



## SAN RAFAEL CITY COUNCIL AGENDA REPORT

Department: **Police Department**

Prepared by: **Matthew Odetto, Chief of Police**

City Manager Approval: 

**SUBJECT:**

**A:** A Resolution authorizing the implementation of an automated red light photo enforcement system in the City of San Rafael.

**B:** Resolution authorizing the City Manager to negotiate and execute an agreement with Redflex Traffic Systems Inc. to install, support and maintain an automated red light photo enforcement system at intersections designated by the City.

**RECOMMENDATION:** Staff recommends the City Council adopt the resolution authorizing the City Manager to negotiate and execute an agreement with Redflex Traffic Systems Inc. to install, support and maintain an automated red light photo enforcement system at intersections designated by the City.

**BACKGROUND:** According to the United States Department of Transportation (USDOT), each year red light violations cause about 106,000 crashes a year in the U.S., resulting in nearly 1,000 deaths and 89,000 injuries. Drivers and passengers are injured in 45 percent of red-light-running collisions. More than half of the deaths in red light violation accidents are to motorists and pedestrians other than the driver of the offending vehicle. From July 1, 2007 through July 31, 2008, the City of San Rafael investigated 767 traffic collisions, of which 66 were found to have been caused by red light violations.

The goal of the automated red light enforcement program is to improve the safety of the community for vehicular, bicycle and pedestrian traffic by reducing the incidence of vehicles failing to stop for red traffic signals.

Typically enforcement of red light violations by officers is very difficult because they have to be in a position behind the red light to view the violation. Once the violation is observed, the officer must navigate through the red light to try and apprehend the violator. This action puts the officer as well as any motorist in the vicinity at risk. The officer must then safely stop the motorist and generate the citation. Because of this difficulty, relatively few red light violations are generated when compared to an automated system.

The use of automated red light enforcement technology enhances traffic and public safety while providing a clear proactive and preventative measure of traffic enforcement. This is consistent with the City Council's direction given to the San Rafael Police Department's community policing philosophy of reducing injury and fatal traffic collisions through increased enforcement. Automated red light enforcement programs have a proven track record that shows they consistently reduce red light violations where cameras have been installed, as well as having a deterrent effect throughout the city. Jurisdictions employing automated red light enforcement have realized a reduction in red light violations ranging from 10 to 40 percent in a years time. The red light photo enforcement cameras operate 24-hours a day, providing traffic enforcement in a more consistent, strategic and efficient manner.

**FOR CITY CLERK ONLY**

File No.: 9-3-30 + 4-3-497

Council Meeting: 8/18/08

Disposition: RESOLUTIONS 12562  
12563

During the selection process to identify the most responsive and qualified vendor, staff used a RFP and competitive negotiation process as permitted in Municipal Code section 2.55.190. Staff researched automated red light photo enforcement systems currently in use in California and found these systems to be very unique and that the vendors offer a variety of services and support. Because of the complexity of systems and the variations in features, support and customer service between expected proposed systems, the use of competitive sealed bids was not practical. The competitive negotiation process allowed for the selection of a system that was most advantageous to the City.

After Council review and approval in a resolution, staff issued requests for proposals (RFP) in June 2007 to three potential vendors. The vendors were Redflex Traffic Systems Inc., American Traffic Solutions Inc. and ACS. In June 2007, the City received responses to the RFP from all three companies. ACS was not interested in competing in the negotiation process. Redflex Traffic Systems Inc. and American Traffic Solutions, Inc. responded stating that they were interested in competing in the RFP process and submitted proposals.

Staff completed a comprehensive review of both proposals. After a comprehensive review of the proposals, the vendors were called in to provide a detailed oral analysis of their product and services. In June 2008, staff offered the two vendors, under SRMC Section 2.55.210, to submit a revision of their prior proposals. A selection by staff was made by utilizing the total competitive negotiation process. The vendors were then evaluated on the following criteria:

- Type of technology and demonstrated effectiveness
- Program management experience and reliability
- Implementation experience and methodology
- Total cost and value
- Demonstrated experience with working with Cal Trans
- Customer service and technical support to clients

The competitive process used to assess the potential vendor for selection was based on a combination of performance factors as well as equipment and maintenance prices. This approach was used to account for a very important factor – the vendor's track record of being able to provide both accurate technology and a system that was reliable. Based on the vendor evaluation process, staff selected Redflex Traffic System, Inc. as the most qualified vendor for the red light enforcement project.

In Summary, Redflex Traffic System, Inc. is the largest, longest-established, and most knowledgeable vendor in the California market. The company has a sterling reputation for its proven customer service and demonstrated program benefits, and its technology is documented to provide the most accurate and efficient citation issuance program.

On May 19<sup>th</sup>, 2008, the City Council held a study session regarding the red light enforcement program. After the study session, staff held three different publicized public sessions regarding the automated red light enforcement program. The first two public sessions were advertised in the Marin IJ newspaper. When the newspaper article was released we did not have the location of the third public session. All public sessions were advertised in the City's Snapshot newspaper and emails were sent to the Homeowners Associations. The first public session was held at the B Street Recreation center on June 16<sup>th</sup>, 2008. Two people showed up to this session. The second public session was held at the Pickleweed Recreation center on June 18<sup>th</sup>, 2008. Nobody showed up to this session. The third public session was held at Terra Linda High School on June 23<sup>rd</sup>, 2008. Two people showed up to this session.

During these three sessions some concerns and suggestions were brought to the attention of staff. Staff researched and came up with the following information regarding the concerns and suggestions about the automated red light enforcement program. Each question is corresponded with an answer.

1. Red light cameras will cause an increase in rear end traffic collisions.
  - a. In December 2007, the Iowa State University Center for Transportation Research and Education undertook a rigorous, empirical and objective study on the effectiveness of red-light cameras across the State of Iowa. The study reviewed the impact on collisions in

two Iowa cities (Council Bluffs and Davenport) that had implemented red light cameras.

This study yielded the following results:

**Council Bluffs** – 40% drop in rear end crashes at enforced intersections

**Davenport** – 2-3% drop in rear end crashes at enforced intersections

2. The red light camera vendor will work with the city to decrease the cycle of the yellow light to increase violations for revenue.
  - a. Section 21455.7 of the California Vehicle Code (CVC) requires that the City comply with the "minimum yellow change interval" as established by the Traffic Manual of the Department of Transportation. This ensures that motorists have an adequate amount of time to react to a change from the yellow to the red phasing of the traffic light at those intersections equipped with Red Light Cameras. Per Traffic Engineer Nader Mansourian, the timing on yellow lights in the City are established in the City's traffic engineering manual. These times are obtained and mandated from traffic engineering that are set by Federal guidelines.
3. Shoppers will avoid San Rafael due the placement of red light cameras.
  - a. Staff is not aware of any studies that document that shoppers avoid communities that have Red Light Camera programs in place.
4. Police will "twist the arm" of the registered owner of the vehicle to say who was driving the vehicle if they were not driving when the violation occurred.
  - a. The San Rafael Police Department will attempt to contact the registered owner of the vehicle that committed the traffic violation of failing to stop at the red light. The San Rafael Police Department will attempt to obtain the name of the violator from the registered owner of the vehicle. If the Department is not able to obtain the name of the violator, the traffic citation will be dismissed. When all the information required by the Courts to process a red light violation is available a "Notice to Appear" is issued. Occasionally some of the required data (i.e. driver's license or birth date) is missing and a "Notice of Traffic Violation" is issued. The Notice of Traffic Violation seeks to obtain required data that was unavailable when the Registered Owner details were secured from the Department of Motor Vehicles (DMV). The practice of issuing the Notice of Traffic Violation evolved from the Courts as they did not want to be burdened with dealing with obtaining the incomplete data, thus requiring that their personnel research and secure this information.
5. Increase the yellow light to reduce violations rather than issue citations.
  - a. While increasing the duration of the yellow phase alone may have an immediate impact on the incidence of red light running at an intersection, studies have shown that this increase is not sustained as drivers adjust to the longer yellow phase over time resulting in an increase in violations. Also, refer to the answer for question number two about California Vehicle Code Section 21455.7 and the Cities guidelines for timing yellow lights by the Traffic Engineer.
6. Install a countdown device (similar to crosswalks) above the traffic signal to let drivers know when the traffic light will turn red.
  - a. The City's Traffic Engineer is researching this topic. Initial indication is that there are no such systems installed in the state of California.

**ANALYSIS:** In order for the City to implement the automated red light enforcement program, certain mandated criteria must be met.

**California State Law and the California Vehicle Code:**

Section 21455.5 allows for automated enforcement systems that meet the following requirements:

1. Signage identifying the presence of such systems at intersection approaches.
2. Public announcement of such system at least 30 days prior to enforcement. Commence the program with a 30 day period of issuing only warning notices.
3. Establish guidelines for selection of locations

4. Maintaining controls necessary to assure that only those citations that have been reviewed and approved by law enforcement are delivered to violators.

Section 21455.6 requires the City Council to conduct a public hearing on the proposed use of such systems, prior to entering into a contract for the use of such systems.

**Location Selection:**

Staff has discussed the rate of collisions at intersections along with traffic volume and proximity to major thoroughfares near freeway onramps and exits, first hand observations by law enforcement for high violations and the degree of difficulty in using standard traffic enforcement methods. Staff has compiled a list of desirable intersections for an automated red light enforcement system. The vendor will be provided with Staff's list of the highest priority intersections and will conduct surveys to determine if these intersections will be viable for a system. Below are the top four intersections recommended by Staff. Also listed are other desirable intersections with the expansion of the system.

**Top Four Intersections**

1. Third St. at Hetherton St. (Two approaches / one intersection)
2. Third St. at Irwin St. (Two approaches / one intersection)
3. Third St. at Grand Ave. (Three approaches / one intersection)
4. Manuel T. Freitas Parkway & Del Presidio – Caltrans (Three approaches / one intersection)

**Other Possible Intersections**

1. Bellam Blvd. at E. Francisco Blvd. – Caltrans (Three approaches / one intersection)
2. Lincoln Ave. at Mission Ave. (Four approaches / one intersection)
3. Mission Ave. at Hetherton St. – Caltrans (Three approaches / one intersection)
4. Fifth Ave. at Hetherton St. (Three approaches / one intersection)

**System Implementation:**

Staff suggests implementing up to ten approach systems in the first year at four separate intersections. One of the first four systems should include a Caltrans intersection, to determine if the vendor can obtain Caltrans approval for a system. This is important, as some of the major intersections of concern are Caltrans controlled.

It will take a few months to get the systems operational as the following must occur:

1. It will take several months for the City of San Rafael and Redflex Traffic Systems Inc. to negotiate a contract and install the systems at approved intersections.
2. There is a one month "warning period" prior to any actual citation issuance.
3. There is several months lag time for the courts fines processing and payments to the City.
4. The vendor will need several months to work through the Caltrans approval process.

The red light program will be evaluated after six months of full operation to determine the effectiveness at the approved intersections. At that time a report will be forwarded to the City Council with the results and the possibility the request to expand the red light program.

The vendor will work with the City to place the systems with minimal additional poles and supports, to reduce a cluttered visual effect.

The violation detection method has been discussed with the vendor and the City traffic engineer favors a non-intrusive method, which is acceptable to the vendor. A non-intrusive system does not require the vendor to cut into the roadway surface.

The vendor is responsible for all costs associated with the system implementation. It is anticipated the vendor will have a system operational within three months of permit approval.

**Public Outreach:**

Redflex Traffic Systems Inc. has material that will be provided to the Police Department for public dissemination. The Police Department will provide public information about the Red Light Photo Enforcement System, how the system operates and the reasons for implementing this program in our City. This will be done through information disseminated to the press, articles in the Snapshot newsletter, information posted on the City's website and newsletters will be sent to the Homeowner's Associations.

The selected enforcement intersections will be posted for red light photo enforcement as per the Vehicle Code. The Police Department will conduct a 30 day "warning period" during which violators will not be cited, but will receive warning notices (per the Vehicle Code).

**Court Acceptance and Accounting:**

The Marin Courts have been contacted and agree that they will prosecute red light violations. The Police Department will provide a laptop computer to the court for the viewing of any photos or videos of contested violations.

**System Description and Citation Process:**

The automated red light camera system uses digital media that produces still images and full motion digital video. Each monitored intersection approach requires the installation of two camera systems and high speed synchronized flash units to capture the required photographic evidence used to prosecute red light violations. The digital evidence is transported over secure high speed data links to the vendor where vehicle registration information is accessed and assembled with the photographic evidence.

When a violation occurs, the system will produce four photographic images produced by multiple still cameras and a 12-second full motion video clip of the violation. The still camera evidence set includes an image of the driver, the license plate, as well as images of the vehicle prior to entering the intersection and as it continues through the intersection. The vendor will process the violations electronically and supply the Police Department with pre-screened violations for review and approval. A police department employee reviews the evidence and makes the determination of whether or not the violation should be forwarded for prosecution. If a prosecution decision is positive, the vendor processes and mails the citation to the registered owner of the vehicle and forwards all pertinent information to the courts.

When the violator receives the citation by mail, they are provided with a secure website address and unique PIN to access and view the violation. The website will show the violator the still images of the violation, the photograph of the driver, along with the date, time and location of the violation.

If the vehicle owner is not the violator, they are asked to supply the violator's name and address. Other agencies report about 70% compliance with requests for the violator's information. A new notice of violation is sent to the named violator.

Contested violations are handled in Traffic Court. The vendor will provide court packets with all the information needed for a court hearing. The vendor will also train police department personnel in the system operation.

The violation can also be copied to digital media and brought to court. It may be viewed on a standard computer with no special software. The violation may also be viewed via a web based program, subject to the City's approval to grant access to the courts.

It is anticipated that each approach system will require Police Department personnel to spend approximately 3 - 4 hours per week to review violations. The review process should be shared between at least two officers for redundancy, or absence due to vacations, injury or training.

10 approaches = 30-40 hours per week workload. The Police Department will need to employ an hourly paid employee to monitor and review all violations. This position would begin at the implementation of the automated red light photo enforcement program. The position would also be contingent upon the continuation and funding of the program.

The Police Department may, at a later date, come back to the City Council to request a full time employee or two half time employees and related police equipment to monitor and review violations if more approaches are implemented or there is a high volume of citations generated from the red light cameras.

**System Costs:**

Redflex Traffic Systems Inc. contractually guarantees the program to remain "cost neutral" for the lifetime of the contract. This is determined by a monthly reconciliation of the net revenue received by the City from the citations generated by the program and the monthly fees payable to Redflex Traffic Systems Inc. Should citation revenue fall short of the monthly fees, Redflex Traffic Systems Inc. will absorb and carryover the difference. Research has shown that the cost of an hourly employee to review the red light citations should be covered by the revenue generated from those citations.

Redflex Traffic Systems Inc. suggests a viable intersection would generate a minimum of 15 violations in a 12 hour period (violation rate), or about 450 violations in a month. They would obtain the violation rate by surveying the intersections the City has identified of interest. Clients report acceptable violation rates of about 80%. This would equate to about 360 violations forwarded for notices of violation (potential fines to be collected).

The fine for a red light violation is a minimum of \$351.00. Marin County Courts advises the City's share from red light violations fines are \$141.90 per citation. Researching various agencies that utilize a red light photo enforcement system, they collect approximately 60% to 70% on the citations generated.

The cost of the system is approximately \$6000 per month, per approach. Based on these numbers, the minimum number of citations to meet the cost of an approach:  
 60% of citations paid = 71 citations per month, or 2.3 a day  
 70% of citations paid = 61 citations per month, or 2.03 per day.

**FISCAL IMPACT:** Redflex Traffic Systems Inc. offers a full service package to include equipment, installation, maintenance, operation and citation processing on a lease basis. The lease fee is expected to be in the range of \$6000 per month, per intersection approach.

**Cost neutral clause:**

It is estimated, based on the research of other agencies utilizing these systems, that fines generated each month will cover the leasing cost.

Cost neutrality is assured to the City by Redflex Traffic Systems Inc. If the amount of revenues collected by the City for red light violations does not meet the monthly lease fee, The City will pay Redflex Traffic Systems Inc. the amount of revenue received through the collection of red light violations. The City will open a special revenue account and payments to Redflex Traffic Systems Inc. will come from the available balance in that account up to the amount currently due, including any unpaid prior invoiced amounts.

If significant numbers of intersection approaches are implemented, then additional staffing may be requested to facilitate the processing of the program. Research has shown the costs for such staffing could be recovered by fines generated by the systems.

The total projected yearly cost for this project is as follows:

<b>Category-Eden Expense Code</b>	<b>Amount</b>	<b>Note(s)</b>
Design-01	0	
Construction-02	0	
Construction Management-03	0	
Land Acquisition-04	0	

**SAN RAFAEL CITY COUNCIL AGENDA REPORT / Page: 7**

Site Testing-05	0	
Furniture and Equipment-06	0	
Supplies and Services-07	\$720,000	Cost of Redflex for 10 approaches in city at \$6,000 per month per approach
Personnel-08	0	
Other Elements-99		
<b>Total Projected Cost</b>	<b>\$720,000</b>	

**Funding Source**

<b>Source</b>	<b>Amount</b>	<b>Note(s)</b>
Automated Red Light Camera Revenue	\$720,000	Estimated for 10 approaches in city
City of San Rafael General Fund	0	
<b>Total Available Funds</b>	<b>\$720,000</b>	

**ACTION REQUIRED:** Adopt the resolution authorizing the City Manager to negotiate and execute an agreement with Redflex Traffic Systems Inc. to install, support and maintain an automated red light photo enforcement system at intersections designated by the City.

**Attachments:** Draft contract between Redflex Traffic Systems Inc. and the City of San Rafael

RESOLUTION NO. 12562

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SAN RAFAEL  
AUTHORIZING THE IMPLEMENTATION OF AN AUTOMATED RED LIGHT PHOTO  
ENFORCEMENT SYSTEM IN THE CITY OF SAN RAFAEL.

**Whereas**, the implementation of an automated red light photo enforcement system would enhance public safety by assisting in reducing red light violations and increase public awareness of red light violations; and

**Whereas**, the implementation of an automated red light photo enforcement system would assist the San Rafael Police Department in continuing the community policing philosophy of reducing injury and fatal traffic collisions through increased traffic enforcement; and

**Whereas**, the implementation of an automated red light photo enforcement system would assist the San Rafael Police Department in enforcement of red light violations, consistent with departmental goals of proactively seeking innovative ways to address public concerns about traffic issues; and

**Whereas**, the City Council held a study session on the automated red light photo enforcement system on May 19<sup>th</sup>, 2008, and pursuant to Council direction three public meetings were held in the month of June to provide citizens an opportunity to hear about the proposed system and provide any feedback, and on August 18<sup>th</sup>, 2008 after public notice the City Council held a public hearing in compliance with California Vehicle Code section 21455.6(a) to discuss the implementation of an automated red light photo enforcement system in the City of San Rafael; and

**Whereas**, City staff, working with Redflex Traffic Systems, are prepared to meet the requirements of Vehicle Code section 21455.5 to issue warning only notices for 30 days prior to issuing actual citations; and to make a public announcement of the automated system at least 30 days prior to beginning enforcement;

**NOW, THEREFORE, IT IS HEREBY ORDERED AND RESOLVED** that the City Council authorizes the implementation of an automated red light photo enforcement system at intersections designated by the City in the City of San Rafael.

I, Esther Beirne, Clerk of the City of San Rafael, hereby certify that the foregoing resolution was duly and regularly introduced and adopted at a regular meeting of the San Rafael City Council held on August 18, 2008 by the following vote, to wit:

AYES: COUNCILMEMBERS: Heller, Miller & Mayor Boro  
NOES: COUNCILMEMBERS: Brockbank  
ABSENT: COUNCILMEMBERS: Connolly

*Esther C. Beirne*  
\_\_\_\_\_  
ESTHER BEIRNE, City Clerk

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