

CITY COUNCIL
AGENDA REPORT



City of Millbrae
621 Magnolia Avenue
Millbrae, CA 94030

SUBJECT: Red Light Photo Enforcement System EXHIBITS: American Traffic Solutions log of red light violations at Millbrae/Rollins and Millbrae/101 off ramp.	Report No. 4434
	For Agenda of: March 14, 2006
	Department: Police
	Originator: Thomas Hitchcock <i>[Signature]</i>
Approved: <i>[Signature]</i>	
Budget Action? Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/> General Service Review: <i>[Signature]</i>	

Staff contact: Sgt. Marc Farber
650-259-2472

ACTION: INFORMATION:

RECOMMENDATION: Approve implementation of Red light camera enforcement program.

BACKGROUND: Over the last five years, Millbrae has seen an increase in vehicle traffic, roadway congestion, and traffic collisions in the area of E. Millbrae Ave at Rollins Road and the 101 S/B off ramp. Community growth such as, the development of the Wilson Plaza and the BART/Caltrain station have contributed greatly to this problem.

In the last two years (2004/2005), Millbrae has experienced the following collisions at the two aforementioned intersections:

	<u>Injury</u>	<u>Property Damage</u>
Millbrae/Rollins	6	7
Millbrae/S/B 101 off ramp	3	9

Red light violations caused three of these injury collisions and one of the property damage collisions. Sixteen of the total collisions were rear end collisions. Public safety awareness needs to be increased in these high traffic volume areas to reduce the number of red light running violations and associated crashes.

One of the most difficult areas of traffic enforcement management is intersection safety. Intersection traffic violations and collisions grow yearly, but are the most difficult area for an officer to control, enforce and manage. According to the Federal Highway Administration, "Automated Enforcement Systems can be effective and reliable tools to help reduce the number of red-light running violators and associated crashes."

ANALYSIS: American Traffic Solutions conducted intersection studies at Millbrae/Rollins and Millbrae/101 off ramp in February 2006 and discovered the following number of red light violations during a four hour period:

Westbound Millbrae Avenue @ Rollins Road	11
Eastbound Millbrae Avenue @ Rollins Road	233
Northbound Rollins Road @ Millbrae Avenue	671
Southbound Rollins Road @ Millbrae Avenue	108
Millbrae/101 S/B off ramp	37
Total =	1060

Based on the study conducted by American Traffic Solutions, there is a strong need to provide traffic enforcement at the above listed intersections due to the amount of red light violators and vehicle collisions. Through the use of the red light photo enforcement program, the City can provide safety and enforcement 24 hours a day.

Once a violation is captured and processed, the violation photos and video, along with DMV registration information, is provided to the police department in a pre-designated format, allowing a police officer to view the images and make a violation determination. All violations must be approved by an authorized representative of the City. The viewing officer verifies the violation and authorizes the vendor to print and mail the citation.

A red light violation currently carries a fine of \$271. The City receives approximately \$147 in forfeiture from each violation paid. The monthly flat service fee per enforcement camera approach is \$5,300 per month and this fee would be covered with 1.2 paid violations per day per camera approach.

Based on the number of red light violators during the evaluation period and taking into consideration that motorists will become aware of the program and drive safer, red light violations will decrease over time therefore creating safer roadways and intersections for motorists and pedestrians.

FISCAL IMPACT:

There are no up front, installation or maintenance costs for the City based on equipment needs to implement this program. The police department will need to hire a Police Officer to run the program, view the alleged violations, make court appearances, and authorize the vendor to issue the citations. The cost of this added position is \$100,000 annually, and the revenue generated from this program will cover the additional personnel costs.

Each camera approach has a flat fee of \$5,300.00 per month, which includes maintenance and the processing of citations. We are currently looking to implement the program using five camera approaches. The total cost for equipment and maintenance at this level will be \$318,000 annually. Based on the information collected by American Traffic Solutions, it is safe to forecast that each camera approach will capture ten red light violations per day. Using ten violations per day as an average, the estimated annual revenue to the city would be \$1,764,000.

Associated annual costs for the city to run and manage this program are \$318,000 for the camera equipment and maintenance, and \$100,000 for an additional police officer. The net annual revenue should be approximately \$1.3 million.

COUNCIL ACTION:

Approve the implementation of the red light enforcement program.

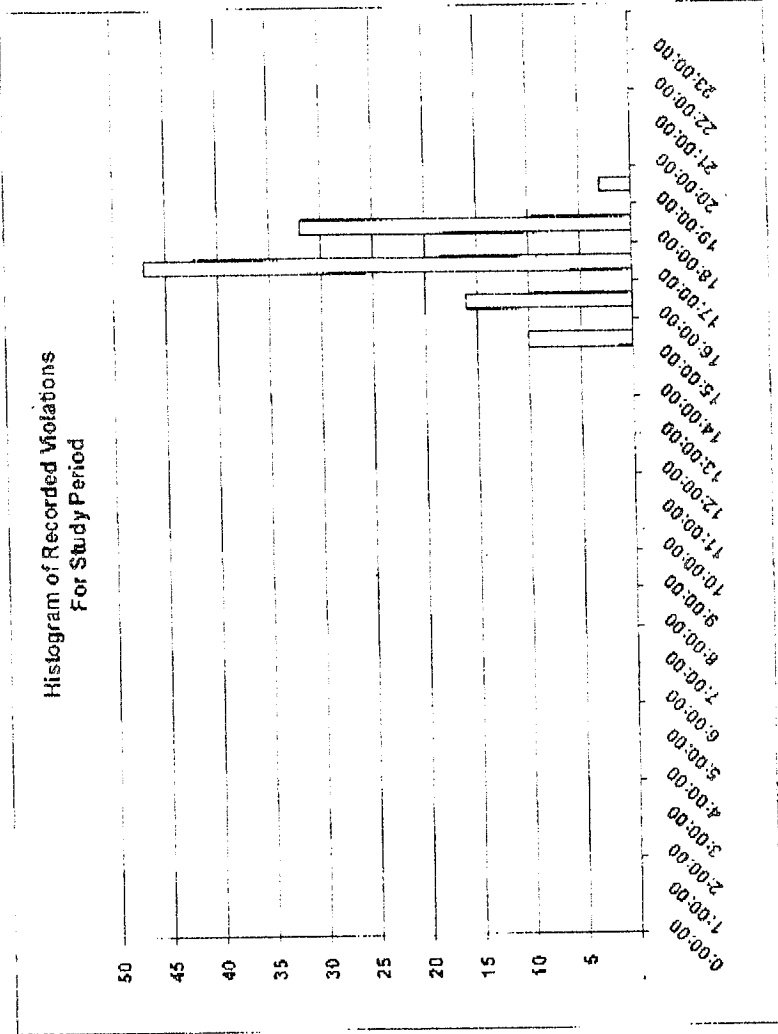
Approach Monitored	# Hours Monitored	Total Violations	Left Turn Violations	Straight Through Violations	Right Turn Violations
WB Millbrae @ Rollins See report comments	4	11	9	2	Camera position couldn't get right hand turns - visual suggests substantial runners 224
EB Millbrae @ Rollins	4	233	0	9	108
SB Rollins @ Millbrae	4	108	0	0	671
NB Rollins @ Millbrae	4	671	0	0	2
EB Millbrae @ El Camino See report comments	4	2	0	0	1
SB Millbrae @ El Camino See report comments	4	8	7	0	-
WB Millbrae @ El Camino No Data - System Error	-	-	-	-	37 confirmed substantial others potential
Hwy 101 @ Millbrae Because of intersection set up the Vims camera could not be placed correctly, so the personal count.	3.5	37	-	-	-

ASB 1003

Axis Violation Incident Monitoring System
Site Data Report

ATS

Site Name	RoJins Rd @ Millbrae Ave		SLOW	FAST	Total
Hours of Day	◀	▶			
0:00:00	-	-	-	-	-
1:00:00	-	-	-	-	-
2:00:00	-	-	-	-	-
3:00:00	-	-	-	-	-
4:00:00	-	-	-	-	-
5:00:00	-	-	-	-	-
6:00:00	-	-	-	-	-
7:00:00	-	-	-	-	-
8:00:00	-	-	-	-	-
9:00:00	-	-	-	-	-
10:00:00	-	-	-	-	-
11:00:00	-	-	-	-	-
12:00:00	-	-	-	-	-
13:00:00	-	-	-	-	-
14:00:00	-	-	-	-	-
15:00:00	-	-	1	9	10
16:00:00	-	-	7	9	16
17:00:00	-	-	29	18	47
18:00:00	-	-	20	12	32
19:00:00	-	-	2	1	3
20:00:00	-	-	-	-	-
21:00:00	-	-	-	-	-
22:00:00	-	-	-	-	-
23:00:00	-	-	-	-	-
Total	-	-	59	49	108



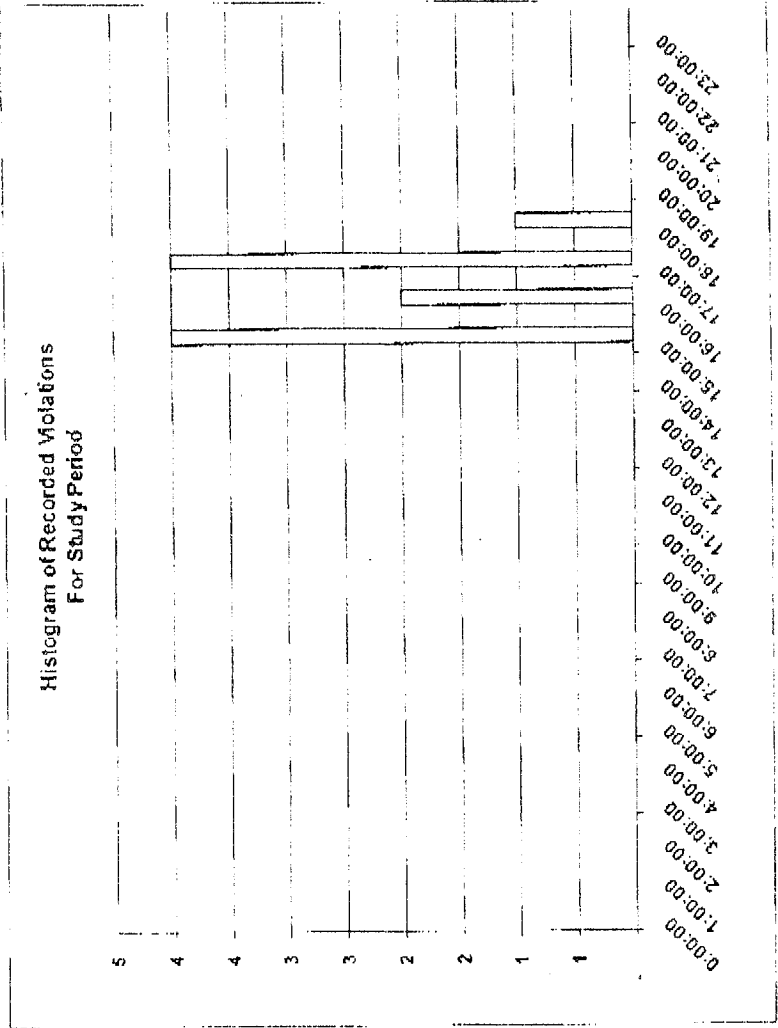
Axis vms

Axis Violation Incident Monitoring System
Site Data Report

ATS

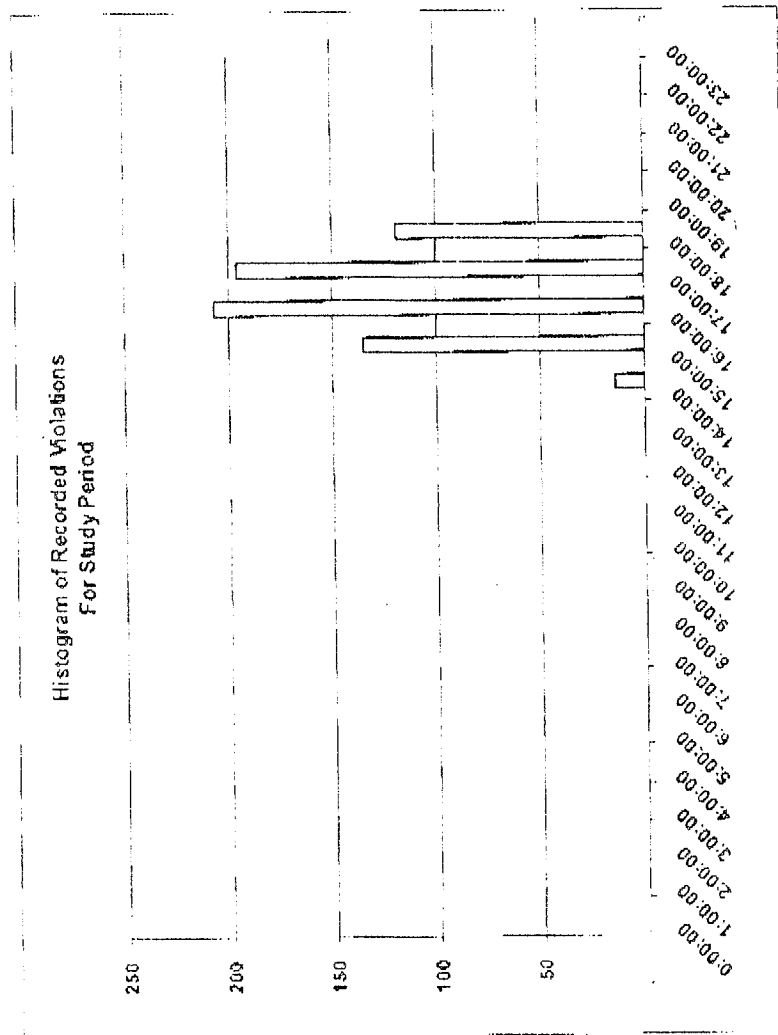
Site Name: Millbrae @ Rollins

Hours of Day	SLOW		FAST		Total
	▲	▲	▲	▲	
0:00:00	-	-	-	-	-
1:00:00	-	-	-	-	-
2:00:00	-	-	-	-	-
3:00:00	-	-	-	-	-
4:00:00	-	-	-	-	-
5:00:00	-	-	-	-	-
6:00:00	-	-	-	-	-
7:00:00	-	-	-	-	-
8:00:00	-	-	-	-	-
9:00:00	-	-	-	-	-
10:00:00	-	-	-	-	-
11:00:00	-	-	-	-	-
12:00:00	-	-	-	-	-
13:00:00	-	-	-	-	-
14:00:00	-	-	-	-	-
15:00:00	2	2	-	-	4
16:00:00	2	-	-	-	2
17:00:00	4	-	-	-	4
18:00:00	1	-	-	-	1
19:00:00	-	-	-	-	-
20:00:00	-	-	-	-	-
21:00:00	-	-	-	-	-
22:00:00	-	-	-	-	-
23:00:00	-	-	-	-	-
Total	9	2	-	-	11



Site Name	Rollins Rd @ Millbrae Ave
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Hours of Day	SLOW		FAST		Total
	▲	▲	▲	▲	
0:00:00	-	-	-	-	-
1:00:00	-	-	-	-	-
2:00:00	-	-	-	-	-
3:00:00	-	-	-	-	-
4:00:00	-	-	-	-	-
5:00:00	-	-	-	-	-
6:00:00	-	-	-	-	-
7:00:00	-	-	-	-	-
8:00:00	-	-	-	-	-
9:00:00	-	-	-	-	-
10:00:00	-	-	-	-	-
11:00:00	-	-	-	-	-
12:00:00	-	-	-	-	-
13:00:00	-	-	-	-	-
14:00:00	-	-	6	8	14
15:00:00	-	-	134	1	135
16:00:00	-	-	164	103	207
17:00:00	-	-	164	32	196
18:00:00	-	-	112	7	119
19:00:00	-	-	-	-	-
20:00:00	-	-	-	-	-
21:00:00	-	-	-	-	-
22:00:00	-	-	-	-	-
23:00:00	-	-	-	-	-
Total	-	-	520	151	671



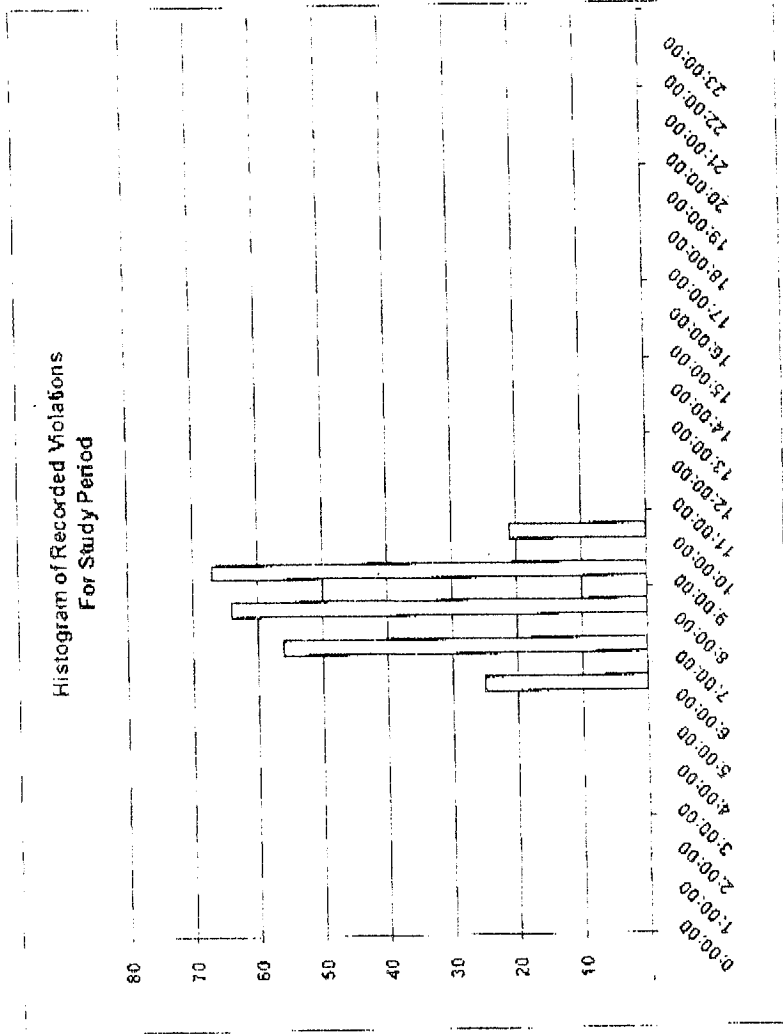
Axis - 05

Axis Violation Incident Monitoring System
Site Data Report

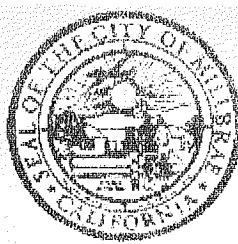
ATS

Site Name Millbrae @ Rollins

Hours of Day	SLOW		FAST		Total
	▲	▲	▲	▲	
0:00:00	-	-	-	-	-
1:00:00	-	-	-	-	-
2:00:00	-	-	-	-	-
3:00:00	-	-	-	-	-
4:00:00	-	-	-	-	-
5:00:00	-	-	-	-	-
6:00:00	-	2	1	22	25
7:00:00	-	1	23	32	56
8:00:00	-	4	47	13	64
9:00:00	-	2	48	17	67
10:00:00	-	-	12	9	21
11:00:00	-	-	-	-	-
12:00:00	-	-	-	-	-
13:00:00	-	-	-	-	-
14:00:00	-	-	-	-	-
15:00:00	-	-	-	-	-
16:00:00	-	-	-	-	-
17:00:00	-	-	-	-	-
18:00:00	-	-	-	-	-
19:00:00	-	-	-	-	-
20:00:00	-	-	-	-	-
21:00:00	-	-	-	-	-
22:00:00	-	-	-	-	-
23:00:00	-	-	-	-	-
Total	-	9	131	93	233



**CITY COUNCIL
AGENDA REPORT**



Cost next - see (see 6)

City of Millbrae
621 Magnolia Avenue
Millbrae, CA 94030

SUBJECT: Red Light Photo Enforcement System Public Hearing; Contract execution authorization and system implementation approval EXHIBITS: Agreement with American Traffic Solutions; Guidelines for Screening Red Light Violations; Red Light Photo Enforcement Business Rules; City Council Agenda Report for 3/14/06 - Approval of Red Light Camera Enforcement Program; Resolution	Report No. 4477
	For Agenda of: June 13, 2006
	Department: Police
	Originator: Thomas Fitchcock
Approved: <i>[Signature]</i>	
Budget Action? Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/> General Service Review:	

Staff contact: Lt. Ted Silvas
650-259-2315

ACTION: **INFORMATION:**

RECOMMENDATION:

By resolution, authorize execution of the Agreement with American Traffic Solutions and approve implementation of Red Light Camera Enforcement System pursuant to the proposed Guidelines and Business Rules.

BACKGROUND:

On March 14, 2006, Council approved in concept the implementation of the Red Light Photo Enforcement System for use in Millbrae. The System is proposed to be utilized at the Millbrae Avenue/Rollins Road intersection initially and is expected to be expanded in the future to include the 101 S/B off ramp at Millbrae Ave. and the State Route 82/Millbrae Ave. intersection. The Police Chief will designate those Authorized Personnel within the Police Department to review the red light photo enforcement violations and to assist with the program implementation.

The California Vehicle Code sets forth various requirements regarding implementation of the Red Light Photo Enforcement System. In accordance with these statutory requirements, staff has developed proposed Guidelines and Business Rules. Staff has also engaged in extensive discussions and negotiations with American Traffic Solutions (ATS), the vendor for the provision, installation and operation of the system. The vendor has a great deal of experience with the requirements related to these systems and has assisted staff in finalizing effective

Business Rules and Guidelines that address the relevant and necessary issues associated with implementation and operation of the system.

Vehicle Code Section 21455.7 dictates a minimum yellow light interval based upon the approach speeds or posted speed limit at the photo enforced intersection as provided in the Traffic Manual of the State Department of Transportation. City engineering staff will comply with these requirements and set the yellow light durations prior to camera operation at the Millbrae/Rollins intersection and any intersections where cameras may be installed in the future.

The relevant statutes also require the City Council to conduct a public hearing on the proposed use of the automated enforcement system prior to authorizing the City to enter into a contract for the use of the system. The City has published notice of this hearing and advised the public that the Agreement with A.T.S. and the proposed Guidelines and Business Rules have been available for review.

The Business Rules for the red light photo enforcement system ensure that the City's program will comply with state mandates such as:

- Signs required at all approaches to photo enforced intersection warning "photo enforced"
- Public announcement required warning public of upcoming installation of cameras for red light photo enforcement at a specific intersection. [The City plans to use every available means to announce this program: press release, City's website, MCTV and City newsletter.]
- First 30 days of camera operation = warning only citations. [The City plans to initiate a 30-day warning period with any new camera installation.]
- Reasons for rejecting citations including can't identify driver from photo, unclear images, funeral procession, etc.
- Web site to go to review violation www.violationinfo.com
- All violation information must be kept confidential except Vehicle Code requires violation images be shown to the vehicle registered owner or driver involved in an incident, upon request.

The Guidelines, mandated by California Vehicle Code Section 21455.5, provide the Police Department with factors to consider when screening violations and a general operational procedure for processing a citation upon identifying a violation. Some of these guidelines are as follows:

- Are the traffic signals in the images in the red phase?
- Is the license plate photograph clear?
- Is the driver's photograph clear enough to identify the driver?

ANALYSIS: American Traffic Solutions conducted intersection studies at Millbrae/Rollins and Millbrae/101 off ramp in February 2006 and discovered the following number of red light violations during a four hour period:

Millbrae/Rollins – 1023

Millbrae/101 S/B off ramp – 37

In the last two years (2004/2005) Millbrae has experienced the following collisions at the same two intersections:

	<u>Injury</u>	<u>Property Damage</u>
Millbrae/Rollins	6	7
Millbrae S/B 101 off ramp	3	9

33 percent of the injury collisions were caused by red light violations.

Based upon the study identifying a high number of red light violators, the number of collisions and the increasing traffic volume in the above areas, there is a strong need for traffic enforcement and increased public awareness.

Through the use of a red light photo enforcement program, the City can increase public awareness and enhance traffic safety through enforcement 24 hours per day.

FISCAL IMPACT: The Police Department will need to hire a Police Officer to run the program, view the alleged violations, make court appearances, and authorize the vendor to issue the citations. The cost of this added position is \$100,000 annually, and the revenue generated from this program will cover the additional personnel costs.

A red light violation fine is currently \$271 with the City receiving approximately \$147 in forfeiture from each violation paid. 1.2 violations per day at each camera approach would cover the monthly \$5300 cost for each camera.

The \$5,300 camera fee per month includes maintenance and the processing of citations. We are currently looking to implement this program using four camera approaches. The total cost for equipment and maintenance at this level will be \$254,400 annually.

Based on the information collected by American Traffic Solutions, it is safe to forecast that each camera approach will capture ten red light violations per day. Using ten violations per day as an average, the estimated annual revenue to the City would be approximately \$1,528,800.

Associated annual costs for the City to run and manage the program are \$254,400 for the camera equipment and maintenance and \$100,000 for an additional police officer. The net annual revenue should be approximately \$1.2 million.

COUNCIL ACTION:

Hold the public hearing to receive comments from the public, and then enact the resolution authorizing execution of the Agreement with American Traffic Solutions and approving implementation of Red Light Photo Enforcement System pursuant to the proposed Guidelines and Business Rules.