



CITY OF MODESTO
COUNCIL AGENDA REPORT

COUNCIL MEETING:
June 8, 2004

May 7, 2004

TO: Mayor and Members of the City Council

FROM: Roy Wasden, Chief of Police

SUBJECT: **Automated Red Light Photo Enforcement Program**

CONTACT: Dan Inderbitzen, Police Lieutenant
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RECOMMENDED COUNCIL ACTION:

Adoption of a resolution approving the implementation of an automated red light enforcement program and approval of a five year base contract, with renewal options to Redflex Traffic Systems of Culver City, California, for the installation of red light photo enforcement equipment and all related maintenance services at up to ten (10) City designated intersections under a phased implementation plan and authorization of the City Manager or his designee to execute the contract with Redflex Traffic Systems.

I. BACKGROUND:

Research by the United States Department of Transportation revealed there are more than 1.8 million intersection collisions annually, and, according to the Insurance Institute for Highway Safety, red light running is the leading cause of urban collisions.

In the year 2000, more than 106,000 of those 1.8 million collisions were the result of vehicles running a red light. Those red light collisions resulted in 89,000 injuries and 1,036 deaths. In the year 2003, the City of Modesto had 313 intersection collisions directly attributable to red light running. This statistic represents five percent of the total citywide collisions for 2003. As the result of those collisions, there were 170 injuries.

One of the most effective, proven, and cost effective methods to address red light violations is by the use of automated red light photo enforcement. In a report dated February 24, 2000, the Department of Transportation analyzed the results of existing red light camera programs in Los Angeles County, San Francisco, New York City, Howard County Maryland, and Polk County Florida. The Department of Transportation reported that red light running violations decreased by as much as 60% at intersections where cameras automatically identified violators in Howard County, Maryland. At 18 monitored intersections in New York City, there was a 34 percent reduction in red light violations.

In a 1999 Insurance Institute for Highway Safety (IIHS) report, the institute found that red light running violations in Oxnard, California, dropped a total of 42 percent across the city after cameras were introduced at only one of the 125 signalized intersections. In Oxnard, as in many other jurisdictions where red light photo enforcement is conducted, there was a decrease in both violations and collisions not only at those intersections with cameras, but citywide. The IIHS has labeled this phenomenon the "spill over effect." Area drivers are aware that the jurisdiction conducts red light photo enforcement and are more cognizant of violations.

There have been two issues consistently raised in objection to red light photo enforcement. The first is that the programs are disliked by motorists and, second that the programs are unconstitutional.

The IIHS conducted at least two surveys regarding public opinion and red light photo enforcement. One survey was conducted in ten cities, five with red light cameras and five without. The cameras were supported by 80 percent of the drivers in cities with red light cameras, and by 76 percent of the drivers in those cities without cameras. The second survey was a nationwide survey conducted in 1995. Sixty-six percent of those surveyed were in favor of red light camera enforcement.

The constitutional argument is most frequently raised in conjunction with a 2001 lawsuit in San Diego against red light camera enforcement. In that case, a Superior Court judge issued a ruling that eventually led to the dismissal of approximately 300 tickets and the program was halted for a time while changes were made in the program. In this case, the city was found to be at fault for allowing the contractor excessive control and for paying the contractor according to the number of paid tickets.

The judge, however, specifically upheld the constitutionality of the red light photo enforcement program. The California Bureau of State Audits reported that accidents caused by red light violations increased citywide by 14 percent during the time photo enforcement was curtailed.

Local Data:

The Police Department has reviewed collision data for all signalized intersections in the City of Modesto for the past six months. Staff identified those intersections with the greatest number of collisions caused by red light violations. The top 10 intersections were:

LOCATION	NUMBER OF COLLISIONS
Briggsmore/McHenry	58
McHenry/Standiford/Sylvan	51
Standiford/Tully	49
Briggsmore/Carpenter/Sisk	47
Sisk/Standiford	42
El Vista/Oakdale/Scenic	38
Bodem/Scenic	34
McHenry/Rumble	30
McHenry/Orangeburg	30
Briggsmore/Coffee	29

Experience indicates that increased levels of enforcement at problem locations will reduce accidents and improve traffic safety. As previously mentioned, in those cities where photo enforcement technology has been deployed, red light violations, traffic collisions and the resulting injuries and fatalities have been significantly reduced.

As part of a comprehensive traffic safety program, the Police Department, the Engineering and Transportation Department, and the Operations and Maintenance Department believe that the implementation of red light photo enforcement will significantly reduce the number of red light violations in the City of Modesto. In addition, collisions resulting from red light violations will be reduced, thus providing the City with another valuable traffic calming tool to improve community and pedestrian safety.

Research:

The effort by City of Modesto staff to evaluate automated red light enforcement began in December of 2002. Since that time a committee comprised of individuals representing all applicable stakeholders in the City of Modesto met regularly. This committee evaluated vendor presentations and printed materials submitted by the vendors. Members of the committee also made site visits to neighboring cities to evaluate the various technologies under real conditions. This report will detail the process that took place while evaluating the various types of automated red light enforcement technology currently available.

The local Traffic Court Commissioner was contacted regarding the courts perspective on Red Light Cameras. Commissioner Merideth was excited at the prospect of Modesto incorporating Red Light Cameras into our arsenal of traffic calming measures. She was also particularly interested in the

prospect of having access to the vendor web site, including digital photos and video, from her bench.

Research Committee:

The committee members who met to evaluate the various automated red light enforcement products and traveled to neighboring cities for site visits were:

Mark Averell	City of Modesto Purchasing
Jeff Barnes	City of Modesto Operations and Maintenance
Chris Harris	City of Modesto Information Technology
Dan Inderbitzen	City of Modesto Police Department
Janice Keating	Council Member, City of Modesto
Firoz Vohra	City of Modesto Engineering and Transportation

Additional members of the committee, who did not participate in the site visits, were:

Gene Carhart	Modesto citizen
Carol Shipley	Stanislaus County District Attorney's Office

Selection Process:

At the October 8, 2002 City Council meeting, Lieutenant Joel Broumas presented a proposal requesting permission to research and seek qualified red light enforcement system vendors. At that time City Council authorized staff to issue a Request for Qualifications (RFQ) to prospective Automated Red Light Photo Enforcement vendors.

On December 16, 2002 the City of Modesto Purchasing Division sent out an RFQ to seven prospective vendors of automated red light camera products. Four vendors submitted qualification proposals by the due date of January 17, 2003. They were:

Affiliated Computer Systems (ACS)
300 Capitol Mall Suite 300
Sacramento, CA

Nestor
737 Pearl Street Suite 102
La Jolla, CA

Redflex

5813 A Uplander Way
Culver City, CA

Peek

2511 Corporate Way
Palmetto, FL 34221

On February 4, 2003 the committee met and discussed the four vendors and the responses submitted. Of the four companies, three were invited to Modesto for presentations to the committee. The companies invited were ACS, Nester and Redflex.

On April 9, 2003 The Red Light Camera Committee, with the District Attorney's representative not in attendance, met with the three vendors. Vendors were given approximately one hour each for a presentation. Committee members interacted with the vendor representatives while discussing their products.

On May 12, 2003 the Red Light Committee met to discuss the vendor presentations. Each committee member was tasked to independently evaluate the presentations and be prepared to share their thoughts at this meeting. It was the intent of the committee to develop a list of what was felt to be desired features for inclusion in a red light system for Modesto. Based on the vendor materials each committee member reviewed, and the vendor presentations, the following list of desirable features was developed:

- Digital video
- Digital still photos
- In-ground loops - more reliable
- Internet access to processing and review- easy access
- Company with reputable history and financial stability
- Timely processing of violations
- Payment plan where the City would bear little or no associated costs
- Three-year maximum contract
- Local/City contractor installation - saves money
- Assistance with public awareness and system training
- Intersection survey prior to installation

From May 12 through July 8, committee members conducted telephone interviews with each of the following listed references. Based on the responses received and proximity to Modesto, three cities were chosen to visit.

Vendor References:

Each vendor provided three references as required in the RFQ. The vendors and their reference cities are listed below.

ACS City of Cupertino
Lt. Kevin Jensen, Santa Clara County Sheriff's Office
(480) 777-3171
City of Sacramento
Sergeant Eric Poerio
(916) 277-3816

County of Sacramento
Undersheriff John McGinnes
(916) 874-7146

Redflex City of Ventura
Sergeant John Turner
(805) 207-9350

City of Fremont
Captain Dave Livingston
(510) 790-6984

City of Culver City
Sergeant Omar Corrales
(310) 489-2506

Nestor City of Long Beach
Detective Dave Lauro
(562) 570-6554

City of Fresno
Lt. Jeffery Motoyasu
(559) 621-6402

City of Rancho Cucamonga
Mr. Duane Baker
(909) 477-2700

Reference Cities Visited:

The Red Light Committee visited three jurisdictions, each utilizing one of the prospective vendor's systems. The following information was gathered during the visits and is important to understand when discussing the

hardware, software, agency access, and violator citation issuance rates of each of the vendor's systems.

Hardware: The actual camera and lighting devices installed at intersections, which capture the images of violators. The committee critically assessed configurations, aesthetics and functionality of the intersection hardware. The committee found several differences in the hardware each company utilizes at intersections and computer hardware for accessing violation images.

Software & Agency Access: The programs used by the vendors for agency access to violation photos were similar. One vendor uses a committed computer and DSL line, while the other two vendors use a secured Internet web site accessed using security pass codes. One vendor used a 35mm wet film process. These photos are developed and posted on the web site for agency access. Generally, all vendors had user-friendly systems accessible by the various agencies.

Violator Citation Issuance Rates: Citation issuance rates vary greatly between vendors. Issuance rate is the difference between the number of actual red light violations photographed and the number of citations issued and sent to motorists. Issuance rates in most cases are determined by the quality of photograph taken. Photo quality can be determined by camera positioning, lighting, and be affected by any weather conditions, such as fog, rain, or sun glare. Other factors impacting issuance rates can be missing vehicle registration information from the California Department of Motor Vehicles and exempt vehicles, such as ambulances and fire trucks legally traveling through the red lights. Issuance rates ranged from 20 to 70 percent.

The Process: Once a violation occurs, the image is sent, either electronically or in the case of 35mm film, overnight mail, to the vendor's business location. The vendor reviews the images of violations for clarity and photo quality. In addition, the vendor runs registration information on all violations in which the driver in the photo is recognizable and thus citable. If valid registration information is on file and the driver is recognizable, the vendor will send the electronic file to the respective law enforcement agency for review. Once the agency views and approves the violation electronically, the vendor sends the registered owner of the vehicle a notice of violation.

Appeals and Court: An appeals process is part of a Red Light Camera program. Cities processes vary slightly but generally when a motorist requests an appeal hearing, the motorist is allowed to view the violation from a computer as it appeared to the reviewing officer. All agencies the committee met with reported less than a 5 percent

appeal rate for Red Light Camera violations. The conviction rate of appeals is close to 99 percent.

Site Visits:

Fresno - Utilizing Nestor Automated Red Light Equipment
Cupertino - Utilizing the ACS Automated Red Light Equipment
Fremont - Utilizing Redflex Automated Red Light Equipment

II. REASONS FOR RECOMMENDATION:

This report and proposed City Council action is presented for approval and endorsement of the Redflex Automated Red Light Camera technology for installation and use in the City of Modesto. Redflex was chosen over the other vendors for the following reasons:

- *Redflex technology and the company's past performance in other cities came closest to fulfilling the original list of desired features the committee felt would be the best fit for Modesto.
- *The combination of digital photography and video, coupled with access via the Internet from any computer, including the courts, was very significant.
- *Redflex was the only vendor with this in place for the required 18 months prior to the RFQ.

III. EXISTING POLICY / RELATIONSHIP TO THE STRATEGIC PLAN:

The Department's current traffic enforcement posture addresses Strategic Plan Actions H.II.G.1.b, Identify **Target Areas** for traffic Calming and H.II.G.1.d, provide **Targeted Traffic Enforcement**.

IV. POLICY ALTERNATIVES:

Do not adopt a resolution approving red light enforcement in the City of Modesto and the execution of the contract with Redflex.

V. FISCAL IMPACTS:

The Redflex contract may be cost neutral for the City of Modesto. There are no up-front costs for initiation of the project.

Cost to the City for each intersection that has a red-light camera system is \$12,060. This is a flat monthly fee. The program will start off with one (1) intersection as part of a phased methodology. The fine for a red-light violation is \$340.00. The City's portion of that is \$148.00. Based on that figure, the system will be cost neutral if there are 82 issueable violations monthly. One of the reasons the committee selected the RedFlex system

was that they had a documented issuance rate of 70 percent. Factor that into the equation and the intersection will be cost neutral if it generates 106 violations monthly, to have an issuance rate of 82 citations. The calculation is: 106 divided by 30 days = approx. 4 violations per day per intersection to be neutral on the monthly costs. Any amount in excess of that will fund additional intersections.

The goal of this system is to promote traffic safety. If the system is not cost neutral but provides a reduction in red light violations and accidents, we believe it is a wise public safety investment. Additionally, a reduction in serious red light accidents will save already overburdened police, fire and medical resources. All of our research leads to the belief that photo red light enforcement will reduce red light violations and red light accidents.

VI. INTERDEPARTMENTAL COORDINATION:

There was constant interdepartmental coordination during the evaluation of the red light enforcement systems, as detailed in the BACKGROUND section of this agenda report.

VII. PUBLIC PARTICIPATION:

This public hearing regarding the execution of a contract with Redflex provides the public with a forum for participation.

VIII. COMMITTEE RECOMMENDATION:

At its meeting of April 5, 2004, the Safety and Communities unanimously supported this project and this contract.

IX. ENVIRONMENTAL REVIEW:

None required.

X. STEPS FOLLOWING APPROVAL:

The contract will be executed and the program initiated.

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Reviewed By:

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Approved by:

Donna Hansen, Deputy City Manager

Attachment: Resolution

Cc: Michael Milich, City Attorney
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Peggy Hetzler, Finance Director
Mike Harden, Assistant Chief of Police
David Funk, Police Captain
Greg Savelli, Police Captain
Joe Aja, Police Captain