

***Automated Red Light Enforcement Data Sheet
Redding Police Department***

This information sheet is designed to describe the requirements of the Vehicle Code regarding automated red light enforcement and to describe how the system works.

A. California Vehicle Code 21455.5 through 21455.7

California Vehicle Code sections 21455.5 to 21455.7 place requirements on municipal agencies wanting to operate automated red light enforcement systems.

21455.5 (a) The intersections of Bechelli & Cypress, Market & Shasta, and Churn Creek & Cypress have been equipped with an automated red light camera systems. These systems are identified by photo enforcement signs of the size and design required by the California Department of Transportation (Caltrans) regulations, clearly indicating the system's presence and visible to traffic approaching from all directions.

21455.5 (b) A public announcement in the form of a press release was made by the Redding Police Department announcing a program to issue warning notices for 30 days for the following intersections to implement red light enforcement cameras:

- | | |
|---------------------------------------|-------------------|
| • Bechelli Lane and Cypress Avenue | September 1, 2007 |
| • Shasta Street and Market Street | February 21, 2008 |
| • Churn Creek Road and Cypress Avenue | May 31, 2008 |
| • Market Street and Lake Boulevard | January 5, 2009 |
| • Pine Street and Tehama Street | February 10, 2009 |

21455.5 (c) The City of Redding in cooperation with the Department has chosen to operate a red light enforcement program in compliance with 21455.5 (c) in that:

- The Department has developed a Redding Police Department Instruction for the uniform guidelines for employees to screen and issue citations.
- The Department has maintained responsibility for the selection of the locations of the intersections where the program will operate.
- The Department maintains an inspection log of employees checking at, or near the first of each month to ensure the signs are maintained as required, and
- The Department visits the vendor's site in Arizona to ensure that only those citations that have been reviewed and approved by the Department personnel are delivered to the violators.

21455.5 (c) As allowed by this section the Department has delegated responsibility to Redflex Traffic Systems for:

- Ensuring the equipment is regularly inspection by Redflex Traffic System technicians, and
- Certifying the equipment is properly installed and calibrated, and is operating properly.

21455.5 (f) The Department maintains public viewing hours each Monday and Friday from 0900 to 1100 hours when any alleged violator may review the photographic evidence of the alleged violation.

21455.5 (g) The contract between Redflex Traffic Systems and the City of Redding does not include provision for the payment or compensation based upon the number of citations issued or as a percentage of the revenue generated.

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21455.6 (a) A public hearing was conducted by the Redding City Council on February 6, 2007 on the use of automated enforcement systems prior to the authorization to enter into a contract with Redflex Traffic Systems.

21455.7 The minimum yellow light change interval has been set in compliance with the California Manual on Uniform Traffic Control Devices (MUTCD) as follows:

Intersection	Speed Limit	Through Traffic	Left Turn	Right Turn
Cypress & Bechelli	35	3.9 seconds	3.0 seconds	N/A
Market & Shasta	30	3.5 seconds	N/A	N/A
Churn Creek & Cypress	35	4.3 seconds	3.0 seconds	N/A
Market & Lake	50	5.0 seconds	3.5 seconds	3.5 seconds
Pine & Tehama	30	3.5 seconds	N/A	N/A

B. The Redflex Red Light System

The Redflex Smartcam Camera system is connected to the traffic signal controller and is active only during the red light function. It is inactive during the green and yellow signal phases. During the red light phase, when the roadway sensors detect a violation, the system activates and three digital cameras record four separate images. The date, time, time into the red cycle, location, detected vehicle speed and posted speed limit are encrypted and embedded into the images via a data bar shown at the top of each image. The four images consist of:

- Scene A - showing the vehicle behind the limit line with the traffic signal red.
- Scene B - showing the vehicle through the intersection.
- Face Image - showing the operator of the vehicle.
- Plate Image - showing the license number of the vehicle.

Additionally, this intersection is equipped with a digital video camera. At the time the violation is detected, the video camera stores approximately 12 seconds of 25 frames per second video of the violation. The video sequence is encrypted and filed with the still photo evidence.

The camera system only captures images when a vehicle crosses over a set of magnetic loop detectors positioned 11 feet prior to the limit line at a minimum speed of 15 mph. The threshold speed of 15 mph was chosen because through mathematical formulas, most vehicles cannot stop in 11 feet from a speed of 15 mph. The loop detectors determine the speed of the vehicle by using the equation “speed = distance/time.” The speed is only taken for the purposes of timing of the camera flashes and timing between image captures.

After images of a potential violation are captured, they are sent via a 128 bit encrypted secure digital subscriber line (DSL) connection to Redflex Traffic Systems in Scottsdale, Arizona. Technicians at Redflex view the potential violations and screen them for quality assurance. Redflex technicians also look up the DMV registration and attempt to run a reverse match on the registered owner of the vehicle. This data is entered into a database linked to the four color photographs and 12-second video file. The data is then sent to Redding Police Department via a secure internet connection for review by Red Light Enforcement Specialists. Redding Police Department technicians are responsible for the final review and the decision of whether a citation will be issued.