                                           Total Accidents:  23
```

Appendix D

Traffic Counts

Volume   Count Report
Generated   by   MSC3(Version   2.01 Copyright 1990-1!Mitron Systems Corporation

Location	Millbrae Avenue	El Camino Real to Rollins Road
Location	Code	74
County	..........SAN MATEO	CO.
Recorder	Set	4/15/1999 11:58
Recording	Start ...	4/15/1999 12:00
Recording	End	4/23/1999 11:15
Sample	Time	15 Minutes
Operator	Numbe ...	22
Machine	Numbe	2
Channel	 1	
Divide	By	2
Summation	.... No	
Two-Way	..........No	

Thursday 04/15/1999 channel 1 Direction: Eastbound

1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	100	200	300	400	500	600	700	800	900	1000	1100	1200	Totals
2681	2620	2280	2274	2111	2147	1787	1547	1403	1307	803	510	231	128	76	113	252	753	1634	2652	2569	2014	1871	2132	35895
577	680	588	555	517	559	454	380	331	339	227	179	75	29	17	22	48	141	287	561	811	478	493	499	
676	633	565	596	532	559	456	409	353	358	211	151	75	40	18	27	49	175	430	625	684	548	457	488	
731	637	530	554	492	537	445	365	355	314	175	81	49	33	21	26	64	187	440	723	537	531	423	546	
697	670	597	569	570	492	432	393	384	296	190	99	32	26	20	38	91	250	477	743	537	457	498	599	

AM   Peak Hour .... 7:30 to   8:30 (2961 vehicles)
AM   Peak Hour Factor 91.30%
PM   Peak Hour .... 12:15 to 13:15 (2784 vehicles)
PM   Peak Hour Factor 95.20%

Friday 04/16/1999 channel 1 Direction: Eastbound

1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	100	200	300	400	500	600	700	800	900	1000	1100	1200	Totals
2659	2548	2371	2252	1915	1900	1778	1515	1361	1319	976	673	463	291	142	142	187	369	669	1059	1437	1656	1843	1924	31449
619	644	595	605	465	498	476	394	330	332	331	174	152	58	47	41	26	79	140	249	303	446	422	446	
705	643	593	609	490	461	423	369	329	303	238	195	143	45	47	31	54	82	152	274	332	418	441	509	
681	659	589	518	434	460	447	364	365	353	222	179	82	87	27	31	63	129	170	265	346	388	518	477	
654	602	594	520	526	481	432	388	337	331	185	125	86	101	21	39	44	79	207	271	456	404	462	492	

AM   Peak Hour .... 10:30 to 11:30 (1935 vehicles)
AM   Peak Hour Factor 93.40%
PM   Peak Hour .... 12:15 to 13:15 (2684 vehicles)
PM   Peak Hour Factor 95.20%

Saturday 04/17/1999 channel 1 Direction: Eastbound

1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	100	200	300	400	500	600	700	800	900	1000	1100	1200	Totals
2176	2172	1841	1720	1618	1614	1516	1270	1252	1211	919	635	300	190	159	117	142	258	473	699	1015	1277	1581	1762	25917
535	546	427	440	438	370	364	316	323	295	273	192	100	60	62	34	25	60	102	149	205	263	351	389	
562	548	496	442	365	421	359	307	296	347	248	180	68	46	38	24	47	66	107	166	261	322	359	490	
531	532	435	408	376	403	408	287	333	303	208	143	63	43	29	40	36	65	138	181	247	348	414	420	
548	546	483	430	439	420	385	360	300	266	190	120	69	41	30	19	34	67	126	203	302	344	457	463	

AM   Peak Hour .... 11:00 to 12:00 (1762 vehicles)
AM   Peak Hour Factor 89.90%
PM   Peak Hour .... 12:15 to 13:15 (2187 vehicles)
PM   Peak Hour Factor 97.30%

Sunday 04/18/1999 channel 1 Direction: Eastbound

1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	100	200	300	400	500	600	700	800	900	1000	1100	1200	Totals
2250	2168	2156	1774	1508	1562	1498	1231	1295	1165	685	389	159	95	50	104	311	976	2055	3456	3267	2382	2287	1814	34637
579	542	584	425	383	436	406	309	305	303	212	114	64	16	17	12	46	184	345	699	988	586	545	484	
574	519	570	508	395	370	354	296	369	294	187	122	36	25	9	35	65	214	550	862	928	586	586	438	
542	584	566	422	372	419	347	316	277	327	137	88	26	22	12	22	93	249	592	985	700	613	590	428	
555	523	436	419	358	337	391	310	344	241	149	65	33	32	12	35	107	329	568	910	651	597	566	464	

AM   Peak Hour .... 7:30 to 8:30 (3811 vehicles)
AM   Peak Hour Factor 96.40%
PM   Peak Hour .... 13:30 to 14:30 (2261 vehicles)
PM   Peak Hour Factor 96.80%

Monday 04/19/1999 channel 1 Direction: Eastbound

1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	100	200	300	400	500	600	700	800	900	1000	1100	1200	Totals
2053	2046	1877	1749	1498	1426	1266	930	989	767	433	285	130	62	63	87	206	631	1349	2272	2151	1571	1560	1576	26967
464	557	464	477	393	430	358	225	208	229	120	82	37	24	18	17	39	119	260	479	646	399	417	389	
489	481	463	431	351	327	329	248	249	188	119	99	35	16	15	19	45	149	339	571	554	389	422	376	
582	528	450	444	364	335	275	234	314	177	116	57	33	9	17	25	46	163	364	635	522	387	342	373	
518	480	500	397	380	334	304	223	218	173	78	47	25	13	13	26	76	200	386	587	429	396	379	438	

AM   Peak Hour .... 7:15 to 8:15 (2439 vehicles)
AM   Peak Hour Factor 94.40%
PM   Peak Hour .... 12:15 to 13:15 (2146 vehicles)
PM   Peak Hour Factor 92.20%

Tuesday 04/20/1999 channel 1 Direction: Eastbound

1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	100	200	300	400	500	600	700	800	900	1000	1100	1200	Totals
2045	1995	1837	1810	1593	1551	1268	1035	981	823	516	277	135	74	53	73	208	632	1365	2405	2315	1701	1551	1744	27987

469 526 450 511 377 383 340 265 245 229 154 86 36 16 16 13 29 112 264 497 652 497 379 390
536 511 438 453 377 407 310 253 247 231 132 101 37 18 11 19 45 140 356 589 625 441 404 463
534 473 477 437 433 402 298 270 226 193 109 61 23 19 7 15 58 170 336 662 554 410 380 443
506 485 472 409 406 359 320 247 263 170 121 29 39 21 19 26 76 210 409 657 484 353 388 448

AM   Peak Hour ....   7:30 to   8:30 (2596 vehicles)
AM   Peak Hour Factor 98.00%
PM   Peak Hour .... 12:15 to   13:15 (2102 vehicles)
PM   Peak Hour Factor 98.00%

Wednesday 04/21/1999 channel 1 Direction: Eastbound

1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	100	200	300	400	500	600	700	800	900	1000	1100	1200	Totals
2216	2048	1893	1807	1626	1683	1382	999	963	873	532	334	137	86	66	81	206	624	1387	2269	2167	1737	1699	1869	28684
522	542	485	450	366	450	370	258	260	226	179	118	45	24	16	23	37	125	243	480	634	437	441	441	
524	499	491	491	434	406	346	265	233	232	127	99	28	24	16	17	40	132	368	549	581	442	412	500	
557	523	452	411	379	412	351	215	230	200	120	55	38	20	17	16	50	158	349	652	498	423	425	477	
613	484	465	455	447	415	315	261	240	215	106	62	26	18	17	25	79	209	427	588	454	435	421	451	

AM   Peak Hour ....   7:30 to   8:30 (2455 vehicles)
AM   Peak Hour Factor 94.10%
PM   Peak Hour .... 12:15 to   13:15 (2238 vehicles)
PM   Peak Hour Factor 91.20%

Thursday 04/22/1999 channel 1 Direction: Eastbound

1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	100	200	300	400	500	600	700	800	900	1000	1100	1200	Totals
2310	2165	1894	1889	1706	1694	1400	1188	998	945	557	347	133	105	56	92	226	669	1355	2418	2508	1816	1773	474	28,718 nearest to average
524	638	478	500	383	457	375	306	278	237	190	129	35	25	15	20	31	108	240	493	750	503	452	474	
567	544	475	468	432	437	330	325	265	229	143	84	41	29	18	31	51	146	350	563	656	443	457		
616	491	457	465	420	422	374	279	242	262	124	69	27	33	9	14	57	180	351	695	572	430	397		
603	492	484	456	471	378	321	278	213	217	100	65	30	18	14	27	87	235	414	667	530	440	467		

AM   Peak Hour ....   7:30 to   8:30 (2768 vehicles)
AM   Peak Hour Factor 92.30%
PM   Peak Hour .... 12:15 to   13:15 (2424 vehicles)
PM   Peak Hour Factor 95.00%

daily average	30,032

Thursday 4/15/1999 Channel: 1 Direction: W

1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	100	200	300	400	500	600	700	800	900	1000	1100	1200	Totals
2126	1717	2000	1212	3076	3020	1817	1407	1028	931	752	372	164	95	62	69	105	224	591	978	1204	1258	1354	2397	27958
570	418	493	539	738	750	547	394	281	254	212	133	56	24	14	19	19	39	93	180	302	294	325	431	
546	394	473	283	788	810	407	345	260	228	183	81	35	30	18	17	18	44	149	256	280	308	345	525	
510	394	541	11	722	786	468	354	255	229	195	81	40	25	13	18	33	71	170	274	329	308	331	684	
500	511	493	379	828	674	395	314	232	220	162	77	33	16	17	14	35	70	179	268	293	348	353	757	

AM	Peak	Hour	....	11:00 to		12:00 (2397	vehicles)
AM	Peak	Hour	Factor	....	79.20%	
PM	Peak	Hour	....	16:45 to		17:45 (3174	vehicles)
PM	Peak	Hour	Factor	....	95.80%	

Friday 4/16/1999 Channel: 1 Direction: W

1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	100	200	300	400	500	600	700	800	900	1000	1100	1200	Totals
2538	2055	2645	2806	2883	2826	2006	1385	998	960	857	607	346	218	180	123	115	160	411	575	862	1206	1618	1992	30372
733	462	583	767	725	769	580	385	260	277	207	187	118	54	56	50	29	39	51	115	174	265	370	446	
648	517	611	698	679	718	532	403	263	252	203	154	82	57	28	11	29	41	158	135	200	280	378	472	
612	516	745	678	723	659	500	315	248	239	245	139	87	55	43	21	23	39	138	166	244	336	429	502	
545	560	706	663	756	680	394	292	227	192	202	127	59	59	24	24	31	43	146	159	244	325	441	572	

AM	Peak	Hour	....	11:00 to		12:00 (1992	vehicles)
AM	Peak	Hour	Factor	.. ..	87.10%	
PM	Peak	Hour	....	16:30 to		17:30 (2966	vehicles)
PM	Peak	Hour	Factor	....	96.40%	

Saturday 4/17/1999 Channel: 1 Direction: W

1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	100	200	300	400	500	600	700	800	900	1000	1100	1200	Totals
2084	1810	1797	1828	1599	1459	1429	1074	868	737	691	531	274	187	111	76	65	120	249	315	506	845	1240	1492	21386
508	473	476	442	414	390	375	254	235	187	161	154	80	47	30	25	16	26	33	63	89	172	272	391	
539	461	454	477	404	399	379	299	215	158	196	153	77	61	35	17	15	30	55	70	130	189	306	332	
531	438	426	464	394	366	307	239	224	170	176	113	55	36	24	16	17	31	96	98	131	259	358	389	
506	438	441	445	387	314	368	282	194	222	158	111	62	43	22	18	17	33	64	84	156	225	304	380	

AM	Peak	Hour	....	11:00 to		12:00 (1492	vehicles)
AM	Peak	Hour	Factor	.. ..	95.40%	
PM	Peak	Hour	....	12:00 to		13:00 (2084	vehicles)
PM	Peak	Hour	Factor	.. ..	96.70%	

Sunday 4/18/1999 Channel: 1 Direction: W

1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	100	200	300	400	500	600	700	800	900	1000	1100	1200	Totals
1601	1591	1514	1243	1251	1221	1160	938	691	620	443	249	112	74	45	45	86	230	580	960	1165	1157	1249	1732	19957
436	403	426	305	280	351	274	264	185	178	126	78	36	19	12	9	15	35	90	205	294	297	276	378	
370	350	338	331	325	272	307	239	186	155	107	65	32	23	9	11	16	57	134	253	254	269	289	414	
381	411	400	313	343	285	310	215	163	134	106	59	31	18	14	12	29	65	169	238	323	288	334	442	
414	427	350	294	297	313	269	220	157	153	104	47	13	14	10	13	26	73	187	264	299	303	350	498	

AM	Peak	Hour	....	11:00 to		12:00 (1732	vehicles)
AM	Peak	Hour	Factor	....	86.90%	
PM	Peak	Hour	....	13:15 to		14:15 (1614	vehicles)
PM	Peak	Hour	Factor	....	94.50%	

Monday 4/19/1999 Channel: 1 Direction: W

1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	100	200	300	400	500	600	700	800	900	1000	1100	1200	Totals
2055	1781	1975	2095	2301	2240	1710	1156	857	762	562	285	156	89	77	54	113	286	642	1058	1290	1258	1321	1843	25966 nearest to average
513	495	442	503	520	642	456	324	234	226	164	95	54	29	24	15	20	46	104	209	323	333	331	384	
498	470	508	603	509	550	463	291	246	216	134	73	46	25	21	11	29	81	158	231	323	276	368	419	
520	433	489	472	605	542	453	273	193	159	143	65	29	12	19	14	30	77	178	320	326	308	320	505	
524	383	536	517	667	506	338	268	184	161	121	52	27	23	13	14	34	82	202	298	318	341	358	535	

AM	Peak	Hour	....	11:00 to		12:00 (1843	vehicles)
AM	Peak	Hour	Factor	....	86.10%	
PM	Peak	Hour	....	16:30 to		17:30 (2464	vehicles)
PM	Peak	Hour	Factor	....	92.40%	

Tuesday 4/20/1999 Channel: 1 Direction: W

1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	100	200	300	400	500	600	700	800	900	1000	1100	1200	Totals
1850	1704	2097	2058	1890	1935	1355	1005	769	569	459	243	125	67	43	42	86	215	572	922	1085	1134	1215	1694	23135
511	487	543	510	513	520	371	289	204	171	112	82	39	19	13	7	16	43	99	211	252	290	304	394	
456	406	519	538	422	505	368	271	188	134	122	61	28	17	9	12	22	41	126	211	241	268	295	406	
420	432	512	497	456	488	332	228	190	143	116	54	33	17	14	11	27	63	172	264	303	269	316	455	
463	399	543	513	499	422	284	217	187	121	109	46	25	14	7	12	21	68	175	236	290	262	345	455	

AM	Peak	Hour	....	11:00 to		12:00 (1694	vehicles)
AM	Peak	Hour	Factor	....	93.10%	
PM	Peak	Hour	....	14:30 to		15:30 (2113	vehicles)
PM	Peak	Hour	Factor	....	98.20%	

Wednesday   4/21/1999 Channel: 1 Direction. W

1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	100	200	300	400	500	600	700	800	900	1000	1100	1200	Totals
1685	1530	1772	1891	1996	1980	1565	1114	866	698	521	288	160	89	52	45	90	206	572	899	1128	1157	1333	1997	23634
460	354	392	427	455	520	459	306	252	203	133	92	48	24	21	13	13	38	92	180	275	296	323	416	
420	402	413	493	505	481	411	296	214	174	126	76	36	28	12	9	20	46	128	212	254	312	288	472	
405	371	487	507	492	505	355	257	206	170	139	66	42	12	6	9	28	54	179	274	293	263	384	493	
400	403	480	464	544	474	340	255	194	151	123	54	34	25	13	14	29	68	173	233	306	286	338	616	

AM	Peak	Hour	....	11:00 to		12:00 (1997	vehicles)
AM	Peak	Hour	Factor	.. ..	81.00%		
PM	Peak	Hour	....	16 15 to		17:15 (2061	vehicles)
PM	Peak	Hour	Factor	. . . . .	94 70%		

Thursday   36272 Channel: 1 Direction: W

1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	100	200	300	400	500	600	700	800	900	1000	1100	1200	Totals
1991	1890	2313	2595	2519	2490	1829	1315	1039	836	676	387	208	134	98	80	114	307	716	1123	1303	1510	1601	1870	28944
527	534	519	641	610	658	556	372	254	229	191	126	50	32	33	23	20	55	127	243	332	380	354	485	
506	433	503	659	574	673	451	318	282	223	170	104	60	38	24	17	12	55	148	285	311	416	400	430	
509	447	615	657	626	632	427	313	252	194	169	79	50	34	17	20	43	87	212	309	310	354	428	455	
449	476	676	638	709	527	395	312	251	190	146	78	48	30	24	20	39	110	229	286	350	360	419	500	

AM	Peak	Hour	. . ..	0.4270833 to		0 46875 (1732	vehicles)
AM	Peak	Hour	Factor	. . . .	0.893		
PM	Peak	Hour	....	0 6979167 to		0.73958333 (2672	vehicles)
PM	Peak	Hour	Factor	....	0 942		

daily average	25169

VOLUME

Millbrae Avenue between El Camino Real and Rollins Road

Day: Tuesday
Date: 3/22/2016

City: Millbrae
Project #: 16-7210-001

DAILY TOTALS		NB	SB	EB	WB		Total
		0	0	19,083	23,591		42,674

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00	0	0	38		67		105		12:00	0	0	308		388		696	
00:15	0	0	42		60		102		12:15	0	0	301		382		683	
00:30	0	0	31		52		83		12:30	0	0	324		362		686	
00:45	0	0	32	143	62	241	94	384	12:45	0	0	318	1251	369	1501	687	2752
01:00	0	0	23		40		63		13:00	0	0	326		379		705	
01:15	0	0	28		46		74		13:15	0	0	310		366		676	
01:30	0	0	25		39		64		13:30	0	0	332		379		711	
01:45	0	0	25	101	33	158	58	259	13:45	0	0	359	1327	388	1512	747	2839
02:00	0	0	15		26		41		14:00	0	0	292		374		666	
02:15	0	0	23		30		53		14:15	0	0	318		366		684	
02:30	0	0	21		22		43		14:30	0	0	340		389		729	
02:45	0	0	14	73	23	101	37	174	14:45	0	0	319	1269	380	1509	699	2778
03:00	0	0	19		18		37		15:00	0	0	311		416		727	
03:15	0	0	11		15		26		15:15	0	0	341		384		725	
03:30	0	0	18		25		43		15:30	0	0	319		380		699	
03:45	0	0	20	68	31	89	51	157	15:45	0	0	325	1296	424	1604	749	2900
04:00	0	0	19		27		46		16:00	0	0	295		417		712	
04:15	0	0	24		36		60		16:15	0	0	285		458		743	
04:30	0	0	43		28		71		16:30	0	0	274		450		724	
04:45	0	0	48	134	46	137	94	271	16:45	0	0	312	1166	455	1780	767	2946
05:00	0	0	71		65		136		17:00	0	0	313		514		827	
05:15	0	0	84		73		157		17:15	0	0	303		473		776	
05:30	0	0	108		78		186		17:30	0	0	267		244		511	
05:45	0	0	110	373	98	314	208	687	17:45	0	0	262	1145	484	1715	746	2860
06:00	0	0	141		90		231		18:00	0	0	257		506		763	
06:15	0	0	151		124		275		18:15	0	0	227		476		703	
06:30	0	0	204		160		364		18:30	0	0	242		448		690	
06:45	0	0	242	738	205	579	447	1317	18:45	0	0	247	973	425	1855	672	2828
07:00	0	0	297		190		487		19:00	0	0	213		442		655	
07:15	0	0	321		202		523		19:15	0	0	206		363		569	
07:30	0	0	318		225		543		19:30	0	0	196		378		574	
07:45	0	0	375	1311	273	890	648	2201	19:45	0	0	175	790	312	1495	487	2285
08:00	0	0	367		247		614		20:00	0	0	225		333		558	
08:15	0	0	384		259		643		20:15	0	0	166		318		484	
08:30	0	0	365		247		612		20:30	0	0	175		265		440	
08:45	0	0	367	1483	352	1105	719	2588	20:45	0	0	144	710	256	1172	400	1882
09:00	0	0	322		288		610		21:00	0	0	165		256		421	
09:15	0	0	295		298		593		21:15	0	0	145		227		372	
09:30	0	0	271		275		546		21:30	0	0	168		211		379	
09:45	0	0	286	1174	272	1133	558	2307	21:45	0	0	144	622	220	914	364	1536
10:00	0	0	274		309		583		22:00	0	0	143		208		351	
10:15	0	0	242		284		526		22:15	0	0	141		178		319	
10:30	0	0	285		327		612		22:30	0	0	99		172		271	
10:45	0	0	281	1082	334	1254	615	2336	22:45	0	0	87	470	169	727	256	1197
11:00	0	0	273		326		599		23:00	0	0	76		110		186	
11:15	0	0	273		313		586		23:15	0	0	72		96		168	
11:30	0	0	278		365		643		23:30	0	0	80		101		181	
11:45	0	0	281	1105	395	1399	676	2504	23:45	0	0	51	279	100	407	151	686
TOTALS			7785		7400		**15185**		**TOTALS**			11298		16191		**27489**	
SPLIT %				51.3%		48.7%		**35.6%**	**SPLIT %**				41.1%		58.9%		**64.4%**

DAILY TOTALS		NB	SB	EB	WB		Total
		0	0	19,083	23,591		42,674

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
AM Peak Hour		07:45	11:30		**11:45**	**PM Peak Hour**			13:00	17:45	**16:30**
AM Pk Volume		1491	1530		**2741**	**PM Pk Volume**			1327	1914	**3094**
Pk Hr Factor		0.971	0.968		**0.985**	**Pk Hr Factor**			0.924	0.946	**0.935**
7 - 9 Volume	0	0	2794	1995	**4789**	**4 - 6 Volume**	0	0	2311	3495	**5806**
7 - 9 Peak Hour		07:45	08:00		**08:00**	**4 - 6 Peak Hour**			16:30	16:30	**16:30**
7 - 9 Pk Volume	0	0	1491	1105	**2588**	**4 - 6 Pk Volume**	0	0	1202	1892	**3094**
Pk Hr Factor	0.000	0.000	0.971	0.785	**0.900**	**Pk Hr Factor**	0.000	0.000	0.960	0.920	**0.935**

Appendix E

Citation Summary

Location Performance Summary
SB El Camino Real
SB 101 to Millbrae Ave

	Violation events	Citations issued
SB El Camino Real		
2009	646	317
2010	3,692	1,976
2011	2,989	1,743
2012	1,249	817
2013	1,935	1,377
2014	2,408	1,700
2015	2,847	1,710
	15,766	**9,640**
SB 101 to Millbtae Ave		
2009	1,921	1,006
2010	4,851	2,769
2011	6,969	2,368
2012	7,554	2,179
2013	4,860	1,121
2014	7,400	3,891
2015	7,885	4,418
	41,440	**17,752**