

Council Briefing

December 5, 2005

Automated Red Light Running Enforcement



- Red light running issues
- Benefits of enforcement
- How photo enforcement works
- Cities currently operating photo enforcement systems
- Steps to implement program

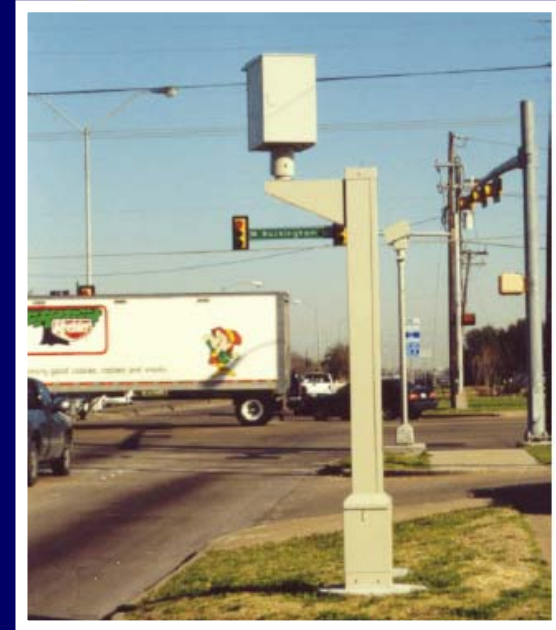
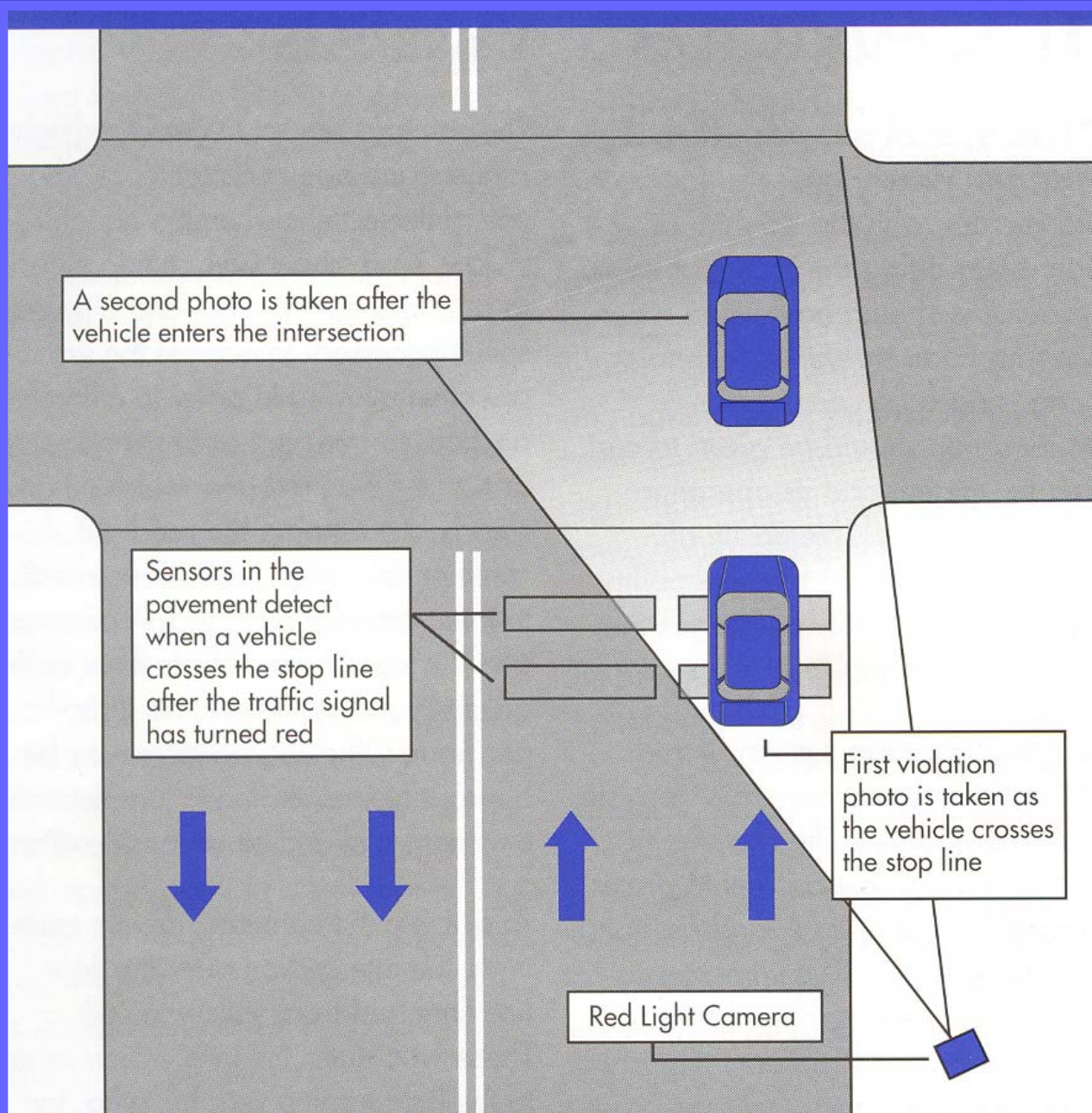
Red Light Running Issues

- In 2003, the Federal Highway Administration reported 206,000 crashes nationwide related to red light running with 934 fatalities and 176,000 injuries.
- The Insurance Institute for Highway Safety reports a national increase of 10% in traffic signal fatalities since 1993.
- In 2000, the Insurance Institute for Highway Safety rated Texas the fourth highest in red-light-running fatalities and Dallas seventh highest among a list of 70 large cities (200,000+ population) nationwide.

Benefits of Photo Enforcement

- The Federal Highway Administration reports that intersections nationwide average a 25% reduction in right-angle crashes after installing photo enforcement systems.
- Provides continual enforcement at high-accident locations.
- Reduces potential for congestion and secondary crashes.
- Photo evidence reduces the number of contested tickets and time spent in municipal court.

How Photo Enforcement Typically Works



Red light camera in Garland, Texas



How Photo Enforcement Typically Works

- 1st photo is taken as vehicle crosses stop bar and 2nd photo is taken of vehicle in intersection during red.
- Photos display time and speed after the onset of red.
- Photos are reviewed for validity before a citation is prepared.
- A citation is mailed to the registered vehicle owner.
- Some systems provide a website and give a pass code on the citation for vehicle owners to view color photos and a short video clip.
- Civil citations may be contested by administrative adjudication.
- Citations may be appealed to municipal court if found valid by adjudication.

Cities Using Photo Enforcement

Recommended Red-Light Program Goals

Incrementally expand the number of photo cameras to achieve a 25% reduction in right-angle crashes citywide. This would match the national average of 25% at photo enforced sites.

<u>Texas Cities</u>	<u>Cameras</u>	<u>% of Signals</u>
City of Garland	5 exist -12 planned	6%
City of Frisco	4	8%
City of Richardson	4	3%
City of Plano	5	2%
City of Houston	10	<1%

<u>Cities in Other States</u>	<u>Cameras</u>	<u>% of Signals</u>
Phoenix	64	6%
Washington, DC	85	5%
Chicago	26	<1%
New York	50 (200) empty boxes	<1%

Cities Using Photo Enforcement

Potential Number of Camera Sites

- Number of cameras in cities with established programs range from 1% to 6% of the total number of traffic signals.
- Cities using photo enforcement have seen “spill over” affect at nearby intersections and citywide. California cities reported a citywide reduction of 7% to 10% in red-light related crashes after implementing program.
- No statistics are available to suggest the saturation level required to achieve optimum results.
- Staff recommends implementing 15 cameras (1%)
- After 1st year of operation staff will assess program results and determine if additional cameras are required.
- Program could continue to expand to 5% of traffic signals until program goals are achieved.

Cities Using Photo Enforcement

City of Garland Statistics

- 50% reduction in right-angle crashes at photo enforced sites
- Last year 30,000 citations processed using five cameras
- 15 % of violation photos were not processed due to obscured license plates and other technicalities
- Less than 2% of citations are contested

Typical Violation Rates in Texas

- Number of violations vary per location depending on volumes, congestion levels, and frequency that the traffic signal cycles (affects number of yellow-red change intervals per hour).
- A study by the Texas Transportation Institute found that major intersections typically see 30-40 violations per day.
- City of Garland reports 800 violations per month per camera.

Cities Using Photo Enforcement

Costs to Install System

- No capital cost to city, equipment is owned by vendor
- All cities contacted have established service contracts to provide the following services:
 - Install equipment
 - Collect and process photos
 - Prepare citations for review by city enforcement officials
 - Mail citations and collect fines
- Flat monthly fee established for each camera
 - National average is \$5,000 per month
 - Garland pays \$5,600 per month
 - Richardson, Frisco & Plano will pay \$4,870 per month (shared contract)
- Other cities utilize city personnel to approve citations and conduct adjudication. The City Attorney will determine if these functions can be outsourced; otherwise additional staff will be required.
- Contracts may be structured to terminate without penalty.

Cities Using Photo Enforcement

Revenue Uses

- Cities of Richardson, Plano and Frisco have established by ordinance that any revenues that exceed the cost of the program be directed to a traffic safety fund.
- Net revenues in Dallas could be directed to the following traffic safety improvements:
 - Pavement markings at stop bars, cross-walks and curves
 - Intersection improvements to eliminate accident trends
 - School zones/cross walks and side walks to schools
 - Traffic signs, pavement markings and guardrails to reduce run-off-the-road accidents

Steps to Implement Program

- Establish a city ordinance to make red-light running violations determined by photo enforcement a civil penalty and establish a fine (Dallas-area cities are using \$75.00).
- Determine potential cameras sites by identifying intersections with frequent violations or a history right-angle accidents. Cameras must be located on city streets.
- Establish a service contract through competitive Proposals.
- Determine if administrative adjudication and approval of photo citations can be privatized. Otherwise, add the following additional city staff to oversee the project:
 - 1 Adjudication Hearing Officer
 - 2 Enforcement Officers (to review and approve citations)

Steps to Implement Program

Schedule

Dec 05	Prepare contract specifications
Jan 06	Request proposals
Feb 06	Close bids and review proposals
March 06	Conduct negotiations and select vendor
April 06	Finalize terms of contract - including specific cameras locations
May 06	Award and execute contract
July 06	Contractors begin operation 60 days after contract execution