



# REPORT TO COUNCIL

## City of Sacramento

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Consent  
June 23, 2009

Honorable Mayor and  
Members of the City Council

**Title: Red Light Camera Program Update – Approve Three Red Light Camera Locations**

**Location/Council District:** Citywide

**Recommendation:** Adopt a **Resolution** approving the recommendation of three new red light camera locations: I Street/5<sup>th</sup> Street, Truxel Road/Arena Boulevard, Arden Way/Challenge Way.

**Contact:** Evangeline Lucas Lee, Associate Engineer, (916) 808-7612; Angie Louie, Senior Engineer, (916) 808-7921

**Presenters:** Not applicable

**Department:** Transportation

**Division:** Traffic Engineering

**Organization No:** 15001161

### **Description/Analysis**

**Issue:** The Red Light Camera Program at City intersections is managed by the Sacramento County Sheriff's Department through a Memorandum of Understanding (MOU). The County will be expanding the program to include an additional twenty cameras: ten in the County and ten in the City. Staff reviewed the top ten highest red light running collision intersections for engineering measures that may have an appreciable impact on reducing red light running. Based on this evaluation, staff is recommending three locations for red light cameras where engineering measures have been previously implemented yet continue to have red light running.

**Policy Considerations:** California Vehicle Code Section 21455.5 (c)(2)(A), allows a government agency, in cooperation with a law enforcement agency, to operate an automated enforcement system. The term "operate" includes establishing guidelines for selection of locations. The development of selection criteria is consistent with the City's Strategic Plan goals of improving public



safety and enhancing livability. The Department of Transportation has determined that it is in the best operational interest of the City to provide direction to the Sheriff's Department for new Red Light Camera locations in the City.

**Environmental Considerations:** None.

**California Environmental Quality Act (CEQA):** This report concerns administrative activities that will not have any significant effect on the environment, and that do not constitute a "project" as defined by the California Environmental Quality Act (CEQA) [CEQA Guidelines Sections 15061(b)(3); 15378(b)(2)].

**Sustainability Considerations:** Not applicable.

**Other:** None.

**Commission/Committee Action:** None.

**Rationale for Recommendation:** Red light cameras are tools to reduce red light running violations and collisions. The City has benefited from the program in terms of public safety and reduced red light collisions while not incurring any costs. Creating guidelines and countermeasures for potential red light camera locations will provide clear direction and methodology on how locations are chosen. The locations proposed have no engineering deficiencies yet continue to have red light running issues.

**Financial Considerations:** There is no cost to the City for additional locations to the Red Light Camera Program. All revenue generated by citations at City camera locations are given to the County and the County is responsible for the monthly costs of the additional cameras pursuant to the City/County MOU.

**Emerging Small Business Development (ESBD):** No goods or services will be procured.

Respectfully Submitted by: Hector Barron  
Hector Barron  
City Traffic Engineer

Approved by: Jerry Way  
Jerry Way  
Director of Transportation

Recommendation Approved:

Ray Kerridge  
Ray Kerridge  
City Manager

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**Attachment 1****Background**

Red light running cameras have proven to be effective in modifying driver behavior and reducing red light collisions in the City of Sacramento since the program's inception in 1997. In 1997, the total number of collisions citywide due to red light running was 723 collisions. In 2008, that number decreased to 561 collisions. At intersections with the red light cameras, there were 66 collisions in 1997 related to red light violations compared to 16 collisions in 2008; a 75 percent reduction in red light collisions. This demonstrates that the cameras are a very effective deterrent to red light collisions.

City Council approved a Memorandum of Understanding (MOU) with the County of Sacramento in September 2008 (Resolution #2008-657) to continue management of the City's Red Light Camera program in exchange for the revenue generated by the cameras. The revenue offsets expenses related to the camera system and program management. The County of Sacramento executed a contract in December 2008 with a new red light camera vendor, Redflex, to replace existing red light cameras at the following locations in the City of Sacramento.

1. Broadway/21<sup>st</sup> Street
2. El Camino Avenue/Evergreen Street
3. Fair Oaks Boulevard/Howe Avenue
4. Folsom Boulevard/Howe Avenue-Power Inn Road
5. Mack Road/Center Parkway
6. Mack Road/Valley Hi Drive-La Mancha Way
7. Alhambra Boulevard/J Street
8. W Street/16<sup>th</sup> Street-US 50 off-ramp

Redflex will be installing the first six locations as part of their first phase by August 2009. Alhambra Boulevard and J Street will be reevaluated after the two-way conversion on J Street is completed in the Spring of 2010. The W Street/16<sup>th</sup> Street-US 50 off-ramp requires coordination with Caltrans and will be installed in a later phase.

Under the MOU with the County, the City can install new cameras at locations after review of the location. The primary criteria for new camera locations is based on safety and takes into consideration the incidence of red light running related collisions. Other considerations include frequency of violations, feasibility of camera installations, and other engineering measures to reduce red light running incidences.

As a follow up to the September 2008 report, this report describes the methodology used to determine new locations, and asks Council to approve the staff recommendation for new red light cameras at 3 locations.

**New Camera Location Review/Selection Criteria**

The primary focus of installing red light cameras is for traffic safety by reducing collisions that can result in injuries or deaths. Since red light cameras have a direct impact on reducing red light running collisions, red light collision data was used as the primary criteria to determine the best red light camera locations. Staff gathered three-year red light collision history (2006-2008) and established a top ten list of intersections in the City with the highest red light collisions. See Attachment 2, Table 1. Additionally, staff also reviewed intersections proposed by Council members, most of which ranked below the top ten. See Attachment 2, Table 2.

While red light cameras are an effective countermeasure, addressing red light running includes a combination of engineering, education, and enforcement measures. Red light cameras are typically implemented only after other education and engineering countermeasures are utilized and shown to have negligible effect on improving red light running behavior.

For the top ten red light running collision locations, staff reviewed the intersections for engineering countermeasures that could be implemented to help reduce red light running, including signal modifications and traffic signal timing improvements. These measures, when implemented, can reduce the number of inadvertent red light violations and collisions.

Engineering countermeasures to reduce red light running include:

- **Increase yellow light interval** – The yellow light warns the motorist that the signal is about to turn red. The duration of the yellow light should be long enough for a motorist to decide whether to travel through the intersection or slow down to stop at the limit line. Lengthening the yellow light interval, within accepted guidelines, can significantly reduce the number of inadvertent red light violations. Conversely, too long of a yellow light interval decreases intersection green light time causing a delay to motorists which may result in driver frustration resulting in red light violations.
- **All red light interval** – An all red light interval (all directions are red) provides additional time for motorists who are in the intersection to proceed through the intersection while holding the cross traffic. This is used as an additional safety measure at intersections which have high incidence of red light violations.
- **Improve signal visibility** – Larger signal heads, brighter LED's for the red light, and trimming trees can increase the visibility of the signal.
- **Photo Enforcement signs** – Signs notifying drivers of photo enforcement and the amount of the violation fine for red light running increases driver awareness.

- **Intersection modifications** – Some intersections might need considerable improvements to increase the visibility of the signal, such as longer mast arms or additional signal heads. Advanced flashers can also be used to alert the motorist of an upcoming signal.

The ten locations with the highest number of red light running collisions in a three year period are listed in Table 1 in Attachment 2. Each location was reviewed for possible engineering solutions.

### **Recommendations**

In summary, after extensive review of the top ten highest red light running collision intersections, staff recommends installation of three new cameras at this time. For the other locations, staff recommends implementing the engineering countermeasures identified in Attachment 2 and monitoring the location for up to one year. Staff believes these engineering measures can have an appreciable impact on reducing red light running. As an example, red light running collisions were significantly reduced after staff implemented improvements at 12<sup>th</sup> & I Streets (Rank 5 on the list).

### New Cameras

Staff recommends installing red light cameras at the following intersections:

- I Street and 5<sup>th</sup> Street
- Truxel Road and Arena Boulevard
- Arden Way and Challenge Way

Based on the evaluation of the ten highest ranked intersections, these three locations have the proper yellow times, all red times, and no engineering deficiencies, yet continue to have red light running issues.

### Engineering Countermeasures and Monitoring

For the other ranked and Council requested locations, staff has or will implement the countermeasure identified and monitor the effectiveness of the improvements. Monitoring will consist of reviewing the three year red light collision history the following year after the improvement has been made and determining whether the improvement has helped to reduce red light collisions. Based on the monitoring results, the location ranking and subsequent recommendation will be updated. Ranking of the top ten highest red light collision intersections and recommendations for new red light camera locations will be presented to City Council annually.

### **Next Steps**

Upon Council approval, staff will submit the three recommended camera locations to the County Sheriff for further evaluation. The Sheriff will further evaluate the locations and if feasible, will install the red light cameras. The Sheriff's Department is expecting to present a report to their Board of Supervisors on July 21, 2009 to give a status of the

red light camera program and ask for approval to install up to an additional twenty new cameras: ten in the County, and ten in the City.

Staff anticipates updating the City Council on an annual basis regarding the effectiveness of the Red Light Camera Program and recommending additional red light cameras as appropriate.

## Attachment 2

Table 1: Top 10 Highest Red Light Running Intersections

Top 10 Red Light Running Collision Intersections					
Rank	Street A	Street B	Council District	RLR Collisions (2006-2008)	Proposed Countermeasure
1	I Street	5 <sup>th</sup> Street	1	26	Camera
2	Q Street	16 <sup>th</sup> Street	3-4	24	All red interval and red light violation signs installed February 2009
3	Truxel Road	Arena Boulevard	1	21	Camera
4	Q Street	3 <sup>rd</sup> Street	1	20	Improve signal visibility – install another signal head for Q Street traffic; trees trimmed for visibility February 2009
5*	I Street	12 <sup>th</sup> Street	1-3	18	Improve signal visibility - larger signal heads, trees trimmed, photo enforcement signs installed in 2007. One red light collision in 2008.
6	W Street	15 <sup>th</sup> Street	4	17	Update yellow/all red times
7	Arden Way	Challenge Way	3	15	Camera
8	L Street	5 <sup>th</sup> Street	1	14	Intersection modification - Length of signal mast arms not adequate for intersection
9	X Street	19 <sup>th</sup> Street	4	13	Add all red interval for SB 19 <sup>th</sup> Street
10	X Street	9 <sup>th</sup> Street	4	13	Update yellow/all red times

**Bold – proposed camera locations**

**\* - Council Request**

Table 2: Council Requests

Council Requests				
Street A	Street B	Council District	RLR Collisions (2006-2008)	Proposed Countermeasure
Franklin Boulevard	Mack Road	8	8	Left turn collisions, review signal operations
Florin Road	Greenhaven Drive	7	7	WB left turn collisions, review extension times
Florin Road	24th Street	8	5	One red light collision in 2008. monitor
Florin Road	29th Street	8	3	Low red light collisions
North B Street	12th Street	1	3	Low red light collisions
Meadowview Road	Freeport Boulevard	8	3	Low red light collisions
E Street	16th Street	1	3	Low red light collisions
Meadowview Road	24th Street	8	2	Low red light collisions
Franklin Boulevard	Brookfield Road	8	2	Low red light collisions
Folsom Boulevard	65th Street	3	2	Low red light collisions
Florin Road	Freeport Boulevard	8	1	Low red light collisions
Folsom Boulevard	39th Street	3	1	Low red light collisions
Riverside Boulevard	Havenside Drive	7	1	Low red light collisions
Folsom Boulevard	40 <sup>th</sup> Street	3	0	Zero red light collisions
Folsom Boulevard	41st Street	3	0	Zero red light collisions

**RESOLUTION NO.**

Adopted by the Sacramento City Council

**RED LIGHT CAMERA PROGRAM UPDATE AND APPROVE LOCATIONS**

**BACKGROUND**

- A. From inception, the Red Light Camera Program has been very effective in reducing the number of red light collisions throughout the City.
- B. The City reviewed the ten highest red light running collision locations for possible engineering measures.
- C. The City found three locations where engineering measures have been implemented previously yet continues to have red light running issues.
- D. Staff will report back annually to present new red light camera locations and the effectiveness of the Red Light Camera Program.

**BASED ON THE FACTS SET FORTH IN THE BACKGROUND, THE CITY COUNCIL RESOLVES AS FOLLOWS:**

- Section 1. The intersections of I Street/5<sup>th</sup> Street, Truxel Road/Arena Boulevard, and Arden Way/Challenge Way are approved for installation of red light cameras.